

83-#695-12251

ASSESSMENT REPORT ^{10/84}_{OFF}
STEWART 2,3,4,9,11,12
RUBY & FREE SILVER
ROYAL, MAGGIE, JOCK 1 & JOCK 2
STEWART 1,8,10 AND HOULTON
STEWART 5,6,7 AND 13

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

12,251

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STEWART 2,3,4,9,11,12

RUBY & FREE SILVER, ROYAL, MAGGIE, JOCK 1 & JOCK 2

STEWART 1,8,10 AND HOULTON

STEWART 5,6,7 AND 13

NTS: 82-F-6

NTS: 82-F-3

LAT: 49°17'N, LONG: 117°17'W

NELSON MINING DIVISION

Owners: Eric W. Denny
Annable Road, RR#1
Nelson, BC
V1L 5P4

Jack N. Denny
Taghum Hill, Granite Road
RR#2
Nelson, BC
V1L 5P5

Operator: Harp Explorco Ltd.
C/- Selco Inc.
402-535 Thurlow Street
Vancouver, BC V6E 3L2
(FMC: 237630)

Thomas H. Carpenter
Geologist
Selco Inc.
September, 1983

TABLE OF CONTENTS

	Page
INTRODUCTION	1
Location	1
Access	1
Physiography	1
History and Economic Development	2
Stewart Property Ownership	4
Schedule of Land	5
Summary of Work	6
SURVEY OBJECTIVES AND TECHNIQUES	6
Diamond Drill Program	6
Core Splitting and Chip Sampling	7
Mapping and Chip Sampling - West Grid	9
Ground Geophysical Survey	10
SURVEY RESULTS AND INTERPRETATION	10
Diamond Drill Program	10
Core Splitting and Chip Sampling	11
Mapping and Chip Sampling - West Grid	11
Ground Geophysical Survey	12
ITEMIZED COST STATEMENT	13
STATEMENT OF QUALIFICATIONS	18

LIST OF FIGURES

Property Location Map	following page 1
Claim Location Map	following page 5
Stewart Project - Airborne Anomaly Location Map	following page 10

LIST OF MAPS

Drill Hole Location Map	in pocket
Drill Section 0+00 - Looking East	"
Drill Section 1+50S - Looking South	"
Drill Section 4+19E - Looking East	"

APPENDICES

I	Diamond Drill Hole Logs
II	X-Ray Assay Labs - Multi-element and Assay Results ST 83-1 to ST 83-4
III	Geology of the West Grid Area - Stewart Moly Project E. Hickling
IV	Geochemical Analytical Techniques
V	X-Ray Assay Labs - Multi-element Results - West Grid Sampling Program
VI	Stewart Project - Ground Geophysics 1983 by Alan Wynne. Report and Geophysical Cross Sections and Instrument Descriptions

INTRODUCTIONLocation

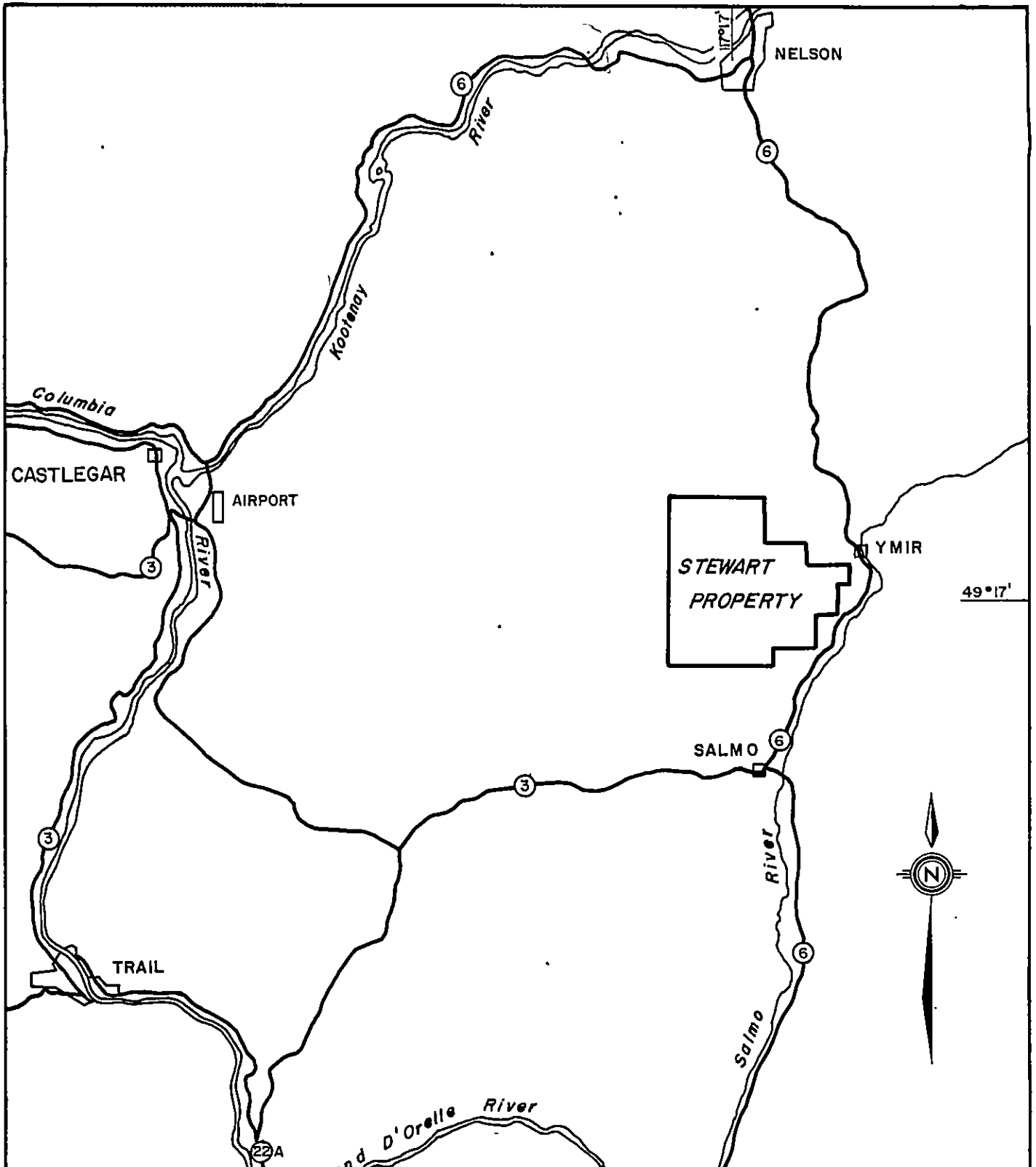
The Stewart claims are centred at approximate latitude $49^{\circ}17'N$ and longitude $117^{\circ}17'W$. This location is about 28 km south of the town of Nelson, B.C. and about 4 km west of the town of Ymir, B.C. within the Nelson Mining Division. The claim group lies within the drainage basins of Stewart, Quartz, Boulder Mill and Erie Creeks.

Access

Access from Castlegar is via Highway 3 through Salmo and from Nelson via Highway 6 to Ymir. Property access is by a series of logging and forest access roads of four wheel drive standard. The Stewart Creek access is via four wheel drive in all weather while two wheel drive is adequate in dry weather. The Quartz Creek access is very steep and rugged and is passable only by four wheel drive. Access via Boulder Mill and Erie Creek is seasonal and by four wheel drive only.

Physiography

The claims are located in an area of glaciated, moderately rugged terrain with elevations between 750 metres and 1950 metres. The ground supports a variety of vegetation in the lower sections and the summit areas are relatively devoid of trees and support only scrub brush and mosses. Areas which were logged or burned in past



CANADA
U. S. A.

SELCO INC. EXPLORATION
WESTERN CANADA

PROPERTY LOCATION MAP

Scale 1:250,000
0 5 10 15 km

DRAWN BY B G	DATE JUNE, 1983.	N.T.S.	PLAN
TRACED BY J. S.	DATE JUNE, 1983.	82 F	FIG.

years are now host to dense thickets of willow and alders. Overburden is variable in thickness with considerable outcrop along the ridge lines and thick alluvium in the valley bottoms. Soil development is generally poor and is composed predominantly of weathered fines and scree from the slopes and underlying bedrock. Snowfall in the area is moderate to heavy on the higher slopes with ground bare and accessible from about May to November on the average.

History and Economic Assessment

Selco Inc. optioned the Stewart property in 1982 from Eric and Jack Denny of Nelson, B.C., as a result of regional geological evaluation. It is presumed that the property has potential as a porphyry molybdenum system and the exploration efforts of Selco will primarily be to assess the economic viability of the molybdenum mineralization in the area. In addition, in view of historic records indicating the presence of base and precious metals within property boundaries, an appraisal of the economic potential of the Elise Volcanics and Hall Sediments will be carried out in conjunction with the main exploration efforts on the intrusive complex hosting the molybdenum mineralization.

The Ymir area has seen considerable exploration and prospecting for gold and base metals in the late 1800's and early 1900's. At that time there was considerable activity and many pits,

trenches, adits and shafts were located on the present Stewart property and in the surrounding countryside. Many of the old properties were significant producers of gold ores and some production of base metals has been documented.

The present Stewart property is the site of the Free Silver and May Blossom properties, located for their base and precious metal potential in 1896. These properties saw intermittent activity up until about the 1930's.

The Arrow Tungsten showings were evaluated on Stewart Creek (Stewart #2), during the period of 1942 to 1952. Copper Horn Mining worked the area of Stewart #4 from 1966 to 1969 as part of their Fresno Group.

Quintana Minerals Corporation held a large property called the Salmo Group in 1969 and 1970 which included what is now the main molybdenum showing of the Stewart Property. Quintana carried out extensive surface exploration for base and precious metals.

During the late 1970's, Eric and Jack Denny of Nelson, carried out prospecting surveys of the area and acquired mineral rights to what is now the Stewart Property. In 1979 they optioned the property to Shell Canada Resources Ltd. and Shell carried out a detailed evaluation of the property including geophysical and geochemical surveys, geological mapping and diamond drilling.

The results of their work indicated that the property was host to ore grade concentrations of molybdenum mineralization and that there may be potential to develop sufficient tonnage of ore material to warrant exploitation of the deposit. Due to economic factors, Shell dropped out of the mineral exploration scene in 1982 and the property has subsequently been evaluated and optioned by Selco Inc.

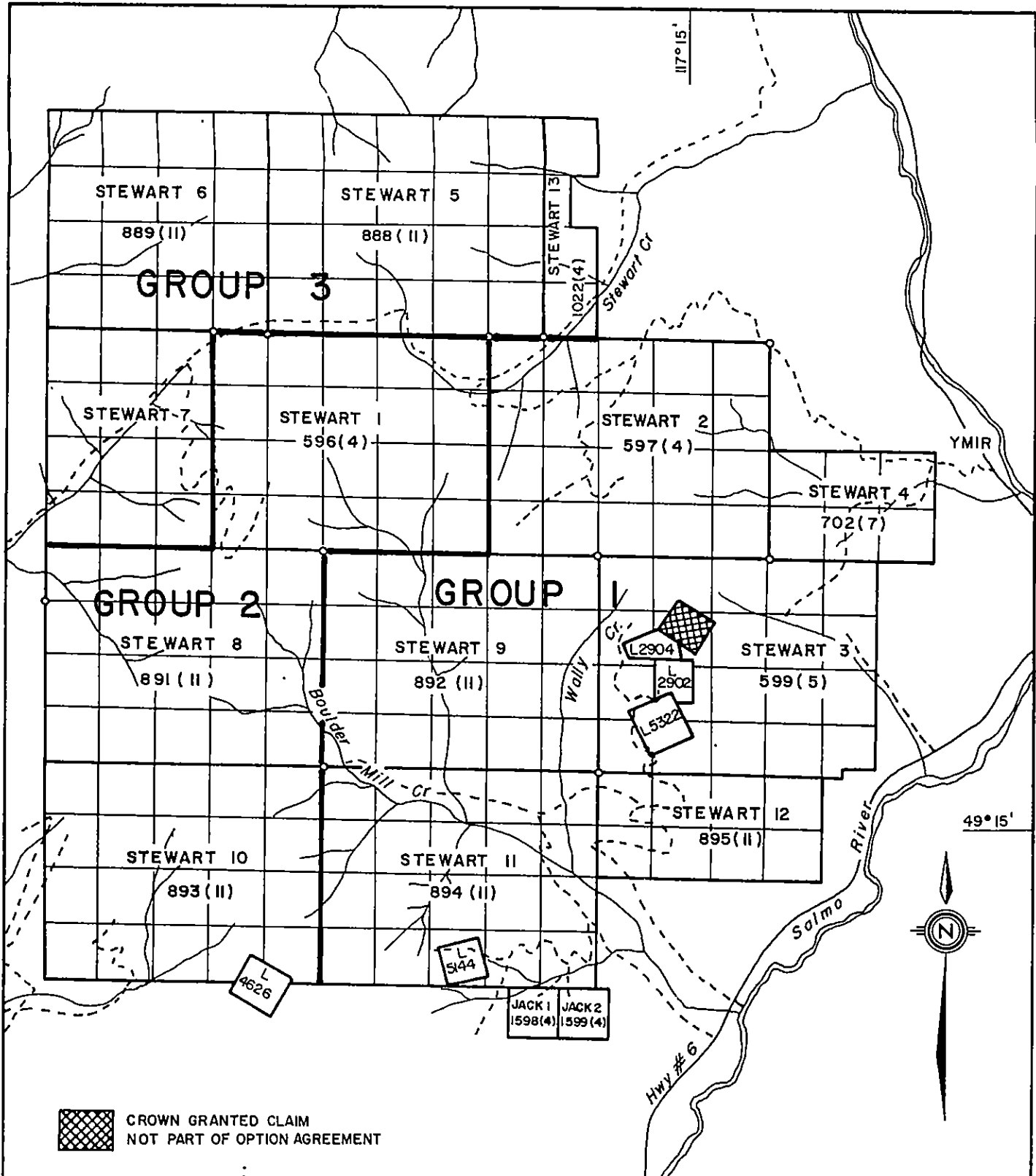
Stewart Property Ownership


The Stewart Property is owned by Mr. E. Denny and Mr. J. Denny of Nelson, B.C. who have optioned the property to Harp Explorco Ltd., a wholly owned company of Selco Inc. The property consists of a total of 212 claims and claim units as outlined in the schedule of lands.

Schedule of Lands

<u>Group 1</u>	<u>Recording Date</u>	<u>No. of Units</u>	<u>Record No.</u>	<u>Present Expiry Year</u>
Stewart 2	April 28, 1978	20	597	1988*
Stewart 3	May 8 , 1978	20	599	1987
Stewart 4	July 14 , 1978	6	702	1988
Stewart 9	Nov. 28 , 1978	20	892	1985
Stewart 11	Nov. 28 , 1978	20	894	1984
Stewart 12	Nov. 28 , 1978	8	895	1987
Ruby & Free Silver	April 18, 1978	1	593	1992
Royal	April 18, 1978	1	594	1992
Maggie (LS144)	Nov. 28 , 1978	1	898	1984*
Jock 1	April 11, 1978	1	1598	1986
Jock 2	April 11, 1978	1	1599	1986
 <u>Group 2</u>				
Stewart 1	April 28, 1978	20	596	1988*
Stewart 8	Nov. 28 , 1978	20	891	1984
Stewart 10	Nov. 28 , 1978	20	893	1984
Houlton (L4626)	Nov. 28 , 1978	1	896	1984
 <u>Group 3</u>				
Stewart 5	Nov. 28 , 1978	20	888	1988*
Stewart 6	Nov. 28 , 1978	16	889	1988*
Stewart 7	Nov. 28 , 1978	12	890	1985
Stewart 13	April 24, 1978	4	1022	1986

* Based on acceptance of physical work submitted in
September 1983.



 CROWN GRANTED CLAIM
NOT PART OF OPTION AGREEMENT

SELCO INC. EXPLORATION
WESTERN CANADA

CLAIM LOCATION MAP

Scale | 50,000
0 2 km

DRAWN BY B G	DATE JUNE, 1983	NT S 82F	PLAN FIG.
TRACED BY J S.	DATE JUNE, 1983.		

Summary of Work

Between late May and mid September 1983, Harp Explorco Ltd. carried out the following work on the Stewart property at Ymir, B.C.:

- a) 1677.3 metres (5503 ft.) of NQ diamond drilling in four holes;
- b) Rock chip sampling at 5 metre intervals and/or core splitting at selected 1 metre intervals in all holes;
- c) Mapping and rock chip sampling of the West Grid area, covering 1.2 square kilometres. A total of 123 rock chip samples were collected for geochemical purposes over the grid;
- d) A ground geophysical survey utilizing EM and magnetometer units to pinpoint and evaluate EM conductors discovered during the course of a 1982 airborne program.

Results of the above work are hereby submitted for assessment credit.

SURVEY OBJECTIVES AND TECHNIQUESa) Diamond Drill Program

A series of four drill holes with a combined total of 1677.3 metres were drilled in the main Quartz Monzonite

Porphyry intrusion. (Hole locations are shown on map in pocket.) The purpose of the drilling was:

- 1) to confirm the presence of alteration zones defined by a 1982 rock chip sampling program;
- 2) to compare these alteration zones to others related to known molybdenum deposits;
- 3) to test known surface mineralization at depth;
- 4) to test geophysical and geochemical anomalies detected by 1982 geophysical and geochemical programs.

b) Core Splitting and Chip Sampling

The drill core was logged and sampled on site. Sampling consisted of collecting rock chips at 10-15 cm intervals over 5 m sections down the hole. Visible molybdenum mineralization was split at 1 metre intervals.

Rock chip sampling of the core was designed as an aid in identifying, by geochemical methods, alteration patterns in the hole. This, combined with a similar surface identification of alteration patterns will hopefully allow the construction of a three dimensional alteration model.

In hole ST 83-2, however, (holes were labelled ST 83-1 to ST 83-4) almost the entire hole was sampled at 1 m intervals

with very few rock chips collected.

All rock chips were submitted to X-Ray Assay Labs of Toronto for multi-element analysis by Neutron Activation techniques. Split core was assayed for molybdenum, tungsten and tin. This analysis provided the abundances of some 29 individual elements. In the case of ST83-2, split core was also submitted for multi-element analysis.

Due to the large number of samples collected and budget restraints, not all samples were shipped for analysis.

From ST 83-1, every second chip sample was submitted for multi-element analysis. All split core was shipped for assay.

In ST 83-2, every second split core sample was submitted for both multi-element analysis and assay.

From ST 83-3 and ST 83-4, every third chip sample was sent for multi-element analysis. All mineralized samples from these holes were assayed.

In total, 835 chip and split core samples were collected, of which 434 were sent for multi-element analysis and/or assay.

The drill core is presently being stored at a Selco storage facility in Castlegar.

c) Mapping and Chip Sampling - West Grid

A mapping and sampling program was carried out over the "West Grid" of the project area. The purpose of this program was threefold:

- 1) to evaluate data compiled by previous operators;
- 2) to evaluate the economic potential of the intrusive located in the area of the West Grid;
- 3) to provide detailed geochemical information as a basis for future surveys.

A detailed report of the geology of the West Grid area is contained in Appendix III. A copy of the mapped geology of the West Grid is contained in the pocket at the back of this report.

A total of 123 rock chip samples were collected at 50 metre intervals along 100 metre spaced grid lines, wherever there was outcrop. Each sample was collected over a 10 metre radius of the sample site with every effort made to collect unleached rock material.

Quartz or other veins were avoided in order to eliminate a bias in the whole rock data.

Each sample was submitted to X-Ray Assay Labs of Toronto

for analysis of some 30 elements including Rb, Sr, Zr and F.

d) Ground Geophysical Survey

Between July 25th and August 8th inclusive, a ground geophysical survey, utilizing a Scintrex Genie Portable Electromagnetic System and an EDA Proton Precession Magnetometer was conducted over portions of the Stewart Project area.

The purpose of the survey was to locate and evaluate fourteen conductors picked from a helicopter based Input electromagnetic survey flown in 1982.

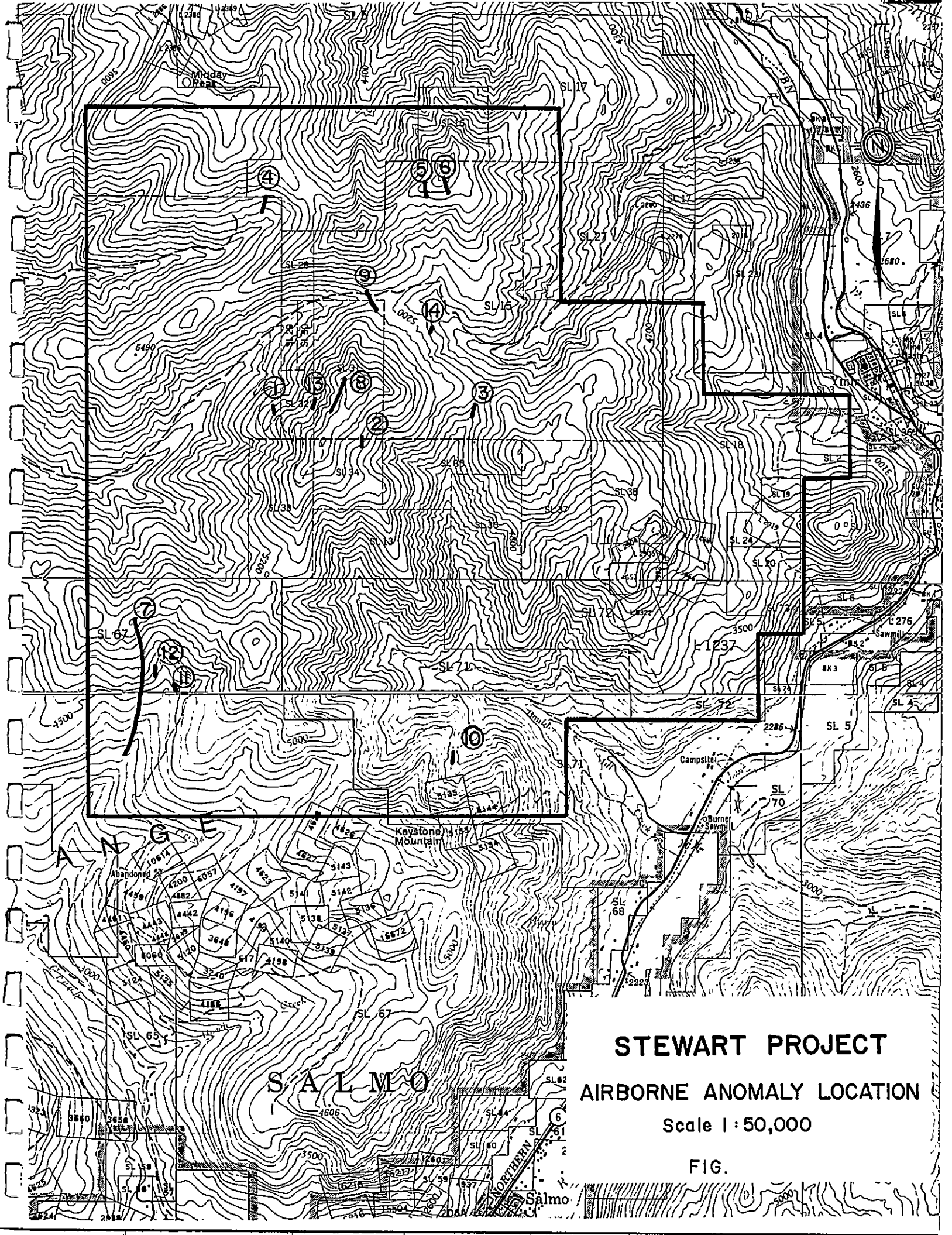
The approximate locations of these conductors are shown on the following page.

SURVEY RESULTS AND INTERPRETATION

a) Diamond Drill Program

Hole ST 83-1 confirmed the presence of a quartz stockwork zone with associated K feldspar alteration bordering the "northern lobe" of the Quartz Monzonite Porphyry. The stockwork zone and potassic alteration appears to be bounded to the south by a propylitic zone containing epidote, chlorite, carbonate and minor sericite.

Hole 83-2 contained extensive pyrite, pyrrhotite and molybdenum contained in quartz veins, as disseminations within



STEWART PROJECT
AIRBORNE ANOMALY LOCATION
Scale 1 : 50,000

FIG.

the Quartz Monzonite and as fracture fillings within aplite dikes. Propylitic alteration similar to that in ST 83-1 was also noted in ST 83-2.

Holes ST 83-3 and ST 83-4 contain fracture and quartz vein controlled dark olive green (potassic) alteration. This alteration is quite distinct from that seen in the previous two holes. Pyrite, pyrrhotite and molybdenum occurred as disseminations and in quartz veinlets within these holes but in lesser quantities than evident in ST 83-2.

b) Core Splitting and Chip Sampling

To date, no interpretations have been made on the analyses received for the 434 samples shipped for analysis and assay.

These results are included in Appendix II.

c) Mapping

Mapping of the West Grid intrusive confirmed the presence of a quartz stockwork zone with associated molybdenum mineralization. Apart from the quartz stockwork zone, however, no alteration was evident similar to that seen in the main intrusive area.

d) Ground Geophysical Survey

The ground geophysical survey succeeded in locating and delineating the fourteen conductors picked from the airborne survey.

The results of this survey are dealt with in a report by Alan Wynne. This report, together with accompanying geophysical sections, is attached as Appendix VI.

ITEMIZED COST STATEMENTDiamond Drill Program Costs

J.T. Thomas Ltd., Smithers, B.C.

Diamond Drilling	5503 ft at \$17.09/ft	=	\$ 94,048.00
Man & machine hours	268 x \$20/hr	=	5,360.00
Acid tests	8 x \$40 each	=	320.00
Materials used, lost or damaged			26,950.85
Mobilization / demobilization			6,000.00
Transportation			1,501.35
Pump and waterline rental			540.00
			<hr/>
			\$134,720.20
Core logging & sampling -			
1 geologist	55 days @ \$150/day		8,250.00
1 field assistant	60 days @ \$100/day		6,000.00
			<hr/>
			\$ 14,250.00
Accommodation - 115 days @ \$30/day			
			3,450.00
Food - 115 days @ \$12/day			
			1,380.00
Truck & fuel costs -			
Ford F100 4 x 4 pickup	60 days @ \$60/day		3,600.00

Itemized Cost Statement cont.Analysis Costs

X-Ray Assay Labs, Toronto, Ont.

434 samples - sample preparation @ \$2.75 each	\$ 1,193.50
358 multi element analyses @ \$15.00 each	5,370.00
344 assays @ \$15.00 each	5,160.00
Sample shipping - B.C. to Toronto	700.00
Sample bags, shipping cannisters etc.	450.00
	<hr/>
	\$12,873.50

Miscellaneous Costs (Office and Administration) -

Project planning, supervision and evaluation:	
Senior geologist - 7 weeks - salary & benefits	
@ \$4000/month	\$ 7,000.00
Drafting and typing services -	
15 days @ \$125/day	1,875.00
Map reproduction, reproduction of text and figures, binding etc.	1,600.00
Office supplies, postage, telephone	500.00
	<hr/>
	\$10,975.00

Survey Costs

Deviation tool - rental 2 mos. @ \$2,500/mo.	\$ 5,000.00
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Distribution of CostsDiamond Drill Program

Direct costs	\$134,720.20
Logging, sampling, survey costs, food & accommodation, truck costs etc.	27,680.00
Analysis costs	12,873.50
Office and administration	10,975.00
	<hr/>
Total Expenditure	<u><u>\$186,248.70</u></u>

Itemized Cost StatementGeological Mapping and Chip Sampling Program

Mapping & sampling -

1 geologist	-	3 days @ \$200/day	\$ 600.00
1 geologist	-	32 days @ 150/day	4,800.00
1 field assistant	-	32 days @ 100/day	3,200.00

Analysis costs -

123 samples - sample preparation @ \$2.75 each		338.25
123 multi element analyses @ \$15.00 each		1,845.00
Sample shipping - B.C. to Toronto		175.00
Sample bags, shipping cannisters etc.		100.00

Accommodation - 70 days @ \$30/day		2,100.00
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Food - 70 days @ \$12/day		840.00
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Truck & fuel costs - Ford F100 4x4 pickup		
32 days @ \$60/day		1,920.00

Miscellaneous costs (office & administration)

Project planning, supervision and evaluation -

Senior geologist - 2 weeks @ \$4000/month		2,000.00
Geologist - 5 days @ \$150/day		750.00
Drafting and typing services - 5 days @ \$125/day		625.00
Map reproduction, text & figure reproduction		150.00
Office supplies, postage, telephone		100.00

Distribution of Costs

Direct costs	\$ 8,600.00
Analysis costs	2,408.25
Food & accommodation, truck costs etc.	4,860.00
Office and administration	3,625.00

Total Expenditure	<u>\$19,493.25</u>
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Itemized Cost StatementGround Geophysical Program

Personnel Costs

3 geophysical technicians @ \$150/day/person x 15 days	\$ 6,750.00
Accommodation - 15 days @ \$63.60/day	954.00
Food - 3 people @ \$25/day/person x 15 days	1,125.00
Truck Rental and Fuel Costs - GMC Scottsdale 4 x 4 15 days @ \$60/day	900.00
Equipment Rental -	
1 Genie Electromagnetic Unit @ \$100/day x 15 days	1,500.00
1 EDA Magnetometer @ \$50/day x 15 days	750.00
	<hr/>
	\$11,979.00

Miscellaneous Costs (Office and Administration)

Project planning, supervision and evaluation	
Geophysicist - 5 days @ \$200/day	\$1,200.00
Drafting & typing services - 3 days @ \$125/day	375.00
Map and figure reproduction	75.00
Office supplies, postage, telephone	150.00
	<hr/>
	\$1,800.00

Distribution of Costs

Direct Costs	\$11,979.00
Office and Administration	1,800.00
	<hr/>
Total Expenditure	\$13,779.00

STEWART PROJECT

ASSESSMENT FILING - 1983

Diamond Drill Program - includes Drilling, Sampling and Analysis Costs
 Mapping & Sampling Program - West Grid Area \$19,413.25 Distribution
 Ground Geophysical Survey \$13,779.00 Distribution

Group 1 \$186,248.70
 Group 2 16,501.26
 Group 3 2,911.99
 Group 1 964.53
 Group 2 9,231.93
 Group 3 3,582.54

Claim Name	Record Date	Record No.	Units	Req'd Assessment Per Unit Per Year	Values- Yr. of Assessment	Current Expiry Year	Values to be Applied			No. of Years to be Applied	New Expiry Year	Fees
							Drilling	Mapping# Geochem	Ground Geophysics			
Stewart 2	Apr 28/78	597	20	200	4000	1988	20,000		5	1993	\$ 1000	
Stewart 3	May 8/78	599	20	200	4000	1987	24,000		6	1993	1200	
Stewart 4	Jly 14/78	702	6	200	1200	1988	6,000		5	1993	300	
Stewart 9	Nov 28/78	892	20	200	4000	1985	32,000		8	1993	1600	
Stewart 11	Nov 28/78	894	20	200	4000	1984	36,000		9	1993	1800	
Stewart 12	Nov 28/78	895	8	200	1600	1987	9,600		6	1993	480	
Ruby & Free Silver	Apr 18/78	593	1	200	200	1992	200		1	1993	10	
Royal	Apr 18/78	594	1	200	200	1992	200		1	1993	10	
Maggie	Nov 28/78	898	1	200	200	1984	1,800		9	1993	90	
Jock 1	Apr 11/78	1598	1	200	200	1986	1,400		7	1993	70	
Jock 2	Apr 11/78	1599	1	200	200	1986	1,400		7	1993	70	
Stewart 1	Apr 28/78	596	20	200	4000	1988			3	1987	600	
Stewart 8	Nov 28/78	891	20	200	4000	1984	8000	4000	3	1987	600	
Stewart 10	Nov 28/78	893	20	200	4000	1984	8000	4000	3	1987	600	
Houlton	Nov 28/78	896	1	200	200	1984	400	1200	8	1992	80	
Stewart 5	Nov 28/78	888	20	200	4000	1988						
Stewart 6	Nov 28/78	889	16	200	3200	1988						
Stewart 7	Nov 28/78	890	12	200	2400	1985	2900	1900	2	1987	240	
Stewart 13	Apr 24/78	1022	4	200	800	1986		1600	2	1988	80	
							132,600	19,300			12,700	8,230

STATEMENT OF QUALIFICATIONS

I, Thomas H. Carpenter, currently of Calgary, Alberta hereby certify that:

1. I am a geologist with Selco Inc. of 402 - 535 Thurlow Street, Vancouver, B.C. V6E 3L2.
2. I received a Bachelor of Science degree in Geology from Memorial University of Newfoundland in 1971.
3. I have been practising my profession continuously since my graduation in 1971.
4. I did personally supervise and/or carry out the work documented in this report.
5. I hold no interest either directly or indirectly in this property.

Respectfully submitted,

T. H. Carpenter

T.H. Carpenter, B.Sc.

September 1983

APPENDIX I

DIAMOND DRILL HOLE LOGS

ST 83-1 TO ST 83-4

DRILL LOG

HOLE NO. ST 83-1

DRILLING CO J. T. Thomas Smithers, B.C.	LOCATION SKETCH 	DEPTH	TESTS DIP ANGLE	AZIMUTH	DATE STARTED	PROJECT
		COLLAR	-60°	180°	June 30/83	Stewart Moly
		91 m	-60°	180°	DATE COMPLETED	N.T.S. 82 F
		182 m	-59°	180°	COLLAR ELEV:	LOCATION
		273 m	-58°	180°	NORTHING	5 + 58.3 S
		364 m	-56°	180°	EASTING	0 + 00
455 m	-53°	180°	AZIMUTH:	-180°	IP baseline	
HOLE TYPE Diamond Drill					DEPTH	DATE LOGGED:
					474.55 m (1,557 ft.)	July 1983
					CORE SIZE	LOGGED BY:
					NQ	T. Carpenter

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE (FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE		
0	3.05 m	Casing								
3.05	23.64 m	Quartz Monzonite Porphyry	Grey to pink	Medium	Porphyry	Potassic Kaolinitic Sericitic Limonitic Hematitic	Pyrite	10	80% of fractures at 60° to CA. 20% of fractures at 30° to CA. Quartz "eye" porphyry. Contains qtz "eyes" to 1.2 cm, feldspar phenos to 3 cm and mafic phenocrysts to 5 mm. Compositionally contains 25-30% quartz, 3% mafics (largely chloritized hornblende) and ≈ 70% feldspar. Alteration consists of k feldspar development (most commonly associated with quartz veining), partial kaolinization and sericitization of matrix materials (possibly a result of surface alteration), patchy limonitic alteration and hematitic alteration along fractures. Quartz veining is ubiquitous and consists of clear grey quartz often cutting k feldspar phenos. Pyrite is found as disseminations through the core in	

DRILL LOG

HOLE NO. ST 83-1

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										concentrations ranging from 1-2%.
										3.05- 5.40m Contains quartz vein controlled potassic alteration, limonitic alteration, slight kaolinization and minor epidote alteration.
										5.40- 5.50m Vuggy potassic core. . Associated with qtz veining.
										5.50-15.50m As from 3.05 to 5.40 m.
										5.8 - 6.1m Sub parallel fracture with gouge.
										8.1 - 8.8m Heavy k feldspar alteration with hornblende altered to biotite. No qtz veining evident (possibly parallel to drill hole).
										10.5 -10.75m Heavy k feldspar alteration with biotite. No qtz veining.
										13.62-13.9 m Greenish epidotized core. Well fractured. 70% of fractures at 45° to CA, 10% at 30° to CA, 20% at 60° to CA.
										14.74-15.15m Pervasive k feldspar alteration associated with qtz veining. Blebs of magnetite evident in qtz vein.
										Kaolinized matrix feldspars show decrease at ≈15.5 m. From 15.5 m, the matrix feldspars are white and relatively unaltered. Pinkish grey to pink k feldspar phenocrysts are increased from about 15.5 m.

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										Increased quartz veining is evident from about 16.0 m.	
										17.8 -18.5 m Vuggy core.	
										19.7 -20.44m Broken core. Mn on fractures.	
										23.5 -23.64m <u>Aplite</u> dike at 60° to CA. Medium grained.	
										Greenish in colour.	
23.64	41.30m	Quartz Monzonite	White to	Medium	Porphyry	Limoni- tic	Pyrite	10		70% of fractures at 60° to CA.	
		Porphyry	grey			Hematit- itic				20% of fractures at 75° to CA.	
						Potassic				10% of fractures at 10-30° to CA.	
										Quartz "eye" porphyry. Similar in composition and texture to previous section. Potassic alteration is sharply decreased with only slight k feldspar associated with quartz veins. Limonitic alteration is increased. Hornblende laths are largely unaltered, with only minor biotite and chlorite development.	
										25.6 -26.3 m Largely limonitic core.	
										26.8 -27.4 m " " "	
										32.1 -32.65m Core cut by finer grained dioritic material at 35° to CA. Contains 20-30% mafic material.	
										32.65-33.50m Sub parallel quartz vein with high mafic content. Mafics appear to be fresh to altered (chloritic) hornblende. Moderately fractured core (10-20 fractures / metre).	
										36.3 -37.0 m Hematized and epidotized core. Heavily	

DRILL LOG

HOLE NO. ST 83-1.

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										hematized fractures. Manganese on hairline fractures throughout. Contains 20-30 fractures/metre (60% at 45° to CA, 40% at 60° to CA).
										37.0 -38.65m Moderately to heavily feldspathized core associated with qtz veining.
										38.65-41.30 m Moderate potassic alteration associated with qtz veining. <u>Salmon pink</u> in colour from 37.9-38 m and from 39.3-40.7 m.
										39.3 -40.0 m Hematitic hairline fractures parallel to CA.
41.30	59.5 m	Quartz Monzonite	White to	Medium	Porphyry	Potassic	Pyrite	5-7		60% of fractures at 45-50° to CA.
		Porphyry	grey to			Limoni- tic				40% of fractures at 30° to CA.
			pink			Hemati- tic				
										Quartz "eye" porphyry. Core largely composed of white to grey feldspar, locally crosscut by stringers of k feldspar material. Areas of intense k feldspar alteration are associated with quartz veins which cut the core at angles ranging from 10° to 30° to CA.
										Quartz, with rounded quartz "eyes" to 1 cm, makes up ≈25-30% of the rock. Feldspar phenos reach 3 cm in length.
										3-5% of the rock is composed of hornblende, which is altered to biotite and chlorite in zones of pervasive K alteration.
										Large feldspar phenos of plagioclase composition commonly show pinkish potassic alteration along hairline fractures

EXPLORATION
WESTERN CANADA**DRILL LOG**

HOLE NO. ST 83-1

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										within the phenocrysts.
										Hematite is common on fractures. Limonite occurs as a results of the breakdown of pyrite which is found disseminated through the core in concentrations from 1-3%.
										42.0 -42.25m Brown limonitic core.
										42.25-44.9 m Moderately fractured (10-20 fractures/ metre).
										44.9 -45.1 m Moderate potassic alteration associated with qtz veins.
										45.3 -45.58m Heavy potassic alteration. Vuggy.
										46.7 -47.0 m Limonitic core.
										47.78 m Pyritic quartz vein.
										48.3 -49.0 m K feldspar alteration adjacent to qtz vein.
										49.0 -49.34m Limonitic core. Contains 1-2% pyrite.
										49.3 -49.85m K feldspar alteration associated with qtz veining.
										49.85-50.25m Salmon pink, potassic alteration.
										50.25-50.60m Heavily fractured (> 30 fractures/ metre)with salmon pink alteration masked by limonite.
										50.6 -51.1 m Salmon pink core. Slightly limonitic.
										51.1 -51.3 m Epidotized shear. Shear at 65° to CA.
										51.5 -51.8 m Limonitic core.
										52.1 -53.64m Local k feldspar development. Pyrite along qtz veins.
										53.85-54.2 m Limonitic core.

DRILL LOG

HOLE NO. ST 83-1

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										54.5 m 2 cm qtz vein with pyrite.	
										54.52-54.72m Greenish, slightly epidotized core.	
										57.5 -57.8 m Moderately fractured core. (> 20 fractures/ metre.	
										57.85-58.1 m Intense potassic alteration.	
59.5	70.3 m	Quartz Monzonite	White to	Medium	Porphyry	Potassic	Pyrite	4-5		80% of fractures at 45° to CA.	
		Porphyry	brown			Limoni- tic				20% of fractures at 10-30° to CA.	
			to pink			Epidoti- tic					
										Quartz eye porphyry. Similar texturally to previous section. However, a gradual increase in k feldspar alteration is noted, both adjacent to qtz veins and replacing the matrix and feldspar phenocrysts. K feldspar comprises 10-15% of rock. Locally limonitic. Hornblende phenos have been altered to chlorite and biotite. Minor local epidote alteration.	
										59.9 -60.2 m Limonitic core.	
										62.5 -62.6 m Epidotized matrix material. Vuggy.	
										62.6 -63.55m Limonitic core.	
										64.9 -65.64m Limonitic core.	
										66.0 -66.5 m Salmon pink k feldspar alteration.	
										66.74-66.89m Epidotized core.	
										66.89-70.30m Limonitic core. Hematized fractures.	

DRILL LOG

HOLE NO. ST 83-1

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
70.30	77.95 m	Quartz Monzonite	Grey to	Medium	Porphyry	Potassic	Pyrite	≈ 10		Fractures at 60° to CA (60%)
		Porphyry	pink			Epidote				45° to CA (35%)
						Hematite				10-30° to CA (5%)
										Quartz eye porphyry. Similar texturally to previous section with feldspars to 3 cm, qtz eyes to 7-8 mm and hornblende phenos to 5 mm. However, a definite increase in potassic alteration is evident, as well as increased quartz veining. Locally heavily fractured.
										The quartz veining ranges from 0-30° to CA and has associated pervasive k feldspar alteration. Pink k feldspar phenos are also prevalent.
										Zones of pervasive potassic alteration contain vugs — a result of the breakdown of mafic material.
										70.4 m Qtz vein with manganese.
										72.24-73.20m Heavily fractured core (> 30 fractures/ metre)
										Hematite and manganese on fractures. Decreased potassic alteration. Vuggy qtz veins at 60° to CA.
										73.7 -73.97m Heavily fractured core.
										76.0 -77.0 m Heavily fractured core. Epidote and hematite on fractures. Slight potassic alteration. Contains parallel qtz veins without associated k feldspar alteration.
										77.95-80.1 m Limonitic core comprises 30-40% of the section. Contains 1% pyrite.

DRILL LOG

HOLE NO. ST 83-1

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
80.1	88.5 m	Quartz Monzonite	Grey to	Medium	Porphyry	Potassic	Pyrite	3-4		80% of fractures at 60° to CA.	
		Porphyry	Pink			Epidote				20% of fractures at 45° to CA.	
						Limonite					
										Quartz "eye" porphyry. Similar in texture and composition to previous section. However, contains increased potassic alteration ranging from slight to moderate to pervasive.	
										80.77-81.2 m Salmon pink pervasive k feldspar alteration. Heavily fractured at 20° to CA. Vuggy.	
										81.9 -83.5 m Greenish epidotized core. Locally limonitic. Contains salmon pink k feldspar phenos. Moderately fractured with hematite on fractures. 70% of fractures at 20-30° to CA, 30% at 60° to CA.	
										83.5 -84.4 m Salmon pink potassic alteration.	
88.5	99.7 m	Quartz Monzonite	White to	Medium	Porphyry	Potassic	Pyrite	3-5		70% of fractures at 30-45° to CA.	
		Porphyry	pink			Limonitic				30% of fractures at 50-60° to CA.	
						Hematitic					
										Quartz eye porphyry. Feldspars to 3 cm, quartz eyes to 7-8 mm. Contains 25-30% quartz and 3-5% mafics consisting of hornblende and chloritized hornblende. Predominantly greyish white core with k feldspar phenos and quartz veining with pervasive potassic alteration. Locally limonitic.	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
									86.34-86.43m Limonitic core.	
									86.98-87.98m " "	
									90.45-90.68m Quartz breccia with garnet. Pyrite on fractures.	
									92.2 -93.3 m Broken core with moderate to heavy potassic alteration. Little qtz veining evident.	
									94.97-95.09m Possible dike(?). Finer grained material with 5-7% mafics. No contacts evident.	
									99.58-99.66m Hematitic fractures at 50° to CA. Shear zone(?)	
99.7	119.1 m	Quartz	Pink to	Medium	Porphyry	Potassic	Pyrite	4-6	80% of fractures at 45° to CA.	
		Monzonite	white			Hemati- tic			20% of fractures at 30° to CA.	
		Porphyry				Limoni- tic				
						Epidoti- tic			Quartz eye porphyry. Quartz eyes to 7 mm, feldspars to 3 cm. Mafics have been altered to chlorite and biotite. Increased potassic alteration. Overall, dark pinkish colour with local patches of grey core.	
									Moderate to heavy potassic alteration. Pervasive potassic alteration associated with quartz veining at 60° to CA or parallel to CA.	
									105.82-105.95m Hematitic core.	
									105.95-106.90m Salmon pink potassic alteration adjacent to qtz veining.	
									109.1 -109.30m Heavily fractured core. Mn on fractures.	
									109.1 -113.30m Limonitic core with potassic alteration.	

DRILL LOG

HOLE NO. ST 83-1

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										112.9 m Pyrite blebs associated with chlorite.	
119.1	121.1 m	Aplite	Greenish	Fine	Aphanitic to	Epidotitic	None	2-3		60% of fractures at 45° to CA. 40% of fractures at 30° to CA.	
			Pinkish		Porphyritic	Potassic				Contains white feldspar phenos to 5 mm and occasional qtz eyes to 3 mm. 70% feldspar, 30% quartz. No mafics evident. Variably altered with epidote and k feldspar both evident. Upper contact marked by hematitic alteration in QMP. Lower contact not evident. Cut by qtz veining at 0-30° to CA.	
121.1	150.3 m	Quartz	Grey to	Medium	Porphyry	Potassic	Pyrite	4-5		80-90% of fractures at 45° to CA.	
		Monzonite	pink			Hematitic				10-20% of fractures at 30° to CA.	
		Porphyry				Limonitic				Quartz "eye" porphyry. Similar to section from 99.7 to 119.1 m. K feldspar alteration consists of 40-100% replacement of plagioclase phenocrysts and pervasive alteration associated with quartz veining. Quartz veins range from 10° to 30° to CA. Contains minor pyrite.	
						Epidote				128 -129.4 m Well fractured core with dark green chlorite on some shallow fractures.	
										130.2 m Limonitic core.	
										135.2 -136.5 m Slightly epidotized with salmon pink feldspars.	

DRILL LOG

HOLE NO. ST 83-1

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										138.7 -140.0 m Moderately fractured. Hematite on fractures.	
										140.6 -140.9 m Limonitic core.	
										147.1 -148.7 m Moderately fractured.	
										149.8 -149.9 m Limonitic alteration.	
150.3	151.55 m	Quartz	Grey to	Medium	Equi-	Potassic	Minor	8-10		60% of fractures at 45° to CA.	
		Monzonite	pink		granular		pyrite			30% of fractures at 30° to CA.	
		Porphyry								10% of fractures at 50-60° to CA.	
										Finer grained than previous core. No quartz eyes evident. Contains 5-7% mafic material, comprising hornblende, chloritic hornblende and biotite. Slight to moderate potassic alteration.	
151.55	154.7 m	Quartz Monzonite	Brown	Medium	Porphyry	Limoni-		5-7		60% of fractures at 45° to CA.	
		Porphyry				tic				40% of fractures at 30° to CA.	
										Quartz "eye" porphyry. Medium brown limonitic core. Contains fewer quartz eyes and slightly more mafics than previous sections. Hematitic fractures. Vuggy.	
154.7	157.0 m	Aplite	Pink	Fine	Equi-	Potassic	None	2-3		55% of fractures at 45° to CA.	
					granular		evident			40% of fractures at 30° to CA.	
										5 % of fractures at 60° to CA.	
										Cut by quartz veins to 5 mm in thickness with adjacent	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										k feldspar alteration.	
157.0	161.3 m	Quartz	Grey to	Medium	Porphyry	Potassic	None	5-7		70% of fractures at 45-50° to CA.	
		Monzonite	pink				evident			30% at ≈ 30° to CA.	
		Porphyry									
										Quartz eye porphyry. Slightly finer grained than previous sections with quartz phenos to 7-8 mm. Contains 5% hornblende and chloritic hornblende. Potassic alteration is predominantly associated with quartz veining, with occasional feldspar phenos near end of section.	
161.3	162.4 m	Aplite	Pink	Fine	Equi-	Potassic	None	8-10		90% of fractures at 50° to CA.	
					granular	Hematitic	evident			10% of fractures at 30-45° to CA.	
										Similar compositionally to aplite from 154.7 to 157 m. Salmon pink to pink, slightly altered rock cut by hairline fractures at 50° to CA. Hematitic fractures.	
162.4	168.0 m	Quartz Monzonite	Brown	Medium	Porphyry	Limonic	Pyrite	10-12		60% of fractures at 45° to CA.	
		Porphyry				Potassic				30% of fractures at 10-30° to CA.	
						Epidoti-				10% of fractures at 60° to CA.	
						tic					
										Quartz eye porphyry with rounded qtz eyes to 1 cm. Medium brown in colour. Slight potassic alteration as well as local epidotization. Locally pyritic.	

DRILL LOG

HOLE NO. ST 83-1

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
168.0	172.3m	Quartz	Pale	Medium	Porphyry	Potassic	Minor	5-7		70% of fractures at 45° to CA.
		Monzonite	grey to				pyrite			20% of fractures at 30° to CA.
		Porphyry	pink							10% of fractures at 50-60° to CA.
										Quartz eye porphyry. Finer grained than previous sections with quartz eyes to 5 mm. 5% mafics include hornblende and chloritized hornblende. K feldspar occurs as phenocrysts and associated with quartz veins.
										168.9 -172.2 m Broken core.
										168.5 -170.3 m K feldspar phenos only developed. No potassic alteration with quartz veining.
172.3	173.65m	Aplite	Pink	Fine	Equi- granular	Potassic Serici- tic	None evident	3-4		All fractures at 45° to CA.
										Similar to previous aplite. From 172.8 m contains narrow bands of pale pink, slightly sericitized material.
173.65	188.97 m	Quartz	Dark	Medium	Porphyry	Potassic	None	10-15		Fractures- 70% at 45° to CA.
		Monzonite	pink to				evident			20% at 10-20° to CA.
		Porphyry	grey							10% at 50-60° to CA.
										Quartz eye porphyry. Similar to section from 168.0 to 172.3 m. Overall, dark pinkish rock with quartz eyes to 5-7 mm. Chloritic hornblende. Locally, contains less altered grey core. Moderately fractured. Quartz veining

DRILL LOG

HOLE NO. ST 83-1

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										at 30° and 60° to CA. K feldspar occurs as phenocrysts and associated with quartz veining.
										176 -176.2 m Vuggy core.
										176.2 -177.5 m Locally, limonitic core with salmon pink potassic alteration.
										176.5 -187 m Moderately to heavily fractured core.
										183.52-183.9 m QMP dike? Finer grained than qtz eye porphyry with pink feldspar phenos to 1 cm in a greenish epidotitic matrix. Contacts at 45° to CA.
										185.2 -185.9 m Finer grained rock with increased mafic content.
										188.22-188.97m Limonitic and epidotitic core with hematitic parallel to sub parallel fractures.
188.97	193.3 m	Quartz Monzonite Porphyry	Grey to pink	Fine to medium	Porphyry	Potassic	/	5-7		Fractures- 80% at 45° to CA. 20% at 10-30° to CA.
										Quartz eye porphyry. Generally grey, finer grained rock with quartz eyes to 3-5 mm. Slight to moderate potassic alteration. Slightly increased mafic content.
193.3	194.33 m	Aplite	Greenish	Fine	Equi- granular	Epidoti- tic	/	4-5		Fractures- 80% at 45° to CA. 20% at 10-30° to CA.

DRILL LOG

HOLE NO. ST 83-1

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										Comprising highly siliceous, very fine grained rock containing some coarser grained monzonitic material. Greenish in colour and slightly epidotized with local pinkish potassic alteration.	
194.33	202.9 m	Quartz	Light	Medium	Porphyry	Epidote	MoS ₂	10-12		Fractures - 80% at 45° to CA. 20% at 10-30° to CA.	
		Monzonite	green			Hematite	Pyrite				
		Porphyry (Epidotized)				Limonite Potassic				Finer grained rock with qtz phenos seldom exceeding 3 mm in diameter and feldspar phenos to 1.5 cm. Alteration consists of epidotization, limonitic and hematitic alteration and k feldspar alteration. Mafics have been largely destroyed. Pyrite and MoS ₂ occur in occasional qtz veinlets.	
										194.33-194.55m Limonitic rock with hematized fractures.	
										194.55-202.9 m Largely epidotized core. Dark green to pale green in colour. Locally hematitic and limonitic.	
										196.72-196.9m Limonitic core.	
										197.15-197.6m " "	
										197.6 -197.9m Potassic alteration. Hematized fractures.	
										197.9 -198.3m Limonitic core.	
										198.3 -198.9m Potassic alteration.	
										198.9 -199.3m Hematite on fractures parallel to CA. Carbonate on fractures.	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										200.15-200.22m White qtz vein with pyrite and MoS ₂ .	
202.9	204.4 m	Aplite	Green to pink	Fine	Equi-granular	Epidote Potassic	MoS ₂	4-5		Fractures - 80% at 45° to CA. 20% at 10-30° to CA.	
										Very fine grained, siliceous rock. Green to brown to pinkish rock containing minor QMP material. Contacts at 30° to CA.	
										203.42m MoS ₂ (?) in qtz veinlet.	
204.4	210.35 m	Quartz Monzonite Porphyry	Grey to pink	Medium	Porphyry	Potassic	/	10-15		Fractures - 70% at 30° to CA. 30% from 45° to 50° to CA.	
										Similar in texture to section to 202.9 m. Slightly to moderately feldspathized with feldspathization masked predominantly by limonitic alteration. Cut by white qtz veinlets. Carbonate on hematitic fractures.	
220.35	229.3 m	Quartz Monzonite Porphyry	Grey to pink	Medium	Porphyry	Potassic		4-5		Fractures - 70% at 45° to CA. 30% at 30° to CA.	
										Quartz eye porphyry. Dark pink, locally grey core with qtz "eyes" to 1 cm and feldspars to 2.5 cm. Contains 5% chloritized mafic material. Moderate potassic alteration	

DRILL LOG

HOLE NO. ST 83-1

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										with k feldspar as phenocrysts and adjacent to qtz veins.
										Contains white to grey qtz veins at 30° to 60° to CA.
										210.75-211.3 m Moderately fractured.
										212.15-212.3 m Moderately fractures with Mn on fractures.
										216.45 m Hematitic fractures at 30° to CA.
										217.7 -218.54m Fractured vuggy core. Highly hematitic. Carbonate rich. Chloritized mafics.
										219.0 -219.5 m Aplite. As from 202.59 to 203.1 m.
										222.8 -224.7 m White qtz veining with pervasive k feldspar alteration.
										225 -225.3 m Epidotized aplite.
										227.1 -227.6 m Heavily fractured with Mn on fractures.
										228.3 -229.0 m Numerous hematitic hairline fractures .
229.3	234.38 m	Quartz	Pink to	Medium	Porphyry	Potassic		10-12		70% of fractures at 45° to CA.
		Monzonite	grey							25% of fractures at 30° to CA.
		Porphyry								5% of fractures at <30° to CA.
										Quartz "eye" porphyry. Contains qtz eyes to 1 cm.
										Composed of 30% quartz, feldspar and 3-5% mafics (chlorite and biotite after hornblende). Pervasive potassic alteration to 231.1 m. Moderate potassic alteration from 231.1 m to 234.38 m.
										Grey quartz veining.

DRILL LOG

HOLE NO. ST 83-1

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE (FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	REMARKS MINERALIZATION, TYPE, AGE RELATIONS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE		
234.38	236.56 m	Lamprophyre	Black to greenish	Fine	Porphyry	Chlorite		2-3	Fractures at 30° to CA. Composed of black phenocrysts to 1-2 mm in a black to greenish, slightly chloritized matrix. Contains occasional calcite healed fracture. Contacts at 30° to CA.	
236.56	263.80 m	Quartz Monzonite Porphyry	Pink	Medium	Porphyry	Potassic	MoS ₂	4-5	80% of fractures at 30° to CA. 20% of fractures at 45° to CA. Contains quartz phenos to 3-4 mm but no large qtz "eyes". 3-5% fine grained mafics consist of hornblende and chloritized hornblende. Chlorite is common on fractures from 245.0 m. Moderate to heavy potassic alteration comprising k feldspar phenocrysts to 1.5-2 cm as well as quartz vein and fracture controlled alteration.	
		Aplite							236.95-237.15m Dioritic material with 10-15% mafics. 239.55-239.87m Hematitic fractures. 246.4 -247.1 m Aplite 249.27-249.94m Heavily fractured core. Chlorite, hematite, carbonate and manganese on fractures. 249.94-250.6 m Moderately fractured core. 250.4 -250.6 m Fractures at 60° to CA. Coated by light brown carbonate material.	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										250.6 -252.8 m Salmon pink k feldspars. Partially epidotized.
										255.2 -255.7 m Salmon pink pervasive k feldspar alteration.
										255.95-256.3 m Heavily fractured core.
										256.3 -256.8 m Salmon pink rock. Pervasive k feldspar alteration. Chlorite on fractures.
		Shear Zone								260.6 -263.55m Very heavily fractured with chlorite and fine grained powdery carbonate on most fractures. Contains occasional gouge. Slightly brecciated at base of section.
										260.3 -263.55m Pervasive k feldspar alteration.
										261.9 m Possible MoS ₂ in qtz vein.
		Quartz Vein								263.55-263.8 m White to qtz vein with chlorite on fractures
263.8	265.02 m	Lamprophyre - Altered	Green	Fine	Porphyry	Chlorite		2-3		60% at 45° to CA. 40% at 30° to CA.
										Heavily chloritized rock. Similar in texture to section from 234.38 to 236.56 m. Contacts at 60° to CA.
265.02	276.93 m	Quartz Monzonite Porphyry	Pale Pink	Medium	Porphyry	Potassic	MoS ₂ (?)	10		55% of fractures at 45° to CA. 35% of fractures at 30° to CA. 10% of fractures at 60° to CA.

DRILL LOG

HOLE NO. ST 83-1

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										No feldspar phenos evident. 3-5% mafic material consists of chlorite after hornblende. Ubiquitous qtz veining.
										Contains pervasive salmon pink k feldspar alteration and occasional qtz phenocryst to 5 mm.
										Fractures are commonly coated with bright green chlorite and minor carbonate.
										268.3 m Possible MoS ₂ in qtz vein.
										270.1 -271.0 m Heavily fractured core.
										274.0 -275.65 m Pale pink rock associated with qtz veining.
276.93	280.8 m	Quartz	Green to	Medium	Porphyry	Epidote	Pyrite	8-10		60% of fractures at 30° to CA.
		Monzonite	pink			Potassic				40% of fractures at 45° to CA.
		Porphyry								
										Predominantly epidotized core. Contains feldspar phenos to 1.5 cm and occasional qtz "eyes" to 1 cm. Relatively unaltered mafic material. Pyritic fractures.
										277.35-277.6 m K feldspar alteration associated with quartz veining.
										277.9 -278.25 m " " " " "
										279.15-179.4 m " " " " "
										280.7 m 2 cm aplite vein with gouge.

DRILL LOG

HOLE NO. ST 83-1

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
280.8	288.34	Quartz	Pink	Medium	Porphyry	Potassic	MoS ₂	10		60% of fractures from 10-30° to CA.
		Monzonite								40% of fractures from 45-60° to CA.
		Porphyry								
										No feldspar phenos evident. Contains occasional qtz "eyes" to 1 cm. Pervasive k feldspar (potassic) alteration.
										Ubiquitous qtz veining. Mafics consist of chlorite after hornblende. Bright green chlorite and minor carbonate appear on fractures.
										286.2 m MoS ₂ "paint" on fractures.
288.34	288.9 m	Diabase	Black	Fine	Porphyry	Chlorite				Contacts at 60° to CA.
										Rounded phenos of pale green epidote in a dark green to black, highly chloritic matrix.
288.9	296.25 m	Quartz	Pink	Medium	Porphyry	Potassic		10-12		20% at 10-30° to CA.
		Monzonite								40% at 45° to CA.
		Porphyry								40% at 60° to CA.
										As from 280.8 to 288.34 m. Consists of salmon pink k feldspar (potassic) alteration associated with ubiquitous white quartz veining. Bright green chlorite and minor manganese on fractures.
										291.7 m Gouge on fracture.

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
296.25	318.6 m	Quartz	Dark	Medium	Porphyry	Potassic	Pyrite	10-12		Fractures - 60% at 45-50° to CA.
		Monzonite	pink							30% at 30° to CA.
		Porphyry								10% at <30° to CA.
										Contains qtz phenos to 7 mm. Darker in colour than previous section with intervals of salmon pink potassic and greenish epidotized material. Occasionally pyritic with ≈1% disseminated pyrite.
										Pervasive k feldspar alteration associated with ubiquitous white qtz veining. Chloritic mafic material with chlorite on fractures.
										298.8 -299.0 m Dark grey material in qtz vein - MoS ₂ (?)
										302.0 m " " " " " "
										298.8m MoS ₂ (?) in qtz vein.
										302.0m " " " " "
										304.18-305.0 m Aplitic rock. Contains minor mafic material.
										305.6 -306.8 m Dike. Finer grained relatively fresh QMP with 5-7% mafics and occasional xenoliths of highly mafic material. Bounded by qtz veins at base.
										Upper contact at 45° to CA.
										310.7 -310.85m Diabase. Similar to core from 288.34 to 288.9 m. Contacts at 60° to CA.
										310.85-311.25m White qtz vein.
										311.25-316.0 m Predominantly salmon pink potassic core.
										313.85-314.4m Moderately fractured.

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										318.10-318.4 m Qtz vein with chlorite and pyrite.	
										318.4 -319.0 m Salmon pink alteration with epidote.	
318.6	327.1 m	Quartz	Greenish	Medium	Porphyry	Potassic		5		90% at 45-50° to CA.	
		Monzonite	to dark			Epidote				10% at 30° to CA.	
		Porphyry	pink								
										Finer grained than previous sections with occasional qtz phenos to 3-5 mm and 3% chlorite after homblende. Pervasive k feldspar alteration with local epidotization. Chlorite and gypsum on fractures.	
										325.0 -325.2 m Garnet phenos in qtz veins.	
327.1	336.7 m	Quartz	Green &	Medium	Porphyry	Epidote	Pyrite	5-7		Fractures - 70% at 55° to CA.	
		Monzonite	pink			Potassic				20% at 45° to CA.	
		Porphyry				Serici- tic (?)				10% at 30° to CA.	
		- Transition Zone									
										Section appears to be a transition zone between potassic and epidotized core. Contains yellowish micaceous material in matrix (sericite ?). Quartz veining becomes very infrequent past 336.7 m.	
										327.1 -327.75m Epidotized core cut by qtz veins at 50° to CA.	
										327.1-327.2m Contains 3-5% disseminated pyrite.	
										327.75-328.57m Pale pink rock cut by ubiquitous qtz veining.	

DRILL LOG

HOLE NO. ST 83-1

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
									328.57-329.25m Epidotized core containing occasional phenos and narrow veinlets of k feldspar altered material.	
									329.25-336.7 m Pink rock displaying both k feldspar and epidote alteration. Ubiquitous qtz veining.	
									329.45-330.18m Aplite. Pink to greenish in colour.	
									330.6 -330.8 m Aplite	
									331.8 m Garnet in qtz vein.	
									333.9 -335 m Aplite. Bounded at top by 0.15 m of epidotized core and shear controlled qtz vein.	
									Fractures at 60° to CA.	
									336.5 -336.7 m Bleached core.	
336.7	343.65 m	Quartz	Grey to	Medium	Equi-	Epidote	Pyrite	2-3	80-90% at 50° to CA.	MoS ₂ occurs in occasional
		Monzonite	green		granular	Potassic	MoS ₂		10-20% at 45° to CA.	qtz vein with pyrite.
		Porphyry			to por-					
					phyritic					Greenish grey rock. Slightly to heavily epidotized.
										Locally contains areas of k feldspar as phenos surrounded by epidotized matrix material and as matrix material supporting plagioclase phenocrysts.
									339.3 -340.46m Moderately epidotized core cut by veins of dark pink potassic material.	
									340.93-342.2 m Medium green, highly epidotized core.	
									Yellowish material in matrix may be sericite.	
									342.39-342.5 m Pyritic qtz veins.	
									342.8 -343.0 m Pyritic qtz veins at 60° to CA.	

DRILL LOG

HOLE NO. ST 83-1

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										343.57 m Qtz vein with MoS ₂ selvages. Vein bounded by epidotized material.	
343.65	353.9 m	Quartz	Pinkish	Medium	Equi-	Locally	Pyrite	2-3		80-90% at 45-50° to CA.	
		Monzonite	grey		granular	epidoti-	MoS ₂			10-20% at 30-35° to CA.	
		Porphyry			Porphyri-	zed					
					tic	Sericite				Contains 15-20% dark pink feldspars in a matrix consisting largely of light grey to pale green, very slightly epidotized plagioclase. Locally heavily epidotized. Pink feldspars seldom measure greater than 0.5 cm. Pyrite occurs as occasional disseminations and in qtz veins. MoS ₂ also occurs in occasional qtz veinlets.	
										Carbonate occurs along fractures and in matrix of epidotized core.	
										344.85-345.3 m Heavily epidotized with pinkish brown feldspar phenocrysts.	
										345.03m Minor shear. Manganese coated fractures.	
										347.5 m Pyritic qtz vein at 45° to CA. Bounded by epidote.	
										347.77-349.22m Moderately to heavily epidotized. Yellowish material in matrix - sericite(?).	
										350.8 -352.65m Pale green epidotized material, Sericite(?) in matrix.	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										351.77 m	Pyrite and MoS ₂ as vein selvages.
353.9	357.55 m	Quartz	Green	Medium	Equi-	Epidote	Pyrite	8-10		90% at 45° to CA.	
		Monzonite			granular		Pyrrhotite			10% at 50° to CA.	
		Porphyry -								Qtz veins at 45° to CA.	
		Epidotized									
										Medium green to locally pale green in colour. Contains an occasional qtz phenocryst to 5 mm. Heavily epidotized to 356.3 m. Moderately epidotized from 356.3 to 357.55 m. Pyrite and pyrrhotite occur in occasional qtz veins.	
										353.85-356.6 m Pale green epidotized core with yellowish material (sericite ?) in matrix. . .	
357.55	369.0 m	Quartz	Medium	Equi-	Epidot-	Pyrite		2-3		90% at 45° to CA.	
		Monzonite		granular	ized	Pyrrhotite				5% at 30° to CA.	
		Porphyry		to por-						5% at 20° to CA.	
				phyritic							
										Contains 70-75% feldspars, comprising slightly epidotized to pinkish matrix feldspars averaging 5 mm with occasional pink feldspar phenos to 2 cm, 20-25% qtz, ≈ 5% hornblende and chloritic hornblende.	
										Locally slightly to heavily epidotized.	
										Carbonate occurs along fractures and in matrix of epidotized zones.	

DRILL LOG

HOLE NO. ST 83-1

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										Pyrite and pyrrhotite are found as disseminations and in qtz veinlets.	
										357.55-363.5 m Contains 2 cm pinkish white feldspar phenos.	
										358-360.2m Greenish grey, slightly epidotized core. Highly epidotized from 359.0-359.17 m.	
										363.5 -366.0 m Highly epidotized core with increased pyrite content.	
										367.45-367.65m Moderately epidotized.	
										368.6 -368.75m Moderately to heavily epidotized with pegmatitic material from 368.6 to 368.67 m.	
369.0	375.3 m	Quartz	Pale to	Medium	Porphyry	Epidotized	Pyrite	2-3		95% of fractures at 45° to CA.	
		Monzonite	medium							5% of fractures at 10-30° to CA.	
		Porphyry -	green			Minor					
		Epidotized				Potassic				Pale green to medium green, moderately to heavily epidotized core. Epidote, chlorite and carbonate on fractures. Carbonate also occurs in white feldspar phenocrysts.	
										Contains feldspars to 1 cm and 25% qtz with phenos to 2-3 mm. Areas of pale green alteration contain increased pyrite as well as yellowish, possibly sericitic, material.	
										369.1 -369.55m Pegmatitic material. Consists largely of white to pink to green feldspars to 3 cm in length.	

DRILL LOG

HOLE NO. ST 83-1

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										370.0 -371.1 m Pegmatitic material. As above.	
										370.92-375.3 m Predominantly pale green core.	
										374.35m Pinkish 2 cm wide aplite vein at 20° to CA. Truncates qtz vein.	
										Qtz veining (at least one phase) older than aplite.	
375.3	376.75 m	Quartz	Grey to	Medium	Porphyry	Epidot-		1-2		Fractures at 45° to CA.	
		Monzonite	pink			ized					
		Porphyry				fractures				Similar to section from 357.55 to 358.0 m. Contains pink feldspar phenos to 5 mm which appear to be primary.	
376.75	380.35 m	Quartz	Pale to	Medium	Equi-	Epido-	Pyrite	2-3		90% at 45° to CA.	
		Monzonite	medium		granular	tized				10% at 60° to CA.	
		Porphyry	green								
		Epidotized								Moderately to heavily hematized bright green rock with abundant carbonate in matrix and along fractures. Mafics consist of chlorite after hornblende. Contains occasional qtz veins with pyrite.	
										Epidote and chlorite also occur along fractures.	
										379.15-379.5 m Dark grey, slightly epidotized core with 20-25% mafics.	
										379.5 -379.75m Pale pink aplite. Contact at 30° to CA.	

DRILL LOG

HOLE NO. ST 83-1

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
380.35	386.1m	Quartz	Grey to	Medium	Porphyry	Minor	Pyrite	1-2		70% at 30° to CA.	
		Monzonite	dark			Epidote				30% at 60° to CA.	
		Porphyry	grey								
										Grey, relatively unaltered rock with feldspars to 1.5 cm.	
										Contains 20-25% quartz and 5-7% mafics (hornblende and chloritized hornblende). Minor zones of epidotization are associated with 60° fracturing.	
										Contains 1% disseminated pyrite and 1 cm bands of whitish altered feldspars at 45° to CA.	
										381.7 -382.05m Pinkish core with k feldspar phenos.	
										383.0 -383.11m Dark green core with high carbonate content.	
										383.43-383.65m " " " " " " "	
										383.32 m 1.5 cm band of potassic material at 60° to CA	
										383.65-386.1m Light grey core cut by minor bands of pink potassic material.	
386.1	389.0 m	Quartz	Greenish	Medium	Porphyry	Epidote		3-4		50% of fractures at 60° to CA.	
		Monzonite	grey							30% of fractures at 45° to CA.	
		Porphyry								20% of fractures at 30° to CA.	
										Feldspar phenos to 1.5 cm, qtz phenos to 5 mm and hornblende laths (fresh to chloritic) to 1 cm. Essentially similar to previous section but overall slightly epidotized.	
										Carbonate on fractures.	

DRILL LOG

HOLE NO. ST 83-1

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
									386.1 -386.3 m Pale green aplitic rock at 30° to CA.	
									387.8 -388.3 m Heavily epidotized with carbonate.	
389.0	396.85 m	Quartz	Light	Medium	Porphyry	Minor		2-3	50% of fractures at 45° to CA.	
		Monzonite	grey			Epidote			50% of fractures at 30° to CA.	
		Porphyry								
									Light grey unaltered rock containing 5-7% mafics, feldspar phenos to 2 cm and qtz phenos to 5 mm. The rock contains 10-15% pinkish feldspars and minor local epidotization. Qtz veinlets are intimately associated with the epidotized core.	
									393.2 -393.9 m Slightly epidotized. Carbonate on fractures	
									394.9 -395.47m Heavily epidotized. Carbonate in matrix and on fractures.	
396.85	401.25 m	Quartz	Grey to	Medium	Porphyry	Epidotized		5-7	Fractures- 70% at 45° to CA.	
		Monzonite	green						20% at 60° to CA.	
		Porphyry -							10% at 30° to CA.	
		Epidotized								
									Similar in texture to previous section. Moderately epidotized with zones of heavy epidotization. Carbonate occurs along fractures and in matrix material.	
									400.2 -401.25m Heavily epidotized. Carbonate on fractures and in yellowish feldspar phenocrysts.	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
401.25	412.8 m	Quartz	Grey	Medium	Porphyry	Minor		2-3	70% of fractures at 45° to CA.	
		Monzonite				epidote			30% of fractures at 60° to CA.	
		Porphyry								
									Overall, relatively fresh rock with grey feldspars to 2 cm, and 5-7% hornblende and chlorite after hornblende.	
									Locally, slightly pinkish in colour with pinkish reaction rims around white feldspars. Qtz phenos to 5 mm.	
									Contains narrow zones of carbonate rich epidotized core.	
412.8	417.0 m	Quartz	Pale	Medium	Porphyry	Epidote		4-5	90% at 45° to CA.	
		Monzonite	green						10% at 30° to CA.	
		Porphyry -								
		Epidotized							Similar in texture to previous section. Slightly to moderately epidotized with zones of highly epidotized core.	
									Highly altered zones contain carbonate on fractures and within matrix.	
									415.3 -416.0 m Unaltered core with pinkish brown feldspars.	
417.0	423.07 m	Quartz	Grey	Medium	Porphyry	Minor		2-3	90% at 45° to CA.	
		Monzonite				Epidote			10% at 10-30° to CA.	
		Porphyry								
									Unaltered rock containing feldspar phenocrysts to 2.5 cm, 25% qtz phenos to 3 mm and 5-7% mafic material. Slight potassic alteration locally with k feldspar reaction rims on occasional feldspars.	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE (FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	REMARKS MINERALIZATION, TYPE, AGE RELATIONS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE		
									Contains fracture controlled epidote alteration with associated carbonate.	
423.07	428.78m	Quartz	Green to	Medium	Porphyry	Epidote		3-4	75% at 45° to CA. Fault zone from 427.1 to	
		Monzonite	grey						25% at 30° to CA. 428.1 m.	
		Porphyry - Epidotized							Similar in texture to previous section. Moderately epidotized. Chloritized mafic material.	
									425.65-426.15m Unaltered zone.	
		Fault Zone							427.1 -428.1 m Fault zone. Heavily fractured with chlorite, serpentine and chlorite on fractures. Fractures at 45° to CA. Slickensides and gouge evident. Quartz rich.	
428.78	455.5 m	Quartz	Grey	Medium	Porphyry	Minor	Pyrite	2-3	90% of fractures at 45° to CA.	
		Monzonite				Epidote			10% of fractures at 60° to CA.	
		Porphyry							Similar in texture and composition to section from 417.0 to 423.07 m. Qtz phenos to 5 mm. Mafics consist largely of hornblende laths.	
									Contains fracture controlled epidotization. Fractures are commonly chlorite coated. Carbonate occurs in epidotized core.	
									K feldspar occasionally rims plagioclase phenocrysts.	
									The section also contains 5 mm wide bands of white	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										feldspathized material of 45° to CA. This may represent original foliation.
										Pyrite occurs in qtz veinlets.
										430.58-430.68m Epidotized carbonate rich core.
										431.42-431.52m Epidotized carbonate rich core.
										436.8 -437.3 m Epidotized core. Moderately fractured.
										438.55-438.95m " " " "
										450 -451.8 m Chloritic fractures and epidotization impart a greenish colour to rock. Carbonate rich.
										453.8 -454.0 m Qtz veinlets at 45° to CA.
455.5	460.45 m	Quartz	Grey to	Medium	Porphyry	Epidote		3-4		80% of fractures at 45° to CA.
		Monzonite	green							20% of fractures at 10-30° to CA.
		Porphyry								
										Similar to previous section. However, fracture controlled epidote alteration comprises 40-50% of the section.
460.45	474.55 m	Quartz	Grey	Medium	Porphyry	Minor	Pyrite	2-3		Fractures range from 30° to 45° to CA.
		Monzonite				Epidote				
		Porphyry				Potassic				Grey unaltered rock with minor dark pink feldspathic material in matrix. Alteration is confined to fracture controlled epidotization and minor feldspathization characterized by narrow bands of white to pinkish material.
										Epidotized areas contain carbonate on fractures and within the matrix. Fractures also contain chlorite.

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										Pyrite is found disseminated through the core and also along occasional fractures.
										466.45-467.3 m Contains ≈ 30% whitish feldspathized material.
										472.5 -474.55 m Epidotized core. Slickensides on fractures. from 473.6 m.
474.55	m									End of hole.
										<u>Summary ST 83-1</u>
										From 3.05 m to 336 m, the hole contains a quartz stockwork zone with associated potassic alteration. Within the Qtz Eye Porphyry phase of the Quartz Monzonite Porphyry, the potassic alteration varies from partial replacement of plagioclase phenocrysts to complete alteration of all feldspathic material. As noted, the potassic alteration appears to be qtz vein related. Within zones of pervasive alteration, mafic minerals consist of biotite and minor chlorite after hornblende.
										Aplite dikes and veins as well as occasional lamprophyre and diabase dikes are found throughout this section.
										From 336.7 m to 474.55 m, the hole contains the so-called "Southern Stock" of the Quartz Monzonite Porphyry. This rock contains occasional k feldspar phenocrysts but no pervasive potassic alteration or quartz stockworking as seen in the "northern stock" to 336.7 m.

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										However, within the Southern Stockare contained frequent zones of fracture controlled epidote, chlorite and carbonate (propylitic) alteration. These are separated by intervals of unaltered rock.	
										Mineralization in ST 83-1 is sparse. Pyrite is found as disseminations through the core. Molybdenum, however, is infrequent and occurs only in occasional qtz veinlets and on infrequent shear fractures.	

DRILL LOG

sample data

S A M P L E					C O R E R E C O V E R Y		V I S U A L E S T I M A T E S (% O R E M I N E R A L S)	A S S A Y R E S U L T S					
N U M B E R	F R O M	T O	T O T A L M E T R E S	S p G r	%	A M T. L O S T							
21201	3.0	8.0	5.0		100		Chip Samples						
02	8.0	13.0	"										
03	13.0	18.0	"										
04	18.0	23.0	"										
05	23.0	28.0	"										
06	28.0	33.0	"		"		"						
07	33.0	38.0	"										
08	38.0	43.0	"										
09	43.0	48.0	"										
21210	48.0	53.0	"										
11	53.0	58.0	"										
12	58.0	63.0	"										
13	63.0	68.0	"										
14	68.0	73.0	"		"		"						
15	73.0	78.0	"										
16	78.0	83.0	"										
17	83.0	88.0	"										
18	88.0	93.0	"										
19	93.0	98.0	"										
21220	98.0	103.0	"										
21	103.0	108.0	"										
22	108.0	113.0	"										
23	113.0	118.0	"										
24	118.0	123.0	"										
21225	123.0	128.0	5.0		100		Chip Samples						

DRILL LOG

sample data

S A M P L E					C O R E R E C O V E R Y		V I S U A L E S T I M A T E S (% O R E M I N E R A L S)	A S S A Y R E S U L T S					
N U M B E R	F R O M	T O	T O T A L M E T R E S	S p G r	%	A M T L O S T							
21226	128.0	133.0	5.0				Chip Samples						
27	133.0	138.0	"										
28	138.0	143.0	"										
29	143.0	148.0	"										
21230	148.0	153.0	"										
31	153.0	158.0	"										
32	158.0	163.0	"										
33	163.0	168.0	"				"						
34	168.0	173.0	"										
35	173.0	178.0	"										
36	178.0	183.0	"										
37	183.0	188.0	"										
38	188.0	193.0	"										
39	193.0	198.0	"										
21240	198.0	203.0	5.0										
41	203.0	208.0	"										
42	208.0	213.0	"				"						
43	213.0	218.0	"										
44	218.0	223.0	"										
45	223.0	228.0	"										
46	228.0	233.0	"										
47	233.0	234.4	1.4										
48	234.4	236.6	2.2										
49	236.6	240.0	3.4										
21250	240.0	245.0					Chip Samples						

DRILL LOG

sample data

S A M P L E				C O R E R E C O V E R Y		V I S U A L E S T I M A T E S (% O R E M I N E R A L S)	A S S A Y R E S U L T S						
N U M B E R	F R O M	T O	T O T A L M E T R E S	S p G r	%		A M T. L O S T						
21251	245.0	250.0	5.0				Chip Samples						
52	250.0	255.0	"										
53	255.0	260.0	"										
54	260.0	263.8	3.8										
55	263.8	265.02	1.22										
56	265.02	270.0	4.98										
57	270.0	275.0	5.0										
58	275.0	280.0	"				"						
59	280.0	285.0	"										
21260	285.0	288.34	3.34										
61	288.34	288.93	0.59										
62	288.93	290.0	1.07										
63	290.0	295.0	5.0										
64	295.0	300.0	"										
65	300.0	305.0	"										
66	305.0	310.0	"										
67	310.0	315.0	"				"						
68	315.0	318.55	3.55										
69	318.55	325.0	6.45										
21270	325.0	330.0	5.0										
71	330.0	337.08	7.08										
72	337.08	340.0	2.92										
73	340.0	345.0	5.0										
74	345.0	350.0	"										
21275	350.0	355.0	5.4				Chip Samples						

DRILL LOG

sample data

S A M P L E					C O R E R E C O V E R Y		V I S U A L E S T I M A T E S (% O R E M I N E R A L S)	A S S A Y R E S U L T S					
N U M B E R	F R O M	T O	T O T A L M E T R E S	S p G r	%	A M T L O S T							
21276	355.0	360.0	5.0				Chip Samples						
77	360.0	365.0	"										
78	365.0	370.0	"										
79	370.0	375.0	"										
21280	375.0	380.0	"										
81	385.0	390.0	"										
82	390.0	395.0	"				"						
83	395.0	400.0	"										
84	400.0	405.0	"										
85	405.0	410.0	"										
86	410.0	415.0	"										
87	415.0	420.0	"										
88	420.0	425.0	"										
89	425.0	430.0	"				"						
21290	430.0	435.0	5.0										
91	435.0	440.0	"										
92	440.0	445.0	"										
93	445.0	450.0	"										
94	450.0	455.0	"										
95	455.0	460.0	"										
96	460.0	465.0	"										
97	465.0	470.0	5.0										
21298	470.0	474.6	4.6				Chip Samples						

DRILL LOG

sample data

SAMPLE					CORE RECOVERY		VISUAL ESTIMATES (% ORE MINERALS)	ASSAY RESULTS							
NUMBER	FROM	TO	TOTAL METRES	Sp Gr	%	AMT LOST									
21299	196.0	197.0	1.0				Split Core								
21300	200.0	201.0	"				"								
01	202.0	203.0	"				"								
02	203.0	204.0	"				"								
03	286.0	287.0	"				"								
04	298.5	299.5	"				"								
05	343.0	344.0	"				"								
21306	351.0	352.0	1.0				Split Core								

DRILL LOG

HOLE NOST 83-2

DRILLING CO J. T. Thomas Smithers, B.C.	LOCATION SKETCH 	DEPTH	TESTS DIP ANGLE	AZIMUTH	DATE STARTED	PROJECT:
		COLLAR	-62°	270°	July 13/83	Stewart Moly
		100 m	-62.5°	267°	DATE COMPLETED	July 27/83
		200 m	-62.5°	270°	COLLAR ELEV	1615.5 m
		300 m	-62°	277°	NORTHING	1 + 50.3 m South
		400 m	-61°	284°	EASTING	0 + 01.5 m East
500 m	-59.5°	289°	AZIMUTH	270°	LOCATION	IP Grid
580 m	-59°	291°	DEPTH	582.32 m (1911 ft.)	DATE LOGGED:	July / 83
HOLE TYPE	D.D.H.		CORE SIZE:	NØ	LOGGED BY:	T. Carpenter

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
0	3.05 m	Casing								
3.05	16.9 m	Quartz Monzonite Porphyry	Greenish grey	Medium	Porphyry	Hematiza- tion	Molybde- num	5-7	55% at 60° to CA. 45% at 45° to CA.	2-3% disseminated pyrite and pyrrhotite. MoS ₂ in qtz veins. Pyrite and pyrrhotite also occur in hairline fractures. Contains light grey feldspar phenos to 2-3 cm in length. Hornblende phenos to 1 cm are often chloritic. Rock composed of 3-5% hornblende and chloritized hornblende, feldspar and ≈ 25% quartz with quartz phenos to 5 mm but averaging 3 mm in size. 50% of hornblende is chloritized. Most fractures are hematized. The hematite is accompanied by carbonate. Locally, the core is greenish in colour with minor carbonate associated with slight epidotization. 2-3% disseminated pyrite and pyrrhotite with occasional

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										blebs of molybdenum occur through the core. MoS ₂ , pyrite and pyrrhotite also occur in qtz veins.	
										Carbonate also present along hairline fractures in unaltered core and also in fractures cutting feldspar phenos and hornblende laths.	
										3.05- 5.80m Heavily hematized fractures — surface alteration. No carbonate evident.	
										5.68 m MoS ₂ , pyrite and pyrrhotite in 5 mm qtz vein.	
										6.9-7.5m MoS ₂ (?) in qtz.	
										6.9 - 7.5 m 1-2 m qtz veinlets (average 1/10 cm), with pyrite and molybdenum (?) Dark grey in colour.	
										7.5 - 7.92m Broken core. Heavily hematized.	
										8.03- 8.90m Mafics destroyed. Hematitic mafic material. Fractured at 30° to CA. No carbonate evident.	
										5.80- 7.5 m Fine grained, light brown material in matrix. Composition unknown.	
										8.95- 9 m Quartz vein with pyrite and MoS ₂ at 70° to CA. 8.95 m MoS ₂ in qtz veinlet.	
										10.00- 10.06m Limonitic and hematitic core.	
										10.06- 11.5 m Greenish, slightly epidotized core. Carbonate on fractures.	

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
									10.25 m Slickenside on hematitic fracture at 45° to CA.	
									10.25 m Minor MoS ₂ "paint".	
									10.6 m 2 mm qtz vein with MoS ₂ and pyrite. 70° to CA.	
									10.7 - 10.75 m Numerous hematitic hairline fractures.	
									11.5 m Qtz vein at ≈30° to CA with minor chalcopyrite.	
									11.5 m Fine grained chloritic material, parallel to qtz vein.	
									11.85 m Fine grained brown to green micaceous material in matrix.	
									12.05 - 12.20 m Hematitic core.	
									12.6 - 14.1 m Hematized core.	
									14.42 - 14.52 m Hematized core.	
									14.7 m Molybdenum and pyrite on hairline fracture.	
									14.9 - 15.0 m Bright green epidotitic core. Carbonate on hairline fractures.	
									15.2 - 15.35 m Hematized core.	
									16.3 - 16.9 m Brownish, partially kaolinized core.	
									Brownish hematitic matrix material. Minor epidotization is evident.	

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
16.9	40.0 m	Quartz	Pale Grey	Medium	Porphyry	Epidote	MoS ₂	2-3		70% at 10-30° to CA.
		Monzonite					Pyrite			30% from 45-60° to CA.
		Porphyry					Pyrrhotite			Quartz veinlets at 70° to CA.
										Quartz eye porphyry. Rounded quartz eyes to 5-7 mm.
										White feldspar phenos to 2-3 cm. 70% feldspar, 5% mafics consisting of hornblende laths to 1 cm and chloritized hornblende. Contains occasional narrow epidotized zones as well as carbonate on hairline fractures.
										1-3% disseminated pyrite and pyrrhotite occur through the core.
										Molybdenum occurs with pyrite and pyrrhotite in quartz veinlets and occasionally as disseminations. Hematite occurs as an occasional fracture coating. Carbonate is usually associated with the hematite.
										17.82m Quartz veinlets at 60° to 70° to CA with pyrite and minor MoS ₂ . 17.82m MoS ₂ in Qtz vein.
										18.62m Quartz veinlet at 70° to CA with pyrite, pyrrhotite and MoS ₂ . "
										18.78m " " " " "
										18.89m " " " " "
										19.10m " " " " "
										19.13m " " " " "
										19.41m " " " " "

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										19.52 m Pyrite, pyrrhotite and MoS ₂ in 1-2 mm qtz veinlet.	
										19.52 m MoS ₂ in qtz veinlet.	
										19.66 - 19.85 m Epidotized core. Carbonate on fractures.	
										20.66 - 20.95 m Epidote alteration bordering 10° fracture. Fracture hematitic and contains carbonate.	
										20.95 - 21.3 m Brownish green epidotized core.	
										21.14 m Fracture with pyrite and MoS ₂ .	
										21.14 m MoS ₂ in fracture.	
										21.52 m Quartz veinlet with pyrite and MoS ₂ .	
										21.52 m MoS ₂ in qtz veinlet.	
										21.55 - 22.1 m Sub parallel qtz vein, partially overgrown by pale greenish grey feldspar phenos.	
										22.0 m 60° quartz veinlet with pyrite and MoS ₂ .	
										22.0 m MoS ₂ in qtz veinlet.	
										22.22 m " " "	
										22.42 m " " "	
										22.22 m 2-3 mm qtz veinlet with pyrite and MoS ₂ .	
										22.42 m 2-3 mm qtz veinlet with pyrite and MoS ₂ .	
										22.56 m 2-3 mm qtz veinlet with pyrite and pyrrhotite, and MoS ₂ (?).	
										22.65 m Pyrite and pyrrhotite on fracture.	
										22.82 m " " "	
										22.95 m 3-4 mm qtz veinlet with pyrite, pyrrhotite, and MoS ₂ .	

DRILL LOG

HOLE NO. ST.83-2

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
											22.95 m MoS ₂ in qtz veinlet.
											23.44 m Pyrite, pyrrhotite and MoS ₂ (?) in qtz veinlet.
											23.7 - 23.97m Epidotized core. Hematite on 30° fracture.
											23.70m Pyrite, pyrrhotite and MoS ₂ in 3-4 mm qtz veinlet.
											23.70m MoS ₂ in qtz veinlet.
											23.74m " " "
											23.74m Pyrite, pyrrhotite and MoS ₂ in quartz veinlet.
											24.94m Slightly epidotized core bordering 30° fracture.
											25.9 m 3-4 mm qtz veinlet with pyrite, pyrrhotite and MoS ₂ .
											25.9m MoS ₂ in qtz veinlet.
											26.25m 30° qtz veinlet with pyrrhotite and brownish material (garnet ?).
											26.70m Slickensides on 20° fracture.
											27.47m Quartz veinlet with pyrite, pyrrhotite and MoS ₂ .
											27.47m MoS ₂ in qtz veinlet.
											27.47- 31.6 m Slightly darker in colour due to increased epidotization in matrix. Increased carbonate contact evident.
											27.78m 1 cm quartz vein with pyrite and MoS ₂ selvages.

DRILL LOG

HOLE NO. ST 83-2 ..

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
											27.68m MoS ₂ in quartz vein.
											28.27m " " " veinlet
											28.27m Quartz veinlet with pyrite, pyrrhotite and MoS ₂ .
											28.4-28.6m 30° white quartz vein with pyrite pyrrhotite blebs.
											28.55-28.75m Slickensides on 20° fracture.
											29.1 m Pyrite, pyrrhotite and MoS ₂ in Qtz veinlet.
											29.51m " " " " " "
											31.06m Qtz veinlet with pyrite, pyrrhotite and minor MoS ₂ .
											29.1m MoS ₂ in Qtz veinlet.
											29.51 " " "
											31.06m " " "
											Hematitic fractures at 30.63 and 31.0 m, at 30° to 45° to CA. 70° hematitic fracture at 31.8 m.
											31.92m Quartz veinlet with pyrite, pyrrhotite and minor MoS ₂
											32.75m " " " " " "
											33.71m " " " " " "
											34.2 m Qtz veinlets with pyrite, pyrrhotite and MoS ₂ .
											35.4 m Qtz vein with pyrite, pyrrhotite and MoS ₂ .
											35.99m " " " " "
											36.30m " " " " "
											36.41m " " " " "
											36.98m " " " " "

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										37.1 m Qtz vein with pyrite, pyrrhotite and MoS ₂ .	
										31.92m MoS ₂ in Qtz veinlet.	
										32.75m " " "	
										33.71m " " "	
										34.2 m MoS ₂ in Qtz veinlets.	
										35.4 m MoS ₂ in Qtz veinlet.	
										35.99m " " "	
										36.31m " " "	
										36.42m " " "	
										36.98m " " "	
										37.1 m MoS ₂ in Qtz veinlet.	
										37.6 - 37.95m Very pale green to beige core, adjacent to	
										30° fracture at 37.65 m. Fracture has gouge and fragments of quartz with pyrite and minor MoS ₂ .	
										38.12m Pyrite, pyrrhotite and MoS ₂ in Qtz vein.	
										39.5 - 40.0 m Pyrite and pyrrhotite on fractures. Little, if any, moly present.	
										38.12m MoS ₂ in Qtz veinlet.	
40.0	53.6m	Quartz	Pale	Medium	Porphyry	Epidote	Molybdenum	2-3		70% of fractures from 45-55° to CA.	
		Monzonite	grey							30% of fractures from 10-30° to CA.	
		Porphyry					Pyrite				
							Pyrrhotite				
										Quartz eye porphyry. Finer grained quartz "eyes" to 5 mm make up 25-30% of rock. Feldspar, with white phenos to 3-4 cm makes up 70-75% of rock. Hornblende with laths to	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
									1 cm makes up \approx 5% of the rock. 30-40% of the hornblende has been altered to chlorite.	
									Contains occasional narrow epidotized zone, usually bordering shallow angle fractures. The epidotized core is invariably enriched in carbonate and a micaceous mineral - sericite (?).	
									Pyrite, pyrrhotite and minor chalcopyrite are found disseminated through the core in concentrations ranging from 1-3%. Pyrite and pyrrhotite also occur with molybdenum in qtz veinlets, ranging from 1-5 mm in thickness. As well, pyrite and pyrrhotite are found coating fractures, usually without accompanying molybdenum.	
									40.3 m Qtz veinlet with pyrite, pyrrhotite and MoS ₂ .	
									40.92m " " " " "	
									40.3 m MoS ₂ in qtz veinlet.	
									40.92m " " "	
									41.7 - 41.8 m Epidotized core with white qtz vein cut by crosscutting pyrite stringers.	
									41.94m Hematitic fracture bounded by highly sericitized core.	
									42.5 m Grey qtz vein with MoS ₂ selvages.	
									42.5m MoS ₂ in qtz vein.	
									42.8 - 43.05m Greenish epidotized core cut by qtz veins. Contains pyrite.	
									43.28m Quartz veinlet with dark grey material -	

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										molybdenum (?)
										43.28m Possible MoS ₂ in vein
										44.07-45.08m Minor dis-
										seminated MoS ₂
										44.7 - 45.08m Epidotized core carbonate rich. Contains
										minor disseminated MoS ₂ . Bounded by 70°
										hematitic fractures.
										45.6 - 46.0 m Dike of finer grained, more mafic material at
										15-20° to CA. Offset by fractures healed by
										pyrite and pyrrhotite.
										46.08m Qtz veinlet with pyrite, pyrrhotite and MoS ₂ .
										46.38m " " " " "
										47.06m " " " " "
										47.20m " " " " "
										47.53m " " " " "
										47.74m " " " " "
										46.08m MoS ₂ in Qtz veinlet.
										46.38m " " " " "
										47.06m " " " " "
										47.20m " " " " "
										47.53m " " " " "
										47.74m " " " " "
										48.04m Qtz veinlet with pyrite, pyrrhotite and MoS ₂ .
										48.28m " " " " "
										48.35m " " " " "
										48.57m " " " " "

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										48.69m Fracture coated with pyrite and pyrrhotite.	
										48.73m " " " "	
										48.84m Qtz veinlet cutting feldspar pheno. Contains pyrite, pyrrhotite and molybdenum.	
										49.06m Qtz veinlet with pyrite, pyrrhotite and MoS ₂ .	
										49.17m " " " " "	
										49.38m " " " " "	
										49.44m " " " " "	
										49.73- 49.86m Epidotized core bounding 45° hematite fracture. Qtz veinlets with pyrite, pyrrhotite and moly at 49.73 and 49.86 m.	
										48.84m MoS ₂ in qtz veinlet.	
										49.06m MoS ₂ in qtz veinlet.	
										49.17m " " "	
										49.38m " " "	
										49.44m " " "	
										49.73m " " "	
										49.86m " " "	
										49.86 - 50.23m 15° to CA. 1cm wide truncated by qtz vein at 49.86 m. Also cut by other 1 mm qtz veinlets from 45° to 60° to CA.	
										50.95m Qtz veinlet with pyrite, pyrrhotite and MoS ₂ .	
										50.95m MoS ₂ in qtz veinlet.	
										52.25 - 53.4 m Feldspar phenos to 3 cm are well developed and pinkish in colour.	
										52.78m Qtz veinlet with pyrite, pyrrhotite and MoS ₂ .	

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM m	TO m		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	{FRACTURES, FAULTS, FOLDING, BEDDING, ETC}	MINERALIZATION, TYPE, AGE RELATIONS	
											52.78m MoS ₂ in qtz veinlet.
											53.4 - 53.6 m Slightly epidotized matrix material.
53.6	59.37	Quartz	Greenish	Medium	Porphyry	Epidotized	Molyb-	6-7			70% of fractures at 60-70° to CA.
		Monzonite	grey			Hematized	denum				20% of fractures at 45-50° to CA.
		Porphyry				Sericit-	Pyrite				10% of fractures at < 30° to CA.
		Epidotized				ized	Pyrrhotite				
											Consists of greenish white well developed feldspar phenos to 3 cm in a moderately to heavily epidotized matrix. About 50% of the mafics (hornblende laths to 1cm) are chloritized. Mafics make up 3-5% of the rock. Contains about 25% quartz as phenos to ≈ 5 mm. Quartz phenos are not as evident as in previous sections.
											The areas of more intense epidotization contain white qtz veins and have well hematized fractures. Carbonate is abundant in the areas of intense epidotization, both in the matrix and with feldspar phenocrysts. Carbonate is also present on hematitic fractures.
											Molybdenum, pyrite and pyrrhotite are contained within occasional qtz veinlets which measure 1-2 mm in thickness.
											Micaceous material (sericite ?) is abundant adjacent to a qtz vein at 54.3 m and near hematized fractures.
											53.88m Hematized fracture with sericite to 54.91m.
											54.28- 54.35m White qtz vein at 80° to CA, bounded by hematized sericitic rock from 54.23 to 54.37m.

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										Qtz vein contains pyrite cubes and hematite on fractures.
										54.55 - 54.58m White qtz vein at 60-70° to CA.
										54.7 - 54.8 m White qtz vein at 30° to CA.
										56.82m Pyrite, pyrrhotite and MoS ₂ in qtz veinlet.
										56.82m MoS ₂ in qtz veinlet.
										57.8 - 58.6 m Hematized sub parallel fractures bounded by limonitic alteration.
59.37	66.2 m	Quartz	Light	Medium	Porphyry	Potassic	Molybdenum	1-2		90-95% of fractures at 70° to CA.
		Monzonite	grey							5-10% of fractures at <30° to CA.
		Porphyry					Pyrite			
							Pyrrhotite			Quartz eye porphyry. Qtz phenos to 5-7 mm make up 25% of rock. White to locally pinkish feldspars make up ≈ 70% of rock with the remaining 5% comprising hornblende laths to 1 cm. 5-10% of the hornblende shows partial alteration to chlorite.
							Chalcopyrite			The core contains 1-2% disseminated pyrite and pyrrhotite. Pyrite and pyrrhotite also occur healing fractures along with what appears to be minor chalcopyrite. Molybdenum occurs with pyrite and pyrrhotite in qtz veinlets but does not appear to be present along fractures other than as possible finite amounts.
										Sharp contact with overlying epidotized core.
										Contains occasional xenoliths of fine grained dioritic material.

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
									59.72m Qtz veinlet at 70° to CA. Contains minor pyrite and possibly molybdenum.	
									59.9 m Qtz veinlet with pyrite and MoS ₂ .	
									60.37m Blebs of MoS ₂ in core.	
									60.93m 7 mm qtz veinlet with pyrite and MoS ₂ .	
									61.28m 2 mm " " " " " }	
									61.51m 2 mm " " " " " "	
									61.83m 1-2 mm " " " " " "	
									59.9 m MoS ₂ in qtz veinlet.	
									60.37m MoS ₂ blebs in QMP	
									60.93m MoS ₂ in qtz veinlet.	
									61.28m " " "	
									61.51m " " "	
									61.83m " " "	
									62.41m Hematitic fracture at 70-75° to CA.	
									63.0 m Pink k feldspar alteration bounding 75° pyrite and MoS ₂ bearing fracture. Potassic alteration zone is 2 cm wide.	
									63.0 m MoS ₂ on fracture.	
									63.5 m Qtz veinlet with pyrite and MoS ₂ .	
									63.5 m MoS ₂ in qtz veinlet.	
									63.9 - 64.3 m Contains pinkish feldspar phenocrysts. Zone is cut by occasional 1 mm qtz veinlets and fractures containing pyrite. May contain minor MoS ₂ , but none visible.	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
									64.69m	3-4 mm qtz veinlet with pyrite and MoS ₂ .
										64.69m MoS ₂ in qtz veinlet.
									65.13m	Pinkish barren qtz veinlet at 45° to CA.
									65.73m	Qtz veinlet with pyrite and minor MoS ₂ (?).
										65.73m MoS ₂ in qtz veinlet.
									65.86m	Qtz veinlet with pyrite and minor MoS ₂ .
										65.86m MoS ₂ in qtz veinlet.
									66.01m	Qtz veinlet with pyrite and pyrrhotite.
66.20	69.05m	Quartz	Green to	Medium	Porphyry	Epidoti-	MoS ₂	2-3		70% of fractures from 50-70°.
		Monzonite	greenish			zation	Pyrite			30% of fractures from 30-45°.
		Porphyry	grey				Pyrrhotite			
		Epidotized								Similar to section from 53.6-59.37 m. Cut by white and grey qtz veinlets. Contains pale green feldspar phenos to 2 cm. Carbonate is abundant in matrix and within feldspar phenos. Fractures are commonly hematized with limonite adjacent to fractures. Pyrite, pyrrhotite and molybdenum are present on qtz veinlets.
									66.5 - 66.85m	Relatively unaltered core. Contains 1-2 mm quartz veinlet every 5-6 cm on average. Veinlets contain pyrite, pyrrhotite and possibly MoS ₂ .
										66.5-66.85m Possible MoS ₂ in qtz stringers
									67.9 m	Qtz veinlet with MoS ₂ at 60° to CA.

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										67.9m MoS ₂ in qtz veinlet.
										68.96 - 69.05m Abundant sericite in matrix.
69.05	70.43 m	Lamprophyre	Black	Fine	Porphyry	Epidoti-	/	1		Contacts at 75° to CA.
				Grained		zation				
										Dark grey to black competent rock with phenos of biotite and blebs of bright green material in a greenish grey epidotized matrix. Cut by an occasional stringer of calcite healing fractures from 30° to 45° to CA.
70.43	74.77 m	Quartz	Light	Medium	Porphyry	Minor	Molyb-	1-2		60% of fractures at 60-75° to CA.
		Monzonite	grey			k-feldspar	denum			40% of fractures at 45° to CA.
		Porphyry				Epidoti-	Pyrite			
						zation	Pyrrhotite			
										Similar to section from 59.37 to 66.20 m. White to pink feldspars to 2-3 cm. 5-7% mafics consist largely of hornblende phenos to 1 cm. 20% of the hornblende shows evidence of chloritic alteration. Contains 25-30% qtz as eyes to 5-7 mm in diameter.
										Alteration consists of locally pervasive and fractured controlled epidotization and occasional k feldspar phenocrysts.
										Molybdenum, pyrite and pyrrhotite occur in qtz veinlets.
										Moly paint also occurs in a fracture at 73.09 m. Pyrite and pyrrhotite also occur as disseminations through the core and along fractures averaging 1-2%.

DRILL LOG

HOLE NO... ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
									70.43- 70.8 m Highly epidotized core. Carbonate and sericite rich.	
									71.33m Slickensides and minor epidote associated with a 30° fracture.	
									71.45- 72.6 m Contains abundant pinkish k feldspar phenos.	
									71.63m 2-3 mm qtz veinlet with pyrite, pyrrhotite and MoS ₂ .	
									72.08m " " " " " " " "	
									71.63m MoS ₂ in qtz veinlet.	
									72.08m " " " "	
									72.4 m Qtz veinlet with mafics at 25° to CA. Foliation?	
									73.09m MoS ₂ "paint" on 70° fracture.	
									73.09m MoS ₂ "paint" on fracture.	
									73.90- 74.25m Pink k feldspar phenos to 3 cm.	
									74.10m Qtz veinlet with pyrite and MoS ₂ .	
									74.10m MoS ₂ in qtz veinlet.	
									74.25- 74.77m White feldspars show ≈10% k feldspar alteration.	
									74.58m Qtz veinlet with pyrite and MoS ₂ .	
									74.58m MoS ₂ in qtz veinlet.	
									74.77m Contact at 45° to CA.	

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION						FRACTURES PER METRE	STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)		MINERALIZATION, TYPE, AGE RELATIONS	
74.77	82.85 m	Gabbro	Dark	Medium	Porphyry	Epidote	None	1	Fractures at 45° to CA.	This rock occurs in outcrop	
			green to			Chlorite	evident			17 m at 241° from DDH 81-5.	
			black			Serpentine				The outcrop appears to have a	
										vertical or steep easterly dip	
										Dark green to black medium grained rock comprising dark	
										blue (serpentine/soapstone) phenos to 7 mm with dark green	
										hard phenos (siliceous ?) to 5 mm in a matrix consisting of	
										finer grained biotite in a medium green epidotized ground-	
										mass. Fractures are calcite healed. Both contacts at 45°	
										to CA.	
									77.85 m	Sheared core consisting predominantly of	
										biotite.	
									81.08 - 81.18 m	" " " " "	
									81.8 - 81.9 m	Contains rounded qtz phenos to 5 mm.	
82.85	93.03 m	Quartz	Light	Medium	Porphyry	Epidote	MoS ₂	2-3	80% of fractures at 70° to CA.		
		Monzonite	grey to			Limonite	Pyrite		20% of fractures at 30-45° to CA.		
		Porphyry	white				Pyrrhotite				
										Quartz "eye" porphyry.	
										White feldspar phenos to 2-2.5 cm. Feldspar makes up	
										70% of rock. Quartz with rounded "eyes" to 7-8 mm.	
										5% mafic material consists largely of hornblende laths to	
										1 cm. 10% of the hornblende is chloritized.	

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										Pyrite, pyrrhotite and minor chalcopyrite are found disseminated through the core (1-2%) and also in qtz veinlets with molybdenum. Pyrite and pyrrhotite also occur as fracture fillings.	
										Epidote occurs occasionally and is fracture controlled.	
										Limonite occurs in a zone of white bleached core extending from 88.65 m to 93.03 m.	
										MoS ₂ is also present in minor amounts in 1 mm qtz stringers. However, MoS ₂ is only noted where visible.	
										82.85 - 83.7 m Frequent 1 mm qtz stringers with pyrite.	
										83.32 - 83.4m 70° fractures with slickensides	
										83.41m MoS ₂ in qtz veinlet.	
										83.41m MoS ₂ in qtz veinlet.	
										83.83 - 84.25m Brownish slightly limonitic core. Contains frequent qtz stringers to 1 mm.	
										83.93m Qtz veinlet with pyrite and minor MoS ₂ .	
										84.04m Pyrite and MoS ₂ healing fracture.	
										83.93m MoS ₂ in qtz veinlet.	
										84.04m MoS ₂ in fracture.	
										84.96m MoS ₂ and pyrite in qtz veinlet.	
										84.96m MoS ₂ in qtz veinlet.	
										85.6 - 86.7m Qtz stringers (to 1mm).	

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										85.22m MoS ₂ in quartz veinlet.	
										85.64m " " "	
										85.96m " " "	
										86.13m " " "	
										85.22m MoS ₂ in qtz veinlet.	
										85.64m " " "	
										85.96m " " "	
										86.13m " " "	
										86.38- 86.55m Qtz stringers with pyrite and minor MoS ₂ .	
										86.84- 87.2 m Slightly limonitic. Sericite in matrix.	
										87.47m MoS ₂ in qtz veinlets 3 cm apart.	
										87.58m MoS ₂ in 5 mm qtz veinlet.	
										87.83m Qtz veinlets with minor MoS ₂ (?).	
										86.28-86.55m Minor MoS ₂ in qtz stringers.	
										87.47m MoS ₂ in qtz veinlets.	
										87.58m " " " veinlet.	
										87.83m " " " veinlets.	
										88 - 88.65m Pyrite qtz stringers at 15 cm intervals.	
										88.53m MoS ₂ in qtz veinlet.	
										88.53m MoS ₂ in qtz veinlet.	
										88.65- 89.3 m White bleached core with pyrite veinlets and hematite along fractures.	
										89.52m Pyrite and MoS ₂ in qtz veinlet.	
										89.52m MoS ₂ in qtz veinlet.	
										90.15- 90.67m White bleached core.	

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										91.05 - 91.18m White bleached core.
										91.18 - 91.31m Epidotized matrix.
										91.31 - 93.03m White bleached core.
93.03	97.0 m	Quartz	Greenish	Medium	Porphyry	Epidote	MoS ₂	3-4		80% of fractures at 60-70° to CA.
		Monzonite	grey			k-feldspar	Pyrite			20% of fractures at 30-45° to CA.
		Porphyry				alteration	Pyrrhotite			
										Greenish, slightly to moderately epidotized core. White feldspar phenos to 2-2.5 cm. Quartz as phenos to 7 mm makes up 25% of core. 5% mafics consisting of hornblende and chloritized hornblende. Carbonate is present in the highly epidotized core.
										Pyrite, MoS ₂ and pyrrhotite occur in qtz veinlets and along occasional fractures.
										Some feldspar phenos show pinkish feldspathic alteration.
										93.46 - 93.57m Highly epidotized core with MoS ₂ bearing white qtz veinlets.
										93.46-93.57m MoS ₂ in qtz veinlets.
										94.13m Qtz veinlets with MoS ₂ and pyrite.
										94.36 - 94.39m " " " " "
										94.13m MoS ₂ in qtz veinlets.
										94.36 - " " " "
										94.39m

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										94.53- 94.83m Finer grained core with 3% pyrite and pyrrhotite.
										95.4m Foliation at 35° to CA
										95.8 - 96.35m Pinkish feldspar phenos in relatively unaltered core.
										96.15m MoS ₂ and pyrite in qtz veinlet.
										96.7 m MoS ₂ and pyrite in 7 mm qtz veinlet.
										96.15m MoS ₂ in qtz veinlet.
										96.7 m " " "
97.0	104.5 m	Quartz	Green	Medium	Porphyry	Epidote	MoS ₂	2-3		90% of fractures from 60-70° to CA.
		Monzonite				k-	Pyrite			10% of fractures from 30-45° to CA.
		Porphyry				feldspar	Pyrrhotite			
		Epitodized								Quartz eye porphyry. Similar in texture to previous section. Feldspars are white to pink in colour, the latter due to potassic alteration. Variably epidotized from slightly to intensely. Increased carbonate content evident with increased epidotization. Carbonate occurs in the matrix and within phenos of feldspar as well as along fractures.
										Pyrite and pyrrhotite occur as dissemination and in quartz veinlets with MoS ₂ . Fractures are occasionally hematized. Mafic material has been destroyed in areas of strong epidotization. Locally, minor sericite occurs in the matrix.

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
									97.0 - 98.25m Light green core with increased qtz content.	
									98.25 - 99.9 m Medium green, highly epidotized core.	
									98.72m Minor MoS ₂ in white qtz veinlet.	
									98.72m MoS ₂ in qtz veinlet.	
									99.9 -104.5 m Moderately epidotized with pinkish k feldspar phenos.	
									100.2 m Minor MoS ₂ in grey qtz veinlet	
									100.2m Minor MoS ₂ in qtz.	
									102.25-102.3 m Highly hematized core with minor carbonate.	
									102.3 -102.5 m White qtz vein. Contacts at 70° to CA.	
									103.9 -103.93m Highly hematitic core.	
									104.5m Hematized 30° fracture.	
104.5	113.0 m	Quartz	Light	Medium	Porphyry	Epidote	MoS ₂	2-3	80-90% of fractures at 60-70° to CA.	
		Monzonite	grey to			Limonite	Pyrite		10-20% of fractures at 30-45° to CA.	
		Porphyry	pale green			Hematite	Pyrrhotite			
									Quartz eye porphyry. Quartz eyes to 5-7 mm. Quartz makes up 25% of rock, white feldspar phenos to 2-3 cm. Contains ≈ 5% mafics consisting principally of hornblende phenos to 1 cm. Locally, 40% of the hornblende is chloritized.	
									Contains several narrow sections of broken limonitic core with hematitic fractures.	
									Pyrite, pyrrhotite and MoS ₂ as in previous sections occur in qtz veinlets. Pyrite and pyrrhotite are also disseminated	

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										through the core.	
										Minor carbonate is present in areas of epidote alteration	
										104.5 -104.9 m Hematitic and limonitic core with 35° fractures.	
										104.9 -105.1 m 5-7% pyrite blebs.	
										105.1 -105.4 m Hematitic and limonitic core with 35° fractures.	
										106.05m Pyrite concentration with MoS ₂ .	
										106.05m MoS ₂ with pyrite.	
										106.06-109.23m Slightly epidotized core with pinkish k-feldspar alteration of occasional phenos.	
										Contains an occasional qtz stringer with minor pyrite but very little MoS ₂ .	
										109.23-109.6 m Brown hematitic core. Mn on fractures (10-20/m).	
										110 -111.0 m Broken core 20-30/m. Hematitic to 110.75 m. 110.75m MoS ₂ "paint" on 35° fracture.	
										110.75m MoS ₂ "paint" on fracture.	
										111.8 -111.86m 30° fracture with minor clay alteration on fracture.	
										112.0 -112.1 m Hematitic fractures. Limonitic core.	
										112.1m Pyrite and MoS ₂ in qtz veinlet at 90° to CA.	
										112.65m MoS ₂ and pyrite in qtz veinlet.	

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE (FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	REMARKS MINERALIZATION, TYPE, AGE RELATIONS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE		
									112.1 m MoS ₂ in qtz veinlet.	
									112.65m " " " "	
113.0	113.66 m	Shear Zone	Brown to grey	Medium	Porphyry	Epidote Hematite Limonite Sericite	None Evident	30	70% at 60-70° to CA. 30% at 30-45° to CA.	
									Similar in texture and composition to previous section. Heavily hematized fractures -- many with slickensides. Mafics largely chloritized. Sericite evident in matrix.	
									113.52-113.61m Abundant sericite in matrix.	
									113.61-113.66m White qtz vein. Contains pyrite and minor MoS ₂ .	
									113.61-113.66m MoS ₂ in qtz vein.	
113.66	118.0 m	Quartz Monzonite Porphyry	Green to grey	Medium	Porphyry	Epidote Sericite Hematite	MoS ₂ Pyrite Pyrrhotite	2-3	Quartz eye porphyry. Slight to heavy epidote alteration. Contains ≈25% qtz as "eyes" to 5-7 mm. The qtz eyes are less well developed than in previous sections. Contains 5% mafics -- predominantly chloritized hornblende. Zones of higher epidote alteration show sericite development in matrix and contain carbonate. Pyrite, pyrrhotite and MoS ₂ occur in qtz veinlets.	

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										Pyrite and pyrrhotite are also disseminated through the core (1-3%).
										Less feldspars are evident than in previous sections, probably as a result of pervasive epidotization.
										113.66-115.0 m Medium green moderately epidotized core.
										114.52-114.55m White qtz vein with pyrite. Bounded by highly epidotized core.
										115.0 -115.47m Dark green, heavily epidotized core. Brownish material in matrix.
										115.02m MoS ₂ with pyrite in qtz stringer.
										115.47m " " " " veinlet.
										115.02m MoS ₂ in qtz stringer 115.47m " " veinlet.
										115.47-116.5 m Slightly epidotized core.
										115.68-115.85m Qtz stringers with pyrite and MoS ₂ ?
										115.68-115.85m MoS ₂ in stringers.
										116.23m Qtz veinlet at 35° to CA - barren.
										116.5 -118.0 m Moderately to heavily epidotized core. Contains occasional pyrite and pyrrhotite filled stringer.
										117.6-117.85m Hematitic fracture at 30° to CA.

DRILL LOG

HOLE NO. ST 83-2.

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
									117.76m Qtz veinlets with pyrite and MoS ₂ .	
									117.76m MoS ₂ in qtz veinlets	
118.0	139.15 m	Quartz	Grey to	Medium	Porphyry	Epidote	MoS ₂	2-3	90% of fractures at 60-70° to CA.	
		Monzonite	white to			Potassic	Pyrite		10% of fractures at 30-45° to CA.	
		Porphyry	pinkish				Pyrrhotite			
									Well developed porphyry with feldspar phenos to 2-3 cm.	
									Contains ≈ 25% qtz but no qtz eyes. Increased mafic content	
									Contains 5-7% hornblende as stubby crystals to 1.5 cm.	
									Locally the mafics are 60% chloritized.	
									The porphyry is grey to white in colour with the white rock containing pinkish k feldspar replacing phenocrysts	
									and in the matrix, k feldspar alteration is slight.	
									Pyrite and pyrrhotite are disseminated through the core.	
									As well, the core is cut by numerous 1-2 mm qtz stringers	
									and fractures containing pyrite and pyrrhotite and usually	
									MoS ₂ . In this section, the stringers are too numerous to	
									identify individually. Instead, an attempt will be made to	
									qualify the number of (presumably) MoS ₂ bearing stringers	
									per metre. Larger veinlets, however, will be noted.	
									118 -123.0 m Grey, locally epidotized core.	
									118-123.0m 7-8 stringers/m.	
									118.5 m Xenolith of fine grained mafic material.	
									120.54m 1 cm grey qtz veinlet with pyrite,	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										chlorite and MoS ₂ .	
										120.54 m MoS ₂ in qtz veinlet.	
										121.6 -121.95 m Broken core containing pyritic 2 cm qtz vein.	
										123 -129.85 m White to pinkish core showing evidence of potassic alteration. Feldspar phenos are slightly feldspathized. As well, k feldspar is apparent in the matrix.	
										123.0 -129.85 m 8 stringers per metre.	
										129.03-129.6 m Fractures at 30° to CA. Hematitic.	
										129.85-139.15 m Grey to locally greenish, slightly epidotized rock. Appears to have increased mafic content. Qtz stringers are slightly larger in size, averaging 3-4 mm.	
										129.85 m 8 qtz stringers/ metre with pyrite and MoS ₂ (?).	
										130.6 -130.9 m Broken core. Hematitic. Fractures.	
										130.9 -131.7 m Green, moderately epidotized core. Pyrite in fractures from 131.55 m.	
										131.7 -131.9 m Broken, hematitic core.	
										132.3 -133.0 m Broken core. Pyrite and	

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										chlorite in qtz veinlets.	
										133.95m Slickensides on 30° fracture.	
										136.3 -137.8 m Whitish core with minor k-feldspar alteration.	
										137.8 -139.15m Greenish epidotized core.	
										135.41m MoS ₂ in qtz veinlet.	
										136.46m " " "	
										136.89m " " "	
										139.01m " " "	
139.15	163.0m	Quartz	White to	Medium	Porphyry	Epidote	MoS ₂	2-3		70% of fractures at 60-70° to CA. Contains 7-8 qtz	
		Monzonite	pinkish			Potassic	Pyrite			30% of fractures at 30-45° to CA. stringers/m.	
		Porphyry	to grey				Pyrrhotite				
										Similar in texture and composition to previous section.	
										Contains frequent pinkish feldspar phenos as well as minor	
										potassic alteration in matrix. 30-40% of the hornblende	
										which makes up 5-7% of the rock has been chloritized.	
										Qtz stringers and veinlets	
										at 60-70° to CA.	
										Quartz stringers and veinlets average 1-5 mm in thickness	
										and contain pyrite and pyrrhotite and MoS ₂ . Approximately	
										7-8 stringers and veinlets occur per metre. MoS ₂ is visible	
										in the larger of these but is probably also present in the	
										1-2 mm stringers.	
										Locally epidotized.	
										140.22m MoS ₂ in qtz veinlet.	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										140.91m MoS ₂ in qtz veinlet.
										141.2 -142.0 m Pale green, slightly epidotized core with carbonate.
										144.75m MoS ₂ in qtz veinlet.
										144.9 m " " "
										145.43m " " "
										142.65-146.25m Well developed k feldspar phenos. Core contains frequent 30-45° fractures coated with chlorite.
										143.9-144.10m Hematitic fractures.
										146.15m 5 mm veinlet of MoS ₂ .
										146.15m MoS ₂ veinlet.
										148.0 m MoS ₂ in qtz veinlet.
										148.4 m " " "
										148 -148.25m Green, highly epidotized core.
										150.1 -151.0 m Very slightly epidotized core.
										150.1 m MoS ₂ in qtz veinlet.
										150.85m " " "
										152.9 -153.6 m Greenish, slightly epidotized core.
										153.6 -154.1 m Slightly limonitic core. Hematite on fractures
										154.9 -155.8 m Hematitic fractures. Limonitic and epidotitic core.
										155.8 -156.0 m Slightly epidotized core.
										156.94m MoS ₂ in qtz veinlet.
										157.05m " " "
										From 156.0 m, the core becomes greyer in colour and shows

DRILL LOG

HOLE NO. . . ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
									slightly less potassic alteration. Chloritic fractures are common.	
										158.85m MoS ₂ in qtz veinlet.
										159.1 m " " veinlets
										159.92m " " veinlet.
									161.4 -162.9 m Aplite makes up 30% of core. Both aplite and QMP are cut by qtz veinlets at 70° to CA.	
									162.88-162.98m Pinkish, barren qtz vein at 10-20° to CA.	
										161.78m MoS ₂ in qtz veinlet.
										162.88m " " "
163.0	175.95m	Quartz	White to	Medium	Porphyry	Potassic	MoS ₂	2-3	80% at 60-70° to CA.	6-8 qtz stringers and veinlets
		Monzonite	pink to			Chloritic	Pyrite		20% at 30-45° to CA.	per metre. Stringers and
		Porphyry	grey			Epidote	Pyrrhotite			veinlets contain pyrite, pyrrhotite and minor MoS ₂ .
										Similar in texture and composition to previous section.
										Contains occasional xenoliths. Alteration consists of potassic alteration of feldspar phenos, chloritic alteration
										of hornblende phenos, with chlorite on fractures and minor epidotization. Hematite occurs in occasional fractures.
										Pyrite, pyrrhotite and MoS ₂ occur in qtz stringers and veinlets, which have a density of 6-8/metre.
										163.85-164.1 m Greenish epidotized core.
									163 -170.2 m Contains frequent k feldspar phenocrysts.	
										164.03m MoS ₂ in qtz veinlet.

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
											164.30m MoS ₂ in qtz veinlet.
											165.44m " " "
											166.39m " " "
											164.95m " " "
											168.0 m " " "
											170.2 -175.56m Greenish, slightly epidotized core, with occasional pinkish feldspar phenocrysts.
											170.2 -170.35m Limonitic core.
											172.68-172.82m Limonitic core. Hematized fractures.
											173.0 -173.26m Hematized fractures at 30° to CA.
											170.38m MoS ₂ in qtz veinlet.
											171.05m " " "
											172.42m " " "
											173.23m " " "
											175.58m " " "
											175.56-175.95m Salmon pink potassic alteration. MoS ₂ bearing qtz veinlet at 175.58 m is offset by a barren qtz vein, parallel to core.
175.95	179.0 m	Shear Zone	Green	Medium	Porphyry	Epidote	Pyrite	10-20			80% of fractures at 60-70° to CA.
						Chlorite	Pyrrhotite				20% of fractures at 30-45° to CA.
											Sheared equivalent of previous section. Pale green epidotized core. Mafics have been largely altered to

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										chlorite. Chlorite also heals numerous fractures and is found as a coating on open fractures.
										Carbonate occurs as a fracture filling and also within the altered mafic phenocrysts. Slickensides are evident on most fractures. Gouge occurs at 176.4 m.
179.0	197.15 m	Quartz	Grey to	Medium	Porphyry	Epidote	MoS ₂	3-4		70% of fractures at 60-70° to CA. 3-4 stringers/metre.
		Monzonite	greenish			Chlorite	Pyrite			30% of fractures at 30-45° to CA.
		Porphyry				Potassic	Pyrrhotite			
										Light to medium grey rock. Locally pink to green, due to potassic and epidotitic alteration. Contains 20-25% quartz and 5-7% hornblende as both fresh and chloritic material. Chlorite also occurs as a fracture filling.
										Pyrite and pyrrhotite are disseminated through core but also occur as accessories in qtz veinlets, along with MoS ₂ .
										Quartz stringers and veinlets, often containing molybdenum, are found at irregular intervals through the core at angles ranging from 60-75° to the core axis.
										181.07m MoS ₂ in qtz veinlet.
										182.60m " " " "
										184.66m " " " "
										185.77m " " " "
										186.90-187.2 m Greenish epidotized core.
										187.9 -188.85m " " "
										189 -194.0 m Whitish grey core with pinkish k feldspar alteration.

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
											186.42m MoS ₂ in qtz veinlet.
											187.13m " " "
											188.61m " " "
											189.21m " " "
											189.67m " " "
											190.54m " " "
											191.89m " " "
											192.14m " " "
											192.93m MoS ₂ in qtz veinlet.
											196.16m MoS ₂ "paint"
											196.37m MoS ₂ in qtz veinlet.
											196.8 m " " "
											194 -196.8 m Light grey to greenish rock. Locally slightly epidotized.
											195.16m MoS ₂ paint on sheared fracture.
											196.8 -198.15m Light grey rock with local potassic alteration
											196.37 m MoS ₂ and pyrite in qtz veinlet at 60° to CA.
197.15	205.0 m	Quartz	Light to	Medium	Porphyry	Epidote	MoS ₂	3-4			90% of fractures at 60-70° to CA.
		Monzonite	medium			Chlorite	Pyrite				10% of fractures at 30-45° to CA.
		Porphyry	green				Pyrrhotite				
											Light to medium green in colour. Contains euhedral white to pale green feldspar phenos to 2-2.5 cm. Mafics consist of largely chloritic hornblende which makes up ≈5% of the rock. Carbonate is common within mafic material and also along fractures.

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										Pyrite and pyrrhotite are disseminated through the core.
										Both are also found along with MoS ₂ in qtz veins and stringers
										Qtz stringers and veins are white and grey in colour and
										range from several millimetres to 12 cm in width. Most are
										at 60° to 70° to the core axis.
										198.37-198.43m White qtz vein with MoS ₂ selvages.
										198.37-198.43m MoS ₂ selvages
										199.85-199.99m White qtz vein with MoS ₂ selvages.
										199.3 -199.7 m Contains abundant feldspar phenocrysts.
										199.7 -200.25m Pale green equivalent of zone from 200.3-200.7 m.
										199.83-201.88m Broken core with slickensides and dark green chlorite.
										201.59m MoS ₂ in qtz veinlet.
		Shear Zone								204.25-204.6 m Sheared core with abundant chlorite, graphite and fine grained MoS ₂ on fractures. Pale green epidotized rock.
										204.25-204.6m MoS ₂ in shear.
										204.85 m MoS ₂ in qtz veinlet.
205.0	236.0 m	Quartz	Grey to	Medium	Porphyry	Potassic	MoS ₂	3-4		90% of fractures from 60-70° to CA. Contains an average of
		Monzonite	pink			Epidoti- tic	Pyrite			10% of fractures from 30-45° to CA. 3-4 qtz veinlets per m.
		Porphyry				Chloritic	Pyrrhotite			Most contain MoS ₂ along with pyrite and pyrrho-
										tite. Veinlets at 60-70° to CA.

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, WEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										Contains 70% feldspar as phenocrysts and matrix material.
										Feldspar phenocrysts are predominantly k feldspar. Potassic alteration is also evident in the matrix. The section contains 1-2 m zones of greenish epidotized rock. As well, epidote and chlorite are common along hairline fractures.
										Mafics consist of stubby hornblende phenos to 1 cm about 60% of which are chloritized. Occasional hornblende phenos have been replaced by reddish brown carbonate rich material. Carbonate is also present along hairline fractures associated with chlorite and/or epidote.
										Pyrite and pyrrhotite are also found disseminated through the section and average 1-2%.
										205 -206.8 m Transitional from previous section. Greenish grey, very slightly epidotized rock with occasional pinkish k feldspar phenos.
										206.4 -208.0 m Contains two light grey fine grained 2 cm wide aplite dikes at 15-20° to CA. 206.90m MoS ₂ in qtz veinlet.
										209.58m 1 cm qtz veinlet with MoS ₂ and garnet. 209.58m MoS ₂ in qtz veinlet. 209.69m " " "
										211.68-211.80m Bright green epidotized core.

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
212.6	217.3 m	Epidotized							212.6 -217.3 m Contains 40-50% epidotized material.	
		Quartz							Most fractures are chloritized and show	
		Monzonite							evidence of shearing. Many contain MoS ₂	
		Porphyry							paint.	
									212.6-217.3m MoS ₂ "paint"	
									common on fractures.	
									213.38m MoS ₂ in qtz veinlet.	
									213.75 m Heavy chlorite with minor gouge.	
									214.11m MoS ₂ in qtz veinlet.	
									214.57m " " "	
									215.16m Calcite vein at 45° to CA.	
									215.68m Graphite (?) vein with MoS ₂ .	
									215.68m MoS ₂ with graphite(?)	
									216.98m MoS ₂ in qtz veinlet.	
									217.10m Brecciated qtz vein with graphite (?),	
									pyrite and MoS ₂ .	
									217.10m MoS ₂ with graphite (?)	
									217.3 -222.90m Pink rock with 20-30% k feldspar material.	
									Most phenocrysts are feldspathized.	
									217.87m MoS ₂ in qtz veinlet.	
									217.93m " " "	
									218.22m " " "	
									219.11m " " "	
									219.3 m " " "	
									219.73m " " "	
									219.92m " " "	

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
									221.30 m Qtz veinlet with	220.85m MoS ₂ in qtz veinlet.
									MoS ₂ and pyrite. Qtz	221.30m " " "
									veinlet is paralleled	221.82m " " "
									by a stringer of	222.12m " " "
									garnetiferous material.	222.22m " " "
222.9	226.4 m	Epidotized							222.9 -226.4 m Greenish epidotized core. Slight to moderate epidote alteration.	
									223.85m Well epidotized feldspar phenos with carbonate.	
									223.18m MoS ₂ in qtz veinlet.	
									224.05m Pinkish barren qtz vein at 45° to CA.	
									226.4 -232.0 m Pinkish rock with white to pale pink feldspar phenocrysts. Less widespread potassic alteration.	
									227.9 -227.97m Slightly epidotized core.	
									228.73-228.81m " " "	
									229.9 -230.5 m Broken core. Fractures at 15-20° to CA are chlorite and epidote coated.	
									231.6m Aplite vein at 20° to CA.	
									224.49-225.60m MoS ₂ in qtz veinlets.	
									225.2 -226.32m MoS ₂ in veinlets	
									226.53m MoS ₂ in veinlet.	
									226.23m " " "	
									227.18m " " "	

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
											228.81m MoS ₂ in veinlet.
											228.90m " " "
											229.43m " " "
											229.78m " " "
											230.8 m " " "
											231.75m " " "
											232.82-234.02m MoS ₂ paint on shear fractures.
											233.0 -237.0 m Predominantly epidotized core with remnant k feldspar material. Contains 6-7 fractures per m (60% at 60-70° to CA, 40% at 30-45° to CA). Carbonate on fractures. Most fractures show evidence of shearing.
											233.82-234.02m White qtz vein with pyrite blebs, slightly brecciated with chlorite healing fractures. Bounded by shear fractures with MoS ₂ paint. Fractures at 70° to CA.
											234.25-234.35m Calcite veinlets at 30° to 90° to CA.
											235.90m Gouge on fracture.
											235.37m MoS ₂ "paint" on fractures.
											236.69-236.71m White qtz vein with MoS ₂ selvages.
											234.37m MoS ₂ paint.

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
											235.69 - 236.71m MoS ₂ selvages.
236.0	261.5m	Quartz	Grey to	Medium	Porphyry	Epidote	MoS ₂	3-4			80-90% of fractures at 60-70° to CA.
		Monzonite	greenish			Potassic	Pyrite				10-20% of fractures at 30-45° to CA.
		Porphyry	-grey to pink				Pyrrhotite				
											Predominantly grey core with zones of epidote alteration to several metres in length. Contains 15-20% k feldspar phenos to 250.6 m. Rock composed of 20-25% qtz with phenos to 4-5 mm, 5% mafics comprising hornblende and chloritic hornblende, and feldspar with phenos to 2-3 cm.
											The larger epidote intervals appear to be, as in previous sections, fracture controlled.
											Pyrite and pyrrhotite occur as fracture filling and also appear with MoS ₂ in qtz veinlets.
											Qtz veinlets vary in density with ranges from 4/metre to 7-8/metre. Most stringers and veinlets contain at least minor MoS ₂ , which is not always evident in core. Larger concentrations are noted under the "Remarks" section.
											Qtz veinlets and stringers are grey to white in colour with the white veins usually occurring in epidotized core.
											236.0-249.6 m Pinkish rock similar to previous section.
											237.47m 2 cm aplite at 45° to CA.
											238.94m Garnet in veinlet.
											239.25-240.3 m Medium green epidotitic core.
											240.0 -241.10m Epidotized core.



DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
									245.10-245.40m Aplite vein at 20° to CA.	
									236.45m MoS ₂ in qtz veinlet.	
									238.66m " " "	
									239.06m " " "	
									239.10m " " "	
									239.51m " " "	
									239.55m " " "	
									239.73m " " "	
									240.17m " " "	
									240.85m " " "	
									241.27m MoS ₂ on fracture.	
									241.88m MoS ₂ in qtz veinlet.	
									242-244m Contains 12 qtz stringers with MoS ₂ (?).	
									243.89m MoS ₂ in qtz veinlet.	
									244.96m " " "	
									245.75m " " "	
									245.96m " " "	
									246.59m " " "	
									249.6 m -254.7 m Slightly to heavily epidotized. Greenish grey to dark green in colour.	
									250.52m Pyrite and garnet in qtz veinlet.	
									250.95-252.35m Garnet in matrix.	
									251.81m Minor MoS ₂ in qtz veinlet.	
									252.4 m Pyrite and pyrrhotite in white	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										qtz vein.	
										253.6 m Disseminated MoS ₂ in 45° qtz veinlet.	
										256.75-257.15m Grey, fine grained aplite.	
										257.2 -257.8 m Garnetiferous core.	
										257.72-257.95m Potassic alteration with pink feldspars.	
										260.5 -261.5 m Dark green epidotized core.	
										251.81m MoS ₂ in qtz veinlet.	
										252.67m " " "	
										253.6 m " " "	
										254.58m " " "	
										255.35m MoS ₂ in fracture.	
										257.52m MoS ₂ in qtz veinlet.	
										260.01m " " "	
										261.99m MoS ₂ paint on shear.	
261.5	278.5 m	Quartz	Grey to	Medium	Porphyry	Epidote	MoS ₂	3-4		80% of fractures at 60-70° to CA.	
		Monzonite	greenish			Chlorite	Pyrite			20% of fractures at 30-45° to CA.	
		Porphyry and	grey				Pyrrhotite				
		Epidotized OMP								Texturally similar to previous section. However, epidote alteration is much more pervasive than in the previous section. Locally, the rock is composed of 30-60% epidotized material.	
										Quartz veinlets with pyrite, pyrrhotite and MoS ₂ are much less abundant, averaging ≈3/metre. 60-70% of the hornblende has been altered to chlorite. Carbonate occurs on fractures	

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	{FRACTURES, FAULTS, FOLDING, BEDDING, ETC}	MINERALIZATION, TYPE, AGE RELATIONS
										within the epidotized core and also within both feldspar and mafic phenos.
										261.5 -265.6 m Pale green to whitish epidotized core.
										262.3-262.6m Aplite.
										263.2-263.8m Contains 50% aplitic material.
										263.82m Gouge on fractures.
										264.3-265.6m Contains 40% aplitic material.
										265.6 -266.0 m Dark green epidotic core.
										266.0 Grey core with 20-30% epidotized material.
										266.35-266.6 m Minor potassic alteration.
										267.67-267.73m White qtz vein with pyrite and pyrrhotite.
										268.85-269.01m Aplitic rock.
										269.7 -270.55m Epidotized core. Aplitic from 271.40 m.
										270.8 m Qtz veinlet with garnet.
										271.15-271.45m Epidotized core.
										273.25-273.6 m Aplite at 45° to CA.
										276.63 m MoS ₂ and garnet in qtz veinlet
										276.05-276.55m Epidotized aplite at 45° to CA.
										278.49 m Qtz vein with pyrite and pyrrhotite.
										267.74m MoS ₂ in qtz veinlet.
										268.88m " " "
										272.12m " " "

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										275.63m MoS ₂ in qtz veinlet
										275.84m Mos ₂ disseminated
										in core.
										277.32m MoS ₂ veinlet.
278.5	291.0 m	Quartz	Green	Medium	Porphyry	Epidotized	MoS ₂	3-4		Fractures - 80-90% at 60-70° to CA.
		Monzonite				Sericiti-	Pyrite			10-20% at 30-45° to CA.
		Porphyry				zed	Pyrrhotite			
										Medium green rock with pale green feldspar phenocrysts to 3 cm. Contains zones containing yellowish green micaceous material (sericite ?), usually associated with qtz veining. These areas show increased carbonate content.
										MoS ₂ , pyrite and pyrrhotite, occur with qtz veins. The veins themselves range from 60° to 90° to CA and are white in colour.
										Mafic material has been altered to chlorite.
										280.1 -281.2 m Relatively unaltered core.
										283.23-283.4 m Aplitic core.
										284.10-284.25m Aplitic core.
										285.45-285.75m Qtz veins with pyrite and sericitic material.
										287.32 m Garnet veinlet at 70° to CA.
										288 -288.3 m Contains pinkish feldspar phenos.
										288.93 m MoS ₂ in qtz veinlet - grey qtz.
										290.4 -291.1 m Shear zone with 10-30° fractures. Slickensides evident on fractures as well as calcite.

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										283.03m MoS ₂ selvage in qtz vein.	
										283.62m MoS ₂ selvage.	
										284.48m " "	
										285.2 m MoS ₂ adjacent to qtz vein.	
										288.93m MoS ₂ in qtz veinlet.	
										290.81m " " "	
291.0	292.55 m	Aplite	Grey to green	Fine	Equi- granular	Epidote	Mos ₂ Pyrite	15-20		80% of fractures at 10-30° to CA. 20% of fractures at 60° to CA.	
										Fine grained grey to greenish rock. Contains MoS ₂ stringers with minor pyrite from 291.75 to 291.9 m.	
										291.35-291.55m QMP material.	
										291.35-291.55m MoS ₂ stringers.	
										293.4 m MoS ₂ in qtz veinlet.	
292.55	311.9 m	Quartz Monzonite Porphyry	Green	Medium	Porphyry	Epidote	Mos ₂ Potassic Pyrite Chloritic Pyrrhotite	4-5		Fractures - 80% at 60-70° to CA. 20% at 30° to CA.	
										Pale to medium green epidotized rock with feldspar phenos to 2 cm. Cut by an occasional aplite and contains minor potassic alteration locally. Carbonate occurs in altered matrix material as well as within altered mafic phenocrysts.	

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										Qtz veins are present but not common and range from 0° to 70° to CA.	
		Aplite								294.9 -295.90m Aplite. Pale green epidotized rock. Contacts at 45° to CA. Cut by MoS ₂ and pyrite bearing qtz vein at 295.6 m.	
										296.8 m MoS ₂ in qtz veinlet.	
										297.93m MoS ₂ in qtz veinlet	
										and along shear.	
										298.8-299.78m MoS ₂ along shears and as stringers.	
		Aplite								298.8 -299.78m Aplite. Light greenish to beige, fine grained rock. Contains numerous sheared fractures at 45° to CA. Fractures coated with chlorite. Sheared contacts at 75-80° to CA. Contains MoS ₂ stringers and MoS ₂ along shears.	
										299.78-303.25m Highly epidotized rock, consisting of white quartz material in a medium to dark green matrix, consisting entirely of epidote and chlorite. Slickensides are evident on numerous fractures. Carbonate occurs on hairline fractures.	
		Aplite								303.25-305.0 m Predominantly aplitic core. Epidotized with potassic alteration at 304.5 m and from	

DRILL LOG

HOLE NO. ST 83-2.

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
									304.85-304.95 m.	
									305 -305.7 m As from 299.78 to 303.25 m.	
									305.7 -306.12m Euhedral feldspar phenos to 3 cm in epidotized matrix.	
		Aplite							306.12-306.45m Aplite. Green epidotized core cut by pyritic white quartz veins at 20° to CA.	
									307.3 -307.45m Aplite. Bounded by MoS ₂ bearing white qtz veins.	
									307.07-307.73m Shear with gouge, MoS ₂ on shears.	
									309.6 -310.1 m Predominantly aplitic material bounded at 30.6 m by shear.	
									310.5 -310.69m Dark green sericitic rock.	
									310.69-311.02m White qtz vein with pyrrhotite and pyrite.	
									311.02-311.15m As from 210.5-310.69 m.	
									304.2 m MoS ₂ in qtz veinlet.	
									304.9 m MoS ₂ veinlet.	
									306.98m MoS ₂ in white qtz vein.	
									307.3 m MoS ₂ in qtz vein.	
									307.48m " " "	
									307.7 m MoS ₂ in shear.	
									307.94m " " "	
									308.54m MoS ₂ in qtz veinlet.	
									308.69m " " "	
									311.37m " " "	
									311.8 m " " "	

DRILL LOG

HOLE NO. ST 83-2..

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
311.9	317.30 m	Quartz	Grey to	Medium	Porphyry	Potassic	MoS ₂	4-5		Fractures- 90% at 60-70° to CA.	
		Monzonite	pink to			Epidote	Pyrite			10% at 30-45° to CA.	
		Porphyry	green			Chloritic	Pyrrhotite				
										Feldspar phenos to 3 cm and chloritic hornblende phenos to 5 mm. The rock contains 10-15% k feldspar phenos in a grey to greenish, slightly epidotized matrix. Chlorite is present along most fractures. Pyrite and pyrrhotite are disseminated through the core and also occur with MoS ₂ in qtz stringers and veinlets.	
										315.7 -316.75m Green epidotized core.	
										312.7 m MoS ₂ in qtz veinlet.	
										314.1 m " " "	
										314.78m " " "	
										315.9 m " " "	
317.30	338.0 m	Quartz	Green	Medium	Porphyry	Epidote	MoS ₂	4-5		Fractures- 80% at 60-70° to CA.	
		Monzonite				Chlorite	Pyrite			20% at 30-45° to CA.	
		Porphyry				Potassic	Pyrrhotite				
										Similar in composition and texture to previous section.	
										Chloritic hornblende phenos to 1 cm, with chlorite on occasional fractures. Contains minor local potassic alteration.	
										Pyrite, pyrrhotite and MoS ₂ occur in qtz veinlets. Pyrite and pyrrhotite are also disseminated through the core (1-2%).	
										317.34m MoS ₂ in qtz veinlet.	
										317.85-318.8 m Aplitic core cut by barren parallel qtz vein.	

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										318.8 -319.2 m Sericitic and epidotized dark green core, bounding pyrite, pyrrhotite and MoS ₂ bearing white qtz vein.	
										319.93m MoS ₂ veinlet.	
										320.12m MoS ₂ in qtz veinlet.	
		Aplite								321.2 -323.25m Grey fine grained rock cut by sub parallel barren qtz.	
										321.35m MoS ₂ veinlet.	
										322.93m MoS ₂ in veinlet.	
										323.25-323.40m Bleached core.	
										327.35-328m Sheared fractures with occasional calcite crystals.	
										328.05-328.50m <u>Dioritic</u> rock. Dike. White feldspar phenos to 5 mm in a dark grey matrix containing ≈10% mafics.	
										329.05-329.46m <u>Dioritic</u> rock. As above. Upper contact at 45° to CA.	
										329.85-332.35m Contains pinkish feldspar phenos. Potassic alteration.	
		Aplite								333.25-334.25m Aplite. Pale green epidotized core. Cut by sub parallel qtz vein.	
										337.42-337.62m Aplitic core. Sericitic from 337.6 m.	
										323.35m MoS ₂ "paint" on shear.	
										324.81m " " "	
										328.97m MoS ₂ in qtz veinlet.	

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										331.2 m MoS ₂ in qtz veinlet.
										332.7 m " " "
										333.4 m " " "
										333.9 m " " "
										334.77m " " "
										337.09m " " "
338.0	346.15 m	Aplite	Grey to greenish	Fine	Equi-granular	Epidote Potassic	MoS ₂ Pyrite Pyrrhotite	10		Fractures- 80% at 60° to 70° to CA. Most fractures show evidence of shearing. 20% at 30-45° to CA.
										Fine grained grey to greenish rock containing 30-35% quartz and 65-70% feldspathic material. Most fractures show slickensides.
										338 -338.55m Greenish epidotized core.
										338.55-340.3 m Pinkish feldspathized core.
										341.24-341.6 m Dark grey <u>dioritic</u> material.
										342.55-342.64m Dark grey dioritic material with xenolith and 4 cm feldspar phenocrysts.
										345.4 m Potassic alteration associated with fracture.
										338.85m MoS ₂ paint on shear.
										339.09m " " " "
										339.29m MoS ₂ selvages in stringer.
										340.08m MoS ₂ veinlet.
										340.3 m MoS ₂ selvages in qtz veinlet.

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										341.08m MoS ₂ selvages in qtz veinlet.
										341.89m MoS ₂ in qtz veinlet.
										342.71m " " "
346.15	362.55m	Quartz	Grey to	Medium	Porphyry	Potassic	MoS ₂	4-5	Fractures-	90% at 60-70° to CA.
		Monzonite	pink to			Epidote	Pyrite			10% at 30-45° to CA.
		Porphyry	greenish				Pyrrhotite			
										Contains pink feldspar phenos to 3 cm in a whitish grey matrix, qtz (25%) and ~5% mafics consisting of hornblende laths to 1 cm and chloritized hornblende. Locally epidotized. Chloritic along fractures. Contains disseminated pyrite and pyrrhotite.
										348.75-349.60m Aplite. Grey to pinkish in colour. Sheared upper contact.
										349.03-349.14m Pegmatitic material with chlorite and calcite crystals on fracture at 349.08 m.
										349.21-349.37m Pinkish feldspathic core.
										349.37-349.40m Pegmatitic material.
										350.1 -350.35m Aplite. As above.
										350.5 -351.5 m Dark green epidotized core.
										351.5 -352.57m Aplite. Contains minor pegmatitic material.
										352.72-352.87m Aplite.
										353.08-353.5 m Aplite. Light grey in colour.

DRILL LOG

HOLE NO. ST. 83-2

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										353.87-354.64m Aplite. Light grey in colour.
										355.9 m Breccia. Consists of QMP material, pyrite and MoS ₂ in a veinlet of dark grey, fine grained quartzitic material.
										359.96-360.26m Predominantly aplitic material.
										349.25m MoS ₂ in qtz veinlet.
										350.16m " " "
										350.5 m " " "
										352.18m " " "
										352.27m " " "
										353.07m MoS ₂ veinlet.
										355.9 m MoS ₂ in breccia.
										356.82m MoS ₂ in qtz vein.
										357.9 m MoS ₂ in qtz veinlet.
										358.8 m " " "
										359.0 m " " veinlets
										360.68m MoS ₂ "paint" on shear fracture.
										361.7 m MoS ₂ in qtz veinlet.
										362.1 m " " "
362.55	371.7 m	Aplite	Grey to pink to green	Fine	Equi-granular	Potassic Epidotic	MoS ₂ Pyrite Pyrrhotite	507		Fractures - 60% at 60-70° to CA. 30% at 30-45° to CA. 10% at 10-30° to CA.

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										Fine grained rock containing occasional narrow intervals of QMP material.	
										MoS ₂ occurs healing fractures and also with pyrite and pyrrhotite within qtz stringers.	
										362.55-365.4 m Grey core with 5-10% potassic alteration.	
										365.40-367.7 m Pink potassic core.	
										366.77-366.95m Grey QMP material.	
										367.7 -370.0 m Green epidotized core.	
										368.4 -369.10m Epidotized QMP material.	
										370.0 -370.41m QMP with k feldspar phenos.	
										370.41-371.7 m Grey core with 20% pink potassic material associated with 45° fractures chloritic fractures.	
										363.95m MoS ₂ in qtz veinlet.	
										364.08m MoS ₂ on fracture.	
										365.47m MoS ₂ on fracture.	
										366.6 m MoS ₂ in qtz veinlet.	
										367.62m MoS ₂ on fracture.	
371.7	392.2 m	Quartz	Grey to	Medium	Porphyry	Potassic	MoS ₂	3-4		Fractures- 60% at 60-70° to CA. 371.72m MoS ₂ in qtz veinlet.	
		Monzonite	pink to			Epidoti- tlic	Pyrite			40% at 45° to CA.	
		Porphyry	white			Chloritic	Pyrrhotite				
										Similar to section from 346.15 to 362.55 m in composition and texture. Contains feldspar phenos to 2-3 cm and hornblende phenos to 5 mm. Most of the hornblende has been	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										altered to chlorite. The section contains grey QMP with minor potassic alteration, pinkish QMP with prominent k feldspar phenos, epidotized QMP and local aplite material.
										The core contains 1-2% disseminated pyrite and pyrrhotite, which are also present in qtz veinlets with MoS ₂ . MoS ₂ also occurs as "paint" along sheared fractures.
										Gypsum occurs as an occasional fracture filling.
										371.7 -372.23m Pinkish core with k feldspar phenos.
										372.23-372.34m Grey aplitic core.
										372.34-373.7 m Grey core.
										373.7 -378.7 m Pinkish core with abundant k feldspar phenos in a light grey to whitish matrix.
										374.53-374.86m Aplite.
										378.7 -379.7 m Dark green epidotized core.
										379.3 m White qtz fragments in chloritic matrix.
										379.7 -382.1 m Pink feldspar phenos in a medium green epidotized matrix.
										382.25-382.78m Aplitic core. Epidotized.
										382.78-384.20m Grey slightly epidotized core.
										384.2 -384.65m Pinkish core with k feldspar phenos.
										384.65-385.24m Aplite. Slightly feldspathized.
										385.24-385.97m Green to pinkish QMP.
										385.97-386.20m Pink to green aplite.
										386.55-387.4 m Aplite. Greenish epidotized core.

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
									387.4 -391.45m Pink feldspar phenos in a pale green to whitish grey matrix.	
									389.1-389.2m Aplite.	
									391.45-396.20m Green epidotized core with white to pale green feldspar phenos. Mafics altered to chlorite and biotite. Carbonate evident on fractures. Contains MoS ₂ paint on shear fractures.	
									392 -392.05m White qtz vein with MoS ₂ in pyrite.	
									392.1-392.3 m Sheared fractures with chlorite and MoS ₂ paint on occasional fractures.	
									373.7 m MoS ₂ in qtz veinlet.	
									373.8 m " " "	
									375.72m " " "	
									377.9 m " " "	
									380.21m " " "	
									380.85m " " "	
									380.97m " " "	
									381.75m " " "	
									382.55m MoS ₂ "paint" on shear	
									384.1 m MoS ₂ in qtz veinlet.	
									384.51m " " "	
									384.62m " " "	
									385.52m " " "	

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
											386.10 m MoS ₂ in qtz veinlet.
											386.97 m " " fracture.
											389.32 m " " qtz veinlet.
											391.8 m MoS ₂ "paint" on shear.
											392.03m MoS ₂ in qtz vein.
											395.07m MoS ₂ healing fracture
											395.35m MoS ₂ in qtz veinlet.
396.20	422.40 m	Quartz	Grey to	Medium	Porphyry	Epidoti- tic	MoS ₂	3-4			60% of fractures at 50-60° to CA.
		Monzonite	pink to			Potassic	Pyrite				40% of fractures at 30-40° to CA.
		Porphyry	green			Sericitic	Pyrrhotite				
											Composed of white to pink feldspar phenos in a white to green matrix, 25% quartz and 5% mafic material consisting of hornblende laths to 1 cm and chlorite and biotite after hornblende. Locally up to 70% of the hornblende has been altered. Contains occasional dikes of aplite.
											Pyrite and pyrrhotite are found disseminated through the core (1-2%) and with MoS ₂ in qtz stringer and veinlets.
											Variably altered. Contains intervals of potassic and epidotitic alteration. Minor sericitic alteration is noted locally accompanying qtz veins.
											398.6 m MoS ₂ in veinlets.
											400.65m MoS ₂ in qtz veinlet.

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
											403.05m MoS ₂ in qtz veinlet.
											404.84m MoS ₂ veinlet.
											396.20-397.8 m Greenish core with occasional k feldspar phenos.
											397.8 -399.35m Green epidotized core.
											397.95-398.02m Sericite and quartz.
											398.25-398.68m Greenish grey aplite.
											399.17 m Qtz vein with sericite.
											399.35 m Garnet veinlet.
											399.35-400.85m Grey core with occasional k feldspar phenos.
											400.2 m Garnet in qtz veinlet.
											400.85-401.95m Whitish grey core with k feldspar phenos.
											401.05-401.16m Aplite.
											401.95-403.5 m White feldspar phenos in a green epidotized matrix.
											403.5 -405.0 m Pink feldspar phenos in a whitish grey matrix.
405.0	415.2 m	Epidotized									405.0 -415.2 m Epidotized core. Variably altered with
		Quartz									epidotization ranging from slight to heavy.
		Monzonite									Contains 70% 45° fractures with most
		Porphyry									showing some slickensides.
											406.22-406.5 m Grey aplite.
											407.35-408.03m Pale green epidotized core.
											408.03-408.24m White qtz veins with sericite.
											408.35-408.8 m Pale green epidotized

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										broken core.
										408.8 -412.0 m Pale green epidotized core with occasional pink feldspar phenos. Slickensides common.
										412.0 -412.6 m Contains 25% k feldspar material.
										412.6 -413.15m Medium green epidotized core.
										413.15-415.20m Slight to moderate epidotization with 15-20% k feldspar material.
										413.85-414.15m Aplite.
										406.65m MoS ₂ in qtz veinlet.
										407.5 m MoS ₂ "paint" on shear.
										407.05m MoS ₂ in qtz veinlet.
										407.75m MoS ₂ "paint" on shear.
										409.9 m MoS ₂ in qtz veinlet.
										411.06m " " "
										412.7 m MoS ₂ "paint" on shear.
										413.79m MoS ₂ in qtz veinlet.
										414.73m MoS ₂ "paint" on shear
										415.51m MoS ₂ in qtz veinlet.
										417.18m " " "
										415.20- 419.0 m Pink feldspar phenocrysts in a matrix of

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										white feldspar.
										416.98-417.05m Aplite at 60° to CA.
										419 -422.4 m Epidotized core. Contains abundant sericitic material. High carbonate content.
										415.2 -419.0 m Cut by 5-6 stringers of qtz/metre.
										Contain pyrite, pyrrhotite and minor MoS ₂ .
422.4	445.45 m	Quartz	Grey to	Medium	Porphyry	Potassic	MoS ₂	3		90% of fractures at 60° to CA. Some of the sulphide material appears to be chalcopyrite.
		Monzonite	pinkish			Epidoti-	Pyrite			10% of fractures at <60° to CA.
		Porphyry	to			tic	Pyrrhotite			
			greenish							
										Predominantly grey to whitish grey rock containing 25% qtz with phenos to 3 mm, 70% feldspar with phenos to 2 cm and 5% mafic material consisting largely of chloritized hornblende.
										The section contains slight potassic and epidotitic alteration, the former consisting of pinkish feldspar phenocrysts and minor matrix alteration.
										Pyrite and pyrrhotite are found in qtz stringers and veinlets with molybdenum as well as disseminated through the core. Minor aplite occurs locally.
										422.4 -433.0 m Contains 10-15% k feldspar material.
										426.02-426.11m Aplite at 60° to CA.

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										427.48-427.58m Aplite at 60° to CA.	
										428.17-428.32m Aplite at 45° to CA.	
										430.39-430.47m Aplite.	
										431.25-431.33m Aplite at 45° to CA.	
										433.0 -439.7 m Greenish epidotized core.	
										435.4 -435.7 m Pale green core with sericite. Carbonate rich.	
										438.58-438.4 m Pale green core with white qtz veins.	
										440.8 -441.35m Slightly epidotized core.	
										441.35-441.95m Grey, unaltered core.	
										440.39 m 1 cm garnet vein. (sphalerite ?)	
										423.45m MoS ₂ in qtz veinlet.	
										424.76m " " "	
										425.59m " " "	
										426.47m " " "	
										429.11m " " "	
										430.34m " " "	
										430.96m MoS ₂ in qtz veinlet.	
										432.68m " " "	
										433.42m " " "	
										434.32m " " "	
										435.13m MoS ₂ in qtz stringer	
										438.57m " veinlet.	
										439.13m MoS ₂ in qtz veinlet.	
										441.63m " " "	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										441.95-442.22m Grey aplite.
										442.22-443.0 m Epidotized core with white feldspar phenos.
										443.0 -445.45m Greenish slightly epidotized core.
										443.14-443.21m White qtz vein of 45° to CA.
										441.63m MoS ₂ in qtz veinlet.
										444.6 m " " "
										444.96m " " "
445.45	448.03 m	Aplite	Grey to greenish	Fine	Equi-granular	Epidotic	MoS ₂ Pyrite Pyrrhotite	3		Fractures of 60-70° to CA. Locally epidotized. Contains occasional pyrite & pyrrhotite as fracture controlled blebs and within qtz veins. MoS ₂ is present in qtz stringers.
										445.80m MoS ₂ in qtz veinlet.
										446.65m " " "
										446.7 m " " "
										447.22m " " "
448.03	474.0 m	Quartz Monzonite Porphyry	Grey to greenish	Medium	Porphyry	Epidote	MoS ₂ Pyrite Pyrrhotite	4-5		Fractures - 80% at 60-70° to CA. 20% at 10-30° to CA. Composed of 25% quartz, 70% feldspar and 5% mafics. Feldspar phenos to 2-2.5 cm, qtz to 3 mm and mafic (hornblende) phenos to 1 cm. Overall, the rock is much less altered than previous sections, with only minor potassic alteration evident and moderate local epidotization.

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										Pyrite and pyrrhotite are disseminated through the core along with minor chalcopyrite (?). MoS ₂ occurs in qtz veins often with pyrite and pyrrhotite.
										450.0 m White qtz vein with pyrrhotite and pyrite.
										452.7 -453.72m Green epidotized core.
										453.72-454.0 m Aplitic material.
										454.5 -455.0 m Slight potassic alteration. Vuggy.
										455.5 -456.0 m Aplite.
										455.9 m MoS ₂ veinlet.
										456.8 -459.15m Pale green epidotized rock with white qtz veining. High carbonate content. Broken core from 457.7-458.0 m with slickensides evident.
										450.46m MoS ₂ in qtz veinlet.
										452.28m " " "
										453.88m " " vein.
										454.68m " " veinlet.
										455.9 m MoS ₂ veinlet.
										455.97m " "
										456.16m MoS ₂ in qtz veinlet.
		Aplite								459.15-460.5 m Aplite. Grey to greenish in colour. Cut by 45° white qtz veinlets. Lower contact at 20° to CA.
										460.5 -461.5 m Epidotized core with calcite vein at 461.3m.

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
									466.52 m	Garnet in qtz veinlet with MoS ₂ and pyrite.
									467.4 -467.7 m	Aplite.
									467.7 -467.77m	Sericitic core bounded by qtz veins at 75° to CA.
									468.9 -469.3 m	Epidotized core. Sericitic and pyritic from 469.25 m.
									469.3 -469.6 m	Pale green epidotized aplitic core cut by white qtz vein.
									469.6 -471.26 m	Pinkish feldspathized core.
									472.6 -473.3 m	Epidotized core.
									473.6 -473.8 m	Aplitic core.
									459.15-460.5m	Minor MoS ₂ evident.
									460.85m	MoS ₂ in qtz veinlet.
									463.03m	MoS ₂ selvages in qtz veinlet.
									465.53m	MoS ₂ in qtz veinlet.
									466.52m	" " "
									467.21m	" " "
									468.45m	" " "
									470.24m	" " "
									471.38m	" " "
									472.31m	" " "
474	487.0 m	Quartz Monzonite Porphyry	Grey to greenish	Medium	Porphyry	Epidotitic Potassic	MoS ₂ Pyrite Pyrrhotite	3-4		70% of fractures at 60-70° to CA. 30% of fractures at 45° to CA.

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
474	487									Similar in composition, texture and alteration to previous section. Locally epidotized and feldspathized. Contains MoS ₂ on fractures and in quartz veinlets with pyrite and pyrrhotite. Contains aplitic material.	
										474.71-474.81m Epidotized aplitic core. Calcite vein at 474.55 m.	
										475.0 -475.10m Epidotized aplitic core.	
										475.1 -476.2 m Pale green epidotized core.	
										475.6 -475.7 m Aplite	
										476.52-476.61m Aplite	
										477.7 -478.6 m Epidotized core.	
										479.55-479.9 m Epidotized core.	
										479.9 -481.0 m Aplite. Greenish grey, fine grained rock.	
										480.15m 30° MoS ₂ vein.	
										480.6 m MoS ₂ fracture filling.	
										481 -485.0 m Grey, largely unaltered core.	
										483.52m White qtz vein bounded by epidote.	
										481.78-482m Pale green epidotized core. Carbonate rich.	
										485 -485.4 m Pale green epidotized core. Carbonate rich.	
										485.4 -487 m Grey core.	
										485.85-485.88m Aplite at 60° to CA.	
										485.9 m Garnet in qtz veinlet.	
										475.57m MoS ₂ in qtz veinlet.	
										479.34m MoS ₂ in qtz vein.	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										480.15m MoS ₂ vein.	
										480.6 m MoS ₂ filling fracture	
										483.75m MoS ₂ veinlet.	
487.0	516.9 m	Quartz	Grey to	Medium	Porphyry	Potassic	Pyrite	3-4	50% at 60-70° to CA.	Little MoS ₂ evident.	
		Monzonite	Whitish			Epidoti- tic	Pyrrhotite		30% at 45° to CA.	Pyrrhotite and pyrite occur	
		Porphyry	grey to pink			Chloritic	MoS ₂		20% at 30° to CA.	throughout	
										Finer grained than previous section with mafics increased to about 7% and consisting of hornblende and chloritized hornblende. Mafic phenos average 3-4 mm with feldspar phenos to 1.5-2 cm. Epidote alteration is common as is potassic alteration. Chlorite heals numerous hairline fractures. Gypsum is also common on fractures. Pyrrhotite is common through the core as disseminations and also along fractures. Pyrite is less common. MoS ₂ is seldom in evidence. Contains occasional aplite.	
										487.1 -488.05m Dark green epidotized core.	
										487.9 m White qtz vein with pyrrhotite.	
										488.15-488.6 m Pale green to whitish altered core. Shearing evident. Carbonate along fractures.	
										488.6 -491.1 m Grey core. Epidotized along 30° fractures.	
										491.1 -492.1 m Pinkish core with 10-15% potassic alteration.	
										492.1 -493.44m Grey, very slightly epidotized core.	
		Aplite								493.44-494.37m Aplite. Greenish epidotized rock to 493.95m.	

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										Heavily feldspathized and pinkish in colour from 493.95 to 494.37 m.	
										494 -494.2m Pegmatitic material.	
										494.2 m Shear with gouge.	
										494.37-494.75m Chloritic fractures at 45° to CA.	
										494.75-495.2 m Pink feldspars to 3 cm in an epidotized matrix	
										495.2 -495.22m Epidotized core with carbonate veinlets.	
										495.22-496.12m Pinkish to greenish core.	
										496.12-496.40m Aplite. White in colour. Shear with gouge at base.	
		Aplite								496.7 -497.45m Aplite. Light grey to white in colour.	
										Contains pyrrhotite blebs and fracture coatings.	
										497.85-498.17m Aplite. Light grey in colour. Epidotized ghost feldspar phenos in QMP at upper contact.	
										498.45-498.58m Aplite. Contact at 55° to CA.	
										498.58-504.1 m Pinkish grey core with ubiquitous chloritic fractures. Pyrite and pyrrhotite are also common healing fractures.	
										502.6 -503.8 m Shear. Slickensides evident on fractures from 30° to 60° to CA.	
										504.1 -504.25m Epidotized core. Slight to moderate epidotization.	
										500.63m MoS ₂ in qtz veinlet.	

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										500.38m MoS ₂ in Qtz veinlet.
										500.61m " " "
										504.1 -506.05m Epidotized core.
										505.52-506.7m Pink feldspathic core. Phenos to 3 cm.
										506.05-506.40m Pinkish feldspathic core.
										506.4 -506.70m Green epidotized core with calcite veins.
										506.23m MoS ₂ in Qtz veinlet.
										506.56m " " "
										506.7 -507.10m Pink feldspars in slightly epidotized matrix.
										507.1 -507.55m Epidotized core with pinkish feldspars
										from 508.35 m.
										507.55-507.7 m Aplite. White to pinkish with pegmatitic k feldspar material.
										507.7 -509.6 m Green epidotized core.
										508.82-508.87m Qtz vein bounded by sericitized core.
										507.57m MoS ₂ "paint" on shear
										507.72m MoS ₂ selvages in Qtz vein.
										508.87m MoS ₂ on shear.
										509.6 -510.5 m Feldspathic core with 30% k feldspar in an epidotized matrix.
										510.32m MoS ₂ veinlet.
										510.5 -510.82m Epidotized core.
		Aplite								510.82-511.28m Aplite. Pink, highly feldspathized contacts

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										at 45° to CA.
										511.28-511.67m QMP. Slightly feldspathized.
										511.67-512.11m Aplite. Light grey. Slightly feldspathized.
										512.11-512.73m QMP. K feldspar alteration (feldspathized) and epidotized from 513.4 m.
										512.73-513.06m Aplite. Light grey. Slightly feldspathized along fractures.
										513.06-514.0 m Epidotized and epidotized QMP.
										514.0 -515.78m Grey, largely unaltered core.
										515.78m Minor breccia in qtz vein with MoS ₂ .
										515.78-515.95m Aplite
										515.95-516.9 m QMP. Feldspathized along 30° fractures.
										512.0 m MoS ₂ on fracture.
										512.23m MoS ₂ in qtz veinlet.
										513.15m " " "
										514.30m " " "
										515.1 m " " "
										515.78m MoS ₂ in breccia.
516.9	531.45 m	Aplite	Light grey	Fine	Equi-granular	Epidote Potassic	MoS ₂ Pyrite Pyrrhotite	5-6		Fractures- 50% at 60° to CA. MoS ₂ occurs as fracture filling. 30% at 45° to CA. 20% at 30° to CA.
										Locally epidotized and feldspathized. Chloritic along fractures and adjacent to qtz stringers.
										517.08m MoS ₂ in qtz veinlet.

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
											517.39m MoS ₂ in qtz veinlet.
											517.85m " " "
											517.97m " " "
											517.5 -517.85m Epidotized QMP material. Bounded by qtz veins.
											517.85-518.35m Pinkish feldspathized core.
											518.35-519.0 m Pink and green, feldspathized and epidotized material. Sheared QMP or pegmatitic material. Carbonate rich.
											519.0 -519.55m Pinkish feldspathized aplite.
											519.22m MoS ₂ in qtz veinlet.
											519.4 m " " "
											520.14m " " "
											520.52m " " "
											522.01m " " "
											522.18m MoS ₂ in fracture.
											523.1 m " " "
											524.02m MoS ₂ in fracture filling.
											524.85m MoS ₂ in qtz veinlet.
											520.55-520.9 m Contains pegmatitic material.
		Quartz Monzonite									524.85-525.7 m QMP. Grey unaltered rock.
		Porphyry									527.3 -529.09m Grey, unaltered QMP with slight potassic alteration.
											529.09-529.20m Aplite
		QMP									529.2 -530.15m QMP. Grey unaltered rock.

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
531.45	552.7 m	Quartz	Grey to	Medium	Porphyry	Epidote	Pyrite	4-5		Fractures - 70% at 60° to CA. 30% at 45° to CA.	MoS ₂ occurs in occasional Qtz veinlet
		Monzonite	greenish			Potassic	Pyrrhotite				
		Porphyry					MoS ₂				
										Coarser grained than previous section with feldspars to 2.5-3 cm. 4-5% mafic material consisting of largely chloritized hornblende with phenos averaging 5 mm with occasional laths to 1 cm. Contains ≈ 25% quartz.	
										Locally epidotized and feldspathized. Chlorite occurs on fractures in moderately fractured core.	
										Pyrite and pyrrhotite occur as disseminations through the core. MoS ₂ occurs in occasional Qtz veinlets.	
										532.4 -532.8 m Aplite. Very fine grained rock. Indistinct contacts.	
										532.32m MoS ₂ in Qtz vein.	
										533.32-534 m Aplite. Very fine grained and highly siliceous from 533.55 m. Also sheared from 534.55 m.	
										534.51-534.6 m Aplite.	
										534.94m MoS ₂ on shear with gouge.	
										535.9 -540.1 m Green epidotized core.	
										537.9 -538.1 m Sheared core with gouge.	
										538.68-538.73m Qtz vein. Bounded by sericitic epidotized core.	
										540.1 -542.8 m Contains pinkish feldspar phenos in a	

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										whitish matrix.	
										545.06m Shear with MoS ₂ paint.	
										542.8 -547.25m Grey to greenish, slightly epidotized core.	
										543.3 -543.64m Shear with slickensides.	
										545.08 m Pyrite and pyrrhotite rich with sericite and chlorite.	
										546.35-546.7 m Dark green, epidotized core.	
										547.25-549.7 m Grey to slightly pinkish core.	
										549.7 -551.2 m Pale green epidotized core with epidote rimming 3 cm feldspar phenos.	
										550.0 -551.23m Sericitic core bounding qtz vein. Carbonate rich.	
										550.15m MoS ₂ bounding qtz vein.	
										551.2 -551.32m Feldspathized core with qtz from 551.27 to 551.31 m.	
										551.32-551.5 m Grey aplitic core.	
										551.5 -552.7 m Slightly potassic core with unaltered mafics.	
										551.67m MoS ₂ in qtz veinlet.	
552.7	575.97 m	Quartz Monzonite	Grey to whitish grey	Medium	Porphyry	Potassic Epidoti-tic	MoS ₂ Pyrite Pyrrhotite	3-4		90% of fractures at 50-60° to CA. 10% of fractures at 70° to CA.	Contains an occasional qtz veinlet with pyrite but little MoS ₂ .
										White feldspars to 2.5 cm. Hornblende phenos to 5 mm, comprising 25% quartz, 5% mafics and ≈70% feldspars.	

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										Locally epidotized and feldspathized. Predominantly unaltered core. Contains ≈1-2% disseminated pyrite and pyrrhotite. MoS ₂ occurs in occasional qtz veinlets. Contains ≈4-5 qtz stringers/metre.	
										556.35-556.5 m Dark green epidotized core.	
										557.25-557.4 m Beige to whitish potassic core.	
										557.4 -558.0 m Aplite. Pegmatitic from 558.63-558.72 m.	
										558.01m MoS ₂ in qtz veinlet.	
										558 -560.0 m Greenish epidotized core.	
										564.22m MoS ₂ in qtz veinlet.	
										565.56m " " "	
										569.15m " " "	
										560 -571.55m Grey unaltered core.	
										562.48-563.75m Aplite	
										563.45-563.73m White bleached core with light brown micaceous material.	
										564.6 -565.0 m Greenish, epidotized core.	
										571.55-572.75m Greenish, epidotized core.	
										572.75-573.52m Contains pinkish feldspars in a slightly epidotized matrix.	
		Diabase								573.52-573.53m Diabase. Comprising 1 mm rounded feldspar phenos in a fine grained black matrix.	
										573.93-575.00m Epidotized core.	
										575.0 -575.97m Pink feldspar phenos in a light grey matrix.	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
575.97	582.32	Aplite	Grey to greenish grey	Fine	Equi-granular	Epidote Potassic	MoS ₂	7-9		Fractures at 45° to 60° to CA.	MoS ₂ occurs as fracture filling.
										Greenish grey, slightly epidotized core containing bleached whitish material along fractures and adjacent to qtz veins. MoS ₂ occurs as fracture fillings and in qtz veinlets.	
										575.97-576.2 m Pale pink feldspathic core.	
										575.98m MoS ₂ "paint" on shear.	
										576.54 m Gouge on fracture.	
										576.77-576.87m QMP material.	
										577.43m MoS ₂ in fracture.	
										577.7 m " " "	
										578.84-579.73m Slightly epidotized QMP.	
										579.73-580.3 m Pink potassic QMP.	
										580.84m MoS ₂ in fracture.	
										581.49m " " "	
										581.65-581.93m Bleach core associated with qtz veining at 70° to CA.	
583.32	m									End of hole.	

DRILL LOG

HOLE NO. ST 83-2

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
									Summary ST 83-2	
									Hole ST 83-2 comprises Quartz Monzonite Porphyry and Quartz "Eye" Porphyry to 118.0 m, cut by a gabbroic dike from 74.77 m to 82.85 m. This gabbro is seen on surface at 0+08S, 1+15W on the IP grid.	
									From 118.0 to 291.0 m, the section consists of relatively uniform Qtz Monzonite Porphyry, cut by occasional narrow aplite veins. After 291.0 m, aplites become more common and measure up to 17 m in thickness.	
									Quartz veining is ubiquitous but does not form a quartz stockwork zone as seen in ST 83-1. Rather, the Qtz veins range from 60-70° to the core axis and have no associated potassic alteration as seen in ST 83-1. K feldspar in ST 83-2 consists of zones containing k feldspar phenocrysts, which may or may not represent an alteration phenomenon.	
									Alteration in ST 83-2, aside from Qtz veining, consists of intervals of epidote, chlorite, carbonate and sericite alteration similar to the (propylitic) alteration seen in ST 83-1. However, in ST 83-2 the colours of the altered zones vary from bright green to dark green, indicating a possibly more complex mineralogy than indicated.	
									Mineralization is ubiquitous. Pyrite and pyrrhotite and minor chalcopyrite are found disseminated throughout the rock. Molybdenum is found in Qtz veinlets with pyrite and pyrrhotite as "paint" on shears and as fracture fillings within a plite.	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE		REMARKS	
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS		
											Almost the entire hole was sampled at 1 m intervals, with MoS ₂ occurring in 1-10 veinlets and/or fractures per metre.	
											Garnet is evident in Qtz veinlets and disseminated through the core.	

DRILL LOG

sample data

S A M P L E				C O R E R E C O V E R Y		V I S U A L E S T I M A T E S (% O R E M I N E R A L S)	A S S A Y R E S U L T S						
N U M B E R	F R O M	T O	T O T A L M E T R E S	S p G r	%		A M T L O S T						
21307	3.05	4.0	0.95										
08	4.0	5.0	1.0										
09	5.0	6.0	"										
10	6.0	7.0	"										
11	7.0	8.0	"										
12	8.0	9.0	"										
13	9.0	10.0	"										
14	10.0	11.0	"										
15	11.0	12.0	"										
16	12.0	13.0	"										
17	13.0	14.0	"										
18	14.0	15.0	"										
19	15.0	16.0	"										
21320	16.0	17.0	"										
21	17.0	18.0	"										
22	18.0	19.0	"										
23	19.0	20.0	"										
24	20.0	21.0	"										
25	21.0	22.0	"										
26	22.0	23.0	"										
27	23.0	24.0	"										
28	24.0	25.0	"										
29	25.0	26.0	"										
30	26.0	27.0	"										
31	27.0	28.0	"										
21332	28.0	29.0	1.0										

DRILL LOG

sample data

S A M P L E					C O R E R E C O V E R Y		V I S U A L E S T I M A T E S (% O R E M I N E R A L S)	A S S A Y R E S U L T S					
N U M B E R	F R O M	T O	T O T A L M E T R E S	S p G r	%	A M T. L O S T							
21333	29.0	30.0	1.0										
34	30.0	31.0	"										
35	31.0	32.0	"										
36	32.0	33.0	"										
37	33.0	34.0	"										
38	34.0	35.0	"										
39	35.0	36.0	"										
21340	36.0	37.0	1.0										
41	37.0	38.0	"										
42	38.0	39.0	"										
43	39.0	40.0	"										
44	40.0	41.0	"										
45	41.0	42.0	"										
46	42.0	43.0	"										
47	43.0	44.0	"										
48	44.0	45.0	"										
49	45.0	46.0	"										
21350	46.0	47.0	"										
51	47.0	48.0	"										
52	48.0	49.0	"										
53	49.0	50.0	"										
54	50.0	51.0	"										
55	51.0	52.0	"										
56	52.0	53.0	"										
57	53.0	54.0	"										
21358	54.0	55.0	1.0										

DRILL LOG

sample data

S A M P L E					C O R E R E C O V E R Y		V I S U A L E S T I M A T E S (% O R E M I N E R A L S)	A S S A Y R E S U L T S					
N U M B E R	F R O M	T O	T O T A L M E T R E S	S p G r	%	A M T L O S T							
21359	55.0	56.0	1.0										
60	56.0	57.0	"										
61	57.0	58.0	"										
62	58.0	59.0	"										
63	59.0	60.0	"										
64	60.0	61.0	"										
65	61.0	62.0	"										
66	62.0	63.0	"										
67	63.0	64.0	"										
68	64.0	65.0	"										
69	65.0	66.0	"										
21370	66.0	67.0	"										
71	67.0	68.0	1.0										
21372	68.0	69.05	1.05										
73	69.05	70.43	1.38				Chip Sample						
74	70.43	71.0	0.67										
75	71.0	72.0	1.0										
76	72.0	73.0	"										
77	73.0	74.0	1.0										
78	74.0	74.77	0.77				Chip Sample						
79	74.77	80.0	5.23				"						
21380	80.0	82.85	2.85				"						
81	82.85	84.0	1.15										
82	84.0	85.0	1.0										
83	85.0	86.0	"										
21384	86.0	87.0	1.0										

DRILL LOG

sample data

S A M P L E					C O R E R E C O V E R Y		V I S U A L E S T I M A T E S (% O R E M I N E R A L S)	A S S A Y R E S U L T S					
N U M B E R	F R O M	T O	T O T A L M E T R E S	S p G r	%	A M T L O S T							
21385	87.0	88.0	1.0										
86	88.0	89.0	"										
87	89.0	90.0	"										
88	90.0	91.0	"										
89	91.0	92.0	"										
21390	92.0	93.0	"										
91	93.0	94.0	"										
92	94.0	95.0	"										
93	95.0	96.0	"										
94	96.0	97.0	"										
95	97.0	98.0	"										
96	98.0	99.0	"										
97	99.0	100.0	"										
98	100.0	101.0	"										
99	101.0	102.0	"										
21400	102.0	103.0	1.0										
01	103.0	104.0	"										
02	104.0	105.0	"										
03	105.0	106.0	"										
04	106.0	107.0	"										
05	107.0	108.0	"										
06	108.0	109.0	"										
07	109.0	110.0	"										
08	110.0	111.0	"										
09	111.0	112.0	"										
21410	112.0	113.0	1.0										

DRILL LOG

sample data

SAMPLE				CORE RECOVERY		VISUAL ESTIMATES (% ORE MINERALS)	ASSAY RESULTS						
NUMBER	FROM	TO	TOTAL METRES	Sp Gr	%		AMT LOST						
21411	113.0	114.0	1.0										
12	114.0	115.0	"										
13	115.0	116.0	"										
14	116.0	117.0	"										
15	117.0	118.0	"										
16	118.0	119.0	"										
17	119.0	120.0	"										
18	120.0	121.0	"										
19	121.0	122.0	"										
21420	122.0	123.0	1.0										
21	123.0	124.0	"										
22	124.0	125.0	"										
23	125.0	126.0	"										
24	126.0	127.0	"										
25	127.0	128.0	"										
26	128.0	129.0	"										
27	129.0	130.0	"										
28	130.0	131.0	"										
29	131.0	132.0	"										
21430	132.0	133.0	"										
31	133.0	134.0	"										
32	134.0	135.0	"										
33	135.0	136.0	"										
34	136.0	137.0	"										
35	137.0	138.0	"										
21436	138.0	139.0	1.0										

DRILL LOG

sample data

S A M P L E					C O R E R E C O V E R Y		V I S U A L E S T I M A T E S (% O R E M I N E R A L S)	A S S A Y R E S U L T S					
N U M B E R	F R O M	T O	T O T A L M E T R E S	S p G r	%	A M T. L O S T							
21437	139.0	140.0	1.0										
38	140.0	141.0	"										
39	141.0	142.0	"										
21440	142.0	143.0	"										
41	143.0	144.0	"										
42	144.0	145.0	"										
43	145.0	146.0	"										
44	146.0	147.0	"										
45	147.0	148.0	"										
46	148.0	149.0	"										
47	149.0	150.0	"										
48	150.0	151.0	"										
49	151.0	152.0	"										
21450	152.0	153.0	1.0										
51	153.0	154.0	"										
52	154.0	155.0	"										
53	155.0	156.0	"										
54	156.0	157.0											
55	157.0	158.0											
56	158.0	159.0											
57	159.0	160.0											
58	160.0	171.0											
59	161.0	162.0											
21460	162.0	163.0											
61	163.0	164.0											
62	164.0	165.0											

DRILL LOG

sample data

S A M P L E					C O R E R E C O V E R Y		V I S U A L E S T I M A T E S (% O R E M I N E R A L S)	A S S A Y R E S U L T S					
N U M B E R	F R O M	T O	T O T A L M E T R E S	S p G r	%	A M T L O S T							
21463	165.0	166.0	1.0										
64	166.0	167.0	"										
65	167.0	168.0	"										
66	168.0	169.0	"										
67	169.0	170.0	"										
68	170.0	171.0	"										
69	171.0	172.0	"										
21470	172.0	173.0	"										
71	173.0	174.0	"										
72	174.0	175.0	"										
73	175.0	176.0	"										
74	176.0	177.0	"										
75	177.0	178.0	"										
76	178.0	179.0	"										
77	179.0	180.0	"										
78	180.0	181.0	"										
79	181.0	182.0	"										
21480	182.0	183.0	"										
81	183.0	184.0	"										
82	184.0	185.0	"										
83	185.0	186.0	"										
84	186.0	187.0	"										
85	187.0	188.0	"										
86	188.0	189.0	"										
87	189.0	190.0	"										
21488	190.0	191.0	1.0										

DRILL LOG

sample data

S A M P L E					C O R E R E C O V E R Y		V I S U A L E S T I M A T E S (% O R E M I N E R A L S)	A S S A Y R E S U L T S					
N U M B E R	F R O M	T O	T O T A L M E T R E S	S p G r	%	A M T L O S T							
21489	191.0	192.0	1.0										
90	192.0	193.0	"										
91	193.0	194.0	"										
92	194.0	195.0	"										
93	195.0	196.0	"										
94	196.0	197.0	"										
95	197.0	198.0	"										
96	198.0	199.0	"										
97	199.0	200.0	"										
98	200.0	201.0	"										
99	201.0	202.0	"										
21500	202.0	203.0	"										
35001	203.0	204.0	1.0										
02	204.0	205.0	"										
03	205.0	206.0	"										
04	206.0	207.0	"										
05	207.0	208.0	"										
06	208.0	209.0	"										
07	209.0	210.0	"										
08	210.0	211.0	"										
09	211.0	212.0	"										
35010	212.0	213.0	"										
11	213.0	214.0	"										
12	214.0	215.0	"										
13	215.0	216.0	"										
35014	216.0	217.0	1.0										

DRILL LOG

sample data

S A M P L E					C O R E R E C O V E R Y		V I S U A L E S T I M A T E S (% O R E M I N E R A L S)	A S S A Y R E S U L T S					
N U M B E R	F R O M	T O	T O T A L M E T R E S	S p G r	%	A M T L O S T							
35015	217.0	218.0	1.0										
16	218.0	219.0	"										
17	219.0	220.0	"										
18	220.0	221.0	"										
19	221.0	222.0	"										
35020	222.0	223.0	"										
21	223.0	224.0	"										
22	224.0	225.0	"										
23	225.0	226.0	"										
24	226.0	227.0	"										
25	227.0	228.0	"										
26	228.0	229.0	"										
27	229.0	230.0	"										
28	230.0	231.0	"										
29	231.0	232.0	"										
35030	232.0	233.0	"										
31	233.0	234.0	"										
32	234.0	235.0	"										
33	235.0	236.0	"										
34	236.0	237.0	"										
35	237.0	238.0	"										
36	238.0	239.0	"										
37	239.0	240.0	"										
38	240.0	241.0	"										
39	241.0	242.0	"										
35040	242.0	243.0	1.0										

DRILL LOG

sample data

S A M P L E					C O R E R E C O V E R Y		V I S U A L E S T I M A T E S (% O R E M I N E R A L S)	A S S A Y R E S U L T S					
N U M B E R	F R O M	T O	T O T A L M E T R E S	S p G r	%	A M T L O S T							
35041	243.0	244.0	1.0										
42	244.0	245.0	"										
43	245.0	246.0	"										
44	246.0	247.0	"										
45	247.0	248.0	"										
46	248.0	249.0	"										
47	249.0	250.0	"										
48	250.0	251.0	"										
49	251.0	252.0	"										
35050	252.0	253.0	"										
51	253.0	254.0	"										
52	254.0	255.0	"										
53	255.0	256.0	"										
54	256.0	257.0	"										
55	257.0	258.0	"										
56	258.0	259.0	"										
57	259.0	260.0	"										
58	260.0	261.0	"										
59	261.0	262.0	"										
35060	262.0	263.0	"										
61	263.0	264.0	"										
62	264.0	265.0	"										
63	265.0	266.0	"										
64	266.0	267.0	"										
65	267.0	268.0	"										
35066	268.0	269.0	1.0										

DRILL LOG

sample data

S A M P L E					C O R E R E C O V E R Y		V I S U A L E S T I M A T E S (% O R E M I N E R A L S)	A S S A Y R E S U L T S					
N U M B E R	F R O M	T O	T O T A L M E T R E S	S p G r	%	A M T L O S T							
35067	269.0	270.0	1.0										
68	270.0	271.0	"										
69	271.0	272.0	"										
35070	272.0	273.0	"										
71	273.0	274.0	"										
72	274.0	275.0	"										
73	275.0	276.0	"										
74	276.0	277.0	"										
75	277.0	278.0	"										
76	278.0	279.0	"										
77	279.0	280.0	"										
78	280.0	281.0	"										
79	281.0	282.0	"										
35080	282.0	283.0	1.0										
81	283.0	284.0	"										
82	284.0	285.0	"										
83	285.0	286.0	"										
84	286.0	287.0	"										
85	287.0	288.0	"										
86	288.0	289.0	"										
87	289.0	290.0	"										
88	290.0	291.0	"										
89	291.0	292.0	"										
35090	292.0	293.0	"										
91	293.0	294.0	"										
35092	294.0	295.0	1.0										

DRILL LOG

sample data

S A M P L E					C O R E R E C O V E R Y		V I S U A L E S T I M A T E S (% O R E M I N E R A L S)	A S S A Y R E S U L T S					
N U M B E R	F R O M	T O	T O T A L M E T R E S	S p G r	%	A M T L O S T							
35093	295.0	296.0	1.0										
94	296.0	297.0	"										
95	297.0	298.0	"										
96	298.0	299.0	"										
97	299.0	300.0	"										
98	300.0	301.0	"										
99	301.0	302.0	"										
35100	302.0	303.0	"										
01	303.0	304.0	"										
02	304.0	305.0	"										
03	305.0	306.0	"										
04	306.0	307.0	"										
05	307.0	308.0	"										
06	308.0	309.0	"										
07	309.0	310.0	"										
08	310.0	311.0	"										
09	311.0	312.0	"										
35110	312.0	313.0	"										
11	313.0	314.0	"										
12	314.0	315.0	"										
13	315.0	316.0	"										
14	316.0	317.0	"										
15	317.0	318.0	"										
16	318.0	319.0	"										
17	319.0	320.0	"										
35118	320.0	321.0	1.0										

DRILL LOG

sample data

S A M P L E					C O R E R E C O V E R Y		V I S U A L E S T I M A T E S (% O R E M I N E R A L S)	A S S A Y R E S U L T S					
N U M B E R	F R O M	T O	T O T A L M E T R E S	S p G r	%	A M T L O S T							
35119	321.0	322.0	1.0										
20	322.0	323.0	"										
21	323.0	324.0	"										
22	324.0	325.0	"										
23	325.0	326.0	"										
24	326.0	327.0	"										
25	327.0	328.0	"										
26	328.0	329.0	"										
27	329.0	330.0	"										
28	330.0	331.0	"										
29	331.0	332.0	"										
35130	332.0	333.0	1.0										
31	333.0	334.0	"										
32	334.0	335.0	"										
33	335.0	336.0	"										
34	336.0	337.0	"										
35	337.0	338.0	"										
36	338.0	339.0	"										
37	339.0	340.0	"										
38	340.0	341.0	"										
39	341.0	342.0	"										
35140	342.0	343.0	"										
41	343.0	344.0	"										
42	344.0	345.0	"										
43	345.0	346.0	"										
35144	346.0	347.0	1.0										

DRILL LOG

sample data

S A M P L E					C O R E R E C O V E R Y		V I S U A L E S T I M A T E S (% O R E M I N E R A L S)	A S S A Y R E S U L T S					
N U M B E R	F R O M	T O	T O T A L M E T R E S	S p G r	%	A M T L O S T							
35145	347.0	348.0	1.0										
46	348.0	349.0	"										
47	349.0	350.0	"										
48	350.0	351.0	"										
49	351.0	352.0	"										
35150	352.0	353.0	"										
51	353.0	354.0	"										
52	354.0	355.0	"										
53	355.0	356.0	"										
54	356.0	357.0	"										
55	357.0	358.0	"										
56	358.0	359.0	"										
57	359.0	360.0	"										
58	360.0	361.0	"										
59	361.0	362.0	"										
35160	362.0	363.0	"										
61	363.0	364.0	"										
62	364.0	365.0	"										
63	365.0	366.0	"										
64	366.0	367.0	"										
65	367.0	368.0	"										
66	368.0	369.0	"										
67	369.0	370.0	"										
68	370.0	371.0	"										
69	371.0	372.0	"										
35170	372.0	373.0	1.0										

DRILL LOG

sample data

S A M P L E					C O R E R E C O V E R Y		V I S U A L E S T I M A T E S (% O R E M I N E R A L S)	A S S A Y R E S U L T S					
N U M B E R	F R O M	T O	T O T A L M E T R E S	S p G r	%	A M T. L O S T							
35171	373.0	374.0	1.0										
72	374.0	375.0	"										
73	375.0	376.0	"										
74	376.0	377.0	"										
75	377.0	378.0	"										
76	378.0	379.0	"										
77	379.0	380.0	"										
78	380.0	381.0	"										
79	381.0	382.0	"										
35180	382.0	383.0	"										
81	383.0	384.0	"										
82	384.0	385.0	"										
83	385.0	386.0	"										
84	386.0	387.0	"										
85	387.0	388.0	"										
86	388.0	389.0	"										
87	389.0	390.0	"										
88	390.0	391.0	"										
89	391.0	392.0	"										
35190	392.0	393.0	1.0										
91	393.0	394.0	"										
92	394.0	395.0	"										
93	395.0	396.0	"										
94	396.0	397.0	"										
95	397.0	398.0	"										
35196	398.0	399.0	1.0										

DRILL LOG

sample data

S A M P L E					C O R E R E C O V E R Y		V I S U A L E S T I M A T E S (% O R E M I N E R A L S)	A S S A Y R E S U L T S					
N U M B E R	F R O M	T O	T O T A L M E T R E S	S p G r	%	A M T L O S T							
35197	399.0	400.0	1.0										
98	400.0	401.0	"										
99	401.0	402.0	"										
35200	402.0	403.0	"										
01	403.0	404.0	"										
02	404.0	405.0	"										
03	405.0	406.0	"										
04	406.0	407.0	"										
05	407.0	408.0	"										
06	408.0	409.0	"										
07	409.0	410.0	"										
08	410.0	411.0	"										
09	411.0	412.0	"										
35210	412.0	413.0	"										
11	413.0	414.0	"										
12	414.0	415.0	"										
13	415.0	416.0	"										
14	416.0	417.0	"										
15	417.0	418.0	"										
16	418.0	419.0	"										
17	419.0	420.0	"										
18	420.0	421.0	"										
19	421.0	422.0	"										
20	422.0	423.0	"										
21	423.0	424.0	"										
35222	424.0	425.0	1.0										

DRILL LOG

sample data

S A M P L E					C O R E R E C O V E R Y		V I S U A L E S T I M A T E S (% O R E M I N E R A L S)	A S S A Y R E S U L T S					
N U M B E R	F R O M	T O	T O T A L M E T R E S	S p G r	%	A M T. L O S T							
35223	425.0	426.0	1.0										
24	426.0	427.0	"										
25	427.0	428.0	"										
26	428.0	429.0	"										
27	429.0	430.0	"										
28	430.0	431.0	"										
29	431.0	432.0	"										
35230	432.0	433.0	1.0										
31	433.0	434.0	"										
32	434.0	435.0	"										
33	435.0	436.0	"										
34	436.0	437.0	"										
35	437.0	438.0	"										
36	438.0	439.0	"										
37	439.0	440.0	"										
38	440.0	441.0	"										
39	441.0	442.0	"										
40	442.0	443.0	"										
41	443.0	444.0	"										
42	444.0	445.0	"										
43	445.0	446.0	"										
44	446.0	447.0	"										
45	447.0	448.0	"										
46	448.0	449.0	"										
47	449.0	450.0	"										
35248	450.0	451.0	1.0										

DRILL LOG

sample data

S A M P L E					C O R E R E C O V E R Y		V I S U A L E S T I M A T E S (% O R E M I N E R A L S)	A S S A Y R E S U L T S					
N U M B E R	F R O M	T O	T O T A L M E T R E S	S p G r	%	A M T L O S T							
35249	451.0	452.0	1.0										
50	452.0	453.0	"										
51	453.0	454.0	"										
52	454.0	455.0	"										
53	455.0	456.0	"										
54	456.0	457.0	"										
55	457.0	458.0	"										
56	458.0	459.0	"										
57	459.0	460.0	"										
58	460.0	461.0	"										
59	461.0	462.0	"										
35260	462.0	463.0	1.0										
61	463.0	464.0	"										
62	464.0	465.0	"										
63	465.0	466.0	"										
64	466.0	467.0	"										
65	467.0	468.0	"										
66	468.0	469.0	"										
67	469.0	470.0	"										
68	470.0	471.0	"										
69	471.0	472.0	"										
35270	472.0	473.0	1.0										
71	473.0	474.0	"										
72	474.0	475.0	"										
73	475.0	476.0	"										
35274	476.0	477.0	1.0										

DRILL LOG

sample data

S A M P L E					C O R E R E C O V E R Y		V I S U A L E S T I M A T E S (% O R E M I N E R A L S)	A S S A Y R E S U L T S					
N U M B E R	F R O M	T O	T O T A L M E T R E S	S p G r	%	A M T L O S T							
35275	477.0	478.0	1.0										
76	478.0	479.0	"										
77	479.0	480.0	"										
78	480.0	481.0	"										
79	481.0	482.0	"										
35280	482.0	483.0	"										
81	483.0	484.0	"										
82	484.0	485.0	"										
83	485.0	486.0	"										
84	486.0	487.0	"										
35285	487.0	490.0	3.0				Chip Sample						
86	490.0	495.0	5.0				"						
87	495.0	500.0	5.0				Chip Sample						
88	500.0	501.0	1.0										
89	501.0	502.0	1.0										
35290	502.0	507.0	5.0				Chip Sample						
91	507.0	508.0	1.0										
92	508.0	509.0	"										
93	509.0	510.0	"										
94	510.0	511.0	"										
95	511.0	512.0	"										
96	512.0	513.0	"										
97	513.0	514.0	"										
98	514.0	515.0	"										
99	515.0	516.0	"										
35300	516.0	517.0	1.0										

DRILL LOG

sample data

S A M P L E					C O R E R E C O V E R Y		V I S U A L E S T I M A T E S (% O R E M I N E R A L S)	A S S A Y R E S U L T S					
N U M B E R	F R O M	T O	T O T A L M E T R E S	S p G r	%	A M T L O S T							
35301	517.0	518.0	1.0										
02	518.0	519.0	"										
03	519.0	520.0	"										
04	520.0	521.0	"										
05	521.0	522.0	"										
06	522.0	523.0	"										
07	523.0	524.0	"										
08	524.0	525.0	"										
35309	525.0	529.0	4.0				Chip Sample						
10	529.0	530.0	1.0										
11	530.0	531.0	"										
12	531.0	532.0	"										
13	532.0	533.0	"										
14	533.0	534.0	"										
15	534.0	535.0	"										
16	535.0	536.0	"										
17	536.0	541.0	5.0				Chip Sample						
18	541.0	544.0	3.0				" "						
19	544.0	545.0	1.0										
35320	545.0	546.0	1.0										
21	546.0	550.0	4.0				Chip Sample						
22	550.0	551.0	1.0										
23	551.0	552.0	1.0										
24	552.0	557.0	5.0				Chip Sample						
25	557.0	558.0	1.0										
35326	558.0	559.0	1.0										

DRILL LOG

sample data

S A M P L E					C O R E R E C O V E R Y		V I S U A L E S T I M A T E S (% O R E M I N E R A L S)	A S S A Y R E S U L T S					
N U M B E R	F R O M	T O	T O T A L M E T R E S	S p G r	%	A M T. L O S T							
35327	559.0	564.0	5.0				Chip Sample						
28	564.0	556.0	1.0										
29	565.0	566.0	"										
30	566.0	567.0	"										
31	567.0	568.0	"										
32	568.0	569.0	"										
33	569.0	570.0	"										
35334	570.0	575.0	5.0				Chip Sample						
35	575.0	576.0	1.0										
36	576.0	577.0	"										
37	577.0	578.0	"										
38	578.0	579.0	"										
39	579.0	580.0	"										
40	480.0	581.0	"										
41	581.0	582.0	"										
35342	582.0	582.32	0.32										

EXPLORATION
WESTERN CANADA**DRILL LOG**

HOLE NO .. ST 83-3

DRILLING CO	LOCATION SKETCH	DEPTH	TESTS DIP ANGLE	AZIMUTH	DATE STARTED	PROJECT	
J.T. Thomas Smithers, B.C.		COLLAR	-90°	0	July 28/83	Stewart Moly	
		100 m	-90°	0	DATE COMPLETED	N.T.S. 82 F	
		200 m	-90°	0	COLLAR ELEV	1581.0 m	LOCATION- IP Grid
		300 m	-90°	0	NORTHING	0 + 94N	
		400 m	-90°	0	EASTING	4 + 22.5E	
HOLE TYPE	D.D.H.				AZIMUTH	0°	
					DEPTH	416.95 m (1368 ft.)	
					DATE LOGGED:	August 1983	
					CORE SIZE	NO	
					LOGGED BY	T. Carpenter	

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
0	3.05	Casing								
3.05	22.9 m	Quartz Monzonite	Grey to	Medium	Porphyry	Epidote	MoS ₂	3-4		Fractures 80% at 60-70° to CA MoS ₂ occurs in
		Porphyry	whitish			Potassic		Pyrite		20% at 30-45° to CA occasional qtz veinlets
			grey to			Chloritic				
			pinkish			Hematitic				
										Contains white to pinkish zoned feldspar phenos to 2 cm and hornblende laths to 5-7 mm. 70% of the mafics have
										been altered to chlorite. Contains 25% fine grained quartz, 5% mafics and 70% feldspar. Quartz veinlets
										and stringers average ≈ 1-2/metre. Most are at 60-70° to CA with an occasional veinlet at 35° to CA.
										The section contains frequent zones of dark olive
										coloured core with whitish feldspar phenos in a dark
										matrix. These zones range from 4 cm to over 1 m in
										length. The narrower zones appear to be fracture and/or
										qtz veinlet controlled. As well as the epidotization (?)

DRILL LOG

HOLE NO. ST 83-3

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										the rock contains zones with pinkish potassic feldspar phenocrysts. Dark green chlorite is present along fractures at 0 to 10° to CA. Hematitic fractures to 9.0 m. Pyrite and pyrrhotite are disseminated through the core in concentrations from 1-2%. Both are also present in qtz stringers and along fractures. MoS ₂ is found in occasional qtz veinlets.	
										3.05- 5.79 m Heavily hematized fractures in greenish to whitish rock.	
										6.0 m MoS ₂ in qtz veinlets	
										5.79- 7.14 m Greenish grey to dark olive core with limonite and hematitic alteration on occasional fractures.	
										7.14- 7.30 m Aplite. Beige fine grained rock. Contacts at 65° to CA.	
										7.30- 9.30 m As from 5.79 to 7.14 m	
										8.38-9.0 m Shear zone with slickensides on fractures. Fractures hematized to chloritic with occasional calcite veinlet.	
										8.38-9.0 m Minor MoS ₂ visible on occasional shear surface.	
										9.30- 9.70 m Bleaching caused by parallel fractures at	

DRILL LOG

HOLE NO. ST. 83-3

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
									0° to CA.	
									9.70-20.45 m Whitish grey core with frequent intervals of dark olive drab alteration which makes up 25-30% of section.	
									9.78 m MoS ₂ in qtz stringers.	
									10.4-10.8 m Bleached core with fractures subparallel to CA. Contains calcite stringers.	
									13.7 m MoS ₂ in qtz veinlet.	
									14.55-15.88 m Predominantly dark olive core	
									17.4-20.45 m Contains pinkish feldspar phenocrysts.	
									20.45-20.85 m Greenish slightly epidotized core.	
									20.85 m Qtz vein with purple fluorite.	
									20.91 m MoS ₂ in qtz veinlet.	
									20.85-21.0 m Aplite. Pale green epidotized core. Cut by qtz veins at 70° to CA.	
									21.0-22.9 m Grey to greenish rock.	
									22.1-22.3 m Hematized fractures at 60° to CA.	
22.9 m	30.85 m	Quartz Monzonite	Dark Olive	Medium	Porphyry	Epidotiza	Fluorite	5-7	Fractures 60% at 45° to CA.	
		Porphyry	Green to			-tion	MoS ₂		30% at 60-70° to CA.	
			Greenish				Pyrite		10% at < 30° to CA.	
			Gray				Pyrrhotite			

DRILL LOG

HOLE NO. ST. 83-3

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
											Predominantly dark olive green, highly epidotized rock with disseminated pyrite and pyrrhotite, both of which also occur along shears and fractures. Carbonate is found along fractures and within altered mafics.
											Contains remnant feldspar phenos to 2 cm which are slightly lighter in colour than the dark green matrix.
											22.9- 24.7 m Dark olive green rock. Slightly lighter in colour with whitish feldspars from 24.15 m.
											23.77 m Minor MoS ₂ in shear
											24.1m Qtz veinlet with garnet and pyrite.
											24.7- 26.6 m Medium green epidotized core.
											24.8- 25.1m Fluorite through core. Purple in colour.
											26.6- 28.8 m Greenish grey slightly to moderately epidotized core. Sub parallel to parallel fracture from 28.0 to 29.1 m.
											28.8- 30.85m Dark olive green rock. As from 22.9-24.7 m.
											29.3- 29.75 m Shear zone. Slickensides on most fractures.
30.85	52.0m	Quartz Monzonite	Grey to	Medium	Porphyry	Epidote	Pyrite	3-4			
		Porphyry	White			Potassic	Pyrrhotite				
											Predominantly grey, locally white rock with pink to white feldspar phenocrysts to 2.5 cm. Contains 5% mafics consisting of hornblende phenos to 5 mm. About 50% of the

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										hornblende has been altered to chlorite.	
										Pyrite and pyrrhotite are disseminated throughout. As well, is found disseminated throughout, a light brownish material (garnet?).	
										31.7 - 31.9 m Aplitic core.	
										32.0 - 32.2 m Aplite. K feldspar alteration to 32.1 m.	
										Contacts at 35° to CA.	
										34.4 - 34.7 m Dark green epidotized core.	
										34.7 - 35.66m Light grey core with disseminated light brown material (garnet?).	
										35.66- 36.2 m Epidotized core with white to pale green feldspar phenocrysts.	
										36.2 - 36.9 m White feldspar phenos in matrix.	
										36.8- 36.88m Broken core. White fibrous material on fractures (sericite?).	
										36.9 - 37.1 m Aplite. Light grey in colour.	
										37.1 - 37.5 m Epidotized. As from 35.66-36.2 m.	
										37.5 - 38.2 m Pink feldspar phenos in white matrix.	
										38.0m Aplite vein at 60° to CA.	
										38.42- 38.58m Aplite.	
										38.58- 39.41m Epidotized. White to pale green feldspar phenos in a dark greenish grey matrix.	
										39.41- 39.7 m Aplite. Pale grey in colour.	
										39.7 - 40.78m As from 37.5 - 38.2m.	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
											41.44m MoS ₂ selvages in qtz vein.
											40.78- 42.33m White feldspar phenocrysts in a dark grey matrix.
											42.33- 43.2 m Grey core.
											43.2 - 43.38m White quartz vein with pyrite and pyrrhotite.
											42.38- 42.48m Aplite
											45.28m MoS ₂ in qtz vein.
											42.48- 46.0 m Light to medium green epidotized core. Carbonate rich.
											46 - 46.30m Slickensides on fractures at 60° to CA.
											46.3 - 47.38m Grey rock with light brown material (garnet?) through matrix. Epidotized from 47.22 m.
											47.38- 47.95m Aplite. Greenish with pink feldspar phenos (pegmatitic material).
											47.95- 52.0 m Greenish grey core.
											Broken core from 51.6-52.0 m. Sub parallel fractures with calcite hematitic fractures from 51.28 - 51.45 m.
52.0 m	53.95 m	Fault zone									Heavily fractured core similar in texture and composition to section from 47.95 - 52.0 m. Well hematized fractures with carbonate. Fractures (730/metre) range from 10° to 60° to CA. 0.75 m lost core.

DRILL LOG

HOLE NO. ST 83-3

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
53.95 m	76.95 m	Quartz Monzonite	Greenish	Medium	Porphyry	Epidote	MoS ₂	4-5		Fractures 90% at 60-70° to CA. Contains occasional	
		Porphyry	grey to			Chlorite	Fluorite			10% at 45° or less. MoS ₂ in qtz veinlets.	
			dark green				Pyrite				
			-ish grey				Pyrrhotite			Contains 70% feldspar with phenos to 25 m and 5% mafic	
										material consisting largely of chloritized hornblende with	
										phenos to 4-5 mm. The core also contains ≈ 2% disseminated	
										light brown material which appears to be garnet and/or	
										light brown biotite.	
										The core contains sections of dark olive green (epidotized)	
										core containing pale green to white feldspar phenocrysts.	
										Carbonate is found within	
										altered mafics in epido-	
										tized zones and less	
										altered cores.	
										Pyrite and pyrrhotite are disseminated through the core	
										and are also found in qtz stringers and along fractures.	
										Also along fractures are found calcite and a dark greenish	
										black to black material almost velvety in appearance	
										(manganese?).	
										MoS ₂ is found in occasional qtz veinlets.	
										Chlorite is found in numerous reheated hairline fractures.	
										53.95- 60.5 m Predominantly grey to dark grey core with	
										narrow zones of darker epidotized material.	
										54.22- 54.35m Aplite. Beige in colour.	
										Contains fluorite blebs.	
										Bounded by dark olive green	

DRILL LOG

HOLE NO. ST 83-3

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										epidotized material.	
										57.0 - 57.45m Dark epidotized core.	
										58.9m White qtz vein with pyrite, pyrrhotite and garnet.	
										59.55- 59.82m MoS ₂ blebs in qtz stringers	
										59.55- 59.82m MoS ₂ blebs in qtz veins and stringers.	
										59.55- 59.9 m Dark olive green epidotized core.	
										60.22- 60.28m White qtz vein with garnet and pyrrhotite.	
										60.5 - 62.0 m Medium to dark green epidotized core. Contains 1 cm to 2 cm feldspar phenocrysts. Carbonate rich.	
										64.22m MoS ₂ veinlet.	
										62.0 - 65.15m Grey to greenish grey core.	
										65.15- 65.9 m Dark olive green core. Sub parallel fractures from 65.45 m.	
										65.9 - 67.1 m Medium greenish to grey epidotized core. Slight to moderate epidote alteration.	
										67.1 - 69.2 m Grey to greenish core.	
										67.81- 68.13m Aplite. Pale green in colour.	
										68.06m MoS ₂ in qtz veinlet	
										68.45- 68.58m Dark olive green core with chloritic shear at 68.5m.	

DRILL LOG

HOLE NO. ST 83-3

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										Shear at 45° to CA.
										68.68 m MoS ₂ in qtz stringer.
										69.2 - 69.7 m Contains pink k feldspar phenocrysts.
										69.7 - 76.95m Grey to white core containing 40-50% dark epidotized material. The white core shows distinct white feldspar phenocrysts to 4 mm in the matrix.
										71.5 - 72.0m Sub parallel calcite vein.
76.95m	92.45m	Quartz Monzonite	White	Medium	Porphyry	Epidote	Pyrite	7-8		Fractures 80% range from 45° to 60° to CA.
		Porphyry				Potassic	pyrrhotite			20% range from 20° to 30° to CA.
						Chloritic	MoS ₂			
										Contains 70% feldspar consisting of whitish grey feldspar phenos in a white matrix. 5-7% mafic material has been completely chloritized. Numerous hairline fractures at all angles to core are healed with chlorite and calcite.
										Ubiquitous chloritic hairline fractures are indicative of faulting, and show slickensides. Fractures often offset qtz veinlets.
										Pyrite and pyrrhotite are found on fracture surfaces and in occasional qtz veinlets. Qtz veinlets and stringers occur on an average of 1/2 m and range from 10° to 60° to CA.

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										The section contains minor local epidotization and potassic alteration.
										MoS ₂ occurs in occasional qtz veinlet.
										77.6 - 77.72m Dark olive green epidotized core.
										77.72 - 77.89m Contains pink k feldspar phenos.
										77.89 - 78.02m Dark olive green epidotized core.
										78.5 - 79.7 m Broken core. No shearing evident.
										78.78 - 78.9 m Bleached core.
										81.4 - 82.1 m Brownish beige, slightly kaolinized core.
										82.6 - 82.75m Epidotized core.
										84.65 - 84.75m Aplite.
										86.76m MoS ₂ in qtz veinlet.
										90.1 - 90.52m Shear zone. Heavily fractured core. Epidotized.
										90.52 - 90.8 m Epidotized core. Shear with calcite vein at 90.7m. Shear at 35° to CA.
										91.85 - 92.0 m Aplite.
										92.0 - 92.45m Greyer, more competent rock. Parallel fracture from 92.1 m.
92.45 m	104.55m	Quartz Monzonite	Grey	Medium	Porphyry	Epidote	Pyrite	6-8		Fractures 50% at 45° to 60° to CA.
		Porphyry					Pyrrhotite			50% at 20-30° to CA.
							MoS ₂			

DRILL LOG

HOLE NO. ST 83-3

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										Similar to section from 30.85 to 52.0 m. Contains
										≈ 70% feldspar consisting of white feldspar phenocrysts to
										2 cm in a white to light grey locally slightly epidotized
										matrix. 5% mafic material to 5mm of which 80-90% has been
										chloritized. Contains ≈ 20% light brown material in matrix
										(garnet?, light brown biotite?).
										Alteration consists of local bands of dark olive green
										epidote. Contains hairline fractures healed with chlorite
										and calcite. Less fracturing than previous section.
										Pyrite and pyrrhotite occur as disseminations and along
										fractures. MoS ₂ occurs as minor disseminations in core and
										in qtz veinlets.
										92.6 - 92.85m Epidotized core.
										93.42- 93.75m Epidotized core with minor disseminated MoS ₂ .
										93.42- 93.75m Minor
										disseminated MoS ₂ .
										97.1 - 97.45m Epidotized core.
										99.1 - 99.5 m White core similar to section 92.45 m.
										98.81m Minor MoS ₂ in
										qtz veinlet.
										100.1- 100.45m Epidotized core.
										101.6- 102.8 m Pale green, slightly epidotized core.
										103.9- 104.55m Pale green epidotized core.

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
104.55	116.4 m	Qtz Monzonite	White to	Medium	Porphyry	Epidote	Pyrite	4-5		Fractures 80% at 60° to CA.
		Porphyry	Greenish			Potassic	Pyrrhotite			20% at 45° to CA.
										Coarser grained than previous section, with feldspar
										phenos to 2.5 to 3 cm. Contains 5-7% mafics, comprising
										hornblende (10-20%) and chlorite after hornblende (80-90%).
										Mafic phenos to 1 cm. Also contains ≈ 2% disseminated light
										brown material as in the previous section, as well as
										brownish material along occasional fractures.
										Pyrite and pyrrhotite are found as disseminations and as
										fracture coatings. Little MoS ₂ is evident.
										Epidotization occurs at irregular intervals — both
										fracture controlled and pervasive. Minor potassic
										alteration is evident locally.
										Qtz veining is not prevalent, nor are chlorite healed
										fractures.
										105.6 - 105.9 m Dark green epidote alteration.
										107.5 - 107.65m Fracture controlled epidote alteration.
										110.6 - 110.8 m Aplite at 35° to CA.
										113.5 2.5 cm white qtz vein with blebs of
										pyrrhotite.
										115.9 - 116.4 m Slightly epidotized core.
										116.32m Calcite veinlet in 35° shear.

DRILL LOG

HOLE NO. ST 83-3

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
116.4	145.5 m	Qtz Monzonite	Green	Medium	Porphyry	Epidote	Pyrite	6-8		Fractures 70% at 60-70° to CA. MoS ₂ occurs as occasional
		Porphyry					Pyrrhotite			30% at 30-45° to CA. disseminations and
		(Epidotized)					MoS ₂			Most fractures show evidence of occasionally on shear shearing. fractures.
										Consists largely of pale green feldspar phenocrysts to 1.5- 2 cm in a matrix of pale green to medium green epidotized feldspar. Mafic material has been completely chloritized and is often indistinguishable from the epidotized matrix.
										The section contains calcite veinlets as well as calcite coating fractures. As noted, most fractures show evidence of shearing. Chlorite and serpentine are evident on some shears.
										Pyrite and pyrrhotite are disseminated through the core in concentrations to 1-2%.
										124.55m MoS ₂ disseminations.
										125.25m " "
										125.79m MoS ₂ "paint" on shear.
										125.77- 128.9m disseminated MoS ₂
										125.77 - 128.9 m Contains disseminated MoS ₂ (< 1%)
		Shear Zone								128.9 - 129.6 m Shear zone. Fractured core with minor MoS ₂ paint on occasional fractures.

DRILL LOG

HOLE NO. ST 83-3

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										128.9 - 129.6m MoS ₂ "paint"	
										on occasional fractures.	
										129.6 - 130.0 m Pale green epidotized rock.	
										130.5 - 130.75m Shear zone. Broken core.	
										131.4 - 131.60m Contains pink k feldspar phenocrysts.	
										132.15- 132.38m Bleached core.	
										132.60- 132.75m Light green phenos in a bleached matrix.	
										137.93m MoS ₂ blebs with pyrite and pyrrhotite.	
										134.36- 134.64m Pale green aplite.	
										134.55m 5 cm white qtz vein.	
										137.4 - 145.5 m Pale green epidotized core.	
										142.2- 143.4m Sheared core. Slickensides on fractures.	
										141.5- 142.2m disseminated MoS ₂	
										142.2- 142.33m MoS ₂ "paint" on shear surfaces.	
										144.0m disseminated MoS ₂	
145.5 m	150.0m	Qtz Monzonite	White	Medium	Porphyry	Epidote	Pyrite	2-3		90% of fractures at 60-70° to CA.	
		Porphyry					Pyrrhotite			10% of fractures at 45° to CA.	
										White feldspar phenos to 2.5 cm in a matrix of white (often zoned) feldspars. Contains 5-7% chloritized mafic	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										material. Contains veins of brown material (garnet).	
										147.72- 147.85m Fracture controlled epidotization.	
										Pyrite and pyrrhotite are noted through the section as disseminations and along fractures.	
150.0 m	156.2 m	Qtz Monzonite	Greenish	Medium	Porphyry	Epidote	Pyrite	6-8		70% of fractures of 30-45° to CA.	
		Porphyry	grey			Potassic	Pyrrhotite			30% of fractures of 45-70° to CA.	
										Epidotized equivalent of previous section. Contains ubiquitous hairline fractures healed with serpentine and chlorite. Contains disseminated brownish material in matrix as well as occasional stringers of garnet.	
										Pyrite and pyrrhotite are disseminated through the core.	
										150.01- 150.07m Pale green material associated with qtz veining.	
										150.55- 151.0 m Aplite. Pale green medium grained rock.	
										151.45- 152.05m Aplite. Light grey in colour.	
										153 - 154.3 m Contains pink k feldspar phenocrysts.	
										154.8 - 155.25m Contains pinkish potassic alteration.	
										156.00- 156.2 m Contains pink k feldspar phenocrysts.	
156.2 m	174.0 m	Qtz Monzonite	Green	Medium	Porphyry	Epidote	Pyrite	10-12 to 159 m		75% of fractures from 60-70° to CA.	
		Porphyry					Pyrrhotite	3-4 from 159 m		25% of fractures from 30-45° to CA.	
		Epidotized									

DRILL LOG

HOLE NO. ST 83-3.

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										Similar to section from 116.4 to 145.5 m. Consists of pale green feldspar phenos to 1.5-2 cm in a light to dark green epidotized matrix. Mafics, originally hornblende, have been completely altered to chlorite. Contains disseminated pyrite, pyrrhotite and garnet.	
										156.26 m Garnet veinlet.	
										156.73- 157.0 m Aplite with garnet selvages. Most fractures show evidence of	
										157.3 - 157.53m Aplite. Contacts of 30° to CA. shearing.	
										157.53- 158.0 m Pale green rock.	
										158.5 - 160.65m Pale green rock.	
										160.65- 162.7 m Dark olive green core.	
										161.3- 161.8m Sub parallel fracture with pyrite and black, sooty material (Mn?) coating fracture.	
										162.7 - 165.1 m Medium green in colour.	
										165.1 - 166.9 m Dark olive green to greyish green in colour	
										165.2 m Aplite vein with garnet selvages.	
										168.78- 168.9 m Aplite with pink potassic alteration.	
										168.9 - 169.2 m Pale green core. As from 166.9 to 168.78m.	
										169.2 - 169.7 m Contains pink k feldspar phenos.	
										169.7 - 169.8 m Pink potassic aplitic core.	
										169.95m Qtz veinlet with Mos ₂ selvages.	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										169.85- 170 m Pink potassic aplite.
										170.0 - 174.0 m Dark olive green to medium green epidotized core.
174.0m	187.6m	Qtz Monzonite	Light	Medium	Porphyry	Epidotitic	pyrite	3-4		70% at 30-45° to CA.
		Porphyry	Grey			Potassic	Pyrrhotite			30% at 50-70° to CA.
										Grey to greenish grey rock containing feldspar phenos to 2 cm and 5-7% mafic material. The mafics consist of hornblende (20%) and chloritized hornblende (80%). The section is cut by hairline fractures healed with chlorite and calcite at 0-70° to CA.
										The rock generally is slightly greenish in colour due to slight epidotization. Locally k feldspar phenos are evident
										Pyrite and pyrrhotite are disseminated through the core and are also found as fracture fillings and coatings.
										Contains occasional qtz veinlets containing pyrite and pyrrhotite. Little MoS ₂ is evident.
										175.25 m Aplite veinlet.
										176.15 - 176.33m Contains pink k feldspar phenos.
										176.4 - 176.95m Greenish epidotized core.
										176.73m Minor MoS ₂ in qtz veinlet associated with chlorite.
										177.43 m Qtz veinlet with garnet selvages.

DRILL LOG

HOLE NO. ST 83-3

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										177.78 m Qtz veinlet with garnet selvages.
										178.1 - 178.2 m Contains k feldspar phenos.
										181.5 - 186.15m Interval contains frequent k feldspar phenocrysts.
										182.95m Pink potassic aplite vein of 45° to CA.
										183.4 m Pervasive fracture controlled k feldspar alteration.
										186.15- 187.6 m Slightly greenish core with potassic alteration from 186.7 to 186.95 m.
187.6m	193.5m	Qtz Monzonite	Green to	Medium	Porphyry	Epidote	Pyrite	3-4		70% of fractures at 60° to CA.
		Porphyry	Grey				Pyrrhotite			30% of fractures of 30-45° to CA.
		Epidotized								
										Contains white to pale green feldspar phenos to 2 cm in a light to dark green epidotized matrix. Mafic material consists entirely of chlorite after hornblende.
										Pyrite and pyrrhotite occur disseminated through the core and along occasional fractures. Little MoS ₂ is evident
										The section is cut by several narrow lamprophyre dikes comprising biotite phenocrysts in a dark grey to black fine grained matrix.
										187.6 - 188.2 m Light green epidotized core.
										188.65 - 189.5m Sub parallel fracture with serpentine, chlorite and pyrite.

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
									188.2 - 189.1 m Dark olive green core.	
									189.1 - 189.5 m Medium green epidotized rock.	
									189.5 - 190.05m Greenish grey, very slightly epidotized core	
									190.05 - 190.62m Pale green core with pinkish feldspar phenos.	
									190.47m 3 cm lamprophyre vein.	
		Lamprophyre							190.62 - 191.01m Lamprophyre. Consists of biotite phenos and green material (epidote?) in a dark grey to black fine grained matrix.	
									191.01 - 191.95m Dark olive green core.	
		Lamprophyre							191.95 - 192.44m Lamprophyre. As above. Contacts at 70° to CA.	
									192.44 - 193.5 m Medium green epidotized core.	
									193.25 - 193.29m Minor	
									MoS ₂ in qtz veins.	
193.5m	217.92m	Qtz Monzonite	Light	Medium	Porphyry	Potassic	Pyrite	4	70% of fractures at 60° to CA.	
		Porphyry	grey to white			Epidotic	Pyrrhotite		20% of fractures at 45° to CA.	
									10% of fractures at 30° to CA.	
									Contains chlorite healed hairline fractures.	
									Contains 2 cm white feldspar phenocrysts in a grey to greenish grey matrix. Mafics make up 5-7% of the rock and consist largely of chloritized hornblende phenocrysts.	
									Also evident locally are dark brown blebs of material (after	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
									hornblende?) which are carbonate rich. Carbonate is also present within chloritized hornblende phenocrysts as well as along hairline fractures.	
									The rock is locally epidotized and contains frequent intervals with pink k feldspar phenocrysts.	
									194.86 m MoS ₂ "paint" on shear fracture.	
									Pyrite and pyrrhotite are disseminated through the core in concentrations to 1-2%. Pyrite is also present along occasional fractures. Little MoS ₂ is evident.	
									195.3 - 195.7 m Pink feldspar phenocrysts in whitish core bounding a 1 cm feldspathic pink aplite vein extending from 195.4 to 195.7 m.	
									195.7 - 204.2 m Greenish grey core with frequent narrow intervals of dark olive green epidotization	
									201.18 m 4 cm white qtz vein with pyrite and pyrrhotite.	
									201.5 - 201.8 m White bleached core.	
									203.9 - 204.2 m Contains calcite veinlets.	
									204.2 - 210.75m Predominantly white matrix core with ubiquitous pink k feldspar phenocrysts. Contains parallel to sub parallel chlorite healed hairline fractures.	
									210.75- 217.92m Grey core. Locally epidotized.	
									214 - 214.38m Contains frequent chloritic	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										fractures at 70° to CA.
										214.38 - 214.44m White qtz vein with minor MoS ₂ .
										214.42m MoS ₂ in qtz vein.
										214.44 - 214.53m Lamprophyre. Chloritized.
										216.69 - 216.84m MoS ₂ on shear fractures bounding white qtz vein from 216.72 to 216.78 m. MoS ₂ stringers also occur in the qtz vein.
										215.59m MoS ₂ in qtz veinlet.
										216.43m MoS ₂ in qtz veinlet.
										216.69 - 216.84m MoS ₂ paint on shear fractures and in qtz vein.
217.92	226.4m	Qtz Monzonite	Green to	Medium	Porphyry	Epidote	Pyrite	3-4		90% of fractures from 60-70° to CA.
		Porphyry	greenish				Pyrrhotite			10% of fractures from 20-30° to CA.
		(Epidotized)	grey							Variably epidotized rock. Similar in texture to previous section. Similar in alteration to section from 187.6 to 193.5 m. Mafic material consists almost entirely of chlorite. Chlorite and calcite are also evident on hairline fractures.

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
									217.92- 218.7 m Dark olive green epidotized core.	
									219.5 - 220.05m Broken core with pyrite and calcite on fractures.	
									220.61- 220.9 m Contains garnetiferous material.	
									220.5 - 224.1 m Largely dark olive green core.	
									224.1 - 224.63m Medium green epidotized core.	
									224.3 m Pyrrhotite stringers.	
									224.63- 226.4 m Pale green epidotized core.	
									225.36- 225.38m White qtz vein.	
226.4 m	251.14m	Qtz Monzonite	Greenish	Medium	Porphyry	Epidote	Pyrite	3-4	90% of fractures from 60-70° to CA.	
		Porphyry	grey			Chloritic	Pyrrhotite		10% of fractures from 5-45° to CA.	
			to grey			Potassic				
									Grey to greenish grey core containing pale green to grey feldspar phenocrysts to 2.5 cm in a largely feldspathic matrix. Mafic material, which makes up 5-7% of the rock consists of chlorite after hornblende and a reddish brown carbonate rich material. Overall, the rock is slightly epidotized. Chlorite and calcite are prominent on occasional healed hairline fractures.	
									K feldspar phenos occur at irregular intervals through the core.	
									226.4 - 232.7 m Greenish grey slightly epidotized core.	
									229.5- 230.1m Sub parallel fracture with slickensides.	

DRILL LOG

HOLE NO. ST 83-3

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
									230.6- 230.9m	Sub parallel fracture with slickensides.
									232.7 - 236.82m	Generally pale green epidotized matrix material with frequent pink k feldspar phenocrysts. Calcite veinlet at 234.08m.
									234.1m	MoS ₂ in Qtz veinlet
									236.82- 237.1 m	Green core cut by numerous chloritic fractures.
									237.1 - 243.95m	Grey to slightly greenish rock. Uniform texture with very little alteration evident other than chloritization of mafic material.
									241.08- 241.18m	Lamprophyre vein at 15-20° to CA.
									243.67- 243.87m	Epidote alteration associated with 70° fractures.
		Feldspathized							243.95- 248.2 m	Consists largely of pink feldspar phenocrysts in a white matrix.
		Aplite							245.73- 246.02m	Aplite. Light greenish in colour.
									246.16- 246.43m	Aplite. " " "
									248.2 - 248.62m	Xenolith or dike of fine grained diorite.
									247.0m	MoS ₂ in Qtz veinlet
									248.62- 249.9 m	Greenish epidotized core.
									249.9 - 251.14m	Pink k feldspar phenos in a white matrix.
251.14	273.5 m	Qtz Monzonite	White to	Medium	Porphyry	Epidote	Pyrite	2-3		90% of fractures at 55-65° to CA.
		Porphyry	Greenish			Potassic	Pyrrhotite			10% of fractures at < 30° to CA.

DRILL LOG

HOLE NO. ST 83-3

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										Similar to previous section in texture. However, the core appears to be slightly more epidotized, with the matrix generally slightly greenish in colour. Contains intervals of potassic core — i.e. k feldspar phenocrysts in a greenish white to light green matrix.	
										Contains an occasional calcite and chlorite healed fracture. As in the previous sections, very little qtz veining is evident.	
										Pyrite and pyrrhotite occur as disseminations and along occasional fractures. Very little MoS ₂ is evident.	
										251.14 - 252.97m Epidotized core with occasional pink feldspar phenos.	
										252-252.4 m Salmon pink feldspars in epidotized matrix.	
										252.97 - 253.23m Aplite. Medium grained.	
										253.23 - 255.6 m Green epidotized core with reddish brown carbonate rich material in matrix.	
										255.6 - 255.77m Aplite. Potassic alteration associated with fracture at 255.77 m.	
										255.77 - 257.05m Pink f feldspar phenos in a white matrix.	
										257.05 - 257.30m Aplite. Light grey in colour.	
										257.3 - 257.7 m Grey relatively unaltered core.	
										257.7 - 257.95m Green epidotized core.	
										257.95 - 261.1 m Pink k feldspar phenos in an epidotized matrix.	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										261.1 - 266.5 m Grey, very slightly epidotized core with reddish brown material in matrix. Contains frequent k feldspar phenocrysts.	
										264.8 - 265.25m Aplite. Pink to greenish in colour.	
										266.0 - 266.1 m Aplite vein.	
										266.1 - 266.5 m Cut by calcite filled fractures at 20° to CA.	
										267.28 m MoS ₂ "paint" on shear.	
										272.3 m MoS ₂ in qtz veinlet.	
										266.5 - 273.5 m Predominantly green epidotized core.	
										269.0 - 270.5 m Pink k feldspar phenocrysts in a white matrix.	
		Shear Zone								272.4 - 273.5 m Broken core with slickensides.	
273.5 m	294.25 m	Qtz Monzonite	White to	Medium	Porphyry	Epidote	Pyrite	8-10 to	276 m	Shearing evident Fractures 60% at 45 to 60° to CA.	
		Porphyry	grey				Pyrrhotite	3 from	276 m	from 273.5 to 276 m. 40% at 30° to CA.	
										Contains white to grey feldspar phenocrysts to 2.5 cm in a white to grey matrix. 5-7% mafic material of which 60% has been altered to chlorite. The remaining 40% comprises unaltered hornblende.	
										Locally epidotized. Also contains 1-2% light brown disseminated material.	
										Pyrite and pyrrhotite are found disseminated through the	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										core and along hairline fractures..	
										Also contains occasional aplite and calcite filled fracture	
		Shear Zone								273.5 - 176.0 m Shear zone. Heavily fractured rock with numerous slickensides evident. Calcite rich gouge from 275.1- 275.2 m.	
										275.2 - 277.3 m White rock with carbonate rich altered mafics.	
										277.3 - 280.15m Grey unaltered core.	
										279.05 - 279.24m Aplite. Light grey in colour.	
										279.67 - 280.0 m " " " "	
										280.15 - 280.4 m Contains pink k feldspar phenocrysts.	
										280.4 - 281.0 m Slightly epidotized core.	
										281.0 - 281.55m Aplite. Pale grey in colour.	
										281.55 - 282.0 m Dark green epidotized core.	
										282.0 - 283.3 m Grey core with 2-3% garnet material.	
										283.3 - 283.75m Aplite. Light grey in colour.	
										283.75 - 284.36m Olive green epidotized core.	
										284.36 - 287.8 m Grey to slightly greenish core with brown material (garnet?) disseminated throughout.	
										287.0m Calcite vein with slickensides.	
										30° to CA.	
										287.0 - 287.3m Aplite. Cut by garnet veinlet at 287.28 m.	
										287.54m Calcite vein with slickensides.	
										30° to CA.	

DRILL LOG

HOLE NO. ST 83-3

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
									287.8 - 291.35m Green moderately epidotized core, cut by numerous chlorite healed fractures. Calcite on fractures.	
									289.5 - 289.6m Slickensides on fractures at 60-70° to CA.	
									290.8 - 291.1m Dark green heavily chloritized shear.	
									291.35 - 291.92m Aplite. Light grey in colour.	
									291.92 - 293.0 m Greenish epidotized core.	
		Aplite							293.0 - 293.6 m Aplite. Bounded with pink to green colours. QMP material at 293.5 m.	
									293.6 - 294.25m Grey to white core with unaltered hornblende and pink k feldspar phenocrysts.	
294.25	300.08 m	Aplite	Light grey to pink	Fine to medium	Equi-granular	Potassic Epidotitic	None	6-8	60% at 45° to 60° to CA. 40% at 30° to 45° to CA. Grey to pinkish rock containing slight potassic and epidotitic alteration. Shearing evident on shallower fractures	
									284.55 - 285.04m Pale green epidotized QMP material.	
									285.04 - 285.3 m Pinkish potassic core.	
									297.4 - 297.5 m Pink potassic core.	
									297.56 - 299.1 m Grey quartz monzonite with disseminated brownish material.	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
300.08	316.4 m	Qtz Monzonite	Light	Medium	Porphyry	Epidote	Pyrite	2-3		90% at 60° to CA.
		Porphyry	grey				Pyrrhotite			10% at 45° to CA.
										Comprises grey feldspar phenos to 2 cm in a grey feldspathic matrix. Contains 5-7% mafic material of which 20% is hornblende and 80% is chlorite after hornblende. Contains occasional chlorite and calcite filled fractures.
										Core is locally epidotized.
										Pyrite and pyrrhotite are evident along fractures.
										Core also contains light brown disseminated material as in previous sections. Qtz veins are present but not abundant. Most are 60-70° to CA. Very little MoS ₂ is evident.
										Xenoliths of dioritic composition occur occasionally.
										300.08 - 304.20 m Grey core with chloritized mafics and occasional chloritic fractures.
										304.20 - 305.55 m Pale greenish core with epidote rimming feldspar phenocrysts. Contains calcite fractures from 304.95 m to 305.45 m.
										305.2 - 305.45 m Broken core with slickensides evident.
										305.55 - 311.5 m Grey core. Locally epidotitic.
										306.6 - 307.03 m Dark olive green epidotized core.
										307.8 - 308.2 m Dark greenish grey core.

DRILL LOG

HOLE NO. ST 83-3

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										308.2 - 308.5 m Sheared core with slicken-sides.	
										308.85 - 309.35 m Pale green epidotized core	
										309.9 - 310.25 m " " " "	
										311.5 - 312.0 m Dark greenish grey epidotized core.	
										312.0 - 312.9 m Pale green to beige epidotized core.	
										312.9 - 313.45 m Dark olive green epidotized core.	
										313.45 - 314.05 m Pale green epidotized core. As from 312.0 to 312.9 m.	
										314.05 - 314.45 m Dark olive green core.	
										314.45 - 314.6 m Pale green core.	
										314.6 - 314.96 m Grey relatively unaltered core.	
										314.96 - 315.25 m Dark olive green core.	
										315.25 - 316.00 m Whitish core with pink k feldspar phenos.	
										316.0 - 316.4 m Dark olive green core.	
316.4	330.6 m	Qtz Monzonite	White to	Medium	Porphyry	Epidote	Pyrite	2-3		90% of fractures of 60-70° to CA.	
		Porphyry	greenish			Potassic	Pyrrhotite			10% of fractures of 10-20° to CA.	
			grey								
										Similar in texture to previous section. However, consists predominantly of white feldspars in a whitish matrix. 5-7% mafics consist of chlorite after hornblende. Also contains 2-3% light brown material disseminated throughout (garnet?).	
										Locally, contains narrow intervals of dark greenish grey altered rock.	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										Contains chlorite and calcite healed hairline fractures.	
										Pyrite and pyrrhotite occur as disseminations and along occasional fractures.	
										317.24- 317.35 m Aplite. Light grey in colour. Contacts at 60° to CA.	
										320.3 - 320.5 m Dark olive green core.	
										321.15- 321.2 m " " " "	
										321.68- 321.82m Pale green core.	
										321.82- 322.45m Dark grey to olive green core.	
										322.53- 322.62m Epidotized pegmatitic material.	
										323.14- 324.4 m Dark olive green epidotized core.	
										325.55- 326.1 m Pink feldspar phenos in a white matrix.	
										326.1 - 326.9 m Medium to dark green epidotized core.	
										328.95- 329.2 m Dark olive green core.	
										329.2 - 329.44m Pale green to white aplite with pegmatitic quartz.	
										329.44- 330.3 m Grey relatively unaltered core.	
										329.72m Aplite vein at 45° to CA.	
										330.3 - 330.6 m Dark green core.	
330.6m	339.6m	Qtz Monzonite	Light	Medium	Porphyry	Epidote	Pyrite	3-4		60% of fractures at 50-60° to CA. Contains brecciated	
		Porphyry	Green			Chlorite	Pyrrhotite			40% of fractures at 30-45° to CA. material.	
		(Altered)					MoS ₂				
		Brecciated								Similar in texture and composition to previous sections.	
										However, the core is a uniform light green in colour due to	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
									epidote and chlorite alteration. Locally the core contains ubiquitous chloritic hairline fractures forming a breccia.	
									The more competent sections contain few chloritic fractures.	
									Within the more competent core is evident a reddish brown carbonate rich material (after chlorite and hornblende ?).	
									330.6 - 331.2 m Dark green very heavily epidotized and chloritized rock.	
									331.2 - 331.3 m Brecciated white qtz vein.	
		Breccia							331.3 - 332.1 m Breccia. Heavily fractured core healed with chlorite.	
									331.95 - 332.1 m Qtz veining with pyrite, pyrrhotite and MoS ₂ .	
									331.95-332.1 m MoS ₂ in qtz	
									332.92-333.13m MoS ₂ in qtz	
									333.44 m MoS ₂ on fracture.	
									332.1 - 333.6 m Pale green core.	
									332.92- 333.13m White qtz with pyrite, pyrrhotite and MoS ₂ .	
									333.44 m MoS ₂ on serpentine coated fracture with bleaching.	
									333.6 - 335.15m Contains pink feldspar phenos and disseminated reddish brown material.	
									335.15- 337.5 m Pale to medium green core with occasional calcite healed fractures.	

DRILL LOG

HOLE NO. ST 83-3

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										337.5 - 338.2 m Breccia. Broken core with chlorite healed fractures. Bounded by calcite healed fractures at 30° to CA.
										338.2 - 339.6 m Pale green epidotized core.
339.6 m	342.2 m	Qtz Monzonite	Light	Medium	Porphyry	Epidote	Pyrite	3-4		90% at 60° to CA.
		Porphyry	grey			Potassic	Pyrrhotite			10% at 0-30° to CA.
			to dark							
			grey							Comprising pink feldspar phenos to 2 cm in a light grey to white matrix. Contains 5-7% mafics including hornblende, chloritized hornblende and a reddish brown carbonate rich material. Cut by occasional chlorite healed fractures at 30° to CA.
										Pyrite and pyrrhotite occur as occasional disseminations.
										342.1- 342.2 m Potassic aplite vein at 30° to CA.
342.2 m	373.4 m	Qtz Monzonite	Light	Medium	Porphyry	Epidote	Pyrite	3-4		50% at 30-45° to CA.
		Porphyry	grey to			Potassic	Pyrrhotite			40% at 50-60° to CA.
			dark grey							10% at 30° to CA.
										Contains white feldspar phenocrysts to 2 cm and 5-7% mafic material comprising 20% hornblende and 80% chlorite after hornblende. Also contains about 2% disseminated light brown material.
										Chlorite, calcite and serpentine are noted on shallow

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										angle fractures. The section contains sections of pale green to dark greenish grey (epidotized ?) core as well as occasional intervals with pink k feldspar phenocrysts. Pyrite and pyrrhotite occur as disseminations. Very little MoS ₂ is evident.	
										342.2 - 345.4 m Grey to slightly greenish core.	
										342.2 - 343.5 m Sub parallel fracture coated with chlorite and serpentine.	
										344.3 - 344.6 m Chlorite filled fractures at 30° to CA.	
										345.4 - 345.6 m Contains pink k feldspar phenocrysts.	
										345.6 - 346.2 m Greenish, slightly epidotized core.	
										346.2 m Aplite vein at 30° to CA.	
										348.78m MoS ₂ in qtz stringer.	
										346.2 - 354.2 m Light grey core with frequent intervals of dark brownish grey matrix material containing white feldspar phenocrysts. Contains shallow angle chlorite healed fractures.	
										352.92 - 353.05m Aplite. Pale yellowish green in colour from 352.98m	
										354.2 - 357.9 m Light grey core with chloritic fractures at 20° and 60° to CA.	
										357.9 - 360.75m Contains pink feldspar phenos in a whitish	

DRILL LOG

HOLE NO. ST 83-3

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										matrix. Frequent chlorite and serpentine coated fractures. Most show evidence of shearing.
										360.75 - 363.8 m Pale greenish grey core.
										363.8 m Graphite and minor MoS ₂ on 30° fracture.
										363.08m Minor MoS ₂ in qtz vein
										363.8 m MoS ₂ in graphitic shear.
										363.8 - 373.4 m Uniform light grey core cut by fractures with chloritic gouge. Mafics completely chloritized. Numerous calcite stringers.
										372.7 - 373.0 m Broken sheared core.
373.4m	383.11m	Qtz Monzonite	Light	Medium	Porphyry	Chlorite	Pyrite	3-4		90% of fractures at 60° to CA.
		Porphyry	grey to			Epidote				10% of fractures at 10-45° to CA.
		(Brecciated)	greenish							
										Contains ubiquitous fracturing healed by chlorite and calcite. Originally the rock was similar to the section from 363.8 to 373.4 m. Overall, the section has a brecciated appearance and contains only minor pyrite.
										The rock is greenish in colour due to the presence of chlorite and minor epidote.
										374.3 - 374.45m Aplite. Beige in colour.
										375.7 - 375.83m White qtz vein with abundant pyrrhotite.

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										375.83- 376.0 m Aplite. Pale green in colour.
										377.0 - 379.15m Pale green epidotitic aplite.
		Fault Zone								378.1 - 378.45m Broken core with abundant gouge.
		" "								379 - 380.07m Gouge 0.5 m lost core. Heavily chloritized Rich in calcite.
										380.07- 381.4 m Green brecciated core.
										381.4 - 383.11m Contains pinkish white feldspar phenocrysts and slightly less chloritic material.
		Shear Zone								382.45- 383.11m Broken core with slicken- sides.
										382.55m Salmon pink potassic alteration.
383.11	386.5 m	Qtz Monzonite	White to	Medium	Porphyry	Potassic	Pyrite	8-10		50% of fractures at 45° to CA.
		Porphyry	pinkish			Chloritic				30% of fractures at 10-30° to CA.
										20% of fractures at 60° to CA.
										Comprises pink feldspar phenos to 2 cm in a white matrix.
										Contains reddish brown carbonate rich material (Fe carbonate ?) and chlorite after hornblende. Both combined make up 5-7% of the rock. Chlorite, serpentine and calcite occur on shallow fractures.
										Contains minor disseminated pyrite.
										385.6 - 386.3 m Sub parallel fractures.

DRILL LOG

HOLE NO. ST 83-3

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
386.5m	416.95m	Qtz Monzonite	Light to	Medium	Porphyry	Epidote	Pyrite	3-4		60% at 60-70° to CA.	
		Porphyry	medium			Potassic	MoS ₂			20% at 45° to CA.	
			grey							20% at 10-30° to CA.	
										Competent grey rock with local patches of potassic pink and epidotized green core. Contains feldspars to 2.5 cm and 5-7% mafic material comprising 5-10% hornblende and 90-95% chlorite after hornblende. Chlorite is found in shallow fractures, often with serpentine and calcite and rehealing hairline fractures.	
										A reddish brown material, rich in carbonate and with a red streak (Fe - carbonate ?) is found disseminated through the matrix and may be an alteration product of hornblende.	
										Pyrite and pyrrhotite are disseminated in minor amounts and also occur in qtz stringers. Qtz stringers are slightly more prevalent than in previous sections with an average of one per 2-3 metres. The stringers occasionally contain MoS ₂ and range from 50° to 70° to the core axis.	
										388.5 - 388.9 m Pink feldspar phenos in whitish matrix.	
										388.9 - 390.1 m Greenish epidotized core.	
										390.1 - 392.1 m Contains pinkish feldspars in a whitish matrix.	
										391.4 m Pink aplite vein at 55° to CA.	
										392.1 - 395.1 m Grey to slightly greenish grey core.	

DRILL LOG

HOLE NO. ST 83-3

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
											392.55m MoS ₂ with Qtz.
											Assoc. with fracture controlled epidotization.
											395.1 - 395.95m Pink feldspars in whitish matrix.
											395.95 - 396.8 m As from 392.1 to 395.1 m.
											396.8 - 397.3 m Pink feldspars in whitish matrix.
											397.3 - 402.2 m Grey relatively unaltered core.
											398 - 398.16m Epidotized core.
											399.48m White Qtz vein bounded by sericite
											402.2 - 406.89m Dark greenish grey epidotized core.
											406.89 - 412.8 m Grey core with frequent k feldspar phenocrysts.
											412.8 - 416.95m Greenish grey, slightly to moderately epidotized core. Cut by chloritic 30-35° fractures with slickensides.
											415.95 - 416.27m Slightly brecciated core with numerous chloritic hairline fractures.
416.95	m										End of Hole
											Summary - ST 83-3
											Hole ST 83-3 is quite different from the previous two holes in that it contains (to ≈330 m) fracture and/or Qtz vein controlled alteration of a type not seen in the

DRILL LOG

HOLE NO. ST 83-3

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
									previous two holes. This alteration takes the form of dark olive green to dark greenish grey core frequently containing white feldspar phenocrysts.	
									This alteration is unidentified but may be of argillic composition. Locally, it makes up 60% of the section, and frequently shows increased pyrite content. No carbonate is associated with this alteration.	
									Normal epidote / chlorite alteration is evident below 330 m.	
									Also found in the hole are two zones of breccia, occurring from 330.6 to 339.6m, and from 373.4 to 383.11 m.	
									Qtz veining but no Qtz stockwork is seen in ST 83-3.	
									Potassic alteration is confined to an occasional feldspathized aplite. Zones of QMP containing pink K feldspar phenocrysts also occur through the section. These may or may not be a product of alteration.	
									Pyrite and pyrrhotite are found disseminated through the hole and appear to be enriched in the areas of dark olive alteration.	
									MoS ₂ is found in occasional Qtz veinlets and along fractures. Mineralization, however, is not as plentiful as in ST 83-2.	
									The hole was terminated at 416.95 m due to sloughing problems caused by the fault zone at 378.1 m.	
									Garnet is found frequently through the hole, as veinlets and within Qtz veins.	

DRILL LOG

sample data

S A M P L E					C O R E R E C O V E R Y		V I S U A L E S T I M A T E S (% O R E M I N E R A L S)	A S S A Y R E S U L T S					
N U M B E R	F R O M	T O	T O T A L M E T R E S	S p G r	%	A M T L O S T							
35343	3.05	5.0	1.95				Chip Sample						
44	5.0	10.0	5.0				" "						
45	10.0	15.0	"				" "						
46	15.0	20.0	"				" "						
47	20.0	25.0	"				" "						
48	25.0	30.0	"				" "						
49	30.0	35.0	"				" "						
35350	35.0	40.0	"				" "						
51	40.0	45.0	"				" "						
52	45.0	50.0	"				" "						
53	50.0	55.0	"				" "						
54	55.0	60.0	"				" "						
55	60.0	65.0	"				" "						
56	65.0	70.0	"				" "						
57	70.0	75.0	"				" "						
58	75.0	80.0	"				" "						
59	80.0	85.0	"				" "						
35360	85.0	90.0	"				" "						
61	90.0	95.0	"				" "						
62	95.0	100.0	"				" "						
63	100.0	105.0	"				" "						
64	105.0	110.0	"				" "						
65	110.0	115.0	"				" "						
66	115.0	120.0	"				" "						
67	120.0	125.0	"				" "						
35368	125.0	130.0	5.0				Chip Sample						

DRILL LOG

sample data

S A M P L E				C O R E R E C O V E R Y		V I S U A L E S T I M A T E S (% O R E M I N E R A L S)	A S S A Y R E S U L T S						
N U M B E R	F R O M	T O	T O T A L M E T R E S	S p G r	%		A M T L O S T						
35369	130.0	135.0	5.0				Chip Sample						
70	135.0	140.0	"				" "						
71	140.0	145.0	"				" "						
72	145.0	150.0	"				" "						
73	150.0	155.0	"				" "						
74	155.0	160.0	"				" "						
75	160.0	165.0	"				" "						
76	165.0	170.0	"				" "						
77	170.0	175.0	"				" "						
78	175.0	180.0	"				" "						
79	180.0	185.0	"				" "						
35380	185.0	190.0	"				" "						
81	190.0	195.0	"				" "						
82	195.0	200.0	"				" "						
83	200.0	205.0	"				" "						
84	205.0	210.0	"				" "						
85	210.0	215.0	"				" "						
86	215.0	220.0	"				" "						
87	220.0	225.0	"				" "						
88	225.0	230.0	"				" "						
89	230.0	235.0	"				" "						
35390	235.0	240.0	"				" "						
91	240.0	245.0	"				" "						
92	245.0	250.0	"				" "						
93	250.0	255.0	"				" "						
35394	255.0	260.0	5.0				Chip Sample						

DRILL LOG

sample data

S A M P L E					C O R E R E C O V E R Y		V I S U A L E S T I M A T E S (% O R E M I N E R A L S)	A S S A Y R E S U L T S					
N U M B E R	F R O M	T O	T O T A L M E T R E S	S p G r	%	A M T L O S T							
35395	260.0	265.0	5.0				Chip Sample						
96	265.0	270.0	"				"						
97	270.0	275.0	"				"						
98	275.0	280.0	"				"						
99	280.0	285.0	"				"						
35400	285.0	290.0	"				"						
401	290.0	295.0	"				"						
02	295.0	300.0	"				"						
03	300.0	305.0	"				"						
04	305.0	310.0	"				"						
05	310.0	315.0	"				"						
06	315.0	320.0	"				"						
07	320.0	325.0	"				"						
08	325.0	330.0	"				"						
09	330.0	335.0	"				"						
35410	335.0	340.0	"				"						
11	340.0	345.0	"				"						
12	345.0	350.0	"				"						
13	350.0	355.0	"				"						
14	355.0	360.0	"				"						
35415	360.0	365.0	"				"						
16	365.0	370.0	"				"						
17	370.0	375.0	"				"						
18	375.0	380.0	"				"						
19	380.0	385.0	"				"						
420	385.0	390.0	"				Chip Sample						

DRILL LOG

sample data

S A M P L E					C O R E R E C O V E R Y		V I S U A L E S T I M A T E S (% O R E M I N E R A L S)	A S S A Y R E S U L T S					
N U M B E R	F R O M	T O	T O T A L M E T R E S	S p G r	%	A M T L O S T							
35421	390.0	395.0	5.0				Chip Sample						
22	395.0	400.0	"				"						
23	400.0	405.0	"				"						
24	405.0	410.0	"				"						
25	410.0	415.0	"				"						
35426	415.0	416.95	1.95				"						
35466	5.5	6.5	1.0				Split Core						
67	8.0	9.0	"				"						
68	9.0	10.0	"				"						
69	13.0	14.0	"				"						
35470	20.5	21.5	"				"						
72	23.0	24.0	"				"						
73	27.0	28.0	"				"						
74	41.0	42.0	"				"						
75	45.0	46.0	"				"						
76	59.0	60.0	"				"						
77	64.0	65.0	"				"						
78	68.0	69.0	"				"						
79	86.0	87.0	"				"						
35480	93.0	94.0	"				"						
81	98.0	99.0	"				"						
82	124.0	125.0	"				"						
83	125.0	126.0	"				"						
35484	126.0	127.0	1.0				"						
							Split Core						

DRILL LOG

sample data

SAMPLE					CORE RECOVERY		VISUAL ESTIMATES (% ORE MINERALS)	ASSAY RESULTS					
NUMBER	FROM	TO	TOTAL METRES	Sp Gr	%	AMT LOST							
35485	127.0	128.0	1.0				Split Core						
86	128.0	129.0	"				"						
87	129.0	130.0	"				"						
88	137.5	138.5	"				"						
89	141.0	142.0	"				"						
35490	142.0	143.0	"				"						
91	143.0	144.0	"				"						
92	144.0	145.0	"				"						
94	156.0	157.0	"				"						
95	169.5	170.5	"				"						
96	176.0	177.0	"				"						
97	193.0	194.0	"				Split Core						
98	194.0	195.0	"				"						
99	214.0	215.0	"				"						
35500	215.0	216.0	"				"						
01	216.0	217.0	"				"						
02	233.5	234.5	"				"						
03	246.5	247.5	"				"						
04	267.0	268.0	"				"						
05	272.0	273.0	"				"						
06	310.0	311.0	"				"						
07	331.0	332.0	"				"						
08	332.0	333.0	"				"						
09	333.0	334.0	"				"						
10	348.0	349.0	"				"						
35511	363.0	364.0	1.0				Split Core						

DRILL LOG

HOLE NO. ST 83-4

DRILLING CO. J.T. Thomas Smithers, B.C.	LOCATION SKETCH 	DEPTH	TESTS DIP ANGLE	AZIMUTH	DATE STARTED	PROJECT
		COLLAR	-45°	360°	August 6/83	Stewart Moly
		100 m	-45°	008°	DATE COMPLETED August 8/83	N.T.S.: 82 F
		200 m	-44°	009°	COLLAR ELEV 1581.0 m	LOCATION: IP Grid
					NORTHING 1+07 N	
			EASTING 4+16 E			
			AZIMUTH 360°			
			DEPTH 203.29 m (667 ft.)		DATE LOGGED: August 1983	
HOLE TYPE D.D.H.			CORE SIZE NQ		LOGGED BY: T. Carpenter	

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM m	TO m		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
0	6.10	Casing								
6.10	8.47	Qtz Monzonite	Light	Medium	Porphyry	Hematite	Pyrite	8-10		80% of fractures at 60-70° to CA.
		Porphyry	brown			Limonite				20% of fractures at 45° to CA.
										Contains pinkish feldspar phenos to 1.5 to 2 cm in a bleached matrix. Fractures are heavily hematized with adjoining limonitic alteration. Minor pyrite is evident locally. Alteration is due to surface weathering.
										6.9 - 8.23 m Broken core. 1.2 m lost core.
8.47	19.7	Qtz Monzonite	Grey to	Medium	Porphyry	Epidote	Pyrite	5-6		95% of fractures at 60° to CA. / Contains MoS ₂ in
		Porphyry	dark			Hematite	Pyrrhotite			5% of fractures at 30° to CA. occasional Qtz veinlet.
			greenish grey				MoS ₂			About 60% of the rock is composed of dark greenish grey to dark olive green altered matrix material with white feldspar phenocrysts to 2-2.5 cm. The remaining 40% is made up of white QMP with grey feldspar phenocrysts set



DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
										in a matrix of white feldspar, hornblende laths and chlorite after hornblende. Occasional feldspar phenos are pinkish in colour.
										The greenish grey alteration which may be either epidote or argillic and/or phyllic alteration, appears to be locally fracture controlled.
										Pyrite and pyrrhotite are found as disseminations and along fractures. Sulphides appear to have greater concentrations in the zones of alteration.
										Contains occasional qtz veinlets and stringers at 60° to CA. These occasionally contain MoS ₂ .
										8.87 - 8.97m Limonitic alteration associated with fracturing.
										9.7 m Hematitic fractures.
										9.7 -10.3 m Pinkish feldspar phenos in whitish matrix.
										11.02 m Garnet vein. / 11.05 MoS ₂ in qtz veinlet
										11.03 -11.13m Hematitic fractures at 60° to CA.
										11.97 -12.08m Beige aplite with limonitic hairline fractures.
										12.23 -12.27m Fractures with pyrite and hematite at 60° to CA.
										13.05 -13.2 m Bleached aplite and pegmatitic material.
										13.92 m Hematitic fracture with hematite staining.

DRILL LOG

HOLE NO. ST 83-4

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM m	TO m		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
											15.5 m MoS ₂ in Qtz veinlet
											15.9m MoS ₂ in Qtz veinlet
											16.6 - 16.84m Limonitic core.
19.7	25.3	Qtz Monzonite	Light	Medium	Porphyry	Epidote	Pyrite	2/3		80% of fractures at 45° to CA.	
		Porphyry	greenish grey				Pyrrhotite			20% of fractures at 60° to CA.	
							MoS ₂				
											Uniformly greenish grey core comprising pale whitish green feldspar phenos to 2.5 cm in a pale whitish green feldspathic matrix. Contains 5-7% mafics comprising 10% hornblende and 90% chlorite after hornblende.
											Minor pyrite and pyrrhotite are disseminated through the core (~1%). Section contains an occasional Qtz stringer, some of which contain MoS ₂ .
											Overall, the section is slightly epidotized.
											21.42 m MoS ₂ in Qtz veinlet
											21.7 m MoS ₂ in Qtz vein
											22.7 m Vein of chlorite containing pyrite and MoS ₂ .
25.3	34.1	Qtz Monzonite	Greenish	Medium	Porphyry	Potassic	Pyrite	4-5		70% of fractures at 50°-55° to CA.	24.63 m MoS ₂ in Qtz veinlet
		Porphyry	grey to white			Epidote	Pyrrhotite				
						Chlorite	MoS ₂				30% of fractures at 45° to CA.
											Pinkish white to greenish grey to greenish white rock

DRILL LOG

HOLE NO ST 83-4

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										containing feldspar phenos to 2 cm. Contains 5-7% mafic material. To 28.0m the mafics consist of 20% hornblende and 80% chlorite after hornblende. From 28.0 m, the hornblende has been completely altered to chlorite.	
										Contains disseminated pyrite and pyrrhotite. MoS ₂ occurs in occasional qtz veinlets.	
										25.3- 28.0m Pink k feldspar phenos in whitish matrix. Contains narrow zones of dark olive green alteration similar to that from 8.47 to 19.7 m. The alteration is associated with qtz veining and/or fractures.	
										25.85 - 26.03m Dark olive green alteration associated with fracturing.	
										26.36 m Qtz veinlet with dark olive green bounding alteration.	
										26.36m MoS ₂ in qtz veinlet	
										27.1 - 27.33m Aplite. Pale green to light grey in colour.	
										28.0 - 34.1m Green to greenish grey core. Epidotized and chloritized. Contains chlorite and calcite healed fractures.	
										28.25 - 28.7m Pink aplite. Heavily feldspathized.	
										28.87 - 28.98m Aplite. Beige in colour. Potassic alteration.	

DRILL LOG

HOLE NO. ST 83-4

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM m	TO m		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										29.33 - 29.41m Aplite with disseminated MoS ₂ .	
										29.35m MoS ₂ in aplite.	
										33.7 - 34.1 m Contains k feldspar phenos.	
34.1	35.7	QMP	Medium	Medium	Porphyry	Chlorite	Pyrite	8-10		90% of fractures at 50-60° to CA.	
		Chloritic shear	green			Epidote	Pyrrhotite			10% of fractures at 30-45° to CA.	
							MoS ₂				
										Heavily chloritized and epidotized equivalent of previous section. Ubiquitous dark green chloritic fractures. Slickensides and gouge evident to 34.8 .	
										34.1- 34.8 m Moderately to heavily fractured core.	
										35.02-35.07m White qtz vein with MoS ₂ .	
										35.04m MoS ₂ in qtz vein.	
										34.8 -35.7 m Dark green reasonably competent rock.	
35.7	49.8	Qtz Monzonite	White to	Medium	Porphyry	Potassic	Pyrite	4-5		60% at 60° to CA.	
		Porphyry	greenish			Chloritic	Pyrrhotite			40% at 30° to 45° to CA.	
										Consists of pink feldspar phenocrysts in a matrix of white feldspars. Mafic material consists of 5-7% of the rock and comprises 20% hornblende and 80% chlorite after hornblende. Also present is reddish brown to light brown disseminated material (garnet and Fe-carbonate?). The section contains numerous chlorite healed hairline fractures as well as fracture controlled chlorite and epidote alteration. Calcite veinlets and stringers occur through	

DRILL LOG

HOLE NO. ST 83-4.

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										the section.	
										Qtz veining is present at 50-60° to CA. The veins contain pyrite and pyrrhotite but very little MoS ₂ is evident. Pyrite and pyrrhotite are disseminated in minor concentrations through the core.	
										41.86 - 42.04 m Pink potassic aplite.	
										42.04 - 42.45 m Sub parallel chloritic fracture.	
										43.5 m Fracture controlled chloritic alteration.	
										47.1 - 49.8 m Contains numerous chloritic fractures. Semi brecciated appearance. Contains numerous blebs of reddish brown material.	
49.8 m	67.0 m	Qtz Monzonite	Green to	Medium	Porphyry	Epidote	Pyrite	8-10		70% of fractures at 60° to CA.	
		Porphyry	greenish				Pyrrhotite			30% of fractures at 30-45° to CA.	
			grey				Fluorite				
							MoS ₂			Contains pale green feldspar phenos to 2-3 cm in a matrix of slightly epidotized feldspar and chlorite after hornblende. The chloritization and epidotization give a rock a green colour. Contains Qtz veinlets with pyrite, pyrrhotite, fluorite and occasional MoS ₂ . Qtz veins are white in colour and average 60° to CA.	
										Minor pyrite and pyrrhotite are also disseminated through the core.	
										49.8 - 51.1m Medium green core.	
										50.2m Qtz vein with fluorite.	
										51.1 - 52.1m Dark green epidotized core.	

DRILL LOG

HOLE NO. ST 83-4

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
									51.66 m Qtz veinlet with fluoxite.	
									52.1 - 57.1 m Pale green to greenish grey core.	
									52.73 - 52.72m Aplite	
									53.13 - 53.22m Aplite at 75° to CA.	
									54.9 - 55.0 m White qtz vein with pyrite,	
									pyrrhotite, fluorite and	
									MoS ₂ .	
									54.9 - 55.0m MoS ₂ in qtz vein	
									55.2 m " " "	
									56.0 m " " "	
									56.3 m MoS ₂ "paint" on shear	
									56.6 - 57.0 m Pale green sheared core with	
									calcite vein at 56.87	
									56.62m MoS ₂ "paint" on shear	
									61.26 m MoS ₂ in qtz veinlet	
									63.09 m " " "	
		Fault Zone							57.1 - 58.52m Fault zone. Heavily fractured core with	
									hematite and manganese on fractures. Gouge	
									evident..	
									58.52- 64.3 m Greenish grey core with hematite on 60°	
									fractures.	
									64.3 - 65.0 m Dark olive green epidotized core.	
									65.0 - 67.0 m Epidotized greenish core with bright green	
									chlorite after hornblende.	

DRILL LOG

HOLE NO. ST 83-4

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM m	TO m		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
67.0	77.5	Faulted Qtz	Light	Medium	Porphyry	Epidote	Pyrite	10-12		70% of fractures at 10-30° to CA.	
		Monzonite	green			Chlorite	Pyrrhotite			20% " " 45° to CA.	
		Porphyry								10% " " 60° to CA.	
										Contains pale green feldspar phenos of 1.5 to 2 cm	
										on epidotized and chloritized matrix. Mafic material has	
										been completely altered to medium green chlorite.	
										All fractures show evidence of shearing, i.e. slickensides.	
										Serpentine, chlorite and calcite are found on open	
										fractures. Chlorite, calcite and presumably serpentine	
										are also found, rehealing numerous fractures.	
										Pyrite and pyrrhotite are present as disseminations but	
										also occur in Qtz veinlets. MoS ₂ is present at irregular	
										intervals through the core.	
										68.9 - 69.25 m Aplite. Pale green in colour.	
										72.23- 72.38 m Aplite with blebs of MoS ₂ .	
										72.31m MoS ₂ in aplite	
										72.9 m " "	
										72.85 - 72.95 m Aplite with minor MoS ₂ .	
										74.95 - 75.59 m Heavily fractured with gouge. 0.3 m lost core.	
										76.5 - 77.5 m Greenish white epidotized core, with	
										chloritic fractures.	
77.5	96.95	Qtz Monzonite	White to	Medium	Porphyry	Epidote	Pyrite	2.3		90° of fractures at 60° to CA.	
		Porphyry	greenish			Potassic	Pyrrhotite			10% of fractures at 20-30° to CA.	
			grey				MoS ₂				

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										Comprises white (locally pink) feldspar phenos to 2 cm in a matrix of white feldspar and 5-7% chlorite (after hornblende). Similar to section from 8.47 to 19.7 m, i.e. contains numerous narrow zones of dark greenish grey to dark olive green altered rock. These zones appear to contain increased pyrite and pyrrhotite. However, unlike the section from 8.47 to 19.7m, the alteration does not appear to be totally fracture controlled.	
										Altered zones occasionally contain disseminated MoS ₂ .	
										The altered zones contain white feldspar phenocrysts and overall comprise ≈ 30-40% of the core.	
										80-90% of the mafic material, which comprises 5% of the rock, consists of chlorite after hornblende. The remaining 10-20% is unaltered hornblende.	
										The section contains occasional qtz veinlets and stringers. Pyrite and pyrrhotite are disseminated through the core and also occur in qtz stringers and along fractures. Very little MoS ₂ is evident.	
										77.5 - 78.05m Contains pink k feldspar phenos.	
										78.05- 79.35m Light greenish grey to dark greenish grey epidotized core.	
										78.72m Garnet in qtz vein.	
										79.35- 80.3 m Contains pink k feldspar phenos.	
										81.05- 81.4 m Dark olive green altered core.	

DRILL LOG

HOLE NO. ST 83-4.

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM m	TO m		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										85.09 m Qtz vein with pyrite, pyrrhotite and disseminated MoS ₂ in adjacent rock.	
										85.09m Minor disseminated MoS ₂ .	
										85.2 - 90.0 m Banded core with white core containing white to pink feldspars separated by narrow zones of dark grey to dark olive green core.	
										86.74m Minor disseminated MoS ₂ .	
										89.98m " " "	
										89.7 - 90.3m Contains occasional 5-10 cm wide aplite veins at 60° to CA.	
										90.0 - 96.95m Contains 10-20% fracture and Qtz vein controlled dark green alteration.	
										96.1 - 96.95m 25% chloritic fractures.	
96.95	98.12	Lamprophyre	Black	Fine	Porphyry	Calcite veining	None evident	2/3		Fractures of 45° to CA.	
										Consists of biotite phenos to 1-2 cm in a black fine grained matrix. Cut by calcite veining at 45° to CA.	
										Contacts at 45° to CA.	
98.12	122.0	Qtz Monzonite Porphyry	White to greenish grey	Medium	Porphyry	Epidote (?) Potassic	Pyrite Pyrrhotite MoS ₂	2/3		90% of fractures at 60° to CA. 10% of fractures of 20-30° to CA.	
										Similar to section from 77.5 to 96.95m. Contains white to pink feldspar phenos to 2.5 cm in a white feldspathic matrix, and 5-7% mafics consisting largely of chlorite after	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										hornblende.	
										Also contains intervals ranging from 3 cm to 0.6 m of dark greenish grey to dark olive green altered material containing greenish altered feldspar phenocrysts.	
										The alteration appears to be fracture and qtz vein controlled. A larger zone of alteration bounds an aplite dike from 107.35 to 107.9 m.	
										Pyrite and pyrrhotite appear to be concentrated within the altered zones and also in qtz veinlets. Minor MoS ₂ occurs in occasional disseminations within the altered zones.	
										Garnet is disseminated through the less altered rock.	
										98.12- 99.9 m Contains pink feldspar phenos in white matrix.	
										99.9 -103.2 m Epidotized core with sooty Manganese on fractures from 100.5 - 101.1 m.	
										103.2 -104.30m Contains pink feldspar phenocrysts.	
										104.3 -105.15m Contains white feldspar phenocrysts.	
										105.15-107.2 m Contains ≈ 60% epidotized material.	
										107.2 -107.42 Dark olive green highly altered core.	
		Aplite								107.42-107.9 Aplite. Pinkish potassic alteration along fractures. Contacts at 60° to CA.	
										107.9 -108.5 Dark olive green highly altered core.	
										114.1 -115.8 Medium green epidotized core. Contains numerous 60° hairline fractures.	
										115.0 -119.0 Contains frequent intervals of dark grey altered core.	
										119.0 -122.0 Light grey core with decrease in pink k	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										feldspar phenos and dark greenish grey alteration.	
										121.27m Minor disseminated MoS ₂ .	
122.0 m	141.0 m	Qtz Monzonite	Light	Medium	Porphyry	Epidote	Pyrite	4-5		80% of fractures at 60° to CA.	
		Porphyry	greenish			Chlorite	Pyrrhotite			20% of fractures at 20-45° to CA.	
			grey				MoS ₂				
										Consists of grey feldspar phenos to 2.5 cm in a greenish white matrix. A sharp decrease in pink k feldspar pheno-crysts is noted. 95% of the 5-7% mafic material consists of chlorite after hornblende.	
										Alteration consists predominantly of epidotization. However, very little of the dark olive green alteration as seen in previous sections is evident. Chloritic hair-line fractures are present in this section as are calcite filled fractures.	
										Pyrite and pyrrhotite occur as disseminations, along fractures and in Qtz stringers and veinlets. Minor MoS ₂ occasionally accompanies the pyrite and pyrrhotite.	
										Garnet occurs in Qtz veinlets and disseminated through the core.	
										123.4 -123.95m Parallel fracture with calcite.	
										124.85-127.3 m Medium to dark green epidotized core.	
										130.2 -130.75m Parallel to sub parallel shear with calcite	
										130.75-130-85m 60° shear fractures. Bleached core.	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										132.5 -132.7 m Aplite.	
										133.5 m Bleached core paralleling fracture.	
										133.5 -133.7 m Dark green epidotized core.	
										134 -134.64m Dark green epidotized core.	
										134.64-135.1 m Aplite. Light grey in colour. Contacts at 50° to CA.	
										135.1 -135.4 m Dark green epidotized core.	
										135.4 -136.0 m Broken pale green core, 0.2 lost core.	
										136.45-136.54m Aplite.	
										136.54-141.0 m Dark grey core with white feldspar phenos.	
										140.4 - 140.7m Serpentine chlorite and calcite on 20° fracture.	
141.0 m	170.0 m	Qtz Monzonite	White to	Medium	Porphyry	Epidote	Pyrite	5-7		60% of fractures at 60° to CA.	
		Porphyry	grey to			Potassic	Pyrrhotite			40% of fractures at 30-45° to CA.	
			green								
										Similar to section from 98.12 to 122.0m. About 40% of the core consists of white to pale grey feldspar phenocrysts in a dark grey to dark olive grey matrix. The remaining 60% comprises white to pink feldspar phenocrysts in a white to light grey matrix.	
										Contains occasional calcite and chlorite healed fractures.	
										Mafic material makes up 5-7% of the rock and is composed largely of chlorite after hornblende.	
										Pyrite and pyrrhotite occur as disseminations, along fractures and in Qtz veinlets. Little MoS ₂ is evident.	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
									Garnet is visible through the core as disseminations, fracture fillings, and also in qtz veinlets. Reddish brown carbonate rich material is also evident locally.	
									145.7 -146.4 m Dark olive grey core.	
									146.8 -149.2 m Predominantly dark grey core.	
									154.89m Minor disseminated MoS ₂ .	
									149.2 -170.0 m Contains 20-30% dark grey to greenish alteration, predominantly qtz vein and fracture controlled.	
									154.66-154.93m Bright green epidote in core	
									156.0 m 30° calcite healed fracture.	
									164.8 -165.02m Bright green epidote alteration associated with qtz veining.	
									164.84m Garnet in qtz vein.	
									165.02-165.1 m White qtz vein with pyrite, pyrrhotite and minor MoS ₂ .	
									165.08m MoS ₂ in qtz vein.	
									167.0 m White qtz vein with MoS ₂ .	
									Vein at 60° to CA.	
									167.0 MoS ₂ in qtz vein.	
									167.1 -167.6 m Dark Green altered core.	
									168.9 -169.55m " " " "	

DRILL LOG

HOLE NO. ST 83-4

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
170.0m	197.95 m	Qtz Monzonite	Light	Medium	Porphyry	Epidote	Pyrite	4-5		60% of fractures of 60° to CA.	
		Porphyry	grey to			Potassic	Pyrrhotite			20% " " 45° to CA.	
			white				MoS ₂			20% " " 30° to CA.	
										Contains light grey to locally pink feldspar phenos	
										to 2 cm in a white to light grey matrix. Contains 5-7%	
										mafic material of which 80% is chlorite (after horn-	
										blende) and 20% is unaltered hornblende.	
										Section contains 15-20% dark grey to greenish altered	
										material occurring in bands ranging from several centi-	
										metres to 0.5 m in length. Much of this alteration	
										appears to be associated with fracturing and/or qtz	
										veining.	
										Pyrite and pyrrhotite as in previous sections, occur	
										along fractures, in qtz veins and as disseminations	
										through the core (2-3%).	
										Contains an occasional chloritic and calcite healed	
										fracture.	
										Potassic alteration is confined principally to the	
										presence of pink k feldspar phenos.	
										Garnet is present in qtz veinlets, as stringers and	
										disseminated through the core.	
										170.9 -171.35m Green epidotized core.	
										172.4 -173.15m " " "	
										179.32-180.75m Greenish grey to green altered core.	
										180.75-181.2 m Aplite. Light greenish grey in colour.	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										181.2 -181.4m Dark greenish grey epidotitic core.	
										188.5 -188.6m Light grey aplite vein.	
										188.81-188.84m Pink potassic alteration.	
										189.55-189.59m Aplite. Pink potassic alteration.	
										190.86 m Qtz vein with garnet.	
										190.95-191.08m Qtz vein with garnet, pyrite, pyrrhotite and MoS ₂ .	
										191.05m MoS ₂ in qtz vein.	
										191.42m " " " stringer	
										191.42 m MoS ₂ in qtz stringer.	
										194.07-194.25m Aplite. Light grey in colour. Contacts at 30° to CA.	
										195.0 -195.45m Largely epidotized core.	
										195.29m Pyrite and pyrrhotite vein.	
197.95m	203.29m	Qtz Monzonite	Green	Medium	Porphyry	Epidote	Pyrite	5-7		55% of fractures of 50-60° to CA.	
		Porphyry				Chlorite	Pyrrhotite			25% " " " 35-45° to CA.	
										20% " " 30° to CA.	
										Pale green to dark green epidotized equivalent of previous section. Contains numerous chlorite and calcite healed fractures. Pyrite and pyrrhotite occur along fractures and within qtz veins.	
										Mafic material (hornblende) has been completely altered to chlorite.	

DRILL LOG

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
										197.95-200.87m Medium to dark green epidotized core.	
										200.87-202.30m Pale green epidotized core.	
										202.30-203.29m Dark green heavily epidotized core.	
										202.68m White qtz veins of 60° to CA.	
										202.89-202.93m White qtz vein of 60° to CA.	
203.29m		End of Hole								SUMMARY ST 83-4	
										Hole is similar to ST 83-3 and contains qtz vein and fracture controlled dark olive green to dark greenish grey alteration, as well as epidote and chlorite.	
										K feldspar phenos are found at intervals throughout the hole. Qtz veining is present but does not form a qtz stock-work zone.	
										Pyrite, pyrrhotite and garnet are found through the hole as disseminations, fracture fillings and in qtz veinlets.	
										MoS ₂ also occurs in occasional qtz veinlets, as disseminations in epidotized core and in aplite and as paint on shear fractures.	

DRILL LOG

sample data

S A M P L E				C O R E R E C O V E R Y		V I S U A L E S T I M A T E S (% O R E M I N E R A L S)	A S S A Y R E S U L T S						
N U M B E R	F R O M	T O	T O T A L M E T R E S	S p G r	%		A M T. L O S T						
35427	6 10	10.0	3.9				Chip Sample						
28	10.0	15.0	5.0				"						
29	15.0	20.0	5.0				"						
30	20.0	25.0	5.0				"						
31	25.0	30.0	5.0				"						
32	30.0	35.0	5.0				"						
33	35.0	40.0	5.0				"						
34	40.0	45.0	5.0				"						
35	45.0	50.0	5.0				"						
36	50.0	55.0	5.0				"						
37	55.0	60.0	5.0				"						
38	60.0	65.0	5.0				"						
39	65.0	70.0	5.0				"						
40	70.0	75.0	5.0				"						
41	75.0	80.0	5.0				"						
42	80.0	85.0	5.0				"						
43	85.0	90.0	5.0				"						
44	90.0	95.0	5.0				"						
45	95.0	100.0	5.0				"						
46	100.0	105.0	5.0				"						
47	105.0	110.0	5.0				"						
48	110.0	115.0	5.0				"						
49	115.0	120.0	5.0				"						
50	120.0	125.0	5.0				"						
51	125.0	130.0	5.0				"						
52	130.0	135.0	5.0				"						

DRILL LOG

sample data

S A M P L E					C O R E R E C O V E R Y		V I S U A L E S T I M A T E S (% O R E M I N E R A L S)	A S S A Y R E S U L T S					
N U M B E R	F R O M	T O	T O T A L M E T R E S	S p G r	%	A M T L O S T							
35453	135.0	140.0	5.0				Chip Sample						
54	140.0	145.0	"				"						
55	145.0	150.0	"				"						
56	150.0	155.0	"				"						
57	155.0	160.0	"				"						
58	160.0	165.0	"				"						
59	165.0	170.0	"				"						
60	170.0	175.0	"				"						
61	175.0	180.0	"				"						
62	180.0	185.0	"				"						
63	185.0	190.0	"				"						
64	190.0	195.0	"				"						
35465	195.0	200.0	"				"						
35471	200.0	203.29	3.29				Chip Sample						
35513	10.5	11.5	1.0				Split Core						
14	15.0	16.0	"				"						
15	21.0	22.0	"				"						
16	22.0	23.0	"				"						
17	24.0	25.0	"				"						
18	26.0	27.0	"				"						
19	29.0	30.0	"				"						
20	34.5	35.5	"				"						
21	54.0	55.0	"				"						
22	55.0	56.0	"				"						
35523	56.0	57.0	"				"						

DRILL LOG

sample data

S A M P L E					C O R E R E C O V E R Y		V I S U A L E S T I M A T E S (% O R E M I N E R A L S)	A S S A Y R E S U L T S					
N U M B E R	F R O M	T O	T O T A L M E T R E S	S p G r	%	A M T L O S T							
35524	61.0	62.0	1.0				Split Core						
25	62.5	63.5	"				"						
26	72.0	73.0	"				"						
27	84.5	85.5	"				"						
28	86.5	87.5	"				"						
29	89.5	90.5	"				"						
30	121.0	122.0	"				"						
31	154.5	155.5	"				"						
32	164.5	165.5	"				"						
33	166.5	167.5	"				"						
34	172.5	173.5	"				"						
35535	190.5	191.5	"				Split Core						

APPENDIX II

X - RAY ASSAY LABS

MULTI-ELEMENT AND ASSAY RESULTS

ST 83-1 TO ST 83-4

PARTIAL REPORT
ONLY

X-RAY ASSAY LABORATORIES 21-OCT-83 REPORT

0 REF. FILE 14944-U1 PAGE 1

OCT 24 1983

SAMPLE	MO %	SN %	WO3 %
21201	--	--	--
21203	--	--	--
21205	--	--	--
21207	--	--	--
21209	--	--	--
21211	--	--	--
21213	--	--	--
21215	--	--	--
21217	--	--	--
21219	--	--	--
21221	--	--	--
21223	--	--	--
21225	--	--	--
21227	--	--	--
21229	--	--	--
21231	--	--	--
21233	--	--	--
21235	--	--	--
21237	--	--	--
21239	--	--	--
21241	--	--	--
21243	--	--	--
21245	--	--	--
21247	--	--	--
21249	--	--	--
21251	--	--	--
21253	--	--	--
21255	--	--	--
21257	--	--	--
21259	--	--	--
21261	--	--	--
21263	--	--	--
21265	--	--	--
21267	--	--	--
21269	--	--	--
21271	--	--	--
21273	--	--	--
21275	--	--	--
21277	--	--	--
21279	--	--	--
21281	--	--	--
21283	--	--	--
21285	--	--	--
21287	--	--	--
21289	--	--	--
21291	--	--	--
21293	--	--	--
21295	--	--	--
21297	--	--	--
35115	0.01	NIL	0.006
35117	TRACE	NIL	0.006
35119	TRACE	NIL	NIL
35121	TRACE	NIL	NIL
35123	TRACE	NIL	0.008
35125	NIL	NIL	NIL

SAMPLE	MO %	SN %	WO3 %
35127	TRACE	NIL	0.002
35129	TRACE	NIL	NIL
35131	0.01	NIL	0.002
35133	NIL	NIL	NIL
35135	TRACE	NIL	NIL
35137	TRACE	NIL	NIL
35139	0.01	NIL	NIL
35141	NIL	NIL	NIL
35143	TRACE	NIL	NIL
35145	TRACE	NIL	NIL
35147	NIL	NIL	NIL
35149	0.01	NIL	0.002
35151	TRACE	NIL	NIL
35153	0.01	NIL	0.002
35155	TRACE	NIL	NIL
35157	NIL	NIL	NIL
35159	NIL	NIL	NIL
35161	NIL	NIL	NIL
35163	TRACE	NIL	NIL
35165	0.01	NIL	NIL
35167	NIL	NIL	NIL
35169	NIL	NIL	NIL
35171	TRACE	NIL	NIL
35173	NIL	0.01	0.016
35175	NIL	NIL	NIL
35177	TRACE	NIL	0.004
35179	NIL	NIL	NIL
35181	NIL	NIL	NIL
35183	TRACE	NIL	NIL
35185	0.01	NIL	NIL
35187	TRACE	NIL	NIL
35189	TRACE	NIL	0.004
35191	NIL	NIL	NIL
35193	0.04	NIL	0.002
35195	0.01	NIL	0.002
35197	TRACE	NIL	NIL
35199	TRACE	NIL	NIL
35201	TRACE	NIL	NIL
35203	0.01	NIL	0.002
35205	TRACE	NIL	NIL
35207	TRACE	NIL	0.002
35209	NIL	NIL	NIL
35211	TRACE	NIL	NIL
35213	TRACE	NIL	NIL
35215	TRACE	NIL	NIL
35217	NIL	NIL	NIL
35219	NIL	NIL	0.002
35221	TRACE	NIL	NIL
35223	0.01	NIL	0.002
35225	TRACE	NIL	NIL
35227	TRACE	NIL	NIL
35229	TRACE	NIL	0.002
35231	TRACE	NIL	0.004
35233	NIL	NIL	0.022
35235	NIL	NIL	NIL
35237	0.01	NIL	0.030

SAMPLE	MO %	SN %	WD3 %
35239	TRACE	NIL	0.002
35241	TRACE	NIL	NIL
35243	NIL	NIL	NIL
35245	TRACE	NIL	NIL
35247	NIL	NIL	0.002
35249	TRACE	NIL	0.004
35251	TRACE	NIL	0.012
35253	0.02	NIL	0.180
35255	TRACE	NIL	0.006
35257	0.01	NIL	0.004
35259	TRACE	NIL	0.002
35261	NIL	NIL	0.002
35263	0.01	NIL	0.002
35265	NIL	NIL	0.002
35267	NIL	NIL	0.008
35269	TRACE	NIL	NIL
35271	TRACE	NIL	0.016
35273	NIL	NIL	0.004
35275	TRACE	NIL	NIL
35277	0.01	NIL	0.020
35279	NIL	NIL	NIL
35281	0.03	NIL	NIL
35283	TRACE	NIL	NIL
35285	NIL	NIL	0.002
35287	TRACE	NIL	NIL
35289	NIL	NIL	NIL
35291	TRACE	NIL	NIL
35293	TRACE	NIL	0.002
35295	TRACE	NIL	NIL
35297	TRACE	NIL	0.006
35299	TRACE	NIL	NIL
35301	0.01	NIL	NIL
35303	NIL	NIL	NIL
35305	NIL	NIL	NIL
35307	TRACE	NIL	NIL
35309	NIL	NIL	0.002
35311	NIL	NIL	0.002
35313	0.02	NIL	0.002
35315	NIL	NIL	0.004
35317	TRACE	NIL	NIL
35319	TRACE	NIL	NIL
35321	NIL	NIL	NIL
35323	TRACE	NIL	0.002
35325	TRACE	NIL	NIL
35327	NIL	NIL	NIL
35329	0.01	NIL	NIL
35331	NIL	NIL	NIL
35333	TRACE	NIL	0.004
35335	NIL	NIL	NIL
35337	TRACE	NIL	0.004
35339	NIL	NIL	0.014
35341	TRACE	NIL	NIL
35345	TRACE	NIL	NIL
35349	0.01	NIL	NIL
35351	TRACE	NIL	NIL
35354	0.01	NIL	0.002

SAMPLE	MG %	SN %	W33 %
35357	NIL	NIL	NIL
35360	TRACE	NIL	NIL
35363	NIL	NIL	NIL
35366	NIL	NIL	0.002
35369	TRACE	NIL	0.002
35372	NIL	NIL	0.004
35375	NIL	NIL	NIL
35379	NIL	NIL	NIL
35381	TRACE	NIL	NIL
35384	NIL	NIL	NIL
35387	NIL	NIL	0.008
35390	NIL	NIL	NIL
35393	TRACE	NIL	NIL
35396	TRACE	NIL	NIL
35397	NIL	NIL	NIL
35402	NIL	NIL	NIL
35405	TRACE	NIL	NIL
35409	NIL	NIL	NIL
35411	NIL	NIL	0.002
35414	NIL	NIL	0.002
35417	NIL	NIL	NIL
35420	NIL	NIL	NIL
35423	--	--	--
35426	--	--	--
35429	--	--	--
35432	--	--	--
35435	--	--	--
35438	--	--	--
35441	--	--	--
35444	--	--	--
35447	--	--	--
35450	--	--	--
35453	--	--	--
35456	--	--	--
35459	--	--	--
35462	--	--	--
35465	--	--	--
35466	0.01	NIL	NIL
35467	NIL	NIL	0.002
35468	0.01	NIL	NIL
35469	TRACE	NIL	NIL
35470	TRACE	NIL	NIL
35471	SMP MISS	SMP MISS	SMP MISS
35472	TRACE	NIL	NIL
35473	0.02	NIL	NIL
35474	0.02	NIL	0.002
35475	TRACE	NIL	NIL
35476	0.02	NIL	NIL
35477	0.01	NIL	NIL
35478	TRACE	NIL	NIL
35479	NIL	NIL	0.002
35480	NIL	NIL	NIL
35481	NIL	NIL	NIL
35482	0.01	NIL	NIL
35483	0.03	NIL	NIL
35484	0.01	NIL	NIL

SAMPLE	MO %	SN %	WD3 %
35485	0.03	NIL	NIL
35486	0.07	NIL	0.002
35487	0.01	NIL	NIL
35488	0.01	NIL	0.004
35489	0.10	NIL	NIL
35490	0.02	NIL	NIL
35491	TRACE	NIL	NIL
35492	TRACE	NIL	0.010
35493	SMP MISS	SMP MISS	SMP MISS
35494	NIL	NIL	0.002
35495	TRACE	NIL	NIL
35496	NIL	NIL	NIL
35497	TRACE	NIL	0.002
35498	NIL	NIL	NIL
35499	NIL	NIL	0.004
35500	0.01	NIL	0.034
35501	NIL	NIL	0.002
35502	NIL	NIL	0.004
35503	TRACE	NIL	0.004
35504	TRACE	NIL	NIL
35505	TRACE	NIL	NIL
35506	0.01	NIL	NIL
35507	0.03	NIL	0.016
35508	0.02	NIL	0.010
35509	0.02	NIL	0.010
35510	NIL	NIL	NIL
35511	TRACE	NIL	NIL
35512	0.01	NIL	0.002
35513	TRACE	NIL	NIL
35514	0.01	NIL	0.004
35515	TRACE	NIL	NIL
35516	TRACE	NIL	NIL
35517	TRACE	NIL	NIL
35518	TRACE	NIL	NIL
35519	TRACE	NIL	NIL
35520	TRACE	NIL	0.014
35521	0.04	NIL	0.004
35522	0.07	NIL	NIL
35523	0.04	NIL	0.004
35524	NIL	NIL	NIL
35525	NIL	NIL	0.002
35526	TRACE	NIL	NIL
35527	TRACE	NIL	NIL
35528	NIL	NIL	0.002
35529	TRACE	NIL	NIL
35530	NIL	NIL	NIL
35531	TRACE	NIL	0.002
35532	TRACE	NIL	NIL
35533	0.01	NIL	0.002
35534	0.01	NIL	NIL
35535	TRACE	NIL	NIL
IP-1	--	--	--
IP-2	--	--	--
IP-3	--	--	--
IP-4	--	--	--
IP-5	--	--	--

PARTIAL REPORT ONLY

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 1

S A M P L E N U M B E R S

ELEMENT & UNITS	!	21201	**	21203	**	21205	**	21207	**	21209	**	21211	!:
	!		**		**		**		**		**		!:
U PPM		<5		<5		<5		<5		<5		<5	
TH PPM		3		3		4		5		5		4	
NA PPM		31000		23000		27000		29000		27000		26000	
SC PPM		29		1.5		1.5		2.7		1.9		1.7	
CR PPM		40		200		180		160		170		160	
FE %		7.3		1.2		1.2		1.4		1.2		1.1	
CO PPM		31		<5		<5		<5		5		<5	
NI PPM		<500		<500		<500		<500		<500		<500	
ZN PPM		<50		<50		<50		<50		130		<50	
AS PPM		<10		<10		<10		<10		<10		<10	
SE PPM		<10		<10		<10		<10		<10		<10	
BR PPM		<5		<5		<5		<5		<5		<5	
MO PPM		13		5		<5		5		6		5	
SB PPM		<1		<1		<1		<1		<1		<1	
CS PPM		6		3		3		3		<2		2	
BA PPM		PENDING		2000		2000		<2000		<2000		<2000	
LA PPM		15		18		17		19		22		15	
HF PPM		<2		2		2		4		4		3	
TA PPM		<2		<2		<2		<2		<2		<2	
W PPM		60		<10		<10		<10		<10		<10	
AU PPB		<100		<100		<100		<100		<100		<100	
CE PPM		41		33		29		31		35		28	
ND PPM		<20		<20		<20		<20		<20		<20	
SM PPM		4.6		2.1		2.3		2.6		2.7		2.4	
EU PPM		2.0		<0.5		<0.5		<0.5		<0.5		<0.5	
YB PPM		3		<2		<2		2		2		<2	
LU PPM		0.4		<0.2		0.3		0.3		0.3		0.3	
SR PPM		<1000		<1000		<1000		1000		1000		1000	
RB PPM		100		200		100		200		200		200	

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 2

S A M P L E N U M B E R S

ELEMENT & UNITS	! 21213 !	** **	21215	** **	21217	** **	21219	** **	21221	** **	21223	** **
U PPM	<5		<5		<5		<5		<5		<5	
TH PPM	3		4		5		4		4		6	
NA PPM	30000		30000		26000		29000		26000		26000	
SC PPM	1.8		2.1		2.1		1.9		1.8		1.6	
CR PPM	160		160		160		150		190		170	
FE %	1.3		1.3		1.4		1.3		1.0		1.2	
CO PPM	<5		<5		<5		<5		<5		<5	
NI PPM	<500		<500		<500		<500		<500		<500	
ZN PPM	<50		<50		<50		<50		<50		<50	
AS PPM	<10		<10		<10		<10		<10		<10	
SE PPM	<10		<10		<10		<10		<10		<10	
BR PPM	<5		<5		<5		<5		<5		<5	
MO PPM	5		<5		<5		<5		6		5	
SB PPM	<1		<1		<1		<1		<1		<1	
CS PPM	3		4		3		2		<2		<2	
BA PPM	<2000		<2000		<2000		<2000		<2000		<2000	
LA PPM	16		18		20		22		20		20	
HF PPM	4		5		4		5		4		4	
TA PPM	<2		<2		<2		<2		<2		<2	
W PPM	110		<10		10		<10		<10		<10	
AU PPB	<100		<100		<100		<100		<100		<100	
CE PPM	28		34		34		35		36		30	
ND PPM	<20		<20		<20		<20		<20		<20	
SM PPM	2.3		2.6		2.7		2.6		2.5		2.4	
EU PPM	<0.5		<0.5		<0.5		<0.5		1.1		<0.5	
YB PPM	<2		2		2		<2		2		<2	
LU PPM	<0.2		<0.2		0.3		<0.2		<0.2		<0.2	
SR PPM	<1000		<1000		<1000		<1000		1000		1000	
RB PPM	100		100		100		100		200		100	

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 3

S A M P L E N U M B E R S

ELEMENT & UNITS	!	21225	**	21227	**	21229	**	21231	**	21233	**	21235	*
	!		**		**		**		**		**		*
U PPM		<5		<5		<5		<5		<5		<5	
TH PPM		3		3		3		8		3		5	
NA PPM		26000		24000		27000		23000		23000		25000	
SC PPM		1.8		1.7		1.5		1.3		1.5		1.6	
CR PPM		180		150		190		160		210		160	
FE %		1.0		1.2		1.0		1.0		1.1		1.0	
CO PPM		<5		<5		<5		<5		<5		<5	
NI PPM		<500		<500		<500		<500		<500		<500	
ZN PPM		<50		<50		<50		60		70		<50	
AS PPM		<10		<10		<10		<10		<10		<10	
SE PPM		<10		<10		<10		<10		<10		<10	
BR PPM		<5		<5		<5		<5		<5		<5	
MO PPM		<5		6		<5		6		<5		<5	
SB PPM		<1		<1		<1		<1		<1		<1	
CS PPM		3		4		2		2		4		<2	
BA PPM		<2000		<2000		<2000		<2000		<2000		2000	
LA PPM		15		16		13		16		20		21	
HF PPM		4		3		3		4		3		3	
TA PPM		<2		<2		2		<2		<2		<2	
W PPM		<10		<10		<10		<10		<10		<10	
AU PPB		<100		<100		<100		<100		<100		<100	
CE PPM		26		36		23		28		33		35	
NO PPM		<20		<20		<20		<20		<20		<20	
SM PPM		2.3		2.3		2.2		1.9		2.5		2.5	
EU PPM		<0.5		<0.5		<0.5		<0.5		<0.5		<0.5	
YB PPM		<2		<2		<2		2		<2		<2	
LU PPM		0.3		<0.2		<0.2		0.3		<0.2		0.3	
SR PPM		1000		1000		<1000		1000		<1000		1000	
RB PPM		200		200		200		100		200		200	

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 4

S A M P L E N U M B E R S

ELEMENT & UNITS	21237 **	21239 **	21241 **	21243 **	21245 **	21247 **
U PPM	<5	<5	<5	<5	<5	<5
TH PPM	4	6	6	4	4	4
NA PPM	22000	20000	19000	23000	20000	24000
SC PPM	1.8	1.7	2.0	1.3	1.4	1.4
CR PPM	180	170	240	160	180	180
FE %	1.3	1.3	1.7	1.0	0.8	0.9
CO PPM	<5	<5	<5	<5	<5	<5
NI PPM	<500	<500	<500	<500	<500	<500
ZN PPM	<50	100	80	<50	70	<50
AS PPM	<10	<10	140	<10	<10	<10
SE PPM	<10	<10	<10	<10	<10	<10
BR PPM	<5	<5	<5	<5	<5	<5
MO PPM	<5	5	9	<5	6	<5
SB PPM	<1	<1	<1	<1	<1	<1
CS PPM	<2	4	3	3	3	2
BA PPM	<2000	<2000	<2000	<2000	<2000	<2000
LA PPM	19	27	17	20	14	15
HF PPM	3	3	3	3	3	4
TA PPM	2	<2	<2	2	<2	<2
W PPM	<10	80	10	<10	<10	<10
AU PPM	<100	<100	200	<100	<100	<100
CE PPM	32	50	30	42	26	24
ND PPM	<20	<20	<20	<20	<20	<20
SM PPM	2.3	2.8	1.9	2.1	1.9	2.1
EU PPM	<0.5	<0.5	<0.5	<0.5	<0.5	1.3
YB PPM	<2	<2	<2	<2	<2	<2
LU PPM	<0.2	0.3	<0.2	<0.2	<0.2	<0.2
SR PPM	1000	1000	<1000	1000	<1000	<1000
RB PPM	200	200	200	100	200	100

X-RAY ASSAY LABORATORIES LIMITED

11

DATE: 21-NOV-83

REPORT: :

REF. FILE: 14944

PAGE: 5 :

S A M P L E N U M B E R S

ELEMENT	21249	** 21251	** 21253	** 21255	** 21257	** 21259
UNITS						
U PPM	<5	<5	<5	5	<5	<5
TH PPM	3	4	4	11	5	5
NA PPM	20000	23000	19000	13000	21000	20000
SC PPM	1.3	1.5	1.1	19	1.1	1.4
CR PPM	190	140	180	120	170	150
FE %	1.0	1.1	1.0	4.6	1.0	0.9
CD PPM	<5	<5	<5	21	<5	<5
NI PPM	<500	<500	<500	<500	<500	<500
ZN PPM	<50	<50	<50	60	<50	<50
AS PPM	<10	<10	<10	<10	<10	<10
SE PPM	<10	<10	<10	<10	<10	<10
BR PPM	<5	<5	<5	<5	<5	<5
MO PPM	<5	<5	5	9	<5	<5
SB PPM	<1	<1	<1	<1	<1	<1
CS PPM	3	<2	2	10	3	3
BA PPM	<2000	<2000	2000	2000	<2000	2000
LA PPM	15	20	13	34	17	16
HF PPM	3	3	3	5	3	3
TA PPM	<2	<2	<2	<2	<2	<2
W PPM	<10	<10	<10	<10	<10	<10
AU PPB	<100	<100	<100	<100	<100	<100
CE PPM	24	31	21	74	29	28
ND PPM	<20	<20	<20	30	<20	<20
SM PPM	1.8	2.4	1.7	8.1	2.0	2.0
EU PPM	<0.5	<0.5	0.8	<0.5	<0.5	1.1
YB PPM	<2	<2	<2	2	<2	<2
LU PPM	<0.2	0.3	<0.2	0.3	<0.2	<0.2
SR PPM	1000	1000	1000	1000	1000	<1000
RB PPM	200	100	100	200	100	100

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 6

S A M P L E N U M B E R S

ELEMENT & UNITS	!	21261	**	21263	**	21265	**	21267	**	21269	**	21271	**
U PPM		<5		<5		<5		<5		<5		<5	
TH PPM		5		4		5		4		4		5	
NA PPM		11000		18000		19000		17000		18000		22000	
SC PPM		28		1.1		1.0		0.8		0.9		1.9	
CR PPM		700		200		200		180		200		170	
FE %		6.1		1.0		1.0		0.8		0.8		1.8	
CO PPM		49		<5		<5		<5		<5		<5	
NI PPM		<500		<500		<500		<500		<500		<500	
ZN PPM		<50		<50		50		<50		<50		<50	
AS PPM		<10		<10		<10		<10		<10		<10	
SE PPM		<10		<10		<10		<10		<10		<10	
BR PPM		<5		<5		<5		<5		<5		<5	
MO PPM		10		<5		9		6		<5		<5	
SB PPM		1		1		1		1		<1		1	
CS PPM		11		3		3		<2		2		<2	
BA PPM		2000		2000		<2000		3000		2000		2000	
LA PPM		35		15		13		11		15		23	
HF PPM		4		3		3		3		2		4	
TA PPM		<2		<2		<2		<2		<2		<2	
W PPM		<10		<10		10		<10		<10		<10	
AU PPB		<100		<100		<100		<100		<100		<100	
CE PPM		83		26		25		19		21		37	
ND PPM		30		<20		<20		<20		<20		20	
SM PPM		6.7		1.6		1.6		1.4		1.4		2.8	
EU PPM		1.9		<0.5		<0.5		<0.5		0.6		<0.5	
YB PPM		2		<2		<2		<2		<2		2	
LU PPM		0.2		0.2		0.2		0.2		0.2		0.3	
SR PPM		1000		1000		2000		1000		1000		1000	
RB PPM		100		200		100		100		100		100	

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF. FILE: 14944

PAGE: 7

S A M P L E N U M B E R S

ELEMENT & UNITS	! 21273	** 21275	** 21277	** 21279	** 21281	** 21283	**
U PPM	6	<5	<5	<5	<5	<5	
TH PPM	6	6	6	4	4	4	
NA PPM		30000		27000	35000	40000	
SC PPM	2.3	2.0	2.1	3.1	3.7	3.5	
CR PPM	160	110	150	120	120	100	
FE %	1.9	1.5	1.5	1.9	2.5	2.3	
CO PPM	5	<5	<5	<5	5	<5	
NI PPM	<500	<500	<500	<500	<500	<500	
ZN PPM	<50	<50	<50	80	80	<50	
AS PPM	10	<10	10	<10	<10	<10	
SF PPM	<10	<10	<10	<10	<10	<10	
BR PPM	<5	<5	<5	<5	<5	<5	
MO PPM	9	<5	5	5	<5	<5	
SB PPM	1	1	1	1	1	1	
CS PPM	3	3	2	3	4	4	
BA PPM	<2000	2000	<2000	2000	<2000	<2000	
LA PPM	24	22	24	26	30	29	
HF PPM	4	4	4	3	4	4	
TA PPM	<2	<2	<2	<2	2	<2	
W PPM	10	<10	40	10	<10	<10	
AU PPB	<100	<100	<100	<100	<100	<100	
CE PPM	42	40	43	46	52	56	
ND PPM	<20	<20	<20	<20	20	20	
SM PPM	3.4	2.9	3.2	3.2	4.9	4.8	
EU PPM	1.0	<0.5	<0.5	1.4	1.4	<0.5	
YB PPM	2	2	2	2	3	2	
LU PPM	0.4	0.3	0.3	0.3	0.4	0.4	
SR PPM	<1000	1000	<1000	1000	2000	1000	
RB PPM	<100	100	100	100	100	100	

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF. FILE: 14944

PAGE: 9

S A M P L E N U M B E R S

ELEMENT & UNITS	21297	** 35115 **	** 35117 **	** 35119 **	** 35121 **	** 35123 **
U PPM	<5	<5	<5	6	6	<5
TH PPM	7	6	6	7	7	7
NA PPM	34000	37000	25000	23000		31000
SC PPM	2.5	2.0	0.9	1.0	1.9	1.9
CR PPM	140	120	160	150	140	140
FE %	1.7	1.5	1.0	0.9	1.5	2.0
CO PPM	<5	<5	<5	<5	<5	<5
NI PPM	<500	<500	<500	<500	<500	<500
ZN PPM	90	<50	<50	<50	<50	<50
AS PPM	<10	<10	<10	<10	<10	10
SE PPM	<10	<10	<10	<10	<10	<10
BR PPM	<5	<5	<5	<5	<5	<5
MO PPM	6	76	27	18	26	29
SB PPM	<1	<1	<1	<1	1	<1
CS PPM	3	<2	3	2	3	<2
BA PPM	<2000	2000	<2000	<2000	<2000	<2000
LA PPM	31	30	17	10	26	25
HF PPM	4	5	<2	2	3	4
TA PPM	<2	<2	<2	<2	<2	<2
W PPM	<10	60	50	<10	10	60
AU PPB	<100	<100	<100	<100	<100	<100
CE PPM	51	49	27	20	51	40
ND PPM	<20	<20	<20	<20	<20	20
SM PPM	4.2	3.0	1.7	1.3	3.0	2.9
EU PPM	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
YB PPM	2	<2	<2	<2	2	<2
LU PPM	0.4	0.2	<0.2	0.2	0.4	<0.2
SR PPM	<1000	<1000	<1000	<1000	2000	2000
RB PPM	<100	100	<100	200	100	100

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 10

S A M P L E N U M B E R S

ELEMENT & UNITS	35125	** **	35127	** **	35129	** **	35131	** **	35133	** **	35135	** **
U PPM	<5		<5		<5		5		<5		5	
TH PPM	5		6		6		6		6		7	
NA PPM	29000		33000		36000		27000		41000			
SC PPM	2.1		2.5		1.9		0.7		1.9		1.7	
CR PPM	140		130		140		140		170		150	
FE %	1.3		1.7		1.5		0.9		1.4		1.4	
CO PPM	<5		<5		<5		<5		<5		<5	
NI PPM	<500		<500		<500		<500		<500		<500	
ZN PPM	<50		<50		90		<50		<50		<50	
AS PPM	<10		<10		<10		<10		<10		10	
SE PPM	<10		<10		<10		<10		<10		<10	
BR PPM	<5		<5		<5		<5		<5		<5	
MO PPM	6		13		17		58		10		14	
SB PPM	<1		<1		<1		<1		<1		1	
CS PPM	2		2		2		2		2		3	
BA PPM	<2000		<2000		2000		<2000		<2000		<2000	
LA PPM	26		28		18		14		27		22	
HF PPM	3		4		4		3		4		3	
TA PPM	<2		<2		<2		<2		<2		<2	
W PPM	<10		10		<10		20		<10		<10	
AU PPB	<100		<100		<100		<100		<100		<100	
CE PPM	43		44		34		24		48		36	
ND PPM	<20		20		<20		<20		<20		<20	
SM PPM	3.0		3.3		2.9		1.6		2.8		2.4	
EU PPM	<0.5		<0.5		<0.5		<0.5		1.7		<0.5	
YB PPM	2		<2		2		<2		<2		<2	
LU PPM	0.3		0.3		0.2		0.2		0.3		0.3	
SR PPM	2000		2000		2000		<1000		2000		1000	
RB PPM	<100		100		100		100		100		200	

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 11

S A M P L E N U M B E R S

ELEMENT & UNITS	35137	** **	35139	** **	35141	** **	35143	** **	35145	** **	35147	** **
U PPM	5		6		5		5		<5		7	
TH PPM	8		6		6		5		4		8	
NA PPM	22000		25000		24000		24000		36000		26000	
SC PPM	<0.5		1.1		<0.5		<0.5		1.8		0.9	
CR PPM	160		120		160		150		130		130	
FE %	0.6		0.8		0.6		0.8		1.4		1.0	
CD PPM	<5		<5		<5		<5		<5		<5	
NI PPM	<500		<500		<500		<500		<500		<500	
ZN PPM	<50		<50		80		<50		<50		<50	
AS PPM	<10		<10		<10		<10		<10		<10	
SE PPM	<10		<10		<10		<10		<10		<10	
BR PPM	<5		<5		<5		<5		<5		<5	
MO PPM	24		50		13		31		31		14	
SB PPM	1		<1		<1		<1		<1		<1	
CS PPM	<2		2		3		2		2		3	
BA PPM	<2000		<2000		<2000		<2000		<2000		<2000	
LA PPM	13		18		18		13		20		17	
HF PPM	2		3		2		<2		3		2	
TA PPM	<2		2		<2		<2		<2		<2	
W PPM	<10		<10		<10		<10		<10		10	
AU PPB	<100		<100		<100		<100		<100		<100	
CE PPM	22		25		26		17		31		27	
ND PPM	<20		<20		<20		<20		<20		<20	
SM PPM	1.0		1.8		1.2		1.0		2.6		1.8	
EU PPM	<0.5		<0.5		1.1		<0.5		<0.5		<0.5	
YB PPM	<2		<2		<2		<2		<2		<2	
LU PPM	0.2		0.3		0.2		0.3		0.3		0.2	
SR PPM	<1000		1000		1000		1000		2000		1000	
RB PPM	100		100		200		100		<100		200	

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 12

S A M P L E N U M B E R S

ELEMENT & UNITS	35149	** 35151 **	** 35153 **	** 35155 **	** 35157 **	** 35159 **
U PPM	<5	<5	<5	<5	<5	<5
TH PPM	5	6	7	5	5	4
NA PPM	30000	26000		36000	38000	34000
SC PPM	1.3	0.9	1.4	1.9	1.6	1.7
CR PPM	140	130	120	110	120	120
FE %	1.1	0.9	1.1	1.3	1.3	1.4
CO PPM	<5	<5	<5	<5	<5	<5
NI PPM	<500	<500	<500	<500	<500	<500
ZN PPM	80	70	<50	<50	90	<50
AS PPM	<10	<10	<10	<10	<10	<10
SE PPM	<10	<10	<10	<10	<10	<10
BR PPM	<5	<5	<5	<5	<5	<5
MO PPM	40	16	64	26	7	8
SB PPM	<1	<1	<1	<1	<1	<1
CS PPM	<2	2	2	3	<2	2
BA PPM	<2000	<2000	<2000	<2000	<2000	<2000
LA PPM	18	15	25	24	23	21
HF PPM	3	3	4	3	4	4
TA PPM	<2	<2	2	<2	<2	<2
W PPM	10	<10	<10	<10	<10	<10
AU PPB	<100	<100	<100	<100	<100	<100
CE PPM	30	26	38	34	38	32
ND PPM	<20	<20	<20	<20	<20	<20
SM PPM	2.0	1.6	2.5	2.8	2.4	2.6
EU PPM	<0.5	<0.5	1.4	<0.5	<0.5	<0.5
YB PPM	<2	<2	<2	2	<2	<2
LU PPM	0.3	0.2	0.2	0.3	<0.2	0.2
SR PPM	1000	<1000	<1000	3000	2000	2000
RB PPM	100	100	100	100	<100	100

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 14

S A M P L E N U M B E R S

ELEMENT & UNITS	35173	** 35175	** 35177	** 35179	** 35181	** 35183	*
U PPM	6	<5	<5	<5	<5	<5	
TH PPM	5	4	4	5	5	5	
NA PPM	34000	34000	26000	33000	30000	31000	
SC PPM	1.8	1.6	1.8	1.8	1.7	1.2	
CR PPM	120	120	100	80	130	110	
FE %	1.4	1.3	1.6	1.3	1.3	1.1	
CO PPM	<5	<5	<5	<5	<5	<5	
NI PPM	<500	<500	<500	<500	<500	<500	
ZN PPM	<50	<50	100	<60	<60	80	
AS PPM	<10	<10	110	<10	<10	<10	
SE PPM	<10	<10	<10	<10	<10	<10	
BR PPM	<5	<5	<5	<5	<5	<5	
MO PPM	22	12	14	9	9	28	
SB PPM	<1	<1	<1	<1	<1	<1	
CS PPM	4	<2	4	3	2	4	
BA PPM	<2000	2000	<2000	<2000	2000	<2000	
LA PPM	20	23	21	22	25	20	
HF PPM	4	3	3	3	3	3	
TA PPM	<2	<2	<2	<2	<2	<2	
W PPM	110	<10	20	<10	<10	<10	
AU PPB	<100	<100	<100	<100	<100	<100	
CE PPM	37	36	34	36	38	31	
ND PPM	<20	<20	<20	<20	<20	<20	
SM PPM	2.7	2.6	2.4	2.5	2.4	2.1	
EU PPM	<0.5	1.3	1.3	<0.5	<0.5	0.9	
YB PPM	<2	<2	<2	<2	<2	<2	
LU PPM	0.3	0.2	0.2	0.3	0.2	0.3	
SR PPM	2000	3000	2000	<1000	2000	3000	
RB PPM	<100	100	100	100	100	100	

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 15

S A M P L E N U M B E R S

ELEMENT & UNITS	35185	** **	35187	** **	35189	** **	35191	** **	35193	** **	35195	** **
U PPM	<5		<5		<5		<5		7		5	
TH PPM	4		5		5		6		8		7	
NA PPM	26000		31000				29000		27000		34000	
SC PPM	1.0		1.3		1.9		1.5		1.3		1.6	
CR PPM	140		110		120		110		130		100	
FE %	1.0		1.1		1.5		1.1		1.2		1.4	
CO PPM	<5		<5		<5		<5		<5		<5	
NI PPM	<500		<500		<500		<500		<500		<500	
ZN PPM	60		<50		<50		<50		<50		<50	
AS PPM	<10		<10		<10		<10		<10		<10	
SE PPM	<10		<10		<10		<10		10		<10	
BR PPM	<5		<5		<5		<5		<5		<5	
MO PPM	55		13		30		6		200		57	
SB PPM	<1		<1		<1		<1		<1		<1	
CS PPM	2		<2		4		2		2		3	
BA PPM	<2000		<2000		<2000		<2000		<2000		<2000	
LA PPM	15		19		29		21		18		31	
HF PPM	3		3		3		4		4		4	
TA PPM	<2		<2		<2		<2		2		<2	
W PPM	<10		<10		20		<10		<10		<10	
AU PPB	<100		<100		<100		<100		<100		<100	
CE PPM	23		32		45		32		30		43	
ND PPM	<20		<20		<20		<20		<20		<20	
SM PPM	1.9		2.1		2.7		2.1		2.3		2.7	
EU PPM	<0.5		<0.5		<0.5		0.9		<0.5		<0.5	
YB PPM	<2		<2		<2		<2		<2		<2	
LU PPM	0.2		0.2		0.3		0.2		0.3		0.3	
SR PPM	2000		3000		3000		1000		<1000		2000	
RB PPM	100		100		100		100		200		100	

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 16

S A M P L E N U M B E R S

ELEMENT & UNITS	35197	** 35199 **	** 35201 **	** 35203 **	** 35205 **	** 35207 **	*
U PPM	<5	<5	<5	<5	<5	<5	<5
TH PPM	6	3	7	5	5	5	5
NA PPM	39000	40000	40000	36000	30000	34000	34000
SC PPM	2.2	2.2	2.4	1.8	1.9	1.8	1.8
CR PPM	140	150	140	110	140	90	90
FE %	1.7	1.5	1.9	1.4	1.4	1.4	1.4
CO PPM	5	<5	<5	<5	<5	<5	<5
NI PPM	<500	<500	<500	<500	<500	<500	<500
ZN PPM	<50	<50	<50	<50	70	<50	<50
AS PPM	<10	<10	<10	<10	<10	<10	<10
SE PPM	<10	<10	<10	<10	<10	<10	<10
BR PPM	<5	<5	<5	<5	<5	<5	<5
MO PPM	19	27	34	64	45	19	19
SR PPM	<1	<1	<1	<1	<1	<1	<1
CS PPM	3	2	<2	3	4	4	4
BA PPM	<2000	<2000	<2000	<2000	<2000	<2000	<2000
LA PPM	24	33	33	24	26	27	27
HF PPM	4	4	4	3	3	5	5
TA PPM	<2	<2	<2	<2	<2	<2	<2
H PPM	<10	<10	<10	<10	10	10	10
AU PPB	<100	<100	<100	<100	<100	<100	<100
CE PPM	49	51	53	42	45	42	42
ND PPM	<20	<20	<20	<20	<20	<20	<20
SM PPM	3.2	3.1	3.3	3.0	2.9	2.9	2.9
EU PPM	<0.5	1.5	<0.5	<0.5	<0.5	<0.5	<0.5
YB PPM	2	2	<2	<2	<2	<2	<2
LU PPM	0.3	0.3	0.4	0.3	0.2	0.3	0.3
SR PPM	3000	2000	3000	2000	<1000	1000	1000
RB PPM	100	<100	100	100	100	100	100

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF. FILE: 14944

PAGE: 17

S A M P L E N U M B E R S

ELEMENT & UNITS	!	35209	**	35211	**	35213	**	35215	**	35217	**	35219	**

U PPM		<5		5		9		<5		<5		9	
TH PPM		5		6		11		6		6		7	
NA PPM		38000		36000		35000		38000		37000		33000	
SC PPM		2.0		1.9		1.3		1.8		2.0		2.8	
CR PPM		130		130		170		140		140		90	
FE %		1.5		1.4		1.2		1.3		1.7		1.2	
CO PPM		<5		<5		<5		<5		<5		7	
NI PPM		<500		<500		<500		<500		<500		<500	
ZN PPM		<50		<50		<50		<50		<50		<50	
AS PPM		<10		<10		<10		10		<10		20	
SE PPM		<10		<10		<10		<10		<10		<10	
BR PPM		<5		<5		<5		<5		<5		<5	
MO PPM		6		39		44		14		6		<5	
SB PPM		<1		<1		<1		1		<1		1	
CS PPM		3		2		<2		2		2		2	
BA PPM		<2000		<2000		<2000		<2000		2000		<2000	
LA PPM		22		22		18		28		31		28	
HF PPM		3		3		4		4		4		4	
TA PPM		<2		<2		<2		<2		<2		<2	
W PPM		<10		<10		<10		<10		<10		10	
AU PPB		<100		<100		<100		<100		<100		<100	
CE PPM		37		38		34		43		64		52	
ND PPM		<20		<20		<20		<20		<20		20	
SM PPM		3.0		2.9		2.5		3.1		3.2		3.6	
EU PPM		<0.5		1.4		<0.5		1.2		1.0		<0.5	
YB PPM		2		2		<2		2		2		2	
LU PPM		0.3		0.4		<0.2		0.3		0.3		0.4	
SR PPM		<1000		2000		1000		2000		<1000		<1000	
RB PPM		100		100		200		100		100		200	

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 18

S A M P L E N U M B E R S

ELEMENT & UNITS	35221	** 35223 **	** 35225 **	** 35227 **	** 35229 **	** 35231 **
U PPM	<5	.5	6	5	7	5
TH PPM	7	7	7	5	9	7
NA PPM	37000	37000	36000	37000	35000	
SC PPM	1.9	2.0	1.7	2.3	2.0	1.5
CR PPM	160	150	160	130	160	140
FE %	1.3	1.6	1.4	1.6	1.4	1.4
CD PPM	<5	5	<5	<5	<5	<5
NI PPM	<500	<500	<500	<500	<500	<500
ZN PPM	<50	70	<50	90	<50	<50
AS PPM	<10	<10	<10	<10	<10	<10
SE PPM	<10	<10	<10	<10	30	30
BR PPM	<5	<5	<5	<5	<5	<5
MO PPM	14	57	17	14	18	37
SB PPM	<1	<1	<1	<1	<1	<1
CS PPM	2	<2	5	<2	4	3
BA PPM	<2000	<2000	<2000	<2000	<2000	<2000
LA PPM	29	28	24	24	35	23
HF PPM	4	4	4	5	4	4
TA PPM	<2	<2	<2	<2	<2	<2
W PPM	<10	<10	<10	<10	20	30
AU PPB	<100	<100	<100	<100	<100	<100
CE PPM	47	44	38	42	50	36
ND PPM	<20	<20	<20	<20	<20	<20
SM PPM	3.0	3.1	2.9	3.2	3.0	2.6
EU PPM	<0.5	<0.5	<0.5	0.9	<0.5	<0.5
YB PPM	2	2	2	2	2	2
LU PPM	0.3	0.3	0.3	0.3	0.3	<0.2
SR PPM	<1000	3000	2000	2000	3000	<1000
RB PPM	100	100	100	100	100	200

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 19

S A M P L E N U M B E R S

ELEMENT & UNITS	! 35233 **	** 35235 **	** 35237 **	** 35239 **	** 35241 **	** 35243 **	! *
U PPM	5	5	<5	<5	6	<5	
TH PPM	6	7	6	5	6	6	
NA PPM	34000	38000	29000	35000	30000	29000	
SC PPM	1.8	2.1	1.6	1.8	1.3	1.3	
CR PPM	150	120	140	160	150	180	
FE %	1.8	1.6	1.7	1.6	1.2	1.1	
CO PPM	<5	<5	5	<5	<5	<5	
NI PPM	<500	<500	<500	<500	<500	<500	
ZN PPM	<50	<50	<50	<50	<50	60	
AS PPM	<10	<10	<10	<10	<10	<10	
SE PPM	<10	<10	<10	<10	<10	<10	
BR PPM	<5	<5	<5	<5	<5	<5	
MO PPM	21	8	44	35	15	11	
SB PPM	<1	<1	<1	<1	<1	<1	
CS PPM	3	4	3	5	2	4	
BA PPM	<2000	<2000	<2000	<2000	<2000	<2000	
LA PPM	24	28	22	25	21	19	
HF PPM	4	5	4	4	4	3	
TA PPM	<2	<2	<2	<2	<2	<2	
W PPM	180	<10	230	30	<10	<10	
AU PPB	<100	<100	<100	<100	<100	<100	
CE PPM	54	46	34	42	34	28	
ND PPM	<20	<20	<20	<20	<20	<20	
SM PPM	3.0	3.4	2.8	3.0	2.6	1.9	
EU PPM	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
YB PPM	2	2	<2	<2	2	<2	
LU PPM	0.3	0.3	<0.2	0.4	<0.2	<0.2	
SR PPM	<1000	2000	2000	3000	<1000	<1000	
RB PPM	200	200	100	100	100	100	

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 20

S A M P L E N U M B E R S

ELEMENT & UNITS	!	35245	**	35247	**	35249	**	35251	**	35253	**	35255	**
	!		**		**		**		**		**		**
J PPM		<5		<100		<100		<100		PENDING		<100	
TH PPM		7		<100		<100		<100		<100		<100	
NA PPM		22000		<500		<500		<500		<500		<500	
SC PPM		<0.5		<100		<100		<100		<100		<100	
CR PPM		160		<100		<100		<100		<100		<100	
FE %		0.9		<100		<100		<100		<100		<100	
CO PPM		<5		<100		<100		<100		<100		<100	
NI PPM		<500		<500		<500		<500		<500		<500	
ZN PPM		<50		PENDING		<100		<100		<100		<100	
AS PPM		10		<100		<100		<100		<100		<100	
SE PPM		<10		<100		<100		<100		<100		<100	
BR PPM		<5		<100		<100		<100		<100		<100	
MO PPM		17		<100		<100		<100		<100		<100	
SB PPM		<1		<100		<100		<100		<100		<100	
CS PPM		3		<100		<100		<100		<100		<100	
BA PPM		<2000		<2000		<2000		<2000		<2000		<2000	
LA PPM		14		<100		<100		<100		<100		<100	
HF PPM		<2		<100		<100		<100		<100		<100	
TA PPM		<2		<100		<100		<100		<100		<100	
W PPM		<10		<100		<100		<100		<100		<100	
AU PPB		<100		<100		<100		<100		<100		<100	
CE PPM		37		<100		<100		<100		<100		<100	
ND PPM		<20		<100		<100		<100		<100		<100	
SM PPM		1.1		<99.9		<99.9		<99.9		<99.9		<99.9	
EU PPM		<0.5		<99.9		<99.9		<99.9		<99.9		<99.9	
YB PPM		<2		<100		<100		<100		<100		<100	
LU PPM		<0.2		<99.9		<99.9		<99.9		<99.9		<99.9	
SR PPM		1000		<1000		<1000		<1000		<1000		<1000	
RB PPM		200		<100		<100		<100		<100		<100	

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 21

S A M P L E N U M B E R S

ELEMENT & UNITS	! 35257	** 35259	** 35261	** 35263	** 35265	** 35267	**
U PPM	7	6	5	5	6	7	
TH PPM	10	6	6	6	6	7	
NA PPM	26000	38000	41000	42000	31000		
SC PPM	0.7	1.9	1.6	1.8	1.6	1.3	
CR PPM	160	130	130	160	170	190	
FE %	0.9	1.5	1.9	1.8	1.5	1.8	
CO PPM	<5	5	<5	6	<5	6	
NI PPM	<500	<500	<500	<500	<500	<500	
ZN PPM	70	50	<50	<60	<60	<60	
AS PPM	<10	<10	<10	<10	10	10	
SE PPM	<10	<10	<10	<10	<10	<10	
BR PPM	<5	<5	<5	<5	<5	<5	
MO PPM	66	28	14	80	16	19	
SB PPM	1	1	1	1	1	1	
CS PPM	2	3	5	3	2	.3	
BA PPM	<2000	<2000	<2000	<2000	<2000	<2000	
LA PPM	14	24	28	25	18	18	
HF PPM	3	5	5	6	4	4	
TA PPM	2	<2	2	<2	<2	<2	
W PPM	40	<10	10	20	10	50	
AU PPB	<100	<100	<100	<100	<100	<100	
CE PPM	21	42	43	44	40	39	
ND PPM	<20	<20	<20	<20	20	<20	
SM PPM	1.4	3.5	3.4	3.7	2.8	2.5	
EU PPM	<0.5	1.1	0.9	1.5	1.1	<0.5	
YB PPM	<2	2	2	2	<2	<2	
LU PPM	0.3	0.4	0.4	0.3	0.4	0.3	
SR PPM	<1000	2000	1000	3000	1000	<1000	
RB PPM	200	200	100	100	200	100	

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF. FILE: 14944

PAGE: 22

S A M P L E N U M B E R S

ELEMENT & UNITS	!	35269	**	35271	**	35273	**	35275	**	35277	**	35279	**
U PPM		<5		5		5		<5		<5		5	
TH PPM		5		6		8		6		6		7	
NA PPM		39000				34000		35000		33000		37000	
SC PPM		1.6		1.6		1.7		1.7		2.0		2.0	
CR PPM		140		170		130		140		130		140	
FE %		1.4		1.6		1.4		1.4		1.8		1.8	
CO PPM		<5		<5		<5		<5		7		5	
NI PPM		<500		<500		<500		<500		<500		<500	
ZN PPM		<50		<50		<50		110		<50		100	
AS PPM		<10		10		<10		10		<10		<10	
SE PPM		<10		<10		<10		<10		<10		<10	
BR PPM		<5		<5		<5		<5		<5		<5	
MO PPM		21		20		13		21		70		6	
SB PPM		<1		1		1		1		1		1	
CS PPM		3		4		<2		4		3		2	
BA PPM		2000		<2000		<2000		2000		2000		2000	
LA PPM		22		18		25		21		23		23	
HF PPM		4		4		4		4		5		4	
TA PPM		<2		2		<2		<2		<2		<2	
W PPM		<10		160		10		<10		160		<10	
AU PPB		<100		<100		<100		<100		<100		<100	
CE PPM		39		36		39		38		40		42	
ND PPM		<20		<20		20		<20		20		<20	
SM PPM		3.2		2.9		2.9		3.4		3.1		3.3	
EU PPM		<0.5		<0.5		1.1		<0.5		0.9		1.0	
YB PPM		<2		<2		<2		<2		2		<2	
LU PPM		0.3		0.3		0.3		0.4		0.3		0.4	
SR PPM		2000		1000		<1000		1000		1000		1000	
RB PPM		100		100		100		200		<100		200	

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 23

S A M P L E N U M B E R S

ELEMENT & UNITS	35281	** **	35283	** **	35285	** **	35287	** **	35289	** **	35291	** **
U PPM	8		<5		6		6		5		6	
TH PPM	7		7		8		7		10		6	
NA PPM			37000		40000		33000		43000		38000	
SC PPM	1.9		1.9		2.6		1.8		2.5		1.9	
CR PPM	130		130		130		170		140		140	
FE %	1.6		1.7		2.9		2.3		4.2		1.9	
CO PPM	5		<5		8		5		10		<5	
NI PPM	<500		<500		<500		<500		<500		<500	
ZN PPM	<50		130		<50		90		<50		<50	
AS PPM	<10		<10		40		10		<10		<10	
SE PPM	<10		<10		<10		<10		<10		<10	
BR PPM	<5		<5		<5		<5		<5		<5	
MO PPM	190		14		15		28		8		57	
SB PPM	1		2		1		1		<1		1	
CS PPM	3		3		5		3		<2		4	
BA PPM	2000		<2000		<2000		<2000		<2000		<2000	
LA PPM	28		25		41		22		62		21	
HF PPM	5		5		8		6		12		4	
TA PPM	<2		2		<2		<2		<2		<2	
W PPM	10		<10		<10		<10		<10		<10	
AU PPB	<100		<100		<100		<100		<100		<100	
CE PPM	45		39		75		47		110		42	
ND PPM	20		<20		20		20		40		<20	
SM PPM	3.6		3.1		5.1		3.7		9.4		3.0	
EU PPM	1.3		0.9		1.1		1.2		1.0		0.8	
YB PPM	<2		2		2		2		4		2	
LU PPM	0.3		0.3		0.5		0.4		0.7		0.3	
SR PPM	1000		1000		1000		<1000		2000		1000	
RB PPM	200		100		<100		100		<100		100	

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-93

REPORT:

REF.FILE: 14944

PAGE: 24

S A M P L E N U M B E R S

ELEMENT & UNITS	!	35293	**	35295	**	35297	**	35299	**	35301	**	35303	**
	!		**		**		**		**		**		**
U PPM		<5		8		10		7		7		10	
TH PPM		5		9		10		9		7		10	
NA PPM		38000		31000		35000		35000		24000		26000	
SC PPM		2.0		1.2		1.5		1.2		0.6		<0.5	
CR PPM		140		180		170		140		190		160	
FE %		1.7		1.1		1.3		1.3		0.9		0.6	
CO PPM		5		<5		5		<5		<5		<5	
NI PPM		<500		<500		<500		<500		<500		<500	
ZN PPM		80		<50		<50		<50		70		<50	
AS PPM		10		<10		<10		<10		<10		<10	
SE PPM		<10		<10		<10		<10		<10		<10	
BR PPM		<5		<5		<5		<5		<5		<5	
MO PPM		30		21		27		30		100		18	
SB PPM		1		1		1		1		1		1	
CS PPM		4		2		4		<2		3		.2	
BA PPM		<2000		<2000		<2000		<2000		<2000		<2000	
LA PPM		27		14		25		29		11		12	
HF PPM		5		4		6		5		3		3	
TA PPM		<2		<2		<2		<2		<2		<2	
W PPM		10		<10		60		<10		<10		<10	
AU PPB		<100		<100		<100		<100		<100		<100	
CE PPM		43		24		38		48		19		21	
ND PPM		20		<20		<20		<20		<20		<20	
SM PPM		3.3		2.3		3.0		2.9		1.1		1.2	
EU PPM		1.5		0.7		<0.5		1.1		<0.5		<0.5	
YB PPM		<2		<2		<2		<2		<2		<2	
LU PPM		0.3		0.3		0.5		0.3		0.2		<0.2	
SR PPM		1000		1000		1000		1000		<1000		<1000	
RB PPM		100		200		200		100		200		200	

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 25

S A M P L E N U M B E R S

ELEMENT & UNITS	35305	** 35307 **	** 35309 **	** 35311 **	** 35313 **	** 35315 **
U PPM	9	16	<5	12	<5	<5
TH PPM	9	11	4	7	6	6
NA PPM	26000	23000	27000	28000	41000	41000
SC PPM	<0.5	<0.5	1.0	1.3	1.9	2.1
CR PPM	210	180	170	180	140	150
FE %	0.7	0.7	0.9	1.2	1.8	2.0
CO PPM	<5	<5	<5	<5	6	5
NI PPM	<500	<500	<500	<500	<500	<500
ZN PPM	<50	<50	<50	<50	<50	130
AS PPM	<10	<10	<10	<10	10	10
SE PPM	<10	<10	<10	<10	<10	<10
BR PPM	<5	<5	<5	<5	<5	<5
MO PPM	14	43	15	150	15	13
SB PPM	1	<1	1	<1	1	1
CS PPM	2	3	3	4	3	.4
BA PPM	<2000	<2000	<2000	<2000	<2000	<2000
LA PPM	15	14	11	17	27	27
HF PPM	3	3	3	4	7	7
TA PPM	2	<2	<2	<2	3	<2
W PPM	<10	<10	10	<10	20	20
AU PPB	<100	<100	<100	<100	<100	<100
CE PPM	26	22	21	32	46	43
ND PPM	<20	<20	<20	<20	<20	20
SM PPM	1.3	1.9	1.3	2.8	3.4	3.3
EU PPM	<0.5	0.6	<0.5	<0.5	0.8	1.3
YB PPM	<2	<2	<2	<2	2	2
LU PPM	0.4	<0.2	<0.2	0.4	0.4	0.3
SR PPM	<1000	<1000	<1000	1000	1000	<1000
RB PPM	200	200	200	200	100	100

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 26

S A M P L E N U M B E R S

ELEMENT & UNITS	35317	** 35319 **	** 35321 **	** 35323 **	** 35325 **	** 35327 **
U PPM	5	5	<5	6	<5	<5
TH PPM	7	5	6	7	6	5
NA PPM	38000	40000	39000	31000	38000	39000
SC PPM	2.3	1.9	2.0	1.0	1.9	1.6
CR PPM	130	140	160	130	120	150
FE %	1.7	2.0	1.6	1.0	1.6	1.4
CO PPM	<5	5	5	<5	<5	5
NI PPM	<500	<500	<500	<500	<500	<500
ZN PPM	110	<60	<50	<50	<50	<50
AS PPM	20	10	<10	<10	<10	<10
SE PPM	<10	<10	<10	<10	<10	<10
BR PPM	<5	<5	<5	<5	<5	<5
MO PPM	24	36	10	17	26	11
SB PPM	2	1	1	<1	1	<1
CS PPM	5	3	4	3	4	3
BA PPM	<2000	<2000	2000	2000	2000	2000
LA PPM	33	25	31	19	32	22
HF PPM	5	5	5	3	5	5
TA PPM	<2	<2	<2	<2	<2	<2
W PPM	10	10	<10	<10	<10	<10
AU PPR	<100	<100	<100	<100	<100	<100
CE PPM	54	43	49	32	51	38
ND PPM	<20	<20	<20	20	<20	20
SM PPM	3.5	3.4	3.5	2.4	3.3	3.0
EU PPM	1.1	1.4	0.8	<0.5	1.1	1.0
YB PPM	2	<2	<2	<2	2	<2
LU PPM	0.3	0.3	0.3	0.3	0.3	0.3
SR PPM	1000	<1000	2000	1000	1000	1000
RB PPM	100	<100	100	200	100	100

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 27

S A M P L E N U M B E R S

ELEMENT	35329	** 35331	** 35333	** 35335	** 35337	** 35339	**
& UNITS	!	**	**	**	**	**	**
U PPM	<5	<5	PENDING	<5	13	<5	
TH PPM	5	5	5	6	14	6	
NA PPM	42000	39000	38000	14000	7900	12000	
SC PPM	1.9	1.9	2.2	1.5	<0.5	2.1	
CR PPM	150	130	140	150	150	150	
FE %	1.6	1.4	1.3	1.4	0.6	1.6	
CO PPM	<5	5	PENDING	5	<5	<5	
NI PPM	<500	<500	PENDING	<500	<500	<500	
ZN PPM	80	<50	PENDING	<50	<50	<50	
AS PPM	<10	<10	PENDING	<10	<10	<10	
SE PPM	<10	<10	PENDING	<10	<10	<10	
BR PPM	<5	<5	PENDING	<5	<5	<5	
MO PPM	77	15	35	18	44	10	
SB PPM	1	<1	PENDING	1	<1	<1	
CS PPM	3	3	PENDING	2	3	2	
BA PPM	2000	<2000	PENDING	<2000	<2000	2000	
LA PPM	22	23	25	15	6	22	
HF PPM	5	6	6	6	5	5	
TA PPM	<2	<2	PENDING	<2	<2	<2	
W PPM	<10	10	<10	<10	10	60	
AU PPB	<100	<100	<100	<100	<100	<100	
CE PPM	41	40	50	46	17	53	
ND PPM	20	<20	PENDING	<20	<20	20	
SM PPM	3.5	3.5	3.0	2.6	1.2	2.4	
EU PPM	1.9	<0.6	PENDING	1.1	<0.5	1.1	
YB PPM	2	2	2	<2	<2	<2	
LU PPM	0.4	0.3	0.3	0.3	0.4	0.3	
SR PPM	1000	1000	PENDING	1000	<1000	1000	
RB PPM	<100	100	100	100	200	200	

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 28

S A M P L E N U M B E R S

ELEMENT & UNITS	! 35341	** 35345	** 35348	** 35351	** 35354	** 35357	**
U PPM	8	<5	5	<5	<5	<5	
TH PPM	8	9	12	11	9	10	
NA PPM	7100	14000	13000	12000	12000	13000	
SC PPM	<0.5	3.1	3.2	3.0	2.9	3.1	
CR PPM	190	100	100	60	60	50	
FE %	0.8	2.3	2.1	2.3	2.2	2.3	
CO PPM	<5	5	<5	<5	5	6	
NI PPM	<500	<500	<500	<500	<500	<500	
ZN PPM	<50	70	<50	<60	70	80	
AS PPM	<10	<10	<10	<10	<10	<10	
SE PPM	<10	<10	<10	<10	<10	<10	
BR PPM	<5	<5	<5	<5	<5	<5	
MO PPM	39	15	81	13	83	8	
SB PPM	1	<1	1	1	<1	1	
CS PPM	3	<2	<2	4	3	2	
BA PPM	<2000	2000	2000	2000	2000	2000	
LA PPM	5	29	27	28	21	29	
HF PPM	3	5	5	4	6	6	
TA PPM	<2	<2	<2	2	<2	<2	
W PPM	<10	<10	<10	<10	10	<10	
AU PPB	<100	<100	<100	<100	<100	<100	
CE PPM	18	72	67	69	57	68	
ND PPM	<20	20	20	20	20	20	
SM PPM	0.8	3.8	3.9	3.4	3.6	3.7	
EU PPM	<0.5	1.5	1.4	1.8	0.9	1.4	
YB PPM	2	2	2	<2	<2	2	
LU PPM	0.3	0.3	0.3	0.3	0.3	0.3	
SR PPM	<1000	2000	1000	2000	1000	2000	
RB PPM	200	100	100	100	100	<100	

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 29

S A M P L E N U M B E R S

ELEMENT & UNITS	35360	** 35363 **	** 35366 **	** 35369 **	** 35372 **	** 35375 **
U PPM	5	5	5	7	8	5
TH PPM	7	13	10	11	8	9
NA PPM	39000	38000	41000	37000	39000	38000
SC PPM	3.0	2.7	2.7	2.8	3.1	2.9
CR PPM	70	50	50	50	60	40
FE %	2.2	2.0	1.7	1.9	1.7	2.0
CO PPM	<5	5	<5	<5	<5	<5
NI PPM	<500	<500	<500	<500	<500	<500
ZN PPM	280	<50	<50	70	90	140
AS PPM	50	10	20	30	20	10
SE PPM	<10	<10	<10	<10	<10	<10
BR PPM	<5	<5	<5	<5	<5	<5
MO PPM	18	21	5	25	16	13
SB PPM	2	2	2	3	1	2
CS PPM	<2	4	3	4	3	3
BA PPM	2000	2000	2000	2000	<2000	2000
LA PPM	35	35	44	35	34	35
HF PPM	5	4	6	4	5	5
TA PPM	<2	<2	<2	2	<2	<2
W PPM	<10	<10	<10	<10	30	<10
AU PPB	<100	<100	<100	<100	<100	<100
CE PPM	61	57	66	58	63	64
NO PPM	20	20	20	20	20	20
SM PPM	4.9	4.6	4.9	4.5	4.9	5.1
EU PPM	1.8	1.2	1.1	1.1	1.7	1.3
YB PPM	2	2	2	2	2	2
LU PPM	0.3	0.4	0.3	0.4	0.4	0.3
SR PPM	2000	2000	1000	1000	2000	2000
RB PPM	100	100	100	100	100	100

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 31

S A M P L E N U M B E R S

ELEMENT & UNITS	35396	** 35399 **	** 35402 **	** 35405 **	** 35408 **	** 35411 **	*
U PPM	<5	7	13	5	5	<5	*
TH PPM	7	12	20	9	9	8	*
NA PPM	43000	37000	33000	41000	42000	45000	
SC PPM	3.2	2.4	1.0	3.0	3.2	3.1	
CR PPM	50	60	90	50	60	40	
FE %	2.0	1.7	0.9	2.2	1.8	2.2	
CO PPM	<5	<5	<5	5	<5	5	
NI PPM	<500	<500	<500	<500	<500	<500	
ZN PPM	<50	<50	<50	<50	<50	<50	
AS PPM	<10	<10	<10	<10	<10	<10	
SE PPM	<10	<10	<10	<10	<10	<10	
BR PPM	<5	<5	<5	<5	<5	<5	
MO PPM	9	12	17	37	6	5	
SB PPM	<1	<1	<1	<1	<1	<1	
CS PPM	<2	3	<2	<2	<2	<2	
BA PPM	2000	<2000	<2000	2000	2000	2000	
LA PPM	38	37	21	39	46	44	
HF PPM	4	4	3	5	4	5	
TA PPM	<2	<2	<2	<2	<2	<2	
W PPM	<10	<10	<10	<10	<10	<10	
AU PPB	<100	<100	<100	<100	<100	<100	
CE PPM	67	58	33	67	72	77	
ND PPM	20	20	<20	20	20	20	
SM PPM	5.0	4.2	2.3	5.0	4.9	5.1	
EU PPM	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
YB PPM	2	2	<2	2	2	2	
LU PPM	0.3	0.3	<0.2	0.3	0.4	0.4	
SR PPM	2000	2000	2000	4000	4000	3000	
RB PPM	100	100	100	100	200	100	

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 32

S A M P L E N U M B E R S

ELEMENT & UNITS	! 35414	** 35417	** 35420	** 35423	** 35426	** 35429	**
U PPM	<5	5	7	5	7	5	
TH PPM	7	9	11	9	11	9	
NA PPM	39000	38000	41000	41000	43000	42000	
SC PPM	3.2	2.8	3.1	3.0	3.4	3.3	
CR PPM	40	40	50	50	40	40	
FE %	2.2	1.9	2.4	2.1	2.2	2.1	
CO PPM	<5	5	<5	<5	5	<5	
NI PPM	<500	<500	<500	<500	<500	<500	
ZN PPM	<50	<50	<50	<50	<50	<50	
AS PPM	<10	<10	<10	<10	<10	<10	
SE PPM	<10	<10	<10	<10	<10	<10	
BR PPM	<5	<5	<5	<5	<5	<5	
MO PPM	<5	17	7	5	7	8	
SB PPM	1	1	<1	<1	1	<1	
CS PPM	<2	4	2	<2	2	<2	
BA PPM	2000	<2000	2000	2000	2000	2000	
LA PPM	46	39	42	38	39	37	
HF PPM	3	4	4	5	5	5	
TA PPM	<2	<2	<2	<2	<2	<2	
W PPM	<10	10	<10	<10	<10	<10	
AU PPB	<100	<100	<100	<100	<100	<100	
CE PPM	65	59	71	57	63	57	
ND PPM	20	20	20	20	20	20	
SM PPM	4.8	4.4	5.0	4.6	5.2	5.0	
EU PPM	2.4	<0.5	<0.5	<0.5	<0.5	<0.5	
YB PPM	2	2	2	2	2	2	
LU PPM	0.3	0.3	0.4	0.3	0.4	0.3	
SR PPM	3000	2000	4000	3000	3000	4000	
RB PPM	100	100	100	<100	100	100	

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 33

S A M P L E N U M B E R S

ELEMENT & UNITS	! 35432	** 35435	** 35438	** 35441	** 35444	** 35447	**
& UNITS	!	**	**	**	**	**	**
U PPM	<5	<5	<5	<5	5	<5	
TH PPM	6	7	8	7	10	8	
NA PPM	35000	42000	41000	38000	42000	39000	
SC PPM	2.9	3.6	3.3	3.0	3.3	2.8	
CR PPM	50	30	40	40	60	50	
FE %	2.1	2.5	2.2	2.2	2.5	2.0	
CO PPM	<5	<5	6	<5	<5	<5	
NI PPM	<500	<500	<500	<500	<500	<500	
ZN PPM	<50	<50	<50	<50	230	<60	
AS PPM	<10	<10	<10	<10	<10	<10	
SE PPM	<10	<10	<10	<10	<10	<10	
BR PPM	<5	<5	<5	<5	<5	<5	
MO PPM	7	11	25	11	16	11	
SB PPM	<1	<1	1	1	<1	<1	
CS PPM	4	3	3	<2	<2	2	
BA PPM	2000	2000	2000	2000	2000	2000	
LA PPM	35	43	35	37	42	42	
HF PPM	3	4	3	4	4	4	
TA PPM	<2	<2	<2	<2	<2	<2	
W PPM	10	<10	<10	10	<10	<10	
AU PPB	<100	<100	<100	<100	<100	<100	
CE PPM	60	67	62	66	73	75	
ND PPM	20	20	20	20	20	20	
SM PPM	4.5	5.1	5.2	5.1	5.3	4.7	
EU PPM	1.6	<0.5	<0.5	<0.5	1.7	<0.5	
YB PPM	2	2	2	2	2	2	
LU PPM	0.3	0.3	0.4	0.4	0.4	0.4	
SR PPM	3000	4000	3000	2000	4000	3000	
RB PPM	<100	100	100	100	<100	100	

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 34

S A M P L E N U M B E R S

ELEMENT & UNITS	35450	** 35453 **	** 35456 **	** 35459 **	** 35462 **	** 35465 **
U PPM	5	6	5	<5	6	7
TH PPM	12	13	9	7	11	9
NA PPM	41000	37000	42000	41000	41000	37000
SC PPM	3.1	2.7	3.0	2.7	2.8	3.5
CR PPM	50	50	50	50	60	50
FE %	2.2	2.3	2.2	2.1	2.0	2.5
CO PPM	<5	<5	<5	5	<5	<5
NI PPM	<500	<500	<500	<500	<500	<500
ZN PPM	<50	<50	<50	80	<50	80
AS PPM	<10	10	<10	<10	<10	10
SE PPM	<10	<10	<10	<10	<10	<10
BR PPM	<5	<5	<5	<5	<5	<5
MO PPM	6	13	9	26	14	19
SB PPM	1	<1	<1	<1	<1	1
CS PPM	<2	3	4	.2	3	.4
BA PPM	2000	2000	2000	2000	2000	2000
LA PPM	45	46	37	42	37	42
HF PPM	5	4	6	4	4	4
TA PPM	<2	<2	<2	<2	<2	<2
W PPM	<10	<10	70	10	10	10
AU PPB	<100	<100	<100	<100	<100	<100
CE PPM	69	71	74	66	59	77
ND PPM	20	20	20	20	20	30
SM PPM	5.0	4.8	5.3	4.8	4.6	5.7
EU PPM	1.7	1.3	<0.5	1.8	<0.5	<0.5
YB PPM	2	2	2	2	2	2
LU PPM	0.3	0.4	0.3	0.3	0.4	0.4
SR PPM	3000	2000	3000	3000	3000	5000
RB PPM	<100	100	<100	100	100	100

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 35

S A M P L E N U M B E R S

ELEMENT & UNITS	35466	** **	35467	** **	35468	** **	35469	** **	35470	** **	35471	** **
U PPM	5		6		5		<5		8		<5	
TH PPM	10		17		9		8		12		<1	
NA PPM	41000		38000		42000		44000		35000		<500	
SC PPM	3.4		3.1		3.2		3.3		2.4		<0.5	
CR PPM	40		30		40		50		60		<10	
FE %	2.3		1.9		2.3		2.4		1.9		<0.2	
CO PPM	<5		5		<5		<5		<5		<5	
NI PPM	<500		<500		<500		<500		<500		<500	
ZN PPM	<50		<50		<50		<50		<50		<50	
AS PPM	<10		20		10		<10		<10		<10	
SE PPM	<10		<10		<10		<10		<10		<10	
BR PPM	<5		<5		<5		<5		<5		<5	
MO PPM	77		12		50		18		36		<5	
SB PPM	<1		2		<1		<1		1		<1	
CS PPM	2		2		2		<2		5		<2	
BA PPM	2000		2000		2000		2000		<2000		<2000	
LA PPM	33		38		36		36		28		<1	
HF PPM	4		4		4		4		5		<2	
TA PPM	<2		<2		<2		<2		<2		<2	
W PPM	<10		<10		<10		<10		<10		<10	
AU PPB	<100		<100		<100		<100		<100		<100	
CE PPM	60		71		65		61		52		<5	
ND PPM	20		20		20		20		20		<20	
SM PPM	5.0		5.1		5.4		4.9		4.1		<0.1	
EU PPM	2.1		<0.5		<0.5		<0.5		<0.5		<0.5	
YB PPM	2		2		2		2		<2		<2	
LU PPM	0.5		0.3		0.5		0.4		0.4		<0.2	
SR PPM	3000		<1000		<1000		3000		3000		<1000	
RB PPM	100		100		100		100		200		<100	

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 36

S A M P L E N U M B E R S

ELEMENT & UNITS	! 35472	** 35473	** 35474	** 35475	** 35476	** 35477	**
U PPM	<5	5	<5	5	5	<5	
TH PPM	8	12		10	9	7	
NA PPM	40000	35000	42000	38000	36000	42000	
SC PPM	3.3	2.6	3.0	2.7	2.9	3.0	
CR PPM	50	60	50	50	50	40	
FE %	2.1	1.9	2.2	2.0	2.0	2.2	
CO PPM	5	<5	<5	5	6	<5	
NI PPM	<500	<500	<500	<500	<500	<500	
ZN PPM	<50	<50	80	130	<50	<50	
AS PPM	<10	<10	<10	10	<10	<10	
SE PPM	<10	<10	<10	<10	<10	<10	
BR PPM	<5	<5	<5	<5	9	<5	
MO PPM	36	140	95	21	110	58	
SB PPM	1	<1	<1	<1	5	<1	
CS PPM	<2	2	2	4	<2	2	
BA PPM	2000	2000	2000	<2000	2000	2000	
LA PPM	34	38	41	28	42	45	
HF PPM	5	5	5	3	4	4	
TA PPM	<2	<2	<2	<2	<2	<2	
W PPM	<10	<10	<10	<10	<10	<10	
AU PPB	<100	<100	<100	<100	<100	<100	
CE PPM	59	61	62	48	65	76	
ND PPM	20	20	20	20	20	20	
SM PPM	5.2	4.5	5.0	4.3	4.7	5.3	
EU PPM	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	
YB PPM	2	2	2	2	2	2	
LU PPM	0.4	0.3	0.3	0.4	0.3	0.3	
SR PPM	3000	2000	4000	3000	3000	4000	
RB PPM	<100	<100	100	100	100	100	

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 37

S A M P L E N U M B E R S

ELEMENT & UNITS	35478	** 35479 **	** 35480 **	** 35481 **	** 35482 **	** 35483 **
U PPM	6	<5	<5	<5	6	12
TH PPM	12	8	8	5	8	10
NA PPM	35000	42000	42000	800	47000	48000
SC PPM	2.2	2.8	3.1	7.2	3.3	3.1
CR PPM	60	40	50	30	80	80
FE %	1.9	2.2	1.8	1.2	1.9	1.8
CO PPM	<5	5	<5	7	<5	<5
NI PPM	<500	<500	<500	<500	<500	<500
ZN PPM	<50	90	<50	<50	<50	<50
AS PPM	<10	<10	<10	50	60	60
SE PPM	<10	<10	<10	<10	<10	<10
BR PPM	<5	<5	<5	46	<5	<5
MO PPM	21	14	10	8	97	250
SB PPM	1	1	<1	1	2	2
CS PPM	3	5	<2	2	2	5
BA PPM	<2000	2000	2000	<2000	<2000	<2000
LA PPM	37	43	44	16	35	43
HF PPM	4	4	4	2	4	5
TA PPM	<2	<2	<2	<2	<2	<2
W PPM	<10	<10	<10	<10	<10	<10
AU PPB	<100	<100	<100	<100	<100	<100
CE PPM	62	65	61	40	58	68
ND PPM	20	20	20	<20	20	20
SM PPM	4.0	4.7	4.6	2.8	4.8	4.9
EU PPM	<0.5	<0.5	<0.5	0.5	1.3	1.7
YB PPM	2	2	2	<2	2	2
LU PPM	0.4	0.3	0.3	0.2	0.3	0.3
SR PPM	2000	4000	4000	<1000	4000	4000
RB PPM	100	100	100	<100	100	100

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF. FILE: 14944

PAGE: 38

S A M P L E N U M B E R S

ELEMENT & UNITS	! 35484 !	** 35485 **	** 35486 **	** 35487 **	** 35488 **	** 35489 **	**
U PPM	<5	16	27	6	6	10	
TH PPM	7	9	14	8	8	8	
NA PPM	43000	45000	41000	42000	39000	43000	
SC PPM	3.0	3.2	3.1	2.7	3.2	3.3	
CR PPM	60	60	50	50	50	40	
FE %	1.9	2.0	1.8	1.8	2.1	2.8	
CO PPM	<5	<5	<5	<5	<5	7	
NI PPM	<500	<500	<500	<500	<500	<500	
ZN PPM	<50	<50	120	<50	60	220	
AS PPM	30	80	30	50	40	40	
SE PPM	<10	10	50	<10	<10	60	
BR PPM	<5	<5	<5	<5	<5	<5	
MO PPM	59	210	520	50	76	570	
SB PPM	2	4	5	5	3	2	
CS PPM	<2	7	9	5	<2	.2	
BA PPM	<2000	<2000	<2000	<2000	<2000	<2000	
LA PPM	34	38	42	38	42	37	
HF PPM	4	5	6	4	3	4	
TA PPM	<2	2	<2	<2	<2	<2	
W PPM	<10	<10	10	<10	10	<10	
AU PPB	<100	<100	<100	<100	<100	<100	
CE PPM	60	62	70	60	64	62	
ND PPM	20	20	30	20	20	20	
SM PPM	5.0	5.0	6.3	4.6	4.6	5.0	
EU PPM	1.6	<0.5	1.1	<0.5	<0.5	3.1	
YB PPM	2	2	2	2	2	2	
LU PPM	0.4	0.6	0.3	0.3	0.3	0.3	
SR PPM	3000	3000	<1000	2000	2000	3000	
RB PPM	100	<100	100	<100	100	<100	

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF. FILE: 14944

PAGE: 39

S A M P L E N U M B E R S

ELEMENT & UNITS	! 35490 !	** 35491 **	** 35492 **	** 35493 **	** 35494 **	** 35495 **
U PPM	6	7	12	<5	7	9
TH PPM	7	10	9	<1	12	15
NA PPM	38000	41000	38000	<500	35000	38000
SC PPM	2.9	3.1	4.1	<0.5	2.6	2.4
CR PPM	30	50	60	<10	60	80
FE %	2.0	1.9	1.9	<0.2	1.9	1.7
CO PPM	<5	<5	<5	<5	<5	<5
NI PPM	<500	<500	<500	<500	<500	<500
ZN PPM	70	<50	70	<50	<50	<50
AS PPM	190	100	130	<10	<10	<10
SE PPM	<10	<10	<10	<10	<10	<10
BR PPM	<5	<5	<5	<5	<5	<5
MO PPM	92	42	47	<5	11	23
SB PPM	3	3	3	<1	2	1
CS PPM	4	5	4	<2	3	3
BA PPM	<2000	<2000	<2000	<2000	2000	2000
LA PPM	37	40	32	<1	36	31
HF PPM	3	4	5	<2	4	4
TA PPM	<2	<2	<2	<2	2	<2
W PPM	<10	10	80	<10	<10	<10
AU PPB	<100	<100	<100	<100	<100	<100
CE PPM	58	62	54	<5	61	53
ND PPM	20	20	20	<20	20	20
SM PPM	4.5	4.8	4.8	<0.1	4.8	4.1
EU PPM	<0.5	<0.5	1.6	<0.5	1.6	1.4
YB PPM	2	2	2	<2	2	2
LU PPM	0.3	0.3	0.3	<0.2	0.4	0.5
SR PPM	3000	3000	3000	<1000	3000	1000
RB PPM	100	100	100	<100	100	100

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 40

S A M P L E N U M B E R S

ELEMENT & UNITS	! 35496	** **	35497	** **	35498	** **	35499	** **	35500	** **	35501	** **
U PPM	5		PENDING		<5		<5		<5		<5	
TH PPM	7		PENDING		13		9		9		7	
NA PPM	35000		PENDING		13000		13000		12000		14000	
SC PPM	2.4		PENDING		2.8		3.2		2.9		3.1	
CR PPM	70		PENDING		60		50		60		50	
FE %	2.0		PENDING		2.1		1.8		1.8		1.8	
CO PPM	<5		PENDING		<5		<5		<5		<5	
NI PPM	<500		PENDING		<500		<500		<500		<500	
ZN PPM	<50		PENDING		<50		<50		90		60	
AS PPM	<10		PENDING		<10		<10		<10		<10	
SE PPM	<10		PENDING		<10		<10		<10		<10	
BR PPM	<5		PENDING		<5		<5		<5		<5	
MO PPM	15		PENDING		14		11		62		6	
SB PPM	1		PENDING		1		1		1		1	
CS PPM	<2		PENDING		3		2		3		2	
BA PPM	2000		PENDING		<2000		<2000		<2000		2000	
LA PPM	30		PENDING		24		23		25		28	
HF PPM	4		PENDING		5		4		4		4	
TA PPM	<2		PENDING		<2		<2		<2		<2	
W PPM	<10		PENDING		<10		<10		140		10	
AU PPB	<100		PENDING		<100		<100		<100		<100	
CE PPM	54		PENDING		64		66		60		63	
ND PPM	20		PENDING		20		20		20		20	
SM PPM	4.0		PENDING		3.4		3.1		2.9		3.1	
EU PPM	1.4		PENDING		<0.5		1.1		1.2		<0.5	
YB PPM	2		PENDING		2		2		2		2	
LU PPM	0.3		PENDING		0.4		0.3		0.3		0.2	
SR PPM	3000		PENDING		3000		2000		2000		2000	
RB PPM	100		PENDING		100		100		100		100	

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF. FILE: 14944

PAGE: 41

S A M P L E N U M B E R S

ELEMENT & UNITS	!	35502	**	35503	**	35504	**	35505	**	35506	**	35507	*
	!		**		**		**		**		**		*
U PPM		PENDING		<5		<5		5		<5		5	
TH PPM		PENDING		7		6		7		7		8	
NA PPM		PENDING		36000		39000		34000				5900	
SC PPM		PENDING		2.9		2.9		2.3		2.7		1.6	
CR PPM		PENDING		50		50		40		50		70	
FE %		PENDING		1.7		1.7		1.3		1.6		2.0	
CO PPM		PENDING		5		5		<5		<5		<5	
NI PPM		PENDING		<500		<500		<500		<500		<500	
ZN PPM		PENDING		<70		<50		210		250		60	
AS PPM		PENDING		<10		<10		<10		<10		10	
SE PPM		PENDING		<10		<10		<10		<10		70	
BR PPM		PENDING		<5		<5		<5		5		<5	
MO PPM		PENDING		20		20		50		69		240	
SB PPM		PENDING		<1		<1		<1		<1		<1	
CS PPM		PENDING		<2		3		4		<2		3	
BA PPM		PENDING		<2000		2000		2000		2000		PENDING	
LA PPM		PENDING		28		34		33		33		23	
HF PPM		PENDING		4		4		4		3		<2	
TA PPM		PENDING		2		<2		<2		<2		<2	
W PPM		PENDING		<10		<10		10		<10		120	
AU PPB		PENDING		<100		<100		<100		<100		<100	
CE PPM		PENDING		49		50		55		46		44	
ND PPM		PENDING		20		20		<20		20		<20	
SM PPM		PENDING		3.7		3.9		3.9		3.8		3.0	
EU PPM		PENDING		2.1		<0.5		<0.5		1.2		<0.5	
YB PPM		PENDING		2		2		<2		2		<2	
LU PPM		PENDING		0.3		0.3		<0.2		0.3		0.2	
SR PPM		PENDING		2000		<1000		<1000		2000		1000	
RB PPM		PENDING		100		100		100		100		100	

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 42

S A M P L E N U M B E R S

ELEMENT & UNITS	35508	** **	35509	** **	35510	** **	35511	** **	35512	** **	35513	** **
U PPM	5		<5		<5		<5		6		<5	
TH PPM	7		6		7		5		6		7	
NA PPM	20000		24000		36000		29000		37000		37000	
SC PPM	2.3		2.0		3.0		2.7		2.6		3.0	
CR PPM	60		60		40		30		40		50	
FE %	2.1		2.6		2.0		1.6		1.8		2.2	
CO PPM	<5		<5		5		<5		<5		5	
NI PPM	<500		<500		<500		<500		<500		<500	
ZN PPM	100		<50		<50		<70		<50		200	
AS PPM	30		10		<10		<10		<10		<10	
SE PPM	<10		<10		<10		<10		<10		<10	
BR PPM	<5		<5		<5		<5		<5		<5	
MO PPM	210		170		9		37		77		51	
S8 PPM	1		<1		<1		1		<1		<1	
CS PPM	3		4		<2		3		<2		2	
BA PPM	PENDING		PENDING		2000		PENDING		2000		2000	
LA PPM	28		27		33		29		36		37	
HF PPM	4		2		4		3		4		3	
TA PPM	<2		<2		<2		<2		3		2	
W PPM	50		70		<10		10		<10		<10	
AU PPB	<100		<100		<100		<100		<100		<100	
CE PPM	43		42		65		47		55		54	
ND PPM	20		<20		20		20		20		20	
SM PPM	3.5		3.1		4.2		3.8		4.4		4.6	
EU PPM	<0.5		<0.5		<0.5		<0.5		<0.5		2.9	
YB PPM	<2		<2		2		<2		2		2	
LU PPM	0.2		0.2		0.3		0.2		0.3		0.3	
SR PPM	<1000		<1000		<1000		<1000		<1000		<1000	
RB PPM	100		100		100		100		100		<100	

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 43

S A M P L E N U M B E R S

ELEMENT & UNITS	35514	** 35515 **	** 35516 **	** 35517 **	** 35518 **	** 35519 **
U PPM	<5	<5	<5	<5	5	<5
TH PPM	8	7	7	5	8	6
NA PPM	35000	35000	38000	36000	37000	35000
SC PPM	2.9	2.6	3.1	2.6	2.4	2.6
CR PPM	40	40	40	40	40	30
FE %	2.0	1.9	1.9	1.9	1.8	1.6
CO PPM	<5	5	<5	5	<5	<5
NI PPM	<500	<500	<500	<500	<500	<500
ZN PPM	<80	<50	140	<50	<50	<50
AS PPM	<10	<10	<10	<10	<10	<10
SE PPM	<10	<10	<10	<10	<10	<10
BR PPM	<5	<5	<5	<5	<5	<5
MO PPM	64	57	41	25	17	22
SB PPM	<1	<1	<1	<1	<1	<1
CS PPM	<2	2	<2	4	<2	<2
BA PPM	2000	PENDING	PENDING	2000	2000	PENDING
LA PPM	43	36	34	36	33	33
HF PPM	4	3	4	4	4	4
TA PPM	3	<2	<2	<2	<2	<2
W PPM	<10	<10	<10	<10	<10	<10
AU PPB	<100	<100	<100	<100	<100	<100
CE PPM	64	56	54	52	54	50
ND PPM	30	20	20	30	20	20
SM PPM	4.7	4.3	4.3	4.2	3.9	3.7
EU PPM	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
YB PPM	2	2	<2	2	<2	<2
LU PPM	0.2	0.3	0.3	0.3	0.3	0.3
SR PPM	2000	<1000	<1000	4000	3000	2000
RB PPM	<100	<100	<100	<100	100	<100

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF. FILE: 14944

PAGE: 44

S A M P L E N U M B E R S

ELEMENT & UNITS	35520	** 35521 **	** 35522 **	** 35523 **	** 35524 **	** 35525 **
U PPM	<5	5	5	<5	<5	<5
TH PPM	5	5	6	5	7	6
NA PPM	25000		30000	29000	34000	37000
SC PPM	2.5	2.4	2.6	2.5	2.9	2.9
CR PPM	40	50	40	20	30	30
FE %	2.4	1.7	1.8	1.9	1.8	1.8
CO PPM	<5	<5	6	5	<5	<5
NI PPM	<500	<500	<500	<500	<500	<500
ZN PPM	<50	<50	<50	<50	<60	90
AS PPM	20	<10	<10	<10	<10	<10
SE PPM	<10	10	<10	<10	<10	<10
BR PPM	<5	<5	<5	<5	<5	<5
MO PPM	37	390	380	240	5	5
SB PPM	1	<1	<1	1	<1	<1
CS PPM	5	<2	<2	3	2	4
BA PPM	<2000	2000	2000	2000	<2000	2000
LA PPM	31	29	33	31	37	32
HF PPM	4	4	2	4	3	4
TA PPM	<2	2	<2	2	<2	<2
W PPM	90	<10	<10	<10	<10	<10
AU PPB	<100	<100	<100	<100	<100	<100
CE PPM	52	48	53	47	54	55
ND PPM	20	20	20	20	20	20
SM PPM	4.2	4.2	4.1	4.2	4.5	4.3
EU PPM	<0.5	1.7	<0.5	<0.5	<0.5	<0.5
YB PPM	<2	<2	2	2	<2	<2
LU PPM	0.2	0.3	0.3	0.3	0.3	<0.2
SR PPM	<1000	3000	<1000	<1000	<1000	<1000
RB PPM	<100	100	100	100	100	<100

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF. FILE: 14944

PAGE: 45

S A M P L E N U M B E R S

ELEMENT & UNITS	35526	** 35527 **	** 35528 **	** 35529 **	** 35530 **	** 35531 **
U PPM	5	<5	6	<5	<5	5
TH PPM	8	6	8	7	10	8
NA PPM	29000	35000	36000	35000	37000	34000
SC PPM	2.4	2.7	3.0	2.5	2.7	2.9
CR PPM	40	50	40	40	40	40
FE %	1.6	2.3	2.1	1.8	2.0	2.0
CO PPM	<5	6	5	<5	<5	5
NI PPM	<500	<500	<500	<500	<500	<500
ZN PPM	130	<50	170	<50	<80	<50
AS PPM	<10	<10	<10	<10	<10	<10
SE PPM	<10	<10	<10	<10	<10	<10
BR PPM	<5	<5	<5	<5	<5	<5
MO PPM	28	30	15	16	<5	35
SB PPM	<1	<1	<1	<1	<1	<1
CS PPM	5	<2	<2	<2	<2	.2
BA PPM	PENDING	PENDING	PENDING	PENDING	PENDING	PENDING
LA PPM	33	33	34	29	44	31
HF PPM	3	4	4	3	4	4
TA PPM	<2	<2	<2	<2	<2	<2
W PPM	<10	<10	<10	<10	<10	<10
AU PPB	<100	<100	<100	<100	<100	<100
CE PPM	51	50	54	49	64	60
ND PPM	<20	20	<20	20	<20	20
SM PPM	3.9	4.5	4.8	3.8	4.2	4.8
EU PPM	1.8	<0.5	<0.5	<0.5	<0.5	<0.5
YB PPM	<2	2	2	<2	2	2
LU PPM	0.2	0.3	0.5	0.2	0.3	0.4
SR PPM	<1000	3000	<1000	<1000	3000	<1000
RB PPM	100	<100	<100	100	<100	<100

X-RAY ASSAY LABORATORIES LIMITED

DATE: 21-NOV-83

REPORT:

REF.FILE: 14944

PAGE: 46

S A M P L E N U M B E R S

ELEMENT & UNITS ! 35532 ** 35533 ** 35534 ** 35535 **

ELEMENT & UNITS	35532	35533	35534	35535
U PPM	17	<5	5	5
TH PPM	7	7	9	7
NA PPM	29000	38000	43000	39000
SC PPM	2.3	2.5	2.6	2.7
CR PPM	60	60	70	60
FE %	3.0	1.7	2.0	2.2
CO PPM	11	<5	5	6
NI PPM	<500	<500	<500	<500
ZN PPM	<60	<50	<50	<50
AS PPM	<10	<10	<10	<10
SE PPM	<10	<10	<10	<10
BR PPM	<5	<5	<5	<5
MO PPM	36	46	87	16
SB PPM	1	1	<1	<1
CS PPM	2	<2	<2	<2
BA PPM	2000	2000	2000	PENDING
LA PPM	35	36	39	37
HF PPM	3	4	5	3
TA PPM	<2	<2	<2	<2
W PPM	<10	<10	<10	<10
AU PPB	<100	<100	<100	<100
CE PPM	53	61	62	56
ND PPM	20	20	20	20
SM PPM	4.7	4.4	4.7	4.6
EU PPM	<0.5	<0.5	<0.5	<0.5
YB PPM	<2	2	2	2
LU PPM	0.3	0.3	0.4	0.4
SR PPM	<1000	<1000	4000	<1000
RB PPM	100	200	<100	100