

05/86

**ASSESSMENT REPORT****DIAMOND DRILL HOLE****CHEVRON MM 84-1****TOURM CLAIM - STAN CLAIM GROUP****N.T.S. 82G/4W****FORT STEELE MINING DIVISION****MOUNT MAHON AREA****COORDINATES: 574100E  
5439500N****FILMED****PERIOD: September 29, 1984 to October 21, 1984****OPERATOR: CHEVRON CANADA RESOURCES LIMITED****AUTHORS: L. Dekker, P. Schiarizza****February 1985****GEOLOGICAL BRANCH  
ASSESSMENT REPORT****14,275**

## TABLE OF CONTENTS

	<u>Page</u>
1. INTRODUCTION	1
2. LOCATION AND ACCESS	1
3. CLAIM STATUS	2
4. GEOLOGY	2
5. DRILL RESULTS & MINERALIZATION	4
6. CONCLUSIONS	6

EXHIBIT "A" - Expenditure Statement

AFFIDAVIT

APPENDIX I - Chevron Personnel and Statements of Qualifications

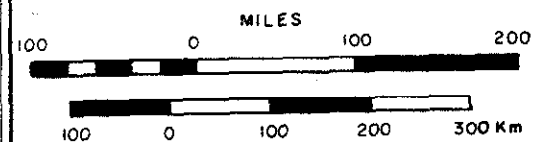
APPENDIX II - Application of Assessment Work Credits to Claims

~~APPENDIX III - Copies of Invoices~~ on file

APPENDIX IV - Core Description DDH Chevron MM 84-1

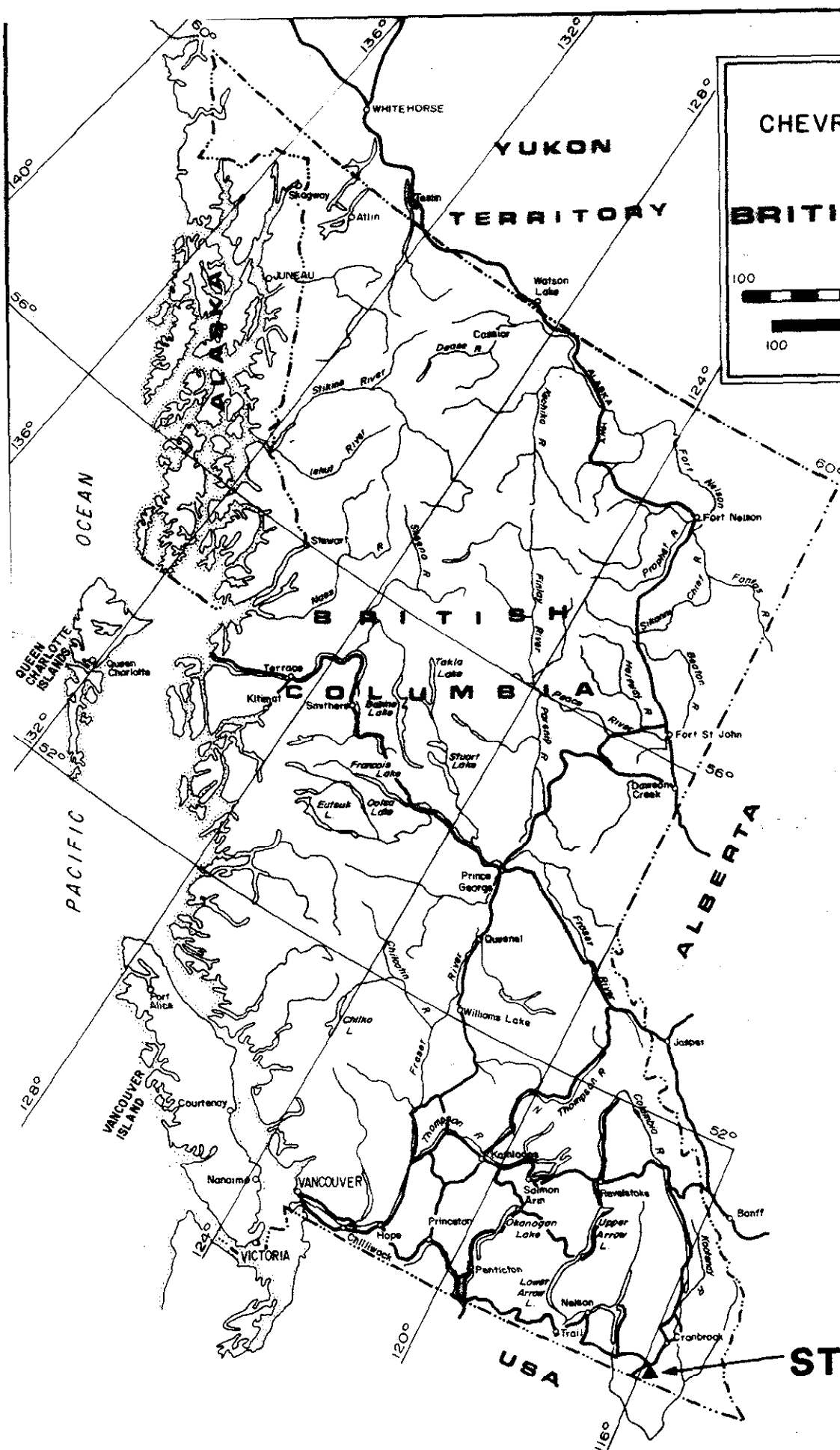
CHEVRON MINERALS LTD.

BRITISH COLUMBIA



**LOCATION MAP**

**STAN PROPERTY**



## **1. INTRODUCTION**

The claim group is situated in the Purcell Mountains in southeastern B.C., approximately 10 km northeast of the town of Yahk (Fig. 1). Stratigraphically the Mount Mahon area is located near the Lower/Middle Aldridge contact which represents the Sullivan Time Horizon. Exploration on the property has been carried out with the objective to locate a Sullivan-Type, shale-hosted Pb, Zn, Ag deposit at this important exhalative time horizon. The Mount Mahon area exhibits characteristics found also in the Sullivan District, which, combined with its stratigraphic position, make it a favourable exploration area.

Diamond Drill Hole Chevron MM 84-1 was primarily a stratigraphic test to intersect the Lower/Middle Aldridge contact, as well as the section above and below this contact to assess the extent and character of the tourmalinization exposed near the summit of Mount Mahon. Both objectives were accomplished.

## **2. LOCATION AND ACCESS**

The claim group is located in the Purcell Mountains in southeastern B.C. approximately 10 km northeast of the town of Yahk (Fig. 1). The property can be reached by turning east off Highway #3 onto Hawkins Creek road near the north end of the town of Yahk. At km 7 an old logging road which turns off north from Hawkins Creek Road leads to Mount Mahon summit and directly to the drill location (see Fig. 2). This road needed substantial upgrading, particularly the top section, to enable the passage of heavy drill equipment and water truck. The road is negotiable with a 4 x 4 vehicle.



### 3. CLAIM STATUS

The TOURM claim, on which MM 84-1 was drilled, forms part of a larger claim group in which Chevron obtained an interest through a farm-in from Falconbridge Limited and St. Eugene Mining Corporation Limited on August 26, 1983. This group of claims included the TOURM, YAHK, AME, TNT, TOP, PINE, ALDER MEAD and LARCH claims (see Table I and Fig. 3). Subsequently Chevron added the CHEV and STAN claims in 1983 and the TOONA, CHARMAINE, ERIK, EARL and MEL claims in 1984. For the purpose of filing assessment work credits the following claims are grouped: TOURM (20 units), TNT (15), AME (8), MEAD (6), STAN (20), CHEV (20) to the STAN claim group consisting of 89 units (see Fig. 3). Assessment work credits as per Appendix II are filed to maintain these claims in good standing until 1990.

### 4. GEOLOGY

Outcrops in the vicinity of Mount Mahon summit are gently northeast dipping Middle Aldridge clastic sedimentary rocks. They are characterized by a quartz-muscovite-biotite-garnet metamorphic mineral assemblage and finer grained horizons are locally cut by an east dipping slaty cleavage. Primary sedimentary features are, however, very well preserved. The dominant rock type is fine grained, light grey weathering sandstone in beds ranging from several centimeters to 1 m; beds are generally massive, but may have graded tops. Dark grey to rusty weathering, thinly bedded and/or laminated siltstone occurs in subordinate quantities, and light to dark grey argillite occurs at the tops of graded sandstone beds and as thin laminae intercalated with siltstone. Thin lenses of intraformational conglomerate occur at a number of levels near the Mount Mahon summit. Most extensive is a 1 m thick horizon that can be traced for several hundred meters to the northeast. Tourmalinite, a very fine

FIGURE 3

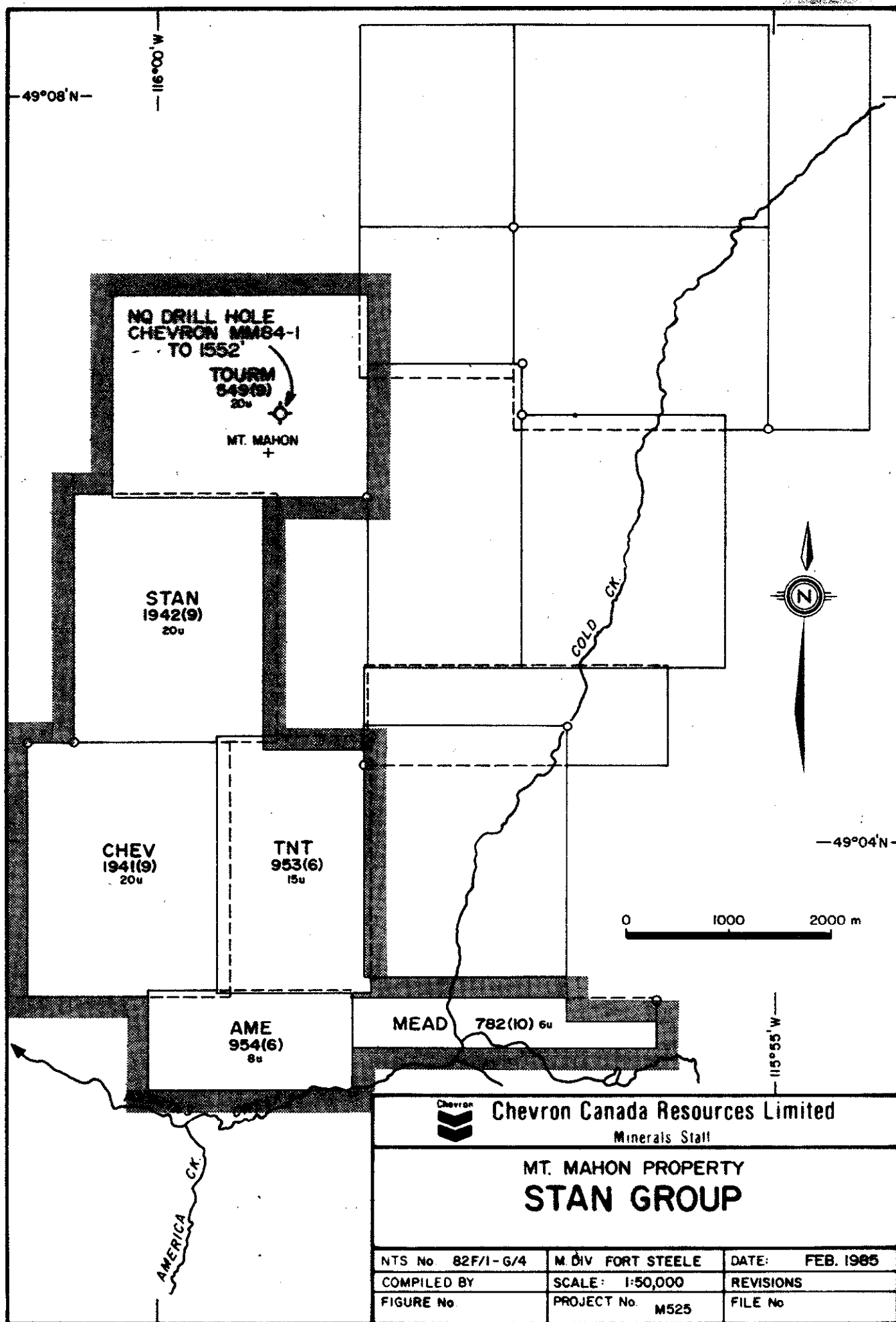


TABLE I

MOUNT MAHON PROSPECT

Unpatented Mineral Claims located in the Fort Steele Mining Division, Kootenay Land District, Province of British Columbia (NTS 82G/4 and 82F/1)

<u>CLAIM NAME</u>	<u>RECORD NO.</u>	<u>UNITS</u>	<u>DATE RECORDED</u>	<u>HECTARES</u>	<u>EXPIRY DATE</u>
TOURM	549	20	1978/09/21	500.0	1990/09/21
YAHK	721	18	1979/08/01	450.0	1990/08/01
AME	954	8	1980/06/20	200.0	1985/06/20
TNT	953	15	1980/06/20	375.0	1985/06/20
TOP	952	10	1980/06/20	250.0	1990/06/20
PINE	754	12	1979/09/07	300.0	1991/09/07
ALDER	753	20	1979/09/07	500.0	1990/09/07
MEAD	782	6	1979/10/09	150.0	1986/10/09
LARCH	650	20	1979/06/11	500.0	1990/06/11
CHEV	1941	20	1983/09/23	500.0	1986/09/23
STAN	1942	20	1983/09/23	500.0	1986/09/23
TOONA	2127	16	1984/03/05	400.0	1985/03/05
CHARMAINE	2128	20	1984/03/05	500.0	1985/03/05
ERIK	2129	9	1984/03/05	225.0	1985/03/05
EARL	2130	20	1984/03/05	500.0	1985/03/05
MEL	2131	12	1984/03/05	300.0	1985/03/05



grained, hard, dark grey cherty rock comprised largely of very fine, felted tourmaline needles, occurs over an 80 m stratigraphic interval exposed on the south and southeast flanks of the mountain. It is most common as thin horizons which occur in place of argillite at the tops of graded sandstone beds and within finely laminated siltstone/tourmalinite couplets. Similar tourmalinite occurs as clasts within intraformational conglomerate. Sulphide mineralization in the immediate vicinity of Mount Mahon summit is restricted to a few exposures containing 1 to 2% disseminated pyrrhotite within both tourmalinized and non-tourmalinized rocks.

## 5. DRILL RESULTS

Vertical Diamond Drill Hole Chevron MM 84-1 penetrated 473 m (1552') of Aldridge Formation sandstone, siltstone and argillite (refer to Figs. 2 and 3 for location). Recovery was virtually complete. The hole appears to have gone through the Middle/Lower Aldridge contact since the lowermost 90 m contains only minor amounts of the distinct, massive, thick sandstone beds typical of the Middle Aldridge Formation in surface outcrops and in the upper part of the hole. This interval also contains a significantly higher proportion of pyrrhotite-rich siltstones characteristic of the Lower Aldridge. Bedding/core angles maintained relatively high (75-89°) values throughout the hole reflecting the shallow dips measured in surface exposures.

A number of distinctive horizons (including a 1 m thick conglomerate) penetrated in the upper 120 m of DDH MM 84-1 can be correlated with units encountered in outcrop in the Mount Mahon summit area and in Falconbridge DDH Y-13-81, 240 m to the south. Tourmalinization is negligible in MM 84-1, in sharp contrast to the abundant tourmalinite on the south and southeast slopes

of Mount Mahon and in DDH Y-13-81. This indicates a rather abrupt northward decline in tourmalinization away from Mount Mahon summit.

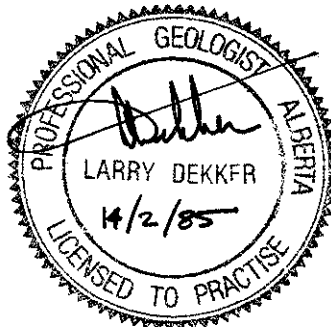
Pyrrhotite mineralization is distinctly more abundant in DDH MM 84-1 than in surface outcrops in the vicinity of Mount Mahon. Much of the mineralization, however, occurs in the lower two-thirds of the hole, over stratigraphic levels not exposed at the surface. The pyrrhotite occurs mainly within massive to laminated siltstone horizons, but also within concretions contained in sandstone beds and disseminated in the sandstone. No other sulphides were seen in any of the pyrrhotite-rich zones. Thirty-seven intervals were assayed for Cu, Pb, Zn, Ag and Mn, and an additional 22 grab samples were submitted for rock geochemistry. No anomalous metal values were obtained.

Pyrrhotite, with traces of chalcopyrite, occurs in two relatively thick (3 cm+) quartz veins, at 35 m and 148 m respectively, as well as in a number of thinner veins throughout the interval. A quartz vein containing pyrrhotite, galena, sphalerite and traces of chalcopyrite was intersected at 320.26 - 321.01 m. This vein is sub-parallel to the core axis and is estimated to be approximately 9 cm thick. This was the only Pb-Zn mineralization encountered in the hole. A 16 cm interval of this vein material assayed: 8.82% Pb; 3.34% Zn; 261.4 g/tonne Ag.

The core of DDH MM 84-1 is stored at Chevron Resources' warehouse facilities in Vancouver.

6. CONCLUSIONS

Diamond Drill Hole MM 84-1 cored 473 m of Middle and Lower Aldridge sediments. Tourmalinization within the hole is negligible, indicating an abrupt decrease in tourmalinization northward from Mount Mahon summit. Lead-zinc-silver mineralization within the hole is restricted to a steeply dipping 9 cm thick quartz vein encountered at 320.26 - 321.01 m.



L. Dekker

FMC #274542

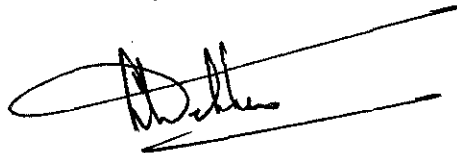
February, 1985

IN THE MATTER OF THE  
B. C. MINERAL ACT  
AND  
THE DIAMOND DRILL PROGRAM ON  
THE TOURM CLAIM OF THE STAN CLAIM GROUP  
MOUNT MAHON AREA, S.E. BRITISH COLUMBIA  
in the FORT STEELE MINING DIVISION of the  
PROVINCE OF BRITISH COLUMBIA  
N.T.S 82G4W

AFFIDAVIT

I, Larry Dekker, residing in the City of Vancouver, in the Province of British Columbia, make Oath and say

- a) That I am employed as a Senior Exploration Geologist by Chevron Canada Resources Limited, Mineral Staff and that I have personal knowledge of the facts of which I hereinafter depose.
- b) That the annexed hereto Exhibit marked "A" is a true statement of expenditures incurred in the Drill Program on the TOURM Mineral Claim, which forms part of the STAN claim group.
- c) That the said expenditures were incurred between September 29 and October 21st, 1984 for the purpose of mineral exploration on the STAN claim group.



L. Dekker  
Sr. Geologist

APPENDIX I

CHEVRON PERSONNEL EMPLOYED ON  
THE STAN CLAIM GROUP

Larry Dekker,  
Senior Exploration Geologist,  
850 Cardero Street,  
Vancouver, B. C.  
V6G 2G5

Phone: 604-669-2367

A. Paul Schiarizza,  
Geologist,  
c/o B.C. Ministry of Energy, Mines and Resources,  
Geological Branch,  
Mineral Resources Division,  
Parliament Buildings,  
Victoria, B. C.  
V8V 1X4

John Patrick Henry,  
Drill Supervisor,  
7822 Langley Street,  
Burnaby, B. C.

Phone: 604-525-3874

## STATEMENT OF QUALIFICATIONS

L. DEKKER

I, Larry Dekker, have worked as a geologist since graduation from the University of Amsterdam, the Netherlands, with a B.Sc. Degree in Geology (1965) and a M.Sc. Degree in Stratigraphy and Sedimentology (1969).

I am a licensee (P.Eng.) of the Association of Professional Engineers, Geologist and Geophysicists of the Province of Alberta, a Fellow of the Geological Association of Canada, a member of the American Association of Petroleum Geologists and a member of the Canadian Society of Petroleum Geologists.

I am currently employed as a senior geologist by Chevron Canada Resources Limited, 1900 - 1055 West Hastings St., Vancouver, B. C. V6E 2E9 and have been with this company for 16 years.

The exploration program on the STAN claim group was performed under my direction and supervision.

## STATEMENT OF QUALIFICATIONS

### A. PAUL SCHIARIZZA

A. Paul Schiarizza holds a B.Sc. (honours) Degree in Geology (1975) from Queen's University, Kingston, Ontario.

He has been employed as a research assistant at Queen's University (1976 and 1977), by Cominco (1978) and as a senior field assistant to Dr. V. A. Preto of the B.C. Ministry of Energy, Mines and Petroleum Resources (1978, 1979 and 1983). During the 1983 and 1984 field seasons he worked as a senior field assistant for Chevron Canada Resources, Minerals Staff, 1900 - 1055 West Hastings Street, Vancouver, B. C., V6E 2E9.

EXHIBIT "A"

EXPENDITURE STATEMENT

DIAMOND DRILL HOLE: CHEVRON MM 84-1  
TOURM CLAIM - STAN CLAIM GROUP  
FORT STEELE MINING DIVISION

1) WAGES (Chevron Personnel)

Drill and crew supervision, geology, core examination, etc.

<u>Name</u>	<u>Position</u>	<u>Period</u>	<u>Days at)</u>	<u>Amount</u>
Larry Dekker	Sr. Geologist	2/10-3/10/84	2 at \$250/day	\$ 500.
A. Paul Schiarizza	Geologist	29/9-21/10/84	23 at \$155/day	3,565.
J. Patrick Henry	Drill Supr.	8/10-21/10/84	14 at \$230/day	<u>3,220.</u>
				\$ 7,285.00

2) DIAMOND DRILLING (inc. Mob, Demob, Set-up, etc.)

Connors Drilling Ltd., Kamloops, B. C.  
as per itemized invoices #12846, 12878, 12879 in Appendix III

\$ 65,880.60

3) ROAD CONSTRUCTION AND IMPROVEMENT

D7 Cat, W.R. Johnson, Moyie as per invoice in Appendix III


\$ 3,626.00

4) OTHER EXPENSES

Travel	\$1,109.37
Truck Rental	899.13
Food & Lodging (Ambleside Park, Yahk)	1,672.95
Report Preparation	<u>550.00</u>
	\$4,231.45
	<u>\$ 4,231.45</u>

GRAND TOTAL

\$ 81,023.05



L. Dekker  
Sr. Geologist



APPENDIX II

**ASSESSMENT WORK CREDITS TO BE APPLIED AS FOLLOWS:**

<u>Claim Name</u>	<u>Record No.</u>	<u>Units</u>	<u>Expiry Date</u>	<u>Assessment Cr. Applied</u>	<u>New Expiry Date</u>
STAN	1942	20	1986/09/23	1 yr/\$2,000. 3 yrs/\$12,000.	1990/09/23
CHEV	1941	20	1986/09/23	1 yr/\$2,000. 3 yrs/\$12,000.	1990/09/23
TNT	953	15	1985/06/20	5 yrs/\$15,000.	1990/06/20
AME	954	8	1985/06/20	5 yrs/\$8,000.	1990/06/20
MEAD	782	6	1986/10/09	<u>4 yrs/\$4,800.</u>	1990/10/09
TOTAL ASSESSMENT WORK CREDITS APPLIED				\$55,800.	

TOTAL EXPENDITURE	\$81,023.05
APPLIED ASSESSMENT WORK CREDITS	<u>\$55,800.00</u>
BALANCE	\$25,223.05

We request the balance of \$25,223.05 be applied to the PAC account of Chevron Canada Resources Limited.

## APPENDIX IV

### CORE DESCRIPTION CHEVRON MM 84-1

# DIAMOND DRILL RECORD

PROPERTY MOUNT MAHON

HOLE No. MM84-1

DIP TEST		
Footage	Angle	
	Reading	Corrected
182 m	87°	
464 m	87°	

Hole No. MM84-1 Sheet No. 1 of 77

Section \_\_\_\_\_

Date Begun October 3, 1984

Date Finished October 21, 1984

Lat. \_\_\_\_\_

Dep. \_\_\_\_\_

Bearing vertical

Elev. Collar 1882 m (6175')

Total Depth 473 m (1552')

Logged By P. Schiarizza

Claim Tourm

Core Size NQ

DEPTH (m)	DESCRIPTION	SAMPLE NO. INTERVAL	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
0-2.1	Casing; no core						
2.1-9.1	Sandstone; fine grained, light (rarely medium) grey, massive. Bedding not distinct, but thick. Darker grey biotite±garnet rich patches, to 4 cm throughout (in part concretions?). Broken core from 2.1-2.8. Crumbled rusty zone from 2.8 - 2.85, appears to be argillaceous siltstone with some vein quartz, possibly po or py. 0° quartz vein from 3.3 - 4.11; 3 cm thick at top, pinches out at bottom. Bd/core angle 85°.						
9.1-11.52	Siltstone; light to medium (rarely dark) grey. Beds 2 mm-13 cm; faint pinstripe laminations in darker beds. Rare garnets in some darker beds. Dark greenish-grey po-silicate spots (to 1.5 mm) in darker beds from 10.7-10.95. Two concordant rusty zones (to 3.5 cm) in lower part of interval may contain disseminated po. Rusty hairline fractures at 5 -55° angle; one 10° fracture with py on surface. Bd/core angle 82°.						
11.52-19.00	Sandstone, fine grained, light (to medium) grey. Beds 5-50 cm, massive, rarely with vague lensey						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. .... Sheet No. 2 of 77

Section ..... Lat. ....

Date Begun ..... Dep. ....

Date Finished ..... Bearing ..... Elev. Collar. ....

Total Depth .....

Logged By .....

Claim .....

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	biotite-rich layering or laminations. 10% medium to dark grey siltstone/argillaceous siltstone intervals to 20 cm; 2-15 mm beds, rarely with thin light grey laminations. Bd/core angle 82°.	117					
19.00-20.27	Siltstone/argillaceous siltstone; light to medium grey. Beds 2-20mm; light grey siltstone (to very fine grained sandstone) beds commonly cross laminated; medium grey argillaceous siltstone occasionally finely laminated. Lower 18 cm contains 25% dark green po-silicate patches (to 5mm). Minor po? also within thin biotite-rich laminae. Bd/core angle 78°.	20.06-20.36		80 ppm	18 ppm	92 ppm	0.4 pp
20.27-21.72	Siltstone; medium to dark grey. Fine pinstripe laminations; some planar to lensey banding (3-20 mm) defined by light to medium grey layers. Dark green po-silicate patches common in upper 25 cm. Rusty 0-70° fractures, some coated with po, common throughout. Bd/core angle 81°.						
21.72-23.56	Sandstone; fine to medium grained, micaceous, medium grey. Beds to 60 cm, grading to very fine grained sandstone or siltstone tops.						

PROPERTY \_\_\_\_\_

MM84-1

[illegible]

3 of 77

Lat. ....

Dep. \_\_\_\_\_

Bearing.....

Elev. Collar.....

Logged By.....

**Claim** \_\_\_\_\_

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
23.56-24.78	Sandstone; very fine grained, medium grey. Vague to distinct beds, 1-6 cm, with partings and interbeds of darker grey argillaceous siltstone. Upper 20 cm comprises distinct couplets (2-10 mm) of sandstone vs. dark grey argillaceous siltstone. Rusty hairline fractures at variable angles common throughout. Lower 90 cm cut by 10°, 3 cm+ quartz vein with 2-3% biotite and 5% rusty stringers and vuggy patches, some with traces of py (or po?).						
24.78-25.25	Siltstone/biotitic siltstone; light/dark grey. Beds 1-15 mm, contorted from 24.88-25.00 where cut by 85° quartz vein. Biotitic siltstone contains 20-25% discrete biotite flakes which define weak cleavage at 50° core angle. Bd/core angle 75°.						
25.25-26.41	Sandstone; very fine grained, micaceous. Beds 1-17 cm with minor siltstone interbeds. 20-25% mica (mainly biotite) in places defines weak cleavage at 50° core angle. Bd/core angle 80°.						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. .... Sheet No. 4 of 77

Section ..... Lat. ....

Date Begun ..... Dep. ....

Date Finished ..... Bearing ..... Elev. Collar. ....

Total Depth .....

Logged By .....

Claim .....

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
26.41-26.85	Distinct graded couplets, 2-15 mm, of dark grey biotitic siltstone grading up into light greenish-grey argillaceous siltstone. Bd/core angle 85°.						
26.85-40.05	Sandstone; fine grained, light to medium grey. Beds 5-70 cm; massive, some with graded tops. Minor (to 7 cm) intervals of laminated siltstone to very fine grained sandstone. Load casts/channels at some sandstone bases. Elliptical biotite-rich patches or selvages (concretions?) in lower 4.33 m and lensey very fine grained, light greenish-grey siliceous patches (also concretions?) with minor biotite, muscovite? and po? from 35.36 to 35.72. Very low angle, 2.5 cm+ quartz vein from 34.14-35.36; contains 15% biotite + chlorite (or chloritized biotite) as scattered grains and patches and, in places, as a selvage along vein/sandstone contact, and contains 5% po and trace cpy as large patches concentrated mainly in upper and central portion of vein. Vein pinches out within core at top, and gradually passes out of 'core at base. Bd/core angle 80°.						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. .... Sheet No. 5 of 77

Section .....

Date Begun .....

Date Finished .....

Lat. ....

Dep. ....

Bearing .....

Elev. Collar .....

Total Depth .....

Logged By .....

Claim .....

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
40.05-40.95	Conglomerate; lenses and amoeboid-shaped clasts of medium to dark grey argillaceous siltstone and silty argillite within a light to medium grey, fine grained sandstone matrix. Clasts to 2 cm thick; some look more like disrupted beds than discrete clasts. At 40.68 m is base of 5 cm sandstone layer which passes up into 7 cm of light grey siltstone with thin laminae of dark grey silty argillite- could be an intact bed or lense within the conglomerate. This is clearly the same conglomerate that is recognized in outcrop on both flanks of Mount Mahon.						
40.95-47.94	Sandstone; fine to very fine grained, medium grey, some garnets. Beds 7 to 50 cm (often not distinct), massive, rarely with graded tops. Load casts or channels at some sandstone bases. Rare concretions rich in biotite and garnet. 20% laminated dark/light grey silty argillite, intervals to 32 cm; laminae 1-8 mm, some grading from thin dark bases to thicker light grey tops. Feldspar porphyroblasts in some light grey laminae. Bd/core angle 75%.						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. .... Sheet No. 6 of 77

Section .....

Date Begun .....

Date Finished .....

Lat. ....

Dep. ....

Bearing .....

Elev. Collar .....

Total Depth .....

Logged By .....

Claim .....

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
47.94-48.21	Contorted to conglomeratic sandstone/silty argillite similar to that from 40.05-40.95.						
48.21-51.91	Argillaceous siltstone; laminated, light vs. medium to dark grey (light bands predominate); siltstone intervals to 30 cm separated by 40-50% light to medium grey, fine to very fine grained sandstone in 3 to 15 cm beds. Rare flames/load casts at sandstone/siltstone contacts. Rare garnet porphyroblasts in sandstone. Lower 10 cm contains minor po within thin (1-2 mm) dark grey siltstone laminae. Bd/core angle 81°.						
51.91-54.08	Sandstone; fine grained, light to medium grey. Beds 2-15 cm, massive with irregular biotite-rich patches to 3 cm. Trace to 5% po within some of these biotite-rich areas. Rare thin horizons of dark to light grey laminated argillaceous siltstone/silty argillite (with feldspar porphyroblasts). From 52.50 to 52.75 m is regularly banded (<1 mm-18 mm) light/dark grey argillaceous siltstone similar to Marker Bed lithology. Faint pinstripe laminations evident in some darker bands.						



# DIAMOND DRILL RECORD

PROPERTY \_\_\_\_\_

HOLE No. MM84-1

[illegible]

Hole No. ....	Sheet No. <u>7</u> of <u>77</u>	Lat. ....	Total Depth .....
Section .....		Dep. ....	Logged By .....
Date Begun .....		Bearing .....	Claim .....
Date Finished .....		Elev. Collar .....	Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	Bd/core angle 80%.						
54.08-54.19	Argillaceous siltstone; medium to dark grey with thin (1-3 mm) light grey laminae. Similar to Marker Bed lithology. 6 mm band of light grey silty argillite in central part of interval.						
	Bd/core angle 79°.						
54.19-54.73	Argillaceous siltstone/silty argillite; dark vs. light grey, distinctly laminated (4-8 mm), often graded from dark up to light grey. Less argillaceous with thicker, less distinct banding over lower 15 cm. Bd/core angle 79°.						
54.73-59.39	Sandstone; fine grained, light grey. Beds 6-30 cm(+?), often not distinct; massive grading to finer, more micaceous tops. Semi-concordant, darker, coarser grained biotite rich patches (to 3 cm) common; some of these in lower half of interval contain up to 10% disseminated po. At 58.04 to 58.13 are thin cross bedded very fine grained sandstone beds capped by argillaceous siltstone. Bd/core angle 79°.	57.95-58.00		54 ppm	12 ppm	114 ppm	0.1 pp

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. .... Sheet No. 8 of 77

Section .....

Date Begun .....

Date Finished .....

Lat. ....

Dep. ....

Bearing .....

Elev. Collar .....

Total Depth .....

Logged By .....

Claim .....

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
59.39-60.31	Argillaceous siltstone; medium grey. Pinstripe laminations and rare laminae (1-3 mm) of light grey siltstone. Very fine trains of rusted out po(?) enhance pinstriping in lower portion; rare dark green po-silicate spots (1-2 mm) also in lower portion. Bd/core angle 81°.						
60.31-62.14	Siltstone/silty argillite; dark/light grey. Mainly as 1-15 mm graded complets in which light grey tops (with feldspar porphyroblasts) predominate. 10-15% cross bedded siltstone (to very fine grained sandstone) as laminae and thin beds capped by darker grey silty argillite. Rare beds of fine grained sandstone, to 6 cm, in lower 60 cm. 5 x 3 cm concretion of quartz-biotite-10% po 30 cm from base of interval. Rare po blebs ( 1-2 mm), mainly in light grey horizons, in upper part of interval. Bd/core angle 80°.						
62.14-63.24	Sandstone; fine grained. Beds 1-30 cm. Patches of relatively coarser grained and biotite-rich garnetiferous rock. Interbeds (tops to sandstone beds?) of medium to dark grey silty argillite with						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. .... Sheet No. 9 of 77 Lat. .... Total Depth. ....  
 Section ..... Dep. .... Logged By. ....  
 Date Begun ..... Bearing ..... Claim .....  
 Date Finished ..... Elev. Collar ..... Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	feldspar porphyroblasts. Rare intervals to 8 cm of laminated siltstone/silty argillite as in overlying interval.						
	2 x 15 mm chips of dark grey argillite at top of sandstone bed 69 cm below top of interval. Bd/core angle 81°.						
63.24-63.48	Siltstone; upper 8 cm is laminated (1-8 mm) medium-dark grey argillaceous siltstone/lightish grey silty argillite with feldspar and biotite (?) porphyroblasts underlain by medium grey cross bedded siltstone. Lower 16 cm is medium grey, pinstriped siltstone with rare 3 mm bands of light grey silty argillite. Bd/core angle 81°.						
63.48-67.38	Sandstone; fine grained, medium grey, some garnets. Beds 8-35 cm, massive, with relatively coarser grained garnet-biotite-quartz concretions(?). 10% laminated siltstone/silty argillite intervals to 12 cm. Two chips, largest 3 x 5 cm, of dark grey silty argillite encased in 1 mm po rim near base of sandstone bed at 63.75 m. Minor po disseminated in concretions. Po as disseminations and patches						

# DIAMOND HILL RECORD

PROPERTY .....

HOLE No. MM84-1.....

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. .... Sheet No. 10 of 77

Lat. ....

Total Depth.....

Section..... Dep.....

Logged By.....

Date Begun..... Bearing .....

Claim .....

Date Finished..... Elev. Collar.....

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	from 66.03 - 66.28 m. Bd/core angle 83°.						
67.38-68.80	Argillaceous siltstone-silty argillite; light to dark grey. Distinctly banded, typically as 2-12 mm medium to light grey laminae separated by $\leq 1$ mm dark grey laminae. Rare feldspar porphyroblasts in lighter bands. Rare graded beds.						
	10% 1-2 cm very fine grained sandstone beds, graded, flames at bases.						
	- at 68.54 m are contraction faults (45° core angle) with 1 cm offsets. Bd/core angle 79°.						
68.80-70.04	Sandstone; fine grained, medium grey. Beds 5-25 cm. Laminated siltstone intervals to 4 cm. Siltstone disrupted and occasionally as rip-up clasts against overlying sandstone. Bd/core angle 85°.						
70.04-71.10	Siltstone-argillaceous siltstone; light/medium grey, distinctly banded ( $< 1-15$ mm) with rare very thin laminae of dark grey argillite or argillaceous siltstone; minor po in some dark grey laminae.						
	Some cross laminations(?). Some laminae contain						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
Footage	Angle	
	Reading	Corrected

11 of 77

Hole No. .... Sheet No. .... Lat. .... Total Depth.....  
 Section..... Dep..... Logged By.....  
 Date Begun..... Bearing ..... Claim .....  
 Date Finished..... Elev. Collar..... Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	to 15% white feldspar porphyroblasts. Banding mainly planar, but is lensey and contorted from 70.27-70.67 m where rock is relatively po-rich; po as lenses and blebs (to 4 x10 mm) within specific thin dark grey laminae. 15% po within 4 cm contorted siltstone lense in central part of suplhide-rich interval. Py within low angle hairline vein in lower part of po-rich interval. Bd/core angle 81°.						
71.10-74.06	Sandstone; fine grained, medium grey. Beds 12-50 cm, massive, with biotite (± garnet)rich patches (concretions?) to 6 cm. Rare intervals, to 5 cm, of laminated siltstone/silty argillite. Sandstone in upper 50 cm is darker grey, with 3-4% disseminated po. 5-8% po within 6 cm garnet-biotite concretion within this zone. Minor po disseminated elsewhere in interval, mainly in biotite-rich patches.	71.14-71.59		<0.01%	<0.01%	0.02%	0.5 g/
74.06-76.77	Siltstone-argillaceous siltstone (minor silty argillite); medium-dark (rarely light) grey; Most in distinct 1-20 mm laminae; flames, load casts, scours, rare cross laminations & graded laminae (from dark to						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. .... Sheet No. 12 of 77

Lat. ....

Section. .... Dep. ....

Date Begun. .... Bearing ....

Date Finished. .... Elev. Collar. ....

Total Depth. ....

Logged By. ....

Claim ....

Core Size ....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	light grey). Three intervals (8 to 18 cm) of medium grey argillaceous siltstone with pinstripe laminations and rare light grey siltstone laminae.						
	40% fine to very fine grained, light grey sandstone; beds 1-11 cm, some grading to finer grained more argillaceous tops. 5 mm tourmalinite clast rimmed by 1 mm po halo within 8 cm sandstone bed near top of interval; disseminated po in lower portion of bed. Underlying sandstone bed contains non-tourmalinized argillite chip. Po disseminated through small portion of siltstone and as blebs and heavy disseminations within rare thin (to 4 mm) dark grey laminae. 1-2% po disseminated through thin medium to dark grey (slightly tourmalinized?) garnetiferous sandstone from 74.92-75.13 m. 10-15% po within two separate relatively coarse grained quartz-biotite-garnet lenses (to 2 cm) in sandstone from 75.79-76.11 m. (concretions?). Bd/core angle 81°.						
76.77-85.02	Sandstone; fine grained, light to medium grey. Beds 5-40 cm, often not distinct, massive.						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. .... Sheet No. 13 of 77 Lat. .... Total Depth .....

Section ..... Dep. .... Logged By .....

Date Begun ..... Bearing ..... Claim .....

Date Finished ..... Elev. Collar ..... Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	Biotite (±garnet)-rich patches, to several cm, quite common; some with vague concentric structure, probably concretions. From 81.57 to 82.73 sandstone contains 20% dark grey amoeboid-shaped biotite-rich patches 1-10 mm. 10% laminated light/medium grey siltstone/argillaceous siltstone; commonly cross laminated, some load casting. Po disseminated sparsely through some argillaceous siltstone laminae and within concretions in sandstone. 5 x 20 mm quartz-biotite clast(?) at 84.23 m contains 30-35% po, has thin biotite selvage. A few darker grey (with pinkish tint) zones, to 20 cm, in lower part of interval contain 1% disseminated po. Bd/core angle 81°.						
85.02-87.00	Siltstone/argillaceous siltstone; light to dark grey, 1 to 40 mm beds, may be distinct or only poorly defined; minor flames/load casts/graded beds (from dark base to light top with feldspar porphyroblasts). 50% sandstone as 5-20 cm beds. 15 cm greenish concretion containing chlorite-biotite-garnet-calcite-quartz and minor po within						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. .... Sheet No. 14 of 77 Lat. .... Total Depth.....  
 Section..... Dep..... Logged By.....  
 Date Begun..... Bearing ..... Claim .....  
 Date Finished..... Elev. Collar..... Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	sandstone at 85.85 m. Minor po disseminated through						
	some siltstone and sandstone beds. 5% po as 1-						
	2 mm patches within siltstone from 86.68-86.80						
	m. Bd/core angle 87°.						
87.00-87.19	Sandstone; fine grained, medium to dark grey.						
	Contains abundant po (and py?); 1-5% po as fine						
	disseminated grains in lower 13 cm, 10-15% po						
	(and py?) as relatively large (few cm) patches						
	in upper 6 cm.						
87.19-88.46	Siltstone; medium to dark grey (with purplish						
	tint), hard, looks hornfelsic (possibly tourmalinized??).						
	Rare light grey siltstone laminae to 1 cm. 1%						
	po disseminated sparsely through interval. po						
	also in 1-2 mm 15° biotite-rich veins found mainly						
	in upper portion of interval.						
88.46-89.18	Siltstone/argillaceous siltstone; medium to dark						
	grey/light grey. Distinct 1-15 mm laminae; light						
	bands dominate, rare grading from dark up to light.						
	Up to 20% po within some thin (to 3 mm) dark laminae.						
	Po also along rusty hairline fractures at 0-30°angle.						
	Bd/core angle 80°.						



# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. .... Sheet No. 15 of 77 Lot. ....

Section ..... Dep. ....

Date Begun ..... Bearing .....

Date Finished ..... Elev. Collar .....

Total Depth .....

Logged By .....

Claim .....

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
89.18-93.25	Siltstone/argillaceous siltstone; medium grey, may be slightly tourmalinized in places. 20% light grey argillite in 0.5-10 cm intervals; argillite typically crowded with light grey feldspar porphyroblasts. po occurs in seven separate patches, 1-9 cm; patches either dark grey, irregular and biotite rich, or light grey, lense-shaped and composed mainly of quartz along with biotite and po. Minor po disseminated through the "normal" medium grey siltstone. Bd/core angle 81°.	89.59-90.68		<0.01%	<0.01%	0.01%	< 0.3 g
93.25-94.68	Siltstone/argillaceous siltstone; medium to dark grey. Massive, with rare 2-10 mm laminae; may be slightly tourmalinized in places? Lower 35 cm is distinctly banded with 1-15 mm laminations and rare laminae of light grey argillite with white feldspar porphyroblasts. Minor po disseminated through siltstone and as 15-25% concentrations in rare thin, 2-3 mm, laminae. 10-15% po in vague coarser grained biotite-quartz patch (5 cm wide) in upper part of interval. 2 x 4 cm lense	93.28-94.32		<0.01%	<0.01%	<0.01%	< 0.3 g

# DIAMOND HILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. .... Sheet No. 16 of 77 Lat. .... Total Depth.....  
 Section..... Dep..... Logged By.....  
 Date Begun..... Bearing..... Claim.....  
 Date Finished..... Elev. Collar..... Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	(concretion? or clast?) at 93.88 m contains 20-30% po and is enclosed in 3mm po rim; rare similar, but smaller, lenses lower down in interval. Bd/core angle 79°.						
94.68-99.18	Sandstone; very fine grained, argillaceous, medium grey. Beds 8-40 cm, often not distinct. 10% laminated dark grey biotitic siltstone/light grey silty argillite; intervals to 5 cm. Po as very minor disseminations through some sandstone, and as 10-20% concentrations in rare biotite-rich patches and in light grey quartz-biotite-po lenses (concretions?).						
99.18-100.25	Argillaceous siltstone/silty argillite; medium to dark grey, 60% with very faint pinstripe laminations, 40% with distinct 1-10 mm laminae. Weak slaty cleavage at 35-40° core angle. Minor disseminated po through much of siltstone; very rare thin ( 1 x 20 mm) stratiform po lenses. Dark green chlorite (or chloritized hornblende?)-biotite-quartz-garnet-calcite concretion(?) from 100.04-100.13 m; contains 1% po. Bd/core angle 82°.						

# DIAMOND HILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. .... Sheet No. 17 of 77 Lat. ....

Section ..... Dep. ....

Date Begun ..... Bearing .....

Date Finished ..... Elev. Collar .....

Total Depth .....

Logged By .....

Claim .....

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
100.25-103.49	Sandstone; fine to very fine grained, argillaceous, garnetiferous, medium grey. Beds to 30 cm(?), but not distinct. Rare thin (to 3 cm) intervals of medium/dark grey laminated siltstone or light grey silty argillite with feldspar porphyroblasts. Rare vague garnet-biotite patches (to 2 cm) with up to 2% disseminated po. Bd/core angle 80°.						
103.49-104.24	Argillaceous siltstone; medium grey. Vague pinstripe laminations, and rare 1 cm laminae of light grey siltstone or of light grey silty argillite with feldspar porphyroblasts. 1% disseminated po; 5% green po-silicate patches (1-5 mm) from 103.73-103.87 m. Bd/core angle 81°.						
104.24-106.23	Sandstone; fine grained, argillaceous, 1-2% garnets, medium grey. Beds 15-40 cm. 10% light to dark grey laminated siltstone/silty argillite (intervals to 5 cm). Bd/core angle 78°.						
106.23-106.99	Siltstone/argillaceous siltstone/silty argillite; dark to light grey. Distinct thin beds and laminae; planar over most of interval, but contorted (including possible load casts and flames) over upper 8 cm.						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. .... Sheet No. 18 of 77 Lat. ....

Total Depth .....

Section .....

Dep. ....

Logged By .....

Date Begun .....

Bearing .....

Claim .....

Date Finished .....

Elev. Collar .....

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	Some dark grey argillaceous siltstone contains						
	pinstripe laminations & minor disseminated po.						
	20% fine grained sandstone in 4-6 cm beds. Sandstone						
	(2 beds) from 106.50-106.60 contains 5% po as						
	irregularly distributed patches and disseminations.						
	Bd/core angle 80°.						
106.99-113.86	Sandstone; fine to very fine grained, argillaceous,						
	medium grey. Beds 2-30 cm. 20% light to dark						
	grey siltstone/argillaceous siltstone; most in						
	distinctly laminated to thin bedded intervals						
	to 8 cm. Dark grey silty argillite with pinstripe						
	laminations from 110.73-110.95 m; contains rare						
	very thin black laminae and rare thin beds of						
	medium to light grey silty argillite. 1-3% po						
	within pinstriped siltstone. 2-10% po within several						
	relatively coarse grained quartz-biotite±garnet						
	patches (to 4 cm) within sandstone (concretions?).						
	Po rarely elsewhere in interval as minor disseminations						
	or as green po-silicate patches within sandstone.						
	Bd/core angle 81°.						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. .... Sheet No. 19 of 77

Lat. ....

Total Depth .....

Section .....

Dep. ....

Logged By .....

Date Begun .....

Bearing .....

Claim .....

Date Finished .....

Elev. Collar .....

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
113.86-115.20	Argillaceous siltstone (silty argillite; medium to light (rarely dark) grey. Well defined 1-5 mm laminae; generally planar, occasionally lensey and/or contorted. Fine pinstripe laminations in thicker, darker bands. Occasional feldspar porphyroblasts in light grey silty argillite laminae. 5% very fine grained sandstone in 4-6 cm beds; minor load casting and rip ups at sandstone bases. Minor po disseminated mainly in pinstriped siltstones. 1 cm lense with 25% py (and po?) near top of interval. 6 mm of 10% disseminated po at top of one sandstone bed. Bd/core angle 82°.						
115.20-116.19	Siltstone/argillaceous siltstone/minor argillite; light to dark grey. Mainly as 5-15 mm cross laminated bands; also 1-10 mm planar, sometimes graded, dark to light grey laminae; minor dark grey beds, to 2 cm, with pinstripe laminations. Rare beds of very fine grained sandstone to 3 cm. Garnet porphyroblasts in some sandstone and siltstone beds. Minor po as disseminations within						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. .... Sheet No. 20 of 77 Lat. .... Total Depth.....  
 Section..... Dep. .... Logged By.....  
 Date Begun..... Bearing ..... Claim .....  
 Date Finished..... Elev. Collar..... Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	pinstriped siltstone, as discordant patches within						
	cross laminated siltstone, and as 15-20%						
	concentrations in rare very thin ( 1 mm) dark						
	grey laminae. Bd/core angle 80°.						
116.19-120.67	Sandstone; fine to very fine grained, argillaceous,						
	garnetiferous; medium grey. Beds 3-30 cm, massive						
	with rare vague internal laminations. 30% laminated						
	light to dark grey siltstone/silty argillite and						
	dark grey pinstripe-laminated argillaceous						
	siltstone; siltstone intervals to 16 cm, become						
	more abundant towards base of interval (as sandstone						
	beds become thinner). 5-20% po in eight separate						
	garnet-biotite-quartz concretions, to 8 cm. Po						
	rarely as $\leq 1$ mm blebs with biotite selvages;						
	generally at 60-70° core angle, rarely sub-						
	parallel bedding. Bd/core angle 83°.						
120.67-120.69	quartz vein; 80° core angle.						
120.69-123.13	Siltstone to silty argillite; light to dark grey.						
	2-30 mm beds, rarely cross laminated or graded;						
	some flames and load casts; 20% with vague pinstripe						
	laminations. 30% fine grained sandstone in 1.5						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. .... Sheet No. 21 of 77 Lat. ....

Total Depth .....

Section .....

Dep. ....

Logged By .....

Date Begun .....

Bearing .....

Claim .....

Date Finished .....

Elev. Collar .....

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	to 6 cm massive or graded beds. Po disseminated within several garnet-biotite-quartz concretions in sandstone and within generally pinstriped argillaceous siltstone. Po rarely concentrated in 1-2 mm siltstone laminae. Bd/core angle 82°.						
123.13-123.63	Argillaceous siltstone/silty argillite; dark/light grey. Distinct even graded laminae 4 to 8 mm. 15% light grey siltstone to very fine grained sandstone in 10-15 mm beds with load casts and flames at their bases. 1-3% po disseminated in some light grey siltstone beds; rare thin po lenses in 1 mm black laminae within siltstone. Bd/core angle 82°.						
123.63-125.92	Siltstone to silty argillite with 30% very fine grained sandstone interbeds as from 120.69-123.13. Minor po finely disseminated through some siltstone, as very thin ( $\leq 1$ mm) concentrations at bases of a few sandstone beds, and as disseminations within two biotite-quartz concretions(?) in sandstone beds. 5 x 20 mm lense (clast?) of dark grey, hard, very fine grained siliceous or tourmalinized						

## DIAMOND DRILL RECORD

PROPERTY \_\_\_\_\_

HOLE No. MM84-1

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Hole No. \_\_\_\_\_ Sheet No. 22 of 77

Hole No. \_\_\_\_\_ Sheet No. 22 of 77 Lat. \_\_\_\_\_

Section \_\_\_\_\_ Den. \_\_\_\_\_

Date Begun..... Bearing .....

Date Finished \_\_\_\_\_ Elev. Collor \_\_\_\_\_

Total Depth.....

Logged By \_\_\_\_\_

### Claim

Core Size

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	rock at 124.27 m. Bd/core angle 81°.						
125.92-127.25	Sandstone; fine grained, argillaceous, scattered garnet porphyroblasts; medium grey. Massive, bedding not distinct. Includes 4 cm of medium grey argillaceous siltstone near base. Six relatively coarser grained garnet-biotite-quartz concretions, to 7 cm, with only minor disseminated po.						
127.25-127.92	Silty argillite/argillite; medium greenish-grey/light grey. Mainly silty argillite with faint streaky laminations. 10% is light grey argillite, in 6-26 mm beds, that is so crowded with roundish feldspar porphyroblasts that it resembles a medium to coarse grained sandstone. Medium grey, very fine grained argillaceous sandstone common from 127.50-127.80. Bd/core angle 80°.						
127.92-128.85	Sandstone; fine grained, light grey. Massive beds 4-25 cm; four garnet-biotite concretions to 2 cm. 10% medium grey laminated siltstone intervals to 2 cm. Very minor po disseminated within concretions. Bd/core angle 80°.						



# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. .... Sheet No. 23 of 77 ... Lot. .... Total Depth. ....  
 Section. .... Dep. .... Logged By. ....  
 Date Begun. .... Bearing. .... Claim. ....  
 Date Finished. .... Elev. Collar. .... Core Size. ....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
128.85-132.16	Argillaceous siltstone; medium to dark grey. Streaky discontinuous laminae <1-8 mm, with rare planar thin black laminae, and light grey silty argillite laminae to 6 mm. 5% faintly pinstripe laminated argillaceous siltstone in parallel-sided beds to 10 cm. Rare cross laminated horizons ≤1 cm. 20% fine grained sandstone in 2-15 cm graded beds. 5% disseminated po from 130.93-131.15 m; includes streaky laminated siltstone, cross laminated siltstone, and thin sandstone beds. ≤1% po disseminated through much of remaining interval. Bd/core angle 80°.						
132.16-137.36	Sandstone; fine grained, light grey; commonly with garnet porphyroblasts. Massive beds 4-35 cm (mainly 20-30 cm). 20% thinly bedded or laminated medium to dark grey argillaceous siltstone intervals to 16 cm. Rare 5-15 mm bands of light grey argillite	133.69-133.79		700 ppm	5 ppm	250 ppm	0.6 pp

# DIAMOND HILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. .... Sheet No. 24 of 77

Section .....

Date Begun .....

Date Finished .....

Lat. ....

Dep. ....

Bearing .....

Elev. Collar .....

Total Depth .....

Logged By .....

Claim .....

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	with black biotite and white feldspar porphyroblasts to 1 mm. Two small (4 x 25 mm) chips of dark grey argillite within sandstone at 134.99 and 135.36 m. 2 mm, 0-10° quartz vein with biotite and 1% po from 132.80-133.57 m. 1-2% (rarely 5%) po disseminated through 15-20% of the sandstone, mainly in poorly defined darker grey patches to 10 cm. Siliceous garnet-biotite patch from 133.62-133.80 m contains abundant po as heavy disseminations, irregular patches, and rare solid po lenses to 2 x 20 mm. 4 cm concretion at 135.50 m consists of 1 cm siliceous (+biotite and garnet) rim enclosing core of garnet-biotite-quartz with 10% po. Bedding/core angle 81°.						
137.36-141.69	Siltstone/argillaceous siltstone; medium grey. Streaky discontinuous, often contorted bands 1-6 mm. Non-banded intervals to 8 cm with very thin blebs of biotite±po defining a discontinuous pinstripe lamination. Rare intervals, to 2 cm, of light grey argillaceous siltstone in 1-5 mm parallel bands with thin dark grey biotite-rich						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
Footage	Angle	
	Reading	Corrected

25 of 77

Hole No. .... Sheet No. .... Lat. .... Total Depth .....

Section ..... Dep. .... Logged By .....

Date Begun ..... Bearing ..... Claim .....

Date Finished ..... Elev. Collar ..... Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	laminae. 40% fine to very fine grained sandstone						
	in 2-12 cm graded beds; flame structures at some						
	sandstone/siltstone contacts. 1-3% po found in						
	pinstriped siltstone, in thin biotite-rich laminae,						
	and disseminated in basal portion of some sandstone						
	beds; rare blebs, 1 x 4 mm, of po within some						
	siltstone laminae. Bd/core angle 81°.						
141.69-145.55	Argillaceous siltstone; medium to dark grey; po-	142.52-143.77	<0.01%	<0.01%	0.01%	<0.3 g.	
	rich. Upper 71 cm is mainly massive, with 1-	143.87-144.88	<0.01%	<0.01%	0.01%	<0.3 g.	
	10 mm lenses and contorted layers of slightly						
	lighter grey siltstone scattered throughout. From						
	142.40-144.07 contains pinstripe laminations defined						
	by very thin trains of biotite and po. Lower						
	1.48 m comprises distinct planar bands, mainly						
	1-10 mm, defined by thin dark grey laminae and						
	rare light grey laminae, also includes planar						
	beds, to 5 cm, with pinstripe laminations. 1-						
	4% po within most pinstriped intervals; 2-5% po						
	from 143.88-144.07 with lenses and laminae, to						
	17 mm, containing 20-30% po. Elsewhere po concentrated						
	mainly in light grey lenses in upper part of interval						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1.....

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. .... Sheet No. 26 of 77 Lat. .... Total Depth.....  
 Section..... Dep..... Logged By.....  
 Date Begun..... Bearing..... Claim.....  
 Date Finished..... Elev. Collar..... Core Size.....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	and in thin dark grey laminae in lower part. 2-8 mm siliceous lense at 132.62 m enclosed in dark greenish-brown po-rich rim. Bd/core angle 82-85°.						
145.55-149.75	Sandstone; fine to very fine grained, light to medium grey. Massive, thick bedded, but contacts not readily apparent; relatively thin (4-10 cm) beds over upper and lower 20 and 45 cm respectively. 10% thin horizons of light grey argillite (with feldspar porphyroblasts) or laminated medium to dark grey argillaceous siltstone. Rare darker garnet-biotite patches within sandstone containing to 15% po. At 145.80 is 9 mm quartz-po vein at 71° core angle; this truncates a thicker (4 cm+), very low angle, quartz-biotite-po vein which extends to base of interval. Vein averages 5% po in large patches to 2 cm; also contains 5-10% large biotite flakes and rarely an ascicular greenish-grey mineral which occurs in sheaf-like clusters to 1 cm long.	147.40-148.06		< 0.01%	< 0.01%	< 0.01%	< 0.3 g
149.75-150.87	Argillaceous siltstone; medium grey. 1-10 mm						

# DIAMOND HILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. .... Sheet No. 27 of 77 Lat. .... Total Depth .....

Section ..... Dep. .... Logged By .....

Date Begun ..... Bearing ..... Claim .....

Date Finished ..... Elev. Collar ..... Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	indistinct irregular laminae; rarely massive						
	or with faint pinstripe laminations. Rare lenses						
	and beds, to 1 cm, containing abundant light						
	grey feldspar porphyroblasts. 35 mm faintly						
	pinstriped bed at 150.48 contains 20% finely						
	disseminated po. Bd/core angle 81°.						
150.87-152.69	Sandstone; fine grained, light grey, rare garnet						
	porphyroblasts. Thick, massive beds; contacts						
	not distinct. Minor laminated medium grey						
	siltstone and light grey argillite with feldspar						
	porphyroblasts. 2 cm garnet-biotite-quartz						
	concretion at 152.26 m contains 25% po in						
	central biotite-rich portion.						
152.69-153.98	Argillaceous siltstone; medium grey. 20% with						
	faint pinstripe laminations and 1-2% disseminated						
	po (with rare thin laminae of 20-30% po). 15%						
	as distinct 1-2 cm graded beds with thin dark						
	grey biotite-rich selvage at base and lighter						
	grey top containing feldspar porphyroblasts.						
	20% fine grained sandstone as 4-6 cm graded beds.						
	Bd/core angle 85°.						

# DIAMOND DRILL RECORD

PROPERTY \_\_\_\_\_

HOLE No. MM84-1

[illegible]

Hole No. \_\_\_\_\_ Sheet No. 20 of 77

Section.....

Date Begun \_\_\_\_\_

Date Finished.....

Lat. ....

Dep. ....

Bearing .....

Elev. Collar.....

Total Depth.....

Logged By.....

**Claim** .....

Core Size

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
153.98-156.47	Sandstone; light to medium grey, fine grained, in part argillaceous, scattered garnet porphyroblasts. Three po-garnet-biotite-quartz concretions, to 3 cm, in lower half of interval. Thin biotite selvages at low core angle common in lower 70 cm. 10% medium grey vaguely laminated argillaceous siltstone intervals to 10 cm.						
156.47-165.81	Argillaceous siltstone; medium grey. Most with poorly defined lensey laminations; also as parallel-sided bands, 4-12 mm, commonly grading from dark grey bases to medium or light grey tops; some massive to faintly pinstripe-laminated intervals to 6 cm. 35% fine to very fine grained light to medium grey sandstone in massive (rarely graded?) beds 2-50 cm, with rare garnet porphyroblasts. Interval contains substantial po; occurs as minor to major disseminations within both sandstone and siltstone, as massive lenses and laminae, typically only a few mm thick, within siltstone; as dark green po- silicate intergrowths covering intervals up to	160.90-161.97 163.28-164.19	1.97 4.19	<0.01% <0.01%	<0.01% <0.01%	0.01% <0.01%	< 0.3g < 0.3g

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. .... Sheet No. 29 of 77 Lat. .... Total Depth. ....  
 Section. .... Dep. .... Logged By. ....  
 Date Begun. .... Bearing .... Claim ....  
 Date Finished. .... Elev. Collar. .... Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	11 cm within both siltstone and sandstone, as						
	2-15% concentrations within concretions in sandstone,						
	as thin discordant biotite-po blebs and stringers						
	within sandstone, and rarely as very thin quartz-						
	po veins. Seems to be a definite positive correlation						
	between garnet and po within sandstone. Bd/core						
	angle 80°.						
165.81-169.78	Mislatch; only 1.6 m recovered (2.37 m missing).						
	Mainly fine grained light to medium grey sandstone						
	and argillaceous sandstone, massive. Minor amounts						
	of light grey silty argillite with feldspar porphyro-						
	blasts. 1-3% po disseminated through garnetiferous						
	portions of the sandstone, and in thin biotite-						
	rich lenses and layers within the argillaceous						
	sandstone.						
169.78-171.86	Sandstone; fine grained, light to medium grey.						
	Massive beds 10-50 cm. 20% medium/light grey						
	argillaceous siltstone/silty argillite. Minor						
	po disseminated through sandstone. 5-15% po						
	within 2 cm concretion; 6 cm halo of 2-5%						
	disseminated po in sandstone surrounding						

# DIAMOND HILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. .... Sheet No. 30 of 77 Lot. .... Total Depth.....  
 Section..... Dep..... Logged By.....  
 Date Begun..... Bearing..... Claim.....  
 Date Finished..... Elev. Collar..... Core Size.....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	concretion.						
171.86-174.58	Argillaceous siltstone; medium to dark (rarely light) grey. Most with 1-20 mm lensey banding; 7 cm of parallel banded siltstone at top of interval, includes some graded beds from dark biotite-rich bases to lighter grey tops. 40% medium grey fine to very fine grained sandstone and argillaceous sandstone; beds 4-20 cm, some graded. Minor po disseminated through most of interval. Massive py (and/or po?) in six separate thin (1-2 mm) lenses within siltstone. 20% py as lenses and blebs within 3 cm siltstone interval. 2-10% po (+py?) disseminated in basal portions (to 5 cm) of six different sandstone beds. Bd/core angle 80°.						
174.58-176.00	Argillaceous siltstone; medium grey. Fine pinstripe laminations from 175.04-175.75 m defined by biotite-po trains and blebs. Distinct 4 mm-5 cm beds in upper 20 cm, some grading from light grey siltstone bases to medium grey argillaceous siltstone tops; flames and load casts at bases	174.81-176.00		<0.01%	<0.01%	0.01%	<0.3 g



# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. .... Sheet No. 31 of 77

Section .....

Date Begun .....

Date Finished .....

Lat. ....

Dep. ....

Bearing .....

Elev. Collar .....

Total Depth .....

Logged By .....

Claim .....

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE				
	of thicker beds. Remainder of interval characterized by indistinct lensey banding. 2-5% po within pinstriped siltstone. 5-10% po within two separate quartz-biotite-garnet concretions(?) (2 and 3 cm) between 174.78 and 175.04 m. 1-5 mm irregular greenish po-silicate patches common from 175.22-175.37. Minor po as disseminations and thin blebs and lenses elsewhere in interval. Thin (1 mm) 50-75° po and biotite-quartz-po veins in lower part of interval. Bd/core angle 82°.						
176.00-177.81	Sandstone; fine grained; light to medium grey. 15-40 cm beds, massive with some graded tops. 30% medium grey argillaceous siltstone intervals to 10 cm. Minor po disseminated through most of sandstone and siltstone. 2-10% po in massive sandstone from 176.19-176.58 and from 177.65-177.81 m where it is associated with biotite in irregular patches to 15 cm, in small (1-2 mm) blebs and spots, and in thin discordant stringers.						

## DIAMOND DRILL RECORD

PROPERTY \_\_\_\_\_

HOLE No. MM84-1\_\_\_\_\_

[illegible]

Hole No. \_\_\_\_\_ Sheet No. 32 of 77 Lat. \_\_\_\_\_

Total Depth.....

Section \_\_\_\_\_ Dep. \_\_\_\_\_

Logged By \_\_\_\_\_

Date Begun..... Bearing.....

**Claim** \_\_\_\_\_

Date Finished..... Elev. Collar.....

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
177.81-178.75	Siltstone/ argillaceous siltstone; light to medium grey. 1-20 mm beds, may be planar or somewhat lenticular. Light grey feldspar and muscovite porphyroblasts in 12 mm bed near base of interval. Weak slaty cleavage at 55% core angle. 1-6 mm concordant lenses and layers of 20-60% po ( $\pm$ py?) at twelve places within interval, typically in biotite-rich horizons. Rare very thin po veins at variable, generally low, core angle. Minor disseminated po elsewhere in interval. Bd/core angle 83°.						
178.75-184.62	Sandstone; fine to very fine grained, medium (to light) grey, argillaceous. Beds 5-40(+) cm, often graded. 20% medium to dark grey thinly bedded siltstone to silty argillite; mostly in 2-8 cm intervals but one 62 cm siltstone interval from 181.03-181.65 m. Light greenish-grey very fine grained siliceous rock from 182.63-182.79 m; rusty, but no visible sulphides. Po disseminated through most of sandstone and siltstone and concentrated (2-20%) in numerous garnet-biotite-	178.98-179.06		93 ppm	7 ppm	92 ppm	0.1 ppm

## DIAMOND DRILL RECORD

PROPERTY \_\_\_\_\_

HOLE No. ....MM84-1.....

[illegible]

33 of 77

Hole No. .... Sheet No. .... Lat. ....

Section..... Dep.....

Date Begun..... Bearing.....

Date Finished..... Elev. Collar.....

Total Depth.....

Logged By.....

Claim .....

**Core Size**

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	quartz concretions (to 4 cm) in sandstone, at						
	bases of some sandstone beds, and rarely in thin						
	biotite-rich laminae in siltstone. Bd/core angle						
	82°						
184.62-193.70	Siltstone/argillaceous siltstone/rare silty argillite;	192.00-192.10		47 ppm	1 ppm	61 ppm	0.1 pp
	light to dark grey. Beds 1-20 cm, mainly lenticular						
	and of non-uniform thickness, but in places planar.						
	Grading (dark up to light grey), load casts,						
	flames, scouring, fairly common; rare cross laminations.						
	from 192.70-192.96m; faint pinstripe laminations						
	from 186.17-186.24 m. 30% fine grained, light						
	to medium grey sandstone; beds 1-36 cm, commonly						
	graded, rare channelling at bases. 19 cm quartz-						
	chlorite-(+hornblende?)-biotite-garnet-calcite						
	concretion within 36 cm sandstone bed in central						
	part of interval. Po as minor disseminations						
	through most of sandstone and often as 1-10%						
	concentrations within biotite-garnet concretions						
	(1-4 cm) and at bases of some sandstone beds.						
	Po less common in siltstone as minor disseminations						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. .... Sheet No. 34 of 77 Lat. ....

Total Depth .....

Section .....

Dep. ....

Logged By .....

Date Begun .....

Bearing .....

Claim .....

Date Finished .....

Elev. Collar .....

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	and rare thin (1-3 mm) lenses, layers and blebs.						
	1-2% po within the pinstriped siltstone. Bd/core						
	angle 82°.						
193.70-197.21	Sandstone; fine grained, garnetiferous, medium						
	to light grey. Beds mainly 10-40 cm (+?), massive.						
	Abundant greenish hornblende-biotite-garnet concretions						
	with light grey quartzose rims. 20% medium to						
	dark grey thinly banded argillaceous siltstone						
	intervals to 15 cm. Flames/load casts at bases						
	of both sandstone and siltstone beds. Minor						
	po within cores of some concretions and disseminated						
	through sandstone adjacent to concretions. Bd/core						
	angle 82°.						
197.21-198.34	Argillaceous siltstone; medium to dark grey. Beds						
	2-50 mm, often graded from dark bases to lighter						
	grey tops; rare flames/load casts. Beds may be						
	planar or lensey. 40% fine to very fine grained						
	medium grey sandstone in beds 5 mm-11 cm; grading/						
	flame structures common. Minor po as disseminations						
	and thin lensey patches in sandstone. Bd/core						
	angle 82-84°.						



# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. ....MM84-1.....

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. .... Sheet No. 36 of 77

Section .....

Date Begun .....

Date Finished .....

Lat. ....

Dep. ....

Bearing .....

Elev. Collar .....

Total Depth .....

Logged By .....

Claim .....

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
201.43-202.06	Sandstone; fine grained, medium grey, garnetiferous. Massive beds, 6-50 cm, with thin argillaceous siltstone tops. Rare garnet-biotite-quartz concretions. Very small brownish specs disseminated from 201.93- 202.00 (biotite?). Bd/core angle 86°.	201.93-202.00	202.00	75 ppm	8 ppm	73 ppm	0.1 pp
202.06-202.60	Sandstone; very fine grained, argillaceous. Massive beds 3-10 cm. 40% thinly banded medium to dark grey argillaceous siltstone. Load casts/rip ups at both sandstone and siltstone bases. Bd/core angle 86°.						
202.60-203.34	Ground core, 32 cm lost. Medium brownish-grey sandstone with very minor dark grey silty argillite.						
203.34-205.42	Argillaceous siltstone; medium to dark grey. Planar beds 1 mm- 5 cm. 25% fine grained sandstone in 1-10 cm beds, often graded. Contorted lenses and layers of siltstone, within sandstone matrix from 204.50-205.07 m (slump?). Minor po within thin biotite-rich laminae in siltstone and as rare patches (to 1 cm) in sandstone. Bd/core angle 81°.						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. .... Sheet No. 37 of 77 Lat. ....

Total Depth .....

Section .....

Dep. ....

Logged By .....

Date Begun .....

Bearing .....

Claim .....

Date Finished .....

Elev. Collar .....

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
205.42-206.15	Sandstone; fine to very fine grained, argillaceous, garnetiferous, medium grey. Beds 4-25 cm, commonly graded with thinly banded silty argillite tops. Rare greenish patches of very fine grained po to 3 cm. Bd/core angle 85°.						
206.15-206.90	Argillaceous siltstone; medium to dark grey. 2-8 mm laminae; lenticular to rarely planar. 20% argillaceous sandstone in 2-5 cm beds. 8 x 25 mm elliptical, well rounded siltstone chip in one sandstone bed. Rare greenish po-rich patches, to 1 cm, within siltstone. Bd/core angle 82°.						
206.90-209.09	Sandstone; fine grained, in part argillaceous, medium grey. Beds 5-25 cm, some graded. 25% medium to dark grey thinly bedded/laminated siltstone intervals to 15 cm. Rare greenish po-rich patches, to 2 cm, within sandstone. 2% po in 3 cm garnet-biotite-quartz concretion. 46 cm of missing core from lower part of interval. Bd/core angle 83°.						
209.09-210.92	Ground core, 1.33 m lost. Mainly fine grained medium grey massive sandstone. 9 cm of medium						

# DIAMOND HILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. .... Sheet No. 38 of 77

Section .....

Date Begun .....

Date Finished .....

Lat. ....

Dep. ....

Bearing .....

Elev. Collar .....

Total Depth .....

Logged By .....

Claim .....

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	grey laminated siltstone in lower portion.						
210.92-213.97	Sandstone; fine grained, argillaceous, medium grey. Massive beds 3-25 cm. 40% medium to dark grey thinly bedded/laminated argillaceous siltstone intervals to 15 cm. 5-10% po in 7 cm garnet-biotite-quartz concretion in sandstone near base. Minor po in vague biotite-rich patches in sandstone. Minor po disseminated in siltstone and as 5-10% concentrations in rare 1-6 mm laminae and lenses. Bd/core angle 82°.						
213.97-216.21	Siltstone/argillaceous siltstone; medium to dark grey. Most as distinctly planar to lenticular laminated intervals 1.5 to 16 cm thick; less common as beds, to 4.5 cm, with only vague internal laminations. 50% medium grey fine to very fine grained sandstone in 3-15 cm massive or graded beds. Small (1-4 mm) greenish patches containing very fine grained po found in sandstone throughout interval, becoming more common towards base. Rare po-rich lenses and laminae, to 5 mm, within siltstone. Bd/core angle 82°.						



# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. .... Sheet No. 39 of 77 Lat. ....

Total Depth .....

Section ..... Dep. ....

Logged By .....

Date Begun ..... Bearing .....

Claim .....

Date Finished ..... Elev. Collar .....

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
216.21-217.56	Argillaceous siltstone; medium to dark grey. Vague po-biotite pinstripe laminations. Po also found in small greenish patches throughout interval and concentrated in rare thin laminae to 3 mm. Interval averages almost 10% po. Bd/core angle 84°.	216.24-217.56	7.42	<0.01%	<0.01%	0.01%	<0.3%
217.56-223.85	Sandstone; fine (rarely medium) grained, light to medium grey. Beds 30-60 cm; massive, often with graded tops. 10% light to dark grey siltstone to silty argillite, typically as laminated intervals to 20 cm thick. 3 cm+ quartz vein at 0° core angle from 220.00-220.93 m, contains minor biotite, and small chalky feldspar grains in places along margin. Rusty hairline fractures at various angles throughout interval, and at persistent 30° core angle from 222.35-222.80 m. Very minor po in small (to 5 mm) greenish patches in a couple sandstone beds. Bd/core angle 85°.						
223.85-233.62	Sandstone/argillaceous sandstone; fine to very						

# DIAMOND FULL RECORD

PROPERTY \_\_\_\_\_

HOLE No. MM84-1

[illegible]

Hole No. \_\_\_\_\_ Sheet No. 40 of 77 Lot. \_\_\_\_\_

Total Depth.....

Section \_\_\_\_\_ Dep. \_\_\_\_\_

Logged By.....

Date Begun \_\_\_\_\_ Bearing \_\_\_\_\_

### Claim

Date Finished \_\_\_\_\_ Elev. Collar \_\_\_\_\_

### Core Size

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	fine grained, garnetiferous, medium (rarely light) grey. Beds 15-40 cm, but generally not distinct.						
	40% thinly banded medium to light grey siltstone to silty argillite intervals to 50 cm. Rare lightish grey argillite beds, to 6 cm, containing feldspar and biotite porphyroblasts. Rare garnet-biotite- quartz concretions with up to 5% disseminated po. Very minor po elsewhere as small greenish po-rich patches and as thin blebs and lenses within siltstone. Bd/core angle 84°.						
233.62-234.76	Argillaceous siltstone; medium grey. Upper 52 cm contains vague pinstripe laminations and rare laminae, 1-3 mm, of light grey siltstone. Lower portion comprises thin bands, in alternating shades of medium to dark grey, which gradually become more distinct towards base of interval. Rare thin beds of medium grey, very fine grained argillaceous sandstone; some beds grade upwards into overlying siltstone. 1-3% po disseminated through siltstone. Po also concentrated in rare 1-6 mm lenses and laminae within siltstone and	233.62-234.76		<0.01%	<0.01%	0.01%	<0.3

# DIAMOND HILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. .... Sheet No. 41 of 77 Lot. .... Total Depth. ....  
 Section. .... Dep. .... Logged By. ....  
 Date Begun. .... Bearing. .... Claim. ....  
 Date Finished. .... Elev. Collar. .... Core Size. ....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE				
	in rare intervals, to 2 cm, containing greensih						
	po-rich patches in siltstone and sandstone. Bd/core						
	angle 83°.						
234.76-241.40	Sandstone; fine to very fine grained, in part						
	argillaceous, medium grey. Beds 4-40 cm (mainly						
	20-30 cm), massive. 35% thinly bedded/laminated						
	siltstone to silty argillite. Rare garnet-biotite-						
	quartz concretions in sandstone with minor po.						
	Minor po disseminated in siltstone. Green chloritic						
	stringers at 20-25° core angle at base of sandstone						
	bed from 236.28-236.40 m; 3% po in small garnet-						
	chlorite-biotite-quartz concretion(?) in this						
	bed. Bd/core angle 82°.						
241.40-244.50	Argillaceous siltstone; medium grey. Thin, 2-						
	10 mm bands, generally planar; minor massive						
	intervals to 6 cm, and rare pinstripe laminated						
	siltstone. 40% medium grey fine to very fine						
	grained sandstone and argillaceous sandstone;						
	beds 2-15 cm, some graded, some include contorted						
	lenses and chips of siltstone. Po disseminated						
	through pinstriped siltstone and rarely as 1-						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. .... Sheet No. 42 of 77 Lat. .... Total Depth .....  
 Section ..... Dep. .... Logged By .....  
 Date Begun ..... Bearing ..... Claim .....  
 Date Finished ..... Elev. Collar ..... Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	2 mm lenses and laminae elsewhere. Rare greenish patches of intergrown po-silicates, 1 to 2 cm, within siltstone and sandstone. Bd/core angle 82°.						
244.50-244.92	Sandstone; fine grained, light to medium grey. Massive (rarely graded?) beds, 8-18 cm. Minor medium grey argillaceous siltstone. Abundant po in fine grained greenish po-silicate patches.	244.50-245.47	5.47	< 0.01%	< 0.01%	0.01%	< 0.3 g
244.92-247.70	Argillaceous siltstone; medium grey. Poorly defined 1-17 cm beds, with rare distinct thinly banded intervals to 12 cm. 20% fine grained light to dark grey sandstone in 2-6 cm beds. Abundant po intergrown with silicate minerals in irregular greensih patches. Bd/core angle 86°.	246.48-247.63	7.63	0.01%	0.01%	0.01%	< 0.3 g
247.70-249.13	Sandstone; fine grained, light grey. Beds 3-35 cm; massive (rarely graded), with thin partings and interbeds of argillaceous siltstone. Upper 8 cm contains po in greenish patches as in overlying interval. Core badly broken along 05° rusty fractures in central part, and is crushed and crumbled over lower 20 cm. Rusty hairline						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. .... Sheet No. 43 of 77

Lat. ....

Total Depth .....

Section .....

Dep. ....

Logged By .....

Date Begun .....

Bearing .....

Claim .....

Date Finished .....

Elev. Collar .....

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	fractures and rusted out specs common throughout interval.						
249.13-251.02	Argillaceous siltstone/silty argillite; medium grey. Planar, well defined beds or laminae 2-50 mm (mainly 2-10 mm); rare graded beds. Roundish white feldspar porphyroblasts common in 25% of beds. Fine pinstripe laminations in some thicker beds which also contain thin white siltstone laminae. 5% light grey sandstone in 5-35 mm beds. Rare greenish po-rich patches in sandstone, and minor po disseminated in rare siltstone beds. Bd/core angle 87°.						
251.02-254.50	Sandstone; fine grained, garnetiferous, light grey. Beds 8-30 cm; massive, some with graded tops. 25% light grey silty argillite (with feldspar porphyroblasts) and medium grey thinly bedded argillaceous siltstone. Rusty hairline fractures at variable angles, and small rusted out spots common. Closely spaced, rusty, 0° fractures in central part of interval; fairly soft clear grey mineral with radiating sheaf-like habit on fracture						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. .... Sheet No. 44 of 77 Lat. .... Total Depth.....  
 Section..... Dep..... Logged By.....  
 Date Begun..... Bearing..... Claim.....  
 Date Finished..... Elev. Collar..... Core Size.....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	surface at 252.40 m ( a zeolite ??). Bd/core angle 86°.						
254.50-261.91	Sandstone; fine grained, in part argillaceous and garnetiferous, medium to light grey. Beds 0.5-40 cm; commonly graded at tops, flames and scours at bases. 40% medium/light grey argillaceous siltstone/silty argillite to argillite as distinct planar beds, 1-12 mm, over intervals up to 90 cm; commonly graded from dark bases to light grey tops with feldspar porphyroblasts. 5-10% po found in five concretions, to 2 cm, within sandstone. Minor po disseminated elsewhere in garnetiferous sandstone, at bases of some sandstone beds, and as concordant lenses within siltstone. Bd/core angle 87°.						
261.91-265.92	Argillaceous siltstone; hard ( hornfelsic appearance), grey. Contains vague pinstripe laminations, and 2-20 mm beds of lighter grey very fine grained quartzite spaced 2-20 cm apart; lower 30 cm is vaguely thinly banded argillaceous siltstone/lighter grey silty argillite. 2-3 mm beds of light grey	262.11-263.20		< 0.01%	< 0.01%	0.01%	< 0.3 g/
		264.55-265.62		< 0.01%	< 0.01%	0.01%	< 0.3 g/

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. .... Sheet No. 45 of 77 Lot. .... Total Depth .....  
 Section ..... Dep. .... Logged By .....  
 Date Begun ..... Bearing ..... Claim .....  
 Date Finished ..... Elev. Collar ..... Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	argillite with feldspar porphyroblasts comprise						
	10% of lower 80 cm, in places argillite grades						
	into underlying siltstone. 1% po disseminated						
	throughout the siltstone; 2-5% (rarely 20%) po						
	as blebs and disseminations within the thin quartzite						
	beds, and in thin siltstone lenses over lower						
	30 cm. Bd/core angle 87°.						
265.92-275.28	Sandstone; fine grained, in part garnetiferous,						
	light grey. Beds 1-40 cm (mainly 5-20 cm), massive						
	or graded (thicker beds generally massive with						
	only upper portion graded). Flames and channels						
	at sandstone bases. 35% medium to light grey						
	argillaceous siltstone to argillite, mainly as						
	thin (2-8 mm) graded beds over intervals to 15						
	cm. Feldspar porphyroblasts within light grey						
	argillite. Minor pinstripe laminated siltstone						
	intervals to 8 cm. Minor po disseminated through						
	garnetiferous sandstone and pinstriped siltstone,						
	in rare greenish patches in sandstone, and as						
	rare 1-5 mm blebs and lenses in siltstone. Bd/core						
	angle 86°.						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. .... Sheet No. 46 of 77 Lot. .... Total Depth.....  
 Section..... Dep..... Logged By.....  
 Date Begun..... Bearing..... Claim.....  
 Date Finished..... Elev. Collar..... Core Size.....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
275.28-279.43	Sandstone; fine (rarely medium) grained, light grey. Massive thick beds to 60 cm (+?); bedding contacts not distinct. Very minor darker grey, finer grained argillaceous sandstone; 4 cm horizon of silty argillite near base. Rock broken along rusty, 0-15° fractures throughout most of interval. Po coats some fractures surfaces and also occurs as patchy disseminations in sandstone mainly in upper and lower 50 and 45 cm respectively.						
279.43-280.90	Argillaceous siltstone; medium grey. Lensey laminae, 2-15 mm, in upper and lower portions; from 280.17-280.70 m comprises a few poorly defined, vaguely laminated intervals grading to very fine argillaceous sandstone at their bases. Light grey fine grained sandstone bed from 280.08-280.13 m. Minor po as disseminations and small greenish patches over 15% of interval. Bd/core angle 86°.						
280.90-281.22	Sandstone; fine grained, medium grey. Three massive beds, 9-13 cm. 1-2% po in small greenish patches over upper 8 cm.						
281.22-283.18	Argillaceous siltstone; medium grey. 2-12 mm planar						



# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. .... Sheet No. 47 of 77 Lat. ....

Section. .... Dep. ....

Date Begun. .... Bearing ....

Date Finished. .... Elev. Collar. ....

Total Depth. ....

Logged By. ....

Claim ....

Core Size ....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	to lenticular bands; minor non-banded pinstripe laminated siltstone intervals to 10 cm. 25-30% light grey very fine grained argillaceous sandstone in 2-30 mm beds which increase in abundance and thickness towards base of interval. 3 cm garnet-biotite-quartz concretion containing 5% po within siltstone near top. Minor po as disseminations and blebs in siltstone. 1-5% po in small greenish patches within most sandstone beds. Bd/core angle 90°.						
283.18-285.62	Sandstone; fine grained, in part garnetiferous, medium to light grey; 3-35 cm beds. 30% medium grey argillaceous siltstone (rare argillite) as thinly banded intervals to 20 cm. Very minor po disseminated in garnetiferous sandstone and in some siltstone bands. Bd/core angle 85°.						
285.62-290.82	Sandstone; fine (rarely medium) grained, in part garnetiferous, light grey. Massive, beds 30-80 cm. Rare garnet-biotite rich concretions. 5% light greenish grey silty argillite with biotite (and/or chlorite?) and feldspar porphyroblasts						

# DIAMOND HILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. .... Sheet No. 48 of 77 Lat. ....

Section ..... Dep. ....

Date Begun ..... Bearing .....

Date Finished ..... Elev. Collar .....

Total Depth .....

Logged By .....

Claim .....

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	as laminated intervals 1-2 cm (rarely to 23 cm)						
	thick. Light greenish-grey lenses, to 5 mm, of						
	almost pure quartz intercalated with argillite						
	in one interval. Trace po as disseminations and						
	in rare small greenish patches. Bd/core angle						
	85°.						
290.82-292.44	Argillaceous siltstone; medium grey. 2-10 mm laminae						
	with 10% interlaminated light grey argillite containing						
	biotite and feldspar(?) porphyroblasts; argillite						
	laminae to 5 mm, in places grade into underlying						
	siltstone. Minor very fine grained sandstone in						
	beds to 5 cm. Trace po as disseminations and rare						
	small (1-3 mm) patches. Bd/core angle 89°.						
292.44-296.27	Sandstone; fine grained, light grey. Massive,						
	beds mainly 30-70 cm. 5% medium to light grey						
	thinly bedded/laminated argillaceous siltstone						
	to argillite (with biotite porphyroblasts). Very						
	minor po in patches scattered through sandstone.						
	1 mm quartz-py vein at very low core angle near						
	top of interval. Bd/core angle 88°.						
296.27-297.40	Sandstone; fine grained, medium to light grey;						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. .... Sheet No. 49 of 77 Lat. .... Total Depth.....  
 Section..... Dep..... Logged By.....  
 Date Begun..... Bearing..... Claim.....  
 Date Finished..... Elev. Collar..... Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	beds 3-10 cm. 45% greenish-grey silty argillite (minor argillaceous siltstone) in massive or thinly bedded/laminated intervals to 15 cm (mainly 2-3 cm). Small biotite porphyroblasts in argillite. Flames/load casts at sandstone/argillite contacts. Very minor po disseminated in argillaceous siltstone and in rare greenish patches in sandstone. Bd/core angle 88°.						
297.40-300.49	Zone of broken up and partially ground core. Medium grey argillaceous siltstone, and very fine grained argillaceous sandstone in beds to at least 15 cm. Rare 2-5 mm beds of light greenish-grey argillite within siltstone. Rusty 40° fractures, some with po coating, in centre of interval. Very minor po as patches and disseminations.						
300.49-301.00	Sandstone; fine grained, argillaceous, medium grey. Massive, single bed(?). 05-20° quartz-chlorite veins, ≤1 mm, at base.						
301.00-301.75	Argillaceous siltstone; medium to light grey. 2-15 mm planar laminae with some thin very fine grained sandstone beds. Rare cross laminations in light	301.20-301.20	1.30	58 ppm	8 ppm	76 ppm	0.1 ppm

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. ....MM84-1.....

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. .... Sheet No. 50 of 77

Section .....

Date Begun .....

Date Finished .....

Lot .....

Dep. ....

Bearing .....

Elev. Collar .....

Total Depth .....

Logged By .....

Claim .....

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	grey siltstone to sandstone beds. 20 cm of						
	pinstripe laminated siltstone at top. 1-2% po						
	within pinstriped siltstone. Po occurs elsewhere						
	as thin lenses and blebs mainly within thin						
	sandstone beds. Bd/core angle 89°.						
301.75-308.01	Sandstone; fine grained, in part garnetiferous,	306.78-306.86	6.86	37 ppm	11 ppm	133 ppm	0.1 pp
	light to medium grey. Massive beds, 6-70 cm						
	(mainly 20-40 cm). 15% thinly bedded argillaceous						
	siltstone to argillite intervals, 2-15 cm. Small						
	biotite porphyroblasts in argillite. 20-30% of						
	the sandstone contains 1% po as disseminated						
	grains and small patches. Bd/core angle 89°.						
308.01-308.80	Sandstone; very fine grained, argillaceous, medium						
	grey. Beds 3-6 cm. 30% light to medium grey						
	argillite (with biotite porphyroblasts) to						
	argillaceous siltstone in laminated intervals						
	1 to 8 cm thick. Rare po blebs, 1-4 mm, in						
	sandstone. Bd/core angle 87°.						
308.80-315.64	Sandstone; fine grained, in part garnetiferous,						
	medium grey. Beds 6-75 cm; massive with graded						
	tops. 25% thin bedded medium grey argillaceous						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. .... Sheet No. 51 of 77 Lat. .... Total Depth .....  
 Section ..... Dep. .... Logged By .....  
 Date Begun ..... Bearing ..... Claim .....  
 Date Finished ..... Elev. Collar ..... Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	siltstone/light greenish-grey silty argillite						
	(with biotite porphyroblasts) intervals to 40						
	cm. Minor scouring at sandstone/siltstone contacts.						
	Minor po as disseminations and patches within						
	sandstone. Rarely 2-5% po over thin (to 5 mm)						
	intervals at base of sandstone beds. Rare 1-						
	2 mm po veins at 5-12° core angle. Bd/core angle						
	89°.						
315.64-319.54	Sandstone; fine grained, in part argillaceous,						
	medium grey. Massive beds 3-16 cm. 40% medium						
	to light grey argillaceous siltstone to argillite,						
	mainly as thinly bedded or laminated intervals						
	to 30 cm, rarely as pinstripe laminated intervals						
	to 10 cm with rare thin light grey siltstone						
	laminae. Rare contorted banding and thin lenses						
	or clasts of argillite within darker siltstone.						
	Substantial po through interval, increasing towards						
	base. Po occurs as disseminations, and thin						
	lenses and laminae within siltstone, as patchy						
	disseminations in sandstone, and in thin ( $\leq 1$ mm)						
	veins, generally at low to moderate core angles,						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. .... Sheet No. 52 of 77

Section ..... Lat. ....

Date Begun ..... Dep. ....

Date Finished ..... Bearing ..... Elev. Collar .....

Total Depth .....

Logged By .....

Claim .....

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	where it is generally associated with biotite.						
	From 318.10-381.20 are 65° contraction faults,						
	with up to 6 mm offset, within distinctly banded						
	siltstone; po + biotite fill some of these faults.						
	Bd/core angle 84°.						
319.54-320.26	Siltstone; medium grey, garnetiferous. Massive,	319.52-320.25		< 0.01%	< 0.01%	0.02%	< 0.3g/
	very hard, 2% disseminated po throughout. 4 cm						
	light greenish-grey argillite horizon with small						
	biotite porphyroblasts near top, includes discordant						
	"patch" (?) (only exposed along edge of core) with						
	garnet and muscovite prophyroblasts. 3.5 cm						
	greensih siliceous band at 319.93 m with biotite						
	and garnet porphyroblasts. 2 cm lense of relatively						
	coarse grained garnet-biotite rich rock with 25%						
	po at 319.99 m.						
320.26-321.01	Quartz vein containing abundant pyrrhotite-sphalerite-	320.41-320.57		0.06%	8.82%	3.34%	261.4g.
	galena and trace chalcopyrite. In contact with						
	hard siltstone (as above) over upper 15 cm and						
	with medium grey massive sandstone (as in underlying						
	interval) over lower 37 cm; sandstone adjacent						
	to vein has 5-20 mm alteration zone of greenish						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. .... Sheet No. 53 of 77 Lat. .... Total Depth.....  
 Section..... Dep. .... Logged By.....  
 Date Begun..... Bearing ..... Claim .....  
 Date Finished..... Elev. Collar..... Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	siliceous rock and thin po stringers parallel to vein contact. Contact at 20° core angle at top and 07° angle over lower 35 cm. Vein is medium grained crystalline quartz with 40% sulphide minerals as large (to 5 cm) irregularly shaped patches, and minor amounts of chlorite and biotite(?). Sulphides mainly po, along with approximately 30%(?) sphalerite and 8% galena; trace cpy within the po.						
321.01-322.60	Sandstone; fine grained, medium grey. Beds 5-35 cm, massive or graded. Minor light greenish-grey silty argillite with biotite ± garnet porphyroblasts. Rare greenish siliceous patches in upper 40 cm similar to alteration zone along vein contact in overlying interval. Bd/core angle 88°.						
322.60-323.57	Ground core; 0.53 m lost. Mainly fine grained light grey massive sandstone, with very minor greenish-grey silty argillite.						
323.57-325.81	Sandstone; very fine grained, medium grey. Beds 5-15 cm, massive or graded. 40% light greenish-						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. .... Sheet No. 54 of 77 Lat. ....

Section..... Dep.....

Date Begun..... Bearing.....

Date Finished..... Elev. Collar.....

Total Depth.....

Logged By.....

Claim.....

Core Size.....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	grey silty argillite (with biotite porphyroblasts)						
	as massive to vaguely laminated intervals to						
	6 cm. Trace po disseminated in sandstone. Bd/core						
	angle 86°.						
325.81-328.17	Argillaceous siltstone; medium grey. Upper	325.81-326.74		< 0.01%	< 0.01%	0.01%	< 0.03
	70 cm indistinctly banded (5-30 mm) with pinstripe						
	laminations and rare dark grey biotite-rich laminae						
	(≤1 mm). Lower portion is more massive, occasionally						
	garnetiferous, and contains minor 5-20 mm light						
	greenish-grey bands of silty argillite with small						
	biotite porphyroblasts, and very rare 2-4 mm laminae						
	of light grey argillite crowded with small feldspar						
	porphyroblasts. Po occurs as disseminations and						
	thin lenses and laminae, mainly within upper pinstriped						
	interval. Bd/core angle 84°.						
328.17-330.78	Argillaceous siltstone; medium grey. Either banded						
	(3-25 mm beds) or as non-banded intervals to 15						
	cm. Vague pinstripe laminations common. Rare						
	beds, to 1 cm, of lightish grey argillite with						
	small biotite porphyroblasts. 40% light to medium						
	grey, fine to very fine grained sandstone ( in						



# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. .... Sheet No. 55 of 77 Lat. .... Total Depth .....

Section ..... Dep. .... Logged By .....

Date Begun ..... Bearing ..... Claim .....

Date Finished ..... Elev. Collar ..... Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	part argillaceous) in 2-20 cm beds. 1-2% po disseminated						
	through most of siltstone; higher concentrations						
	in a few biotite-rich lenses and laminae. Minor						
	po disseminated in sandstone and in thin biotite-						
	rich selvages at base of some sandstone beds.						
	10% po in 1 cm fine grained biotite-quartz lense						
	(concretion?) within sandstone bed.						
330.78-337.64	Sandstone; fine grained, garnetiferous, medium						
	grey. Beds 25-70 cm; massive with graded tops.						
	Silvery porphyroblastic grains of muscovite (in						
	places intergrown with quartz and/or feldspar?)						
	are conspicuous throughout the sandstone - these						
	are not present in sandstone horizons higher in						
	the section. Sandstone contains garnet-biotite						
	rich concretions to 6 cm. 35% interbedded or						
	interlaminated medium/light grey siltstone/argillite						
	intervals to 60 cm; occasional graded beds and						
	laminae. Po commonly associated with biotite						
	as thin blebs and stringers in siltstone. Minor						
	po disseminated through some sandstone and siltstone						
	beds, and in concretions in sandstone. Thin 50°						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1.....

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. .... Sheet No. 56 of 77 Lat. ....

Section ..... Dep. ....

Date Begun ..... Bearing ..... Claim .....

Date Finished ..... Elev. Collar ..... Core Size .....

Total Depth .....

Logged By .....

Claim .....

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	po stringers over 2 cm near top of interval.						
	Bd/core angle 85°.						
337.64-338.82	Siltstone/argillaceous siltstone; light to dark grey. Minor light greenish-grey argillite with biotite porphyroblasts. Distinct planar 5-20 mm beds over upper 60 cm become thin (mainly 3-5 mm), irregular, and lenticular in bottom part of interval. Grading/flames/load casts/channels are common in lower part of interval. Minor po as thin blebs and disseminations within 1-2 mm biotite-rich laminae within siltstone. Bd/core angle 85-89°.						
338.82-355.20	Sandstone; fine grained, medium to light grey. Garnet and silvery muscovite porphyroblasts common. Beds 30-50 cm; massive with graded tops. Some graded sandstone/vaguely laminated siltstone/argillite sequences may be A-B-E turbidites. 40% medium grey argillaceous siltstone intervals (5-75 cm) containing laminae and thin beds of light greenish-grey argillite with biotite and feldspar porphyroblasts. Siltstone is thinly bedded or						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1.....

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. .... Sheet No. 57 of 77 Lot.....

Total Depth.....

Section..... Dep.....

Logged By.....

Date Begun..... Bearing .....

Claim .....

Date Finished..... Elev. Collar.....

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	laminated; mainly planar but occasionally lenticular and wedge-like with rare channels and cross laminations. Single 2 x 10 mm cream coloured argillite clast within siltstone at 347.47 m.						
	Minor po as patchy disseminations within siltstone and sandstone, thin blebs and lenses in siltstone, and as 1-5 % disseminations within some concretions in sandstone. Bd/core angle 83°.						
355.20-356.01	Fault zone; badly broken and rusted core. Medium grey argillaceous siltstone; slickensided surfaces and thin seams of light grey clay gouge in upper part of interval. Minor po. One slickensided surface at 37° core angle, another, with clay gouge, at 70° core angle.						
356.01-356.60	More coherent, but badly fractured, medium to dark grey argillaceous siltstone. Rusty fractures mainly at 10-30° core angle.						
356.60-357.23	Broken and fractured core; medium grey fine grained massive sandstone. No bedding contacts evident. Fractures at 0-10° core angle with rusty coatings.						
357.23-361.00	Core broken and cut by rusty fractures; medium						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. .... Sheet No. 58 of 77 Lat. ....

Total Depth .....

Section .....

Dep. ....

Logged By .....

Date Begun .....

Bearing .....

Claim .....

Date Finished .....

Elev. Collar .....

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	to dark grey argillaceous siltstone. Pinstripe laminations evident in places; elsewhere contains vague 5-20 mm banding. Garnet porphyroblasts from 359.66-359.89 m. Trace to 1% po found mainly in pinstriped siltstone. Broken zones and rusty fractures at 0-30° angle common throughout interval.						
361.00-361.55	Argillaceous siltstone; medium grey. Minor amounts of light grey silty argillite with small biotite porphyroblasts. Beds 0.5 to 9 cm (mainly 0.5 to 4 cm). Thicker beds may grade to very fine grained sandstone at base, and are even sided and massive or faintly pinstriped. Thin beds display slightly uneven, ragged contacts. 1-5% po disseminated through 15% of siltstone, mainly in relatively darker beds. Bd/core angle 84°.						
361.55-363.43	Sandstone; fine grained, in part argillaceous, garnetiferous, medium grey. Rare garnet-biotite-quartz concretions. Beds 15-40 cm, massive. 15% light to medium grey silty argillite and	362.32-362.36		450 ppm	3 ppm	54 ppm	0.2 pp

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. .... Sheet No. 59 of 77 Lat. .... Total Depth .....  
 Section ..... Dep. .... Logged By .....  
 Date Begun ..... Bearing ..... Claim .....  
 Date Finished ..... Elev. Collar ..... Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	argillite containing biotite and feldspar porphyroblasts. 3 cm biotite-quartz concretion in argillite contains substantial po. Minor po elsewhere as small patches in argillite and rare disseminations in sandstone. Two thin (4 mm) greenish siliceous bands in centre of interval represent silicification adjacent to hairline fractures at 40° core angle. Bd/core angle 84°.						
363.43-364.08	Sandstone; fine to very fine grained, in part argillaceous, medium grey. Graded beds, 1.5 to 10 cm. Rare load casts, scours. 40% thinly bedded to laminated medium grey argillaceous siltstone/ light grey argillite. Some graded beds. Biotite± feldspar porphyroblasts common in argillite. Very minor po as disseminations and blebs. Bd/core angle 86°.						
364.08-366.06	Sandstone; fine grained, garnetiferous, medium grey. Massive beds, 20-30 cm. Minor light to medium greenish-grey silty argillite. Greenish to rusty hairline fractures at variable (mainly low) core angle throughout interval; greenish						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. .... Sheet No. 60 of 77 Lat. .... Total Depth .....  
 Section ..... Dep. .... Logged By .....  
 Date Begun ..... Bearing ..... Claim .....  
 Date Finished ..... Elev. Collar ..... Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	altered zone from 365.70-365.81 m containing numerous rusty hairline fractures. Trace disseminated po in very small proportion of sandstone. Bd/core angle 84°.						
366.06-366.37	Badly fractured and broken core. Mainly sandstone with minor argillaceous siltstone at base. Clay gouge zone (1 cm(?) wide) at 20° core angle at top of interval.						
366.37-367.01	Silty argillite; medium to dark grey. Beds to 2 cm. Two 2.5 cm graded very fine grained sandstone beds, and one 10.5 cm graded argillaceous siltstone bed capped by light grey argillite with feldspar porphyroblasts. Core broken with chloritic fault(?) surfaces at top of interval. Bd/core angle 84°.						
367.01-370.18	Sandstone; fine grained, medium grey. Garnet and muscovite porphyroblasts common; rare biotite-garnet-quartz concretions. Beds 25-60 cm, massive. 30% dark grey to medium greenish-grey silty argillite; biotite porphyroblasts in lighter coloured beds. Dark grey silty argillite is fractured and broken						

# DIAMOND MINE RECORD

PROPERTY \_\_\_\_\_

HOLE No. MM84-1

[illegible]

Hole No. ....	Sheet No. <u>61</u> of <u>77</u>	Lat. ....	Total Depth .....
Section .....		Dep. ....	Logged By .....
Date Begun .....		Bearing .....	Claim .....
Date Finished .....		Elev. Collar .....	Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	from 367.73-367.89 m; soft white (zeolite?) mineral coats some slickensided surfaces. Bd/core angle 85°.						
370.18-371.54	Sandstone; fine to very fine grained, in part argillaceous or garnetiferous, medium grey. Beds 0.5-18 cm, massive or graded. 20% medium grey argillaceous siltstone/light greenish-grey silty argillite (with biotite porphyroblasts). 1-5% po in rare garnet-biotite-quartz concretions, to 2 cm, within sandstone. Minor po elsewhere as disseminated grains or in small very fine grained greenish patches. Bd/core angle 84-88°.						
371.54-375.47	Sandstone; fine grained, garnetiferous, medium grey. Beds 20-40 cm, massive with graded tops and rarely with reverse-graded bases. Rare muscovite(?) -garnet-biotite-quartz concretions. 10% thinly bedded medium grey argillaceous siltstone/light grey silty argillite (with biotite porphyroblasts) intervals to 26 cm. Abundant 0-20° fractures from 373.54-374.80; most are coated with soft white (zeolite?) mineral.	374.80-374.90	4.90	11 ppm	3 ppm	38 ppm	0.1 pp

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. ...MM84-1.....

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. .... Sheet No. 62 of 77 Lat. .... Total Depth.....  
 Section..... Dep..... Logged By.....  
 Date Begun..... Bearing..... Claim.....  
 Date Finished..... Elev. Collar..... Core Size.....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	Rusted out brownish specs ( $\leq 1$ mm) through much of sandstone - probably biotite and/or po. Bd/core angle $87^\circ$ .						
375.47-381.89	Sandstone; very fine grained, in part argillaceous, medium grey. Garnet porphyroblasts and silvery muscovite patches and grains common. Beds 3-35 cm, massive with graded tops. 9 cm garnet-biotite-calcite-quartz concretion near base of interval; contains trace po. 30% thinly bedded to laminated grey and greenish-grey argillite and argillaceous siltstone intervals to 30 cm. Biotite porphyroblasts common in argillite. Sandstone/argillite contacts often distinctly non-planar. $0-20^\circ$ fractures occur in places; some with polished and slickensided surfaces, many coated with soft white (zeolite?) mineral. Small brownish rusted out pits common in much of sandstone - po and/or biotite(?). Bd/core angle $82^\circ$ .						
381.89-383.06	Argillaceous siltstone; medium to dark grey. Vague streaky laminations, 1-3 mm; rare massive beds						



# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. .... Sheet No. 63 of 77 Lat. .... Total Depth .....

Section ..... Dep. .... Logged By .....

Date Begun ..... Bearing ..... Claim .....

Date Finished ..... Elev. Collar ..... Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	to 5 cm. 1-2% disseminated po over 20 cm near base of interval; po (or py?) coats 50° hairline fracture surface within this interval. Bd/core angle 83°.						
383.06-385.71	Sandstone; fine grained, medium grey. Beds 3-30 cm; massive or graded. Garnet porphyroblasts in thicker beds. 5 cm siliceous biotite-garnet concretion in one bed. 50% medium to dark grey argillaceous siltstone as in overlying interval. Trace po disseminated in siltstone and within concretion in sandstone. Py coats rusty 20° fracture plane near top of interval. Bd/core angle 80°.						
385.71-385.90	Fault zone; clay gouge and soft chloritic rock. Abrupt contact with adjacent metasediments: Upper contact at 55° core angle; lower contact at 45° core angle.						
385.90-395.69	Siltstone/argillaceous siltstone; medium to dark grey, po-rich. 1-50 mm beds and laminae; mainly planar but some are lenticular. Some graded beds, rare cross laminated beds. Massive medium grey	386.10-387.10 387.80-387.88 389.66-389.74 390.56-390.66	7.10 .88 9.74 0.66	< 0.01% 19 ppm 30 ppm 19 ppm	< 0.01% 2 ppm 2 ppm 3 ppm	0.01% 47 ppm 56 ppm 46 ppm	< 0.3g/t 0.1 pp 0.1 pp 0.1 pp

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. .... Sheet No. 64 of 77 Lot. .... Total Depth. ....  
 Section. .... Dep. .... Logged By. ....  
 Date Begun. .... Bearing. .... Claim. ....  
 Date Finished. .... Elev. Collar. .... Core Size. ....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	siltstone from 393-395 m, and rarely elsewhere	391.60-391.68		41 ppm	3 ppm	82 ppm	0.1 p
	in interval. 0.5 x 1 cm rounded chip of hard	392.74-393.77		<0.01%	<0.01%	<0.01%	<0.3 g/
	light grey rock (argillite crowded with feldspar	393.90-394.88		<0.01%	<0.01%	0.01%	0.5 g/
	porphyroblasts?) within argillaceous siltstone	394.94-395.70		<0.01%	<0.01%	<0.01%	<0.3 g/
	at 390.94 m. 15% fine to very fine grained						
	sandstone as 2-35 cm massive beds with garnet						
	porphyroblasts. Sandstone contains garnet-biotite-						
	quartz concretions and one green garnet-biotite-						
	hornblende-calcite-quartz concretion. 1-3% po						
	disseminated throughout the massive siltstone;						
	po (and py?) also as 1-3 mm lenses and laminae,						
	and as 1-5% disseminations in beds to 2 cm within						
	the bedded/laminated siltstone. Minor po						
	disseminated in sandstone and in sandstone						
	concretions; rare indistinct biotite-rich						
	patches, to 3 cm, contain 1-5% po. Po coats a						
	few fracture surfaces at moderate to low core						
	angle. Bd/core angle 80°.						
395.69-402.25	Argillaceous siltstone to argillite; medium to	399.14-400.23		<0.01%	<0.01%	0.01%	<0.3 g/t
	dark grey. 1-30 mm beds and laminae; may be distinct						
	or vague, planar or lensey. 35% fine to very fine						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. .... Sheet No. 65 of 77

Section .....

Date Begun .....

Date Finished .....

Lat. ....

Dep. ....

Bearing .....

Elev. Collar .....

Total Depth .....

Logged By .....

Claim .....

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	grained sandstone similar to that in overlying						
	interval; increases in abundance towards base of						
	interval. Po occurs in same styles as in overlying						
	interval, but is much less abundant; decrease has						
	been gradational over several m. Rusty 20° fractures						
	from 396.60-397.40 m. Bd/core angle 78°.						
402.25-404.28	Quartzite; fine to very fine grained, argillaceous,						
	medium grey. Distinct 1-30 cm massive beds, rarely						
	with sparse garnet porphyroblasts. 15% laminated						
	grey argillaceous siltstone/lighter grey silty						
	argillite (with biotite and/or feldspar porphyroblasts)						
	in 1-7 cm intervals. Minor po disseminated through						
	small proportion of quartzite. 0-20° hairline						
	fractures in lower part of interval, some coated						
	with soft white (zeolite?) mineral. Bd/core angle						
	81°.						
404.28-405.52	Argillaceous siltstone/silty argillite; medium/light	404.28-405.52		< 0.01%	<0.01%	0.01%	<0.3 g/
	grey. Indistinct thin beds and laminae. Biotite						
	and/or feldspar porphyroblasts in some silty argillite						
	beds. 30% medium grey fine to very fine grained						
	argillaceous sandstone as 4-8 cm beds. Sandstone						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. .... Sheet No. 66 of 77

Section .....

Date Begun .....

Date Finished .....

Lat. ....

Dep. ....

Bearing .....

Elev. Collar .....

Total Depth .....

Logged By .....

Claim .....

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	beds all contain 20-30% small (1-5 mm) greenish patches comprised of fine grained po intergrown with silicate minerals. Po also as disseminations and concordant lenses and belbs, to 5 mm, within argillaceous siltstone. Very small disseminated brownish grains (po?, biotite?) in a couple 2-3 mm lenses at 405.30 m. Bd/core angle 82°.						
405.52-408.68	Quartzite; fine grained, argillaceous, medium grey. Beds 4-23 cm, contacts often not distinct. Contains garnet porphyroblasts and rare silvery muscovite porphyroblasts. 35% interlaminated or thinly interbedded medium to dark grey argillaceous siltstone/lighter grey silty argillite to argillite. Biotite porphyroblasts common in argillite. Minor disseminated po in some quartzite and siltstone beds. 0-20° fractures common through interval; some coated with soft white (zeolite?) mineral. Bd/core angle 82°.						
408.68-412.58	Quartzite/argillaceous quartzite; fine grained, medium grey. Silvery muscovite grains and patches (intergrown with quartz?) common, along with garnet porphyroblasts. Beds massive, 10-50 cm, but contacts						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. .... Sheet No. 67 of 77 Lat. .... Total Depth .....

Section ..... Dep. .... Logged By .....

Date Begun ..... Bearing ..... Claim .....

Date Finished ..... Elev. Collar ..... Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	generally not distinct. 25% argillaceous siltstone/						
	argillite as in overlying interval. Minor po						
	disseminated in quartzite; seems to get more abundant						
	towards base of interval. A few 10-30° fractures						
	coated with dark green chloritic material and sometimes						
	with po. Bd/core angle 82°.						
412.58-422.73	Argillaceous siltstone; medium to dark grey, po-	412.58-413.59	13.59	< 0.01%	< 0.01%	< 0.01%	< 0.3g/
	rich. Most is massive or vaguely pinstripe laminated.	415.47-415.57	15.57	41 ppm	4 ppm	70 ppm	0.1 pp
	Small proportion is thinly bedded to laminated	417.08-418.19	18.19	< 0.01%	< 0.01%	0.01%	< 0.3g/
	and is intercalated with very minor proportions	418.51-419.51	19.51	< 0.01%	< 0.01%	< 0.01%	< 0.3g/
	of lighter grey silty argillite to argillite with	420.16-420.30	20.30	33 ppm	8 ppm	75 ppm	0.1 pp
	biotite ± feldspar porphyroblasts; includes a few	421.74-422.81	22.81	< 0.01%	< 0.01%	< 0.01%	< 0.3g/
	graded argillaceous siltstone to argillite laminae.						
	15% medium grey, very fine grained quartzite (with						
	garnet porphyroblasts) as indistinct massive or						
	graded(?) beds to 20 cm. Po occurs as discontinuous						
	blebs defining siltstone laminae; as concentrations						
	in 1-5 mm biotite-rich siltstone lenses and laminae,						
	as patches and disseminations in siltstone and						
	sandstone and within garnet-biotite-quartz concretions,						
	to 14 cm, within both sandstone and siltstone beds.						

## DIAMOND DRILL RECORD

PROPERTY \_\_\_\_\_

HOLE No. MM84-1

[illegible]

Hole No. ....	Sheet No. <u>68</u> of <u>77</u>	Lat. ....	Total Depth .....
Section .....		Dep. ....	Logged By .....
Date Begun .....		Bearing .....	Claim .....
Date Finished .....		Elev. Collar .....	Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	Po also occurs as coating on fractures at low to moderate core angle, and as thin stringers and veinlets (with or without biotite) at 0-30° core angle. Zone of fractured rusty rock from 415.60-415.99 m; fractures mainly at 30° core angle.						
	Bd/core angle 77°.						
422.73-428.70	Sandstone; fine grained, medium to light grey.	427.38-427.46		26 ppm	5 ppm	18 ppm	0.1 ppm
	Distinct 10-55 cm beds; massive with sharp bases and graded tops. 20% medium grey argillaceous siltstone/lighter grey silty argillite as thinly bedded to laminated intervals to 35 cm(mainly 2-5 cm). 0-10° stringers, veinlets and fracture fillings of white to greenish-white material from 424.44 to 425.04 m. The whitish material is in part calcite but may also include white zeolite(?) mineral, and includes some biotite, chlorite and po. Sandstone in this interval is light pinkish-grey and is slightly calcerous in places. From 426.65-427.80 is 10° quartz-calcite vein (4 cm+ thick) containing biotite, garnet, chlorite(?) and minor disseminated po; garnet and/or biotite						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. .... Sheet No. 69 of 77

Section .....

Date Begun .....

Date Finished .....

Lat. ....

Dep. ....

Bearing .....

Elev. Collar .....

Total Depth .....

Logged By .....

Claim .....

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	selvage along much of vein contact. Hairline						
	fractures at low core angle at a few places within						
	interval; most are coated with fibrous white						
	(zeolite?) mineral. Bd/core angle 79°.						
428.70-436.61	Siltstone to silty argillite; medium to light grey.	431.01-431.11	1.11	31 ppm	6 ppm	51 ppm	0.1 pp
	45% massive to vaguely laminated beds of medium	434.30-434.36	4.36	50 ppm	15 ppm	57 ppm	0.1 pp
	grey siltstone and argillaceous siltstone to 15						
	cm. Remainder of siltstone is interlaminated or						
	thinly interbedded with silty argillite to argillite.						
	Beds mainly planar and regular (including some						
	thin graded beds and laminae) but in places are						
	lensey and/or contorted, including load casts and						
	flames. 15% fine to very fine grained sandstone						
	as 1-20 cm massive beds; load casts and flames						
	at bases of thicker beds. Garnet porphyroblasts						
	and garnet-biotite-quartz concretions within some						
	beds. Substantial po throughout interval, mainly						
	as disseminations within massive to vaguely laminated						
	siltstone. Po also concentrated in 1-4 mm lenses						
	and laminae in well bedded and laminated siltstone/						
	argillite and as minor disseminations within garnet-						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. .... Sheet No. 70 of 77 Lat. ....

Section. .... Dep. ....

Date Begun. .... Bearing. ....

Date Finished. .... Elev. Collar. ....

Total Depth. ....

Logged By. ....

Claim. ....

Core Size. ....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	biotite-quartz concretions in sandstone. Bd/core angle 81°.						
436.61-438.58	Sandstone; fine grained, medium grey. Distinct massive beds, 2-37 cm (but mainly 2-6 cm) with sharp bases and sharp, or rarely graded, tops. Flames, rip-ups, channels at some sandstone bases. 30% thinly bedded or laminated argillaceous siltstone/silty argillite intervals to 7 cm. Minor po disseminated through all lithologies within interval. 1-3 mm quartz-biotite-po vein at 05° core angle over lower 50 cm of interval. Bd/core angle 80°.						
438.58-440.69	Sandstone; fine to very fine grained, in part argillaceous, medium (to dark) grey. Beds 2-20 cm; massive or graded. Garnet porphyroblasts in some thicker beds. 40% medium to dark grey argillaceous siltstone and (minor) lightish grey argillite in 1-30 cm intervals; siltstone/argillite generally in streaky lensey bands, 1-15 mm. 1-2% po disseminated through most sandstone and siltstone. Po heavily disseminated through small proportion of siltstone in upper part of interval. Bd/core angle 81°.	438.61-439.61		< 0.01%	< 0.01%	0.01%	< 0.3 g/



# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. .... Sheet No. 71 of 77 Lat. .... Total Depth .....  
 Section ..... Dep. .... Logged By .....  
 Date Begun ..... Bearing ..... Claim .....  
 Date Finished ..... Elev. Collar ..... Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
440.69-442.59	Sandstone; fine to very fine grained, argillaceous, garnetiferous, medium grey. Silvery muscovite porphyroblasts and muscovite-rich patches conspicuous in places. Beds mainly 20-25 cm; massive. 5% medium greenish-grey silty argillite horizons to 3 cm. Minor po disseminated through some of the sandstone. 30° hairline fractures and thin calcite-quartz(?) -chlorite-po veins near top of interval. Bd/core angle 80°.						
442.59-443.62	Argillaceous siltstone; medium to dark grey. Thin lenticular beds and laminae intercalated with minor silty argillite. 10% fine to very fine grained sandstone in 1-9 cm massive or graded beds. Minor po disseminated in siltstone and sandstone. Po also as 1-3 mm concentrations in siltstone laminae and rarely at bases of sandstone beds. Bd/core angle 81°.	442.59-443.61		<0.01%	<0.01%	<0.01%	<0.3 g
443.62-445.46	Sandstone; fine grained, in part argillaceous, medium grey. Garnet porphyroblasts and 1-2 mm silvery muscovite-rich patches common. Beds to 30 cm; massive. Very few thin lenses of argillite.						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. .... Sheet No. 72 of 77

Lat. ....

Total Depth .....

Section .....

Dep. ....

Logged By .....

Date Begun .....

Bearing .....

Claim .....

Date Finished .....

Elev. Collar .....

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
445.46- 450.25	Argillaceous siltstone; medium grey. 1-10 mm streaky laminations with minor intercalated argillite.	449.21-450.19		< 0.01%	< 0.01%	< 0.01%	< 0.3g/
	40% fine to very fine grained sandstone and argillaceous sandstone in 1-20 cm massive beds. Garnet porphyroblasts and rare garnet-biotite-quartz concretions, to 8 cm, within thicker sandstone beds. 1% po disseminated through much of siltstone and rarely in sandstone. Rare 5-30% concentrations of po in 1-30 mm siltstone horizons. Bd/core angle 83°.						
450.25-452.89	Sandstone; fine grained, medium grey. Beds 5-40 cm; massive. Garnet porphyroblasts common in thicker beds; silvery muscovite grains conspicuous in places. 30% thinly bedded to laminated medium grey argillaceous siltstone/greenish-grey silty argillite (with biotite porphyroblasts). Po as minor disseminations and blebs, mainly in siltstone. Bd/core angle 81°.						
452.89-456.43	Argillaceous siltstone; medium grey. Mainly as thinly streaky banded intervals, but also as massive beds, to 20 cm, with only rare po-rich laminae, and as po-rich pinstripe laminated intervals.	454.75-455.80		< 0.01%	< 0.01%	0.01%	< 0.3g/

## DIAMOND DRILL RECORD

# PROPERTY

HOLE No. MM84-1

[illegible]

Hole No. \_\_\_\_\_ Sheet No. 73 of 77 Lot. \_\_\_\_\_

Total Depth.....

Section \_\_\_\_\_ Dep. \_\_\_\_\_

Logged By.....

Date Begun..... Bearing.....

**Claim** \_\_\_\_\_

Date Finished..... Elev. Collar.....

### Core Size

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	30% very fine grained sandstone in massive 1-8 cm beds. Po becomes abundant in lower half of interval as thin lenses, laminae, blebs and disseminations within siltstone, and also rarely as coatings on fracture surfaces at low core angle.						
	2 mm bedding-parallel quartz-po vein at 454.81 m. Bd/core angle 85°.						
456.43-458.74	Siltstone/argillaceous siltstone; medium grey, po-rich. Massive appearance, with vague streaky laminations and thin beds apparent in places.	456.43-457.55		< 0.01%	< 0.01%	0.01%	0.5 g
	2 cm interval of distinct 4-6 mm graded laminae (light coloured bases to darker tops) near centre of interval. 15% very fine grained medium grey sandstone in beds to 7 cm; contains 1-2 mm silvery muscovite patches. Po as 1-5% disseminated grains throughout entire interval, and rarely as higher concentrations over intervals of several cm. Py (and/or po) along 0-10° hairline fractures at 458.37 m; below this is broken and fractured core with chloritic fault surfaces at 60-70° core angle. Bd/core angle 87°.	457.97-458.07		52 ppm	47 ppm	60 ppm	0.5 p

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. .... Sheet No. 74 of 77 Lot. ....

Total Depth .....

Section .....

Dep. ....

Logged By .....

Date Begun .....

Bearing .....

Claim .....

Date Finished .....

Elev. Collar .....

Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
458.74-460.20	Quartzite; fine grained, light-medium grey, rarely with faint greenish tinge. Massive, with darker biotite-rich lenses and patches scattered irregularly throughout. Bedding not distinct. Garnet porphyroblasts and silvery muscovite-rich patches (1-2 mm) present in places. Rare thin argillite lenses. 1% po disseminated through most of the quartzite. 2-5% po, mainly concentrated in relatively dark biotite-rich patches, in upper 30 cm and rarely elsewhere in interval. 10-30° hairline fractures common, some with calcite coating. 60-70° chloritic fractures in upper part of interval.	459.04-460.07	60.07	< 0.01%	< 0.01%	< 0.01%	< 0.3 g
460.20-463.00	Siltstone; medium grey, po-rich. Massive appearance; vague thin banding apparent in places, becomes more conspicuous over lower 70 cm. Minor light greenish argillite intercalated with siltstone from 462.12 to 462.27 m. 3-7% po through most of interval; mainly as evenly distributed grains and blebs averaging about 0.5 mm size, some of which are somewhat oriented to define indistinct and discontinuous lamination. In lower 70 cm most	460.25-461.26 461.26-462.24 462.30-463.03	61.26 62.24 63.03	< 0.01% < 0.01% < 0.01%	< 0.01% < 0.01% < 0.01%	< 0.01% < 0.01% < 0.01%	< 0.3 g 0.5 g < 0.3 g

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. .... Sheet No. 75 of 77 Lat. .... Total Depth .....  
 Section ..... Dep. .... Logged By .....  
 Date Begun ..... Bearing ..... Claim .....  
 Date Finished ..... Elev. Collar ..... Core Size .....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	po is concentrated in 1-6 mm lenses and layers.						
	35 cm long fracture surface at 0-5° core angle						
	near base of interval is partially coated with						
	chlorite and framboidal pyrite. Bd/core						
	angle 83°.						
463.00-464.76	Argillite/argillaceous siltstone; light/medium	463.42-464.42	< 0.01%	< 0.01%	< 0.01%	< 0.3g	
	grey. Mainly as distinct but lenticular 2-20 mm						
	laminae and beds. Biotite porphyroblasts common						
	within argillite. 35% sandstone in massive beds						
	to 40 cm (mainly 2-8 cm); garnet porphyroblasts						
	in thicker beds. Substantial po; mainly as patchy						
	disseminations in sandstone and siltstone, as						
	concentrations to 25% in laminae and lenses, to						
	1 cm, in siltstone, and as discordant blebs and						
	stringers in all rock types. Bd/core angle 83°.						
464.76-468.21	Sandstone; medium grey, in part argillaceous, fine	467.30-467.38	18 ppm	7 ppm	48 ppm	0.1 pp	
	to very fine grained. Beds 8-35 cm; massive, some						
	with graded tops. Garnet porphyroblasts and silvery						
	muscovite grains and/or muscovite-rich patches						
	common in thicker beds. 20% light grey argillite/						
	medium grey argillaceous siltstone intervals to						

# DIAMOND DRILL RECORD

PROPERTY .....

HOLE No. MM84-1 .....

DIP TEST		
	Angle	
Footage	Reading	Corrected

Hole No. .... Sheet No. 76 of 77 Lat. .... Total Depth.....  
 Section..... Dep..... Logged By.....  
 Date Begun..... Bearing..... Claim.....  
 Date Finished..... Elev. Collar..... Core Size.....

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	Cu	Pb	Zn	Ag
	25 cm (mainly 1-2 cm). Biotite porphyroblasts in argillite. Rare argillite lenses (rip-up clasts?) within massive sandstone beds. Minor po disseminated in sandstone and in very thin biotite-rich laminae and lenses in siltstone. Bd/core angle 86°.						
468.21-469.59	Siltstone/argillaceous siltstone; medium grey. 1-15 mm streaky lenticular banding; includes minor light grey argillite laminae with biotite porphyroblasts. 10% sandstone; mainly as very thin beds and lenses, but including 10 cm bed near top of interval containing 4 cm garnet-biotite-quartz concretion. Very minor po disseminated in some siltstone laminae. Bd/core angle 85°.	468.40-468.50		30 ppm	8 ppm	60 ppm	0.1 pp
469.59-473.05	Quartzite; fine grained, medium grey. Massive beds, 19-46 cm, with garnet porphyroblasts and silvery muscovite grains and muscovite-rich patches. 16 cm siliceous concretion containing black biotite and hornblende patches in one bed. 50% inter-laminated light grey argillite/medium grey siltstone to argillaceous siltstone. Laminations generally lenticular, rare cross laminae. Biotite						

# DIAMOND FILL RECORD

PROPERTY \_\_\_\_\_

HOLE No. MM84-1

[illegible]

Hole No. \_\_\_\_\_ Sheet No. 77 of 77 Lot \_\_\_\_\_

Total Depth.....

Section \_\_\_\_\_ Dep. \_\_\_\_\_

Logged By \_\_\_\_\_

Date Begun..... Bearing.....

## Claim

Date Finished..... Elev. Collar.....

**Core Size** 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440 450 460 470 480 490 500 510 520 530 540 550 560 570 580 590 600 610 620 630 640 650 660 670 680 690 700 710 720 730 740 750 760 770 780 790 800 810 820 830 840 850 860 870 880 890 900 910 920 930 940 950 960 970 980 990

[illegible]