

84-1417-13258

ASSESSMENT REPORT OF THE 1984  
GEOLOGICAL AND GEOCHEMICAL EXPLORATION PROGRAM  
ON THE  
KLI 84-1 CLAIM GROUP  
OMINECA MINING DIVISION  
NTS 94D/8,9

Latitude 56°31' North; Longitude 126°07' West

JOINTLY OWNED BY  
KENNCO EXPLORATIONS (WESTERN) LTD.  
and VITAL RESOURCES LTD.

OPTIONED BY BP RESOURCES CANADA LIMITED

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**13,258**

BPVR 84-49

H.Q. Smit  
Geologist  
R.E. Meyers  
Project Geologist

January 1985

84-1417-13258



Province of British Columbia

Ministry of Energy, Mines and Petroleum Resources

ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TYPE OF REPORT/SURVEY(S) GEOLOGICAL MAPPING, DRILL CORE LOGGING, SAMPLING, ROCK GEOCHEMISTRY	TOTAL COST \$26,592.59
--	---------------------------

AUTHOR(S) H.Q. Smit ..... SIGNATURE(S) *per/PCM*  
R.E. Meyers ..... *R.E. Meyers*

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED November 22, 1984 YEAR OF WORK 84

PROPERTY NAME(S) KLI 84-1 Group (KLI 1-8, 11-15, 17, 19, CHRIS 1-4 Claims)

COMMODITIES PRESENT Magnetite, Gold, Copper

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN 094D 019 08650

MINING DIVISION Omineca NTS 94D/8/9

LATITUDE 56°31' North LONGITUDE 126° 07' West

NAMES and NUMBERS of all mineral tenures in good standing (when work was done) that form the property [Examples: TAX 1-4, FIRE 2 (12 units); PHOENIX (Lot 1706); Mineral Lease M 123; Mining or Certified Mining Lease ML 12 (claims involved)]:

KLI 1-8 (89985-89992); KLI 11-15 (89995-89999); KLI 17 (90001), KLI 19 (90003);  
CHRIS 1-2 (4855-4856); CHRIS 3-5 (6220-6222).

OWNER(S)

(1) KENNCO EXPLORATION (WESTERN) LTD. (2) VITAL RESOURCES LTD.

MAILING ADDRESS

#2308 Commercial Union Tower 625 Howe Street  
TD Centre, Toronto, Ontario M5K 141 Vancouver, B.C. V6C 2T6

OPERATOR(S) (that is, Company paying for the work)

(1) BP RESOURCES CANADA LIMITED (2)

MAILING ADDRESS

#700 - 890 West Pender Street  
Vancouver, B.C. V6C 1K5

SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size, and attitude):

Host Rock - Upper Triassic Takla Group volcanic rocks; Gold and minor copper mineralization associated with magnetite-rich skarn zone within andesitic flows, tuffs and possibly phases of subvolcanic diorite; Regional stratigraphic and structural trends NW with variable dips; Possible projected anticlinal structure; Skarn and stratigraphy locally complicated by folding and faulting; Minor gold values associated with quartz veins and altered tuffs non-economic

REFERENCES TO PREVIOUS WORK See Page 29 of Report; Also GEM 1970-187; 1971-61; 1972-480; 1973-409, 1974-302. Assess Report # 2818, 3312, 3313, 5211

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	COST APPORTIONED
<b>GEOLOGICAL (scale, area)</b>			
Ground	1:5 000 10 km <sup>2</sup>	KLI 1-8, 11-15, 17, 19	
Photo	Inclusive of Camp Costs, Air Support, Labour, Transportation, Travel Exp. Etc.		\$21,374.29
<b>GEOPHYSICAL (line-kilometres)</b>			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
<b>GEOCHEMICAL (number of samples analysed for ....)</b>			
Soil	2 (All samples analysed for Au, Cu, T.C.P. multielement)	KLI 8	21.90
Silt			
Rock	49	KLI 1-8	641.90
Other	Data Processing & Interpretation		952.00
<b>DRILLING (total metres; number of holes, size)</b>			
Core	275 Resampled Drill Core	KLI 11-15, 17, 19	3,602.50
Non-core	(Samples)		
<b>RELATED TECHNICAL</b>			
Sampling/assaying			
Petrographic			
Mineralogic			
Metallurgic			
<b>PROSPECTING (scale, area)</b>			
<b>PREPARATORY/PHYSICAL</b>			
Legal surveys (scale, area)			
Topographic (scale, area)			
Photogrammetric (scale, area)			
Line/grid (kilometres)			
Road, local access (kilometres)			
Trench (metres)			
Underground (metres)			
<b>TOTAL COST</b>			\$26,592.59

FOR MINISTRY USE ONLY	NAME OF PAC ACCOUNT	DEBIT	CREDIT	REMARKS:
Value work done (from report)				
Value of work approved				
Value claimed (from statement)				
Value credited to PAC account				
Value debited to PAC account				
Accepted . . . . . Date	Rept. No.			Information Class

## TABLE OF CONTENTS

	<u>Page No.</u>
SUMMARY	1
CONCLUSIONS	2
RECOMMENDATIONS	3
INTRODUCTION	4
1. Location, Access and Terrain	4
2. Claim Status	5
3. History	6
4. 1984 Exploration Activities	6
REGIONAL GEOLOGY	7
PROPERTY GEOLOGY	9
1. Lithologies	10
(a) Volcanic Rocks	10
(i) Andesite Tuff (Unit 1)	10
(ii) Upper Andesite Tuff (1a)	10
(iii) Lower Andesite Tuff (1b)	11
(iv) Altered Andesite Tuff (1c)	11
(v) Altered Tuffaceous Argillite (1d)	13
(vi) Hornfelsed Andesite Tuff (1e)	14
(vii) Limestone Breccia and Tuff (Unit 2)	15
(b) Intrusive Rocks	16
(i) Augite Porphyry Dykes (Unit 3)	16
(ii) Feldspar Porphyry (Unit 4)	16
(iii) Diorite (Unit 5)	17
(iv) Hornblende Diorite (5a)	18
(v) Minor Dykes	18
(c) Ferricrete Zone	20
2. Structure	20
3. Alteration and Mineralization	21
(a) Magnetite Skarn	22
(b) Quartz Veins	24
(c) Shear Zones	25
GEOCHEMISTRY	25
1. Drill Core	25
2. Rock Chip and Soil Samples	27
REFERENCES	29

LIST OF FIGURES

		<u>Follows Page</u>
FIGURE 1	LOCATION MAP AND REGIONAL GEOLOGY (1:250 000)	4
FIGURE 2	KLI 84-1 CLAIM GROUP LOCATION MAP (1:50 000)	5
FIGURE 3	KLI CLAIMS - GEOLOGY (1:10 000)	In Pocket
FIGURE 4	KLI CLAIMS - ROCK CHIP AND SOIL SAMPLE LOCATIONS AND AU, CU, AG GEOCHEMISTRY (1:10 000)	In Pocket

LIST OF APPENDICES

APPENDIX 1	DIAMOND DRILL LOGS	30
APPENDIX 2	GEOCHEMICAL PREPARATION AND ANALYTICAL PROCEDURES	183
APPENDIX 3	LIST OF ANALYTICAL DATA	186
APPENDIX 4	STATEMENT OF COSTS	198
APPENDIX 5	STATEMENTS OF QUALIFICATION	201

SUMMARY

Exploration activities in 1984 on the KLI 84-1 claim group involved the relogging, sampling and analysis of existing drill core, geological mapping and geochemical sampling at selected localities. The program was carried out to verify previous drill-hole data, to determine the potential for additional mineralized zones in the drill core and to evaluate the surface geology for new drill targets.

A total of 1593 metres of drill core were relogged and selectively resampled. Results essentially corroborated earlier data, which indicated an irregular 200 x 100 metre zone of magnetite-rich skarn mineralization, reflected at surface as a sinuously shaped magnetic anomaly (12,000-14,000 gammas). Skarn mineralization is associated with moderate to strong silicification and weak to moderate epidote-chlorite alteration. Previous assay results indicated a gold-bearing zone having a 10 to 30 metre thickness with grades in the 1.6 to 2.4 g/t Au range and 0.46% Cu. However, analysis of core not previously sampled returned gold values of less than 1 g/t and offer little encouragement for additional gold potential.

Minor mineralization also occurs in the form of quartz veins associated with small diorite stocks and as weakly pyritic shear zones in altered andesite tuffs. Quartz vein samples returned a

high of 30,600 ppb Au, with the remaining values <400 ppb. The highest value from sheared tuffs was 3800 ppb, however, neither the tuffs nor the quartz veins have obvious economic potential.

### CONCLUSIONS

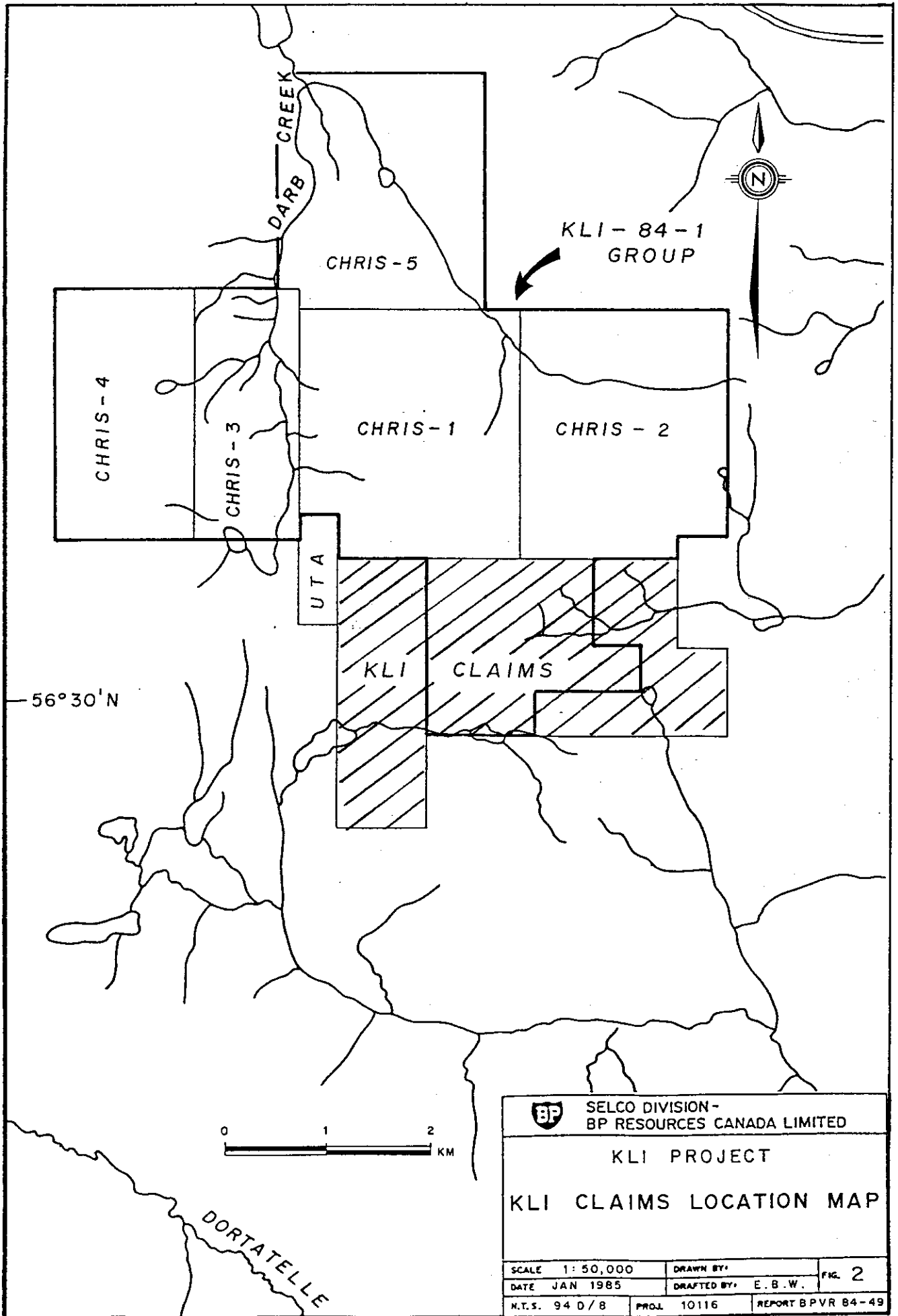
1. Gold mineralization on the KLI claims is principally associated with a localized section of magnetite-rich skarn in Takla Group andesite tuffs. The skarn is delineated at surface by a prominent magnetic anomaly. Although gold is geochemically enhanced throughout much of the skarn horizon, mineralization is irregular, lacks continuity and has no present economic potential.
2. Structural trends on the KLI claims are generally northwest, but are complicated by north-trending faults and possibly by folding related to a north-trending anticlinal structure projected from the south. The irregular surface projection of the skarn mineralization and lack of detailed structural data make it difficult to ascertain whether the skarn is structurally or stratigraphically controlled.
3. Skarn-related gold mineralization is confined to a zone previously delineated by diamond drilling. Sampling of drill core peripheral to, and below the zone indicates that known mineralization is not continuous.


4. Minor gold mineralization in scattered quartz veins is associated with small diorite stocks and is unrelated to skarn mineralization. An altered and gossanous andesite tuff horizon is extensive in the region and is believed to result from ductile shearing. Sampling of the unit on the KLI claims and elsewhere returned only minor gold values and this unit, along with intrusive-related quartz veins have no significant economic potential.

#### RECOMMENDATIONS

1. A comprehensive review of all surface and drill-hole data from the KLI claims should be completed before any further programs are carried out on the property. Particular attention should be given to the geochemical data, utilizing the available computerized data-plotting techniques whenever possible. Fill-in soil and rock chip sampling may also be required to determine the presence or absence of additional anomalies.
2. An updated property-wide magnetometer survey should be completed before any future drilling programs are undertaken.
3. As the present information has indicated little potential for an economic gold deposit, no further work is recommended until significantly improved conditions prevail.





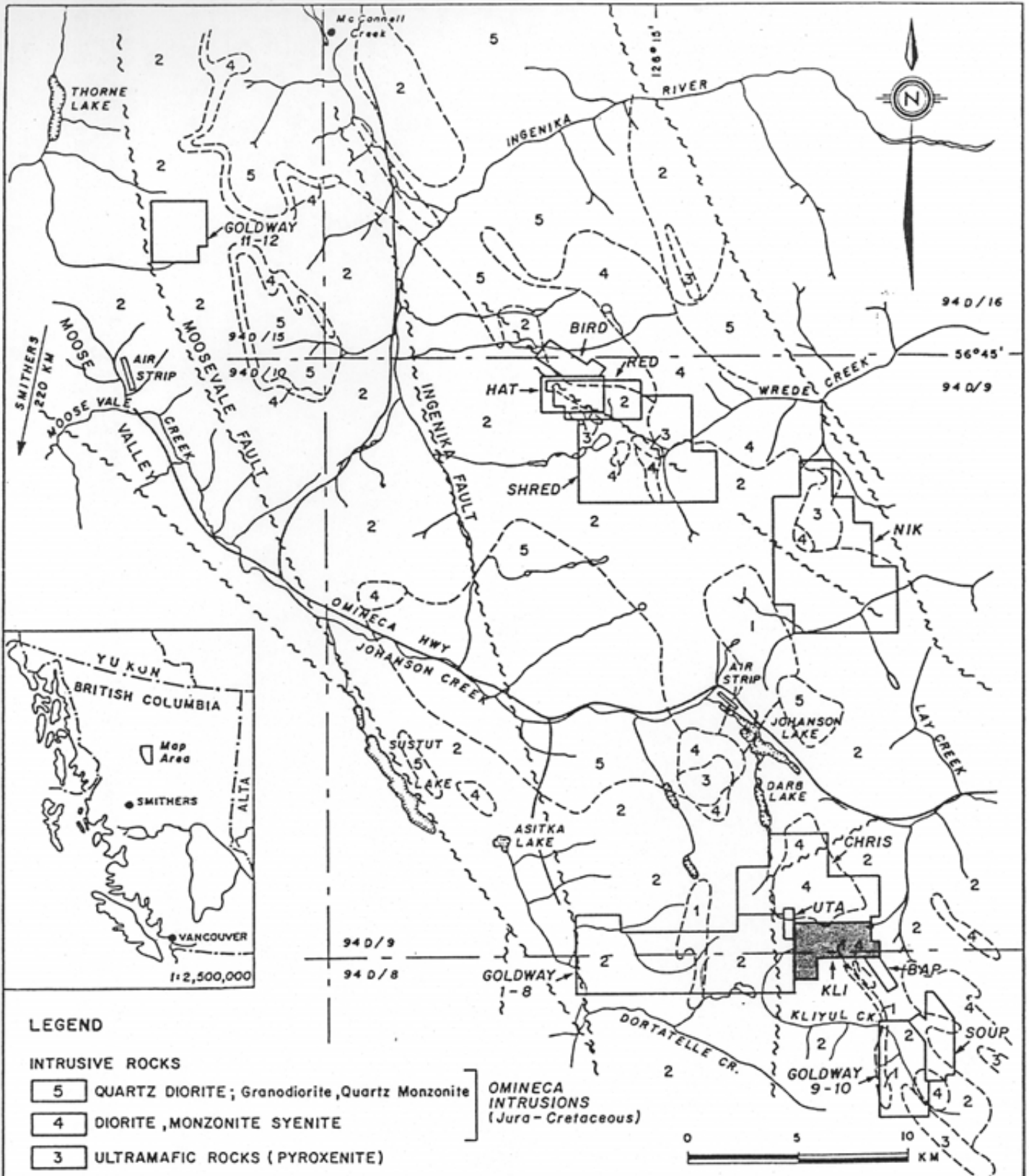
 SELCO DIVISION - BP RESOURCES CANADA LIMITED		
KLI PROJECT <b>KLI CLAIMS LOCATION MAP</b>		
SCALE 1: 50,000	DRAWN BY:	FIG. 2
DATE JAN 1985	DRAFTED BY: E. B. W.	
N.T.S. 94 D/8	PROJ. 10116	REPORT BPVR 84-49

## INTRODUCTION

### 1. Location, Access and Terrain

The KLI 84-1 claim group is located at 56°31' north latitude and 126°07' west longitude in the Omineca Mining Division approximately 200 km north-northwest of Smithers and 8 km southeast of Johanson Lake (NTS 94D/8 and 9, Figure 1).

Access to the property (Figure 2) is by helicopter from Johanson Lake which is reached by wheel or float equipped aircraft, or by the Omineca Highway, which is closed in winter. The road is reached from Fort St. James, north of Vanderhoof (430 km) or via highway 97 north of Prince George (500 km). The Dease Lake extension of the British Columbia Railway is operational between Prince George and Driftwood, 65 km southwest. The KLI 84-1 claim group lies above treeline in an area of gentle relief on the south, with a broad, drift-covered valley at 1650 metres, rising to a precipitous ridge on the north having a maximum elevation of about 2270 metres. A small permanent snow field covers a north facing slope on the CHRIS-1 claim. Vegetation in the area consists of a few stunted fir trees (buckbrush) with scattered shrubs and a preponderance of alpine grasses and moss.



**LEGEND**

**INTRUSIVE ROCKS**

- 5 QUARTZ DIORITE; Granodiorite, Quartz Monzonite
- 4 DIORITE, MONZONITE SYENITE
- 3 ULTRAMAFIC ROCKS (PYROXENITE)

OMINECA INTRUSIONS (Jura - Cretaceous)

**VOLCANIC ROCKS**

TAKLA - UPPER TRIASSIC

- 2 ANDESITES, BASALTS, FLOWS, BRECCIAS, TUFFS
- 1 SEDIMENTS (Volcanic Sandstone, Argillite, Turbidite, minor Limestone)

**BP** SELCO DIVISION - BP RESOURCES CANADA LIMITED

**KLI PROJECT**

**LOCATION MAP & REGIONAL GEOLOGY OF THE JOHANSON LAKE AREA**

SCALE 1:250,000	DRAWN BY: R.E.M.	FIG. 1
DATE DEC '84	DRAFTED BY: E.B.W.	
N.T.S. 940/8	PROJ. 10116	REPORT

2. Claim Status

The KLI 84-1 group consists of 15 two-post claims (KLI 1-8, 11-15, 17, 19) and five MGS claims (CHRIS 1-5) totalling 85 units, which collectively make up 100 claim units. The CHRIS claims are 100% owned by Vital Resources and the KLI claims are 100% owned by Kennco Explorations (Western) Limited. The claims in the group were optioned to BP Resources Canada Limited in 1984.

KLI 84-1 GROUP

CLAIM NAME	RECORD NO.	NO. OF UNITS	RECORDING DATE	EXPIRY DATE
KLI 1	89985	1	Aug. 10/70	Aug. 10/93
KLI 2	89986	1	Aug. 10/70	Aug. 10/93
KLI 3	89987	1	Aug. 10/70	Aug. 10/93
KLI 4	89988	1	Aug. 10/70	Aug. 10/93
KLI 5	89989	1	Aug. 10/70	Aug. 10/93
KLI 6	89990	1	Aug. 10/70	Aug. 10/93
KLI 7	89991	1	Aug. 10/70	Aug. 10/93
KLI 8	89992	1	Aug. 10/70	Aug. 10/93
KLI 11	89995	1	Aug. 10/70	Aug. 10/93
KLI 12	89996	1	Aug. 10/70	Aug. 10/93
KLI 13	89997	1	Aug. 10/70	Aug. 10/93
KLI 14	89998	1	Aug. 10/70	Aug. 10/93
KLI 15	89999	1	Aug. 10/70	Aug. 10/93
KLI 17	90001	1	Aug. 10/70	Aug. 10/93
KLI 19	90003	1	Aug. 10/70	Aug. 10/93
CHRIS 1	4855	20	Oct. 25/82	Oct. 25/86
CHRIS 2	4856	20	Oct. 25/82	Oct. 25/86
CHRIS 3	6220	10	May 4/84	May 4/87
CHRIS 4	6221	15	May 4/84	May 4/87
CHRIS 5	6222	20	May 4/84	May 4/87

### 3. History

Work in the Johanson Lake area dates back to the 1940's shortly after placer gold was discovered at McConnell Creek, about 50 km northwest. More recently, in the 1960's and 1970's exploration was directed towards porphyry copper-molybdenum and volcanic-hosted stratabound copper deposits. The most impressive find has been the Sustut Copper deposit discovered by Falconbridge Limited, 40 km west of Johanson Lake. Other drilling ventures were undertaken in 1982 by Lornex Mines Limited on upper Lay Creek and by Getty Mines Limited on Porphyry Creek to the east (Carter 1983). The KLI claims were staked in 1970 by Kennco Explorations (Western) Ltd. who carried out silt and soil sampling and geophysical surveys, including magnetics and IP. The property was optioned to Sumac Mines Ltd. in 1973 who drilled three x-ray and eleven BQ holes during the following two years. Vital Resources optioned the claims from Kennco in 1980 and subsequently drilled four NQ holes in 1981. Preliminary metallurgical tests showed gold to be principally associated with chalcopyrite. CHRIS 1 and 2 mineral claims were staked by Vital in 1982 and CHRIS 3-5 were staked in 1984.

### 4. 1984 Exploration Activities

The 1984 program consisted of relogging, sampling and analysis of existing drill core, along with property-wide

mapping (1:5 000) and geochemical sampling (rock chip and soils). The mapping was carried out to verify previous geological data and to obtain more detailed descriptions of potential mineralization. Relogging of drill core was completed to verify previous logs and additional core analyses were completed to determine the potential for new zones of gold mineralization in previously tested areas.

#### REGIONAL GEOLOGY

The KLI claims (Figure 1) are situated in the northern extension of the Quesnel Trough within the Intermontane Tectonic belt of the Canadian Cordillera. The Quesnel Trough assemblage consists principally of the Upper Triassic to Lower Jurassic Takla Group volcanic and sedimentary rocks, correlatives of which extend from south of the U.S. border to north of the Stikine River (Monger, 1977). The volcanic rocks consist of island-arc type calc-alkaline to alkaline flows and volcanoclastic rocks of predominantly submarine origin, although subaerial volcanic complexes also occur in the region. The extrusive rocks are interlayered with volcanogenic sandstones that grade into laminated siltstones, argillites, minor conglomerates, tuffaceous limestone and limestone breccia.

The stratigraphy is intruded by granitic to intermediate plutons of Jura-Cretaceous age, which are satellitic to the Hogem Batholith and by remnants of ultramafic intrusions, a few of which are locally related to deep-seated faults transecting the region. In the KLI area the principal rock types are augite porphyry flows and andesitic tuffs with comagmatic diorite intrusions of similar composition. To the south a north-northwest-trending anticlinal structure straddles Kliyul Creek which separates the distinctive characteristics of an east to west lithologic transition from volcanic to sedimentary facies. Tuffaceous sediments are interlayered with calcareous sediments and gritty limestones striking parallel to the anticline axis and can be traced northward to the KLI claims.

Mineralization in the area occurs in a variety of forms and associations (Bradley, 1984). Copper and molybdenum porphyry-type occurrences are associated with monzonitic intrusions and copper occurs as minor fracture fillings and disseminations in the Takla volcanic rocks. Numerous gold-bearing quartz-carbonate veins with semi-massive sulphides, including chalcopyrite and pyrite are commonly and spatially associated with subvolcanic hornblende diorite sills and dykes within the Takla stratigraphy.

Magnetite-rich skarn with associated gold mineralization occurs in the area, notably at two localities. The largest surface exposure lies on the SOUP claims to the south and is described in another assessment report (Smit and Meyers 1984). Gold mineralization on the KLI claims is also associated with a magnetite-rich skarn zone occurring within andesitic volcanic rocks, in a geological setting similar to that on the SOUP claims to the southeast.

#### PROPERTY GEOLOGY

The volcanic and sedimentary rocks on the KLI claims belong to the Upper Triassic Takla Group (Figure 3). They are intruded by a few small dioritic intrusions of presumed Jurassic to mid-Cretaceous age. The lower part of the volcanic section consists predominantly of an andesitic feldspar crystal tuff unit. The upper part of this unit is sheared, silicified, altered and pyritized. The overlying volcanic rocks are more augite-rich with interlayered coarse pyroclastic rocks. At or near the base of the upper augite-rich unit a discontinuous fragmental zone contains deformed limestone clasts and lenses.

The sequence has been faulted and locally sheared. The axial trace of a broad anticline observed at Kliyul Creek trends northward across the property, but the stratigraphy does not appear to be highly folded.



The rocks have undergone regional greenschist metamorphism, and local propylitic alteration. Magnetite-rich copper and gold bearing skarn mineralization and auriferous quartz veins occur within the volcanic rocks.

1. Lithologies

a) Volcanic Rocks

(i) Andesite Tuff (Unit 1)

Most of the rocks on the property are andesitic tuffs, though minor subvolcanic intrusions and possibly some flows occur. Unit 1 has been subdivided into an upper and lower tuff unit and three altered tuff units.

(ii) Upper Andesite Tuff (1a)

The upper tuffs are augite-rich and have a coarser clastic component than the lower section. They are andesitic to basaltic in composition and include feldspar, feldspar-augite and augite crystal tuffs, lapilli tuffs and agglomerates with augite-bearing clasts. The rocks are medium grey-green to green and weather greener than the underlying rocks. The main cliffs on the ridge along the north side of the claims are composed of this unit.

(iii) Lower Andesitic Feldspar Tuff (1b)

The lower part of the volcanic section is mainly feldspar crystal tuff with 40% to 60% feldspar crystals (1 to 3 mm) in a fine grained matrix. Minor mafic minerals occur, but never in amounts greater than 5% of the rock. No visible quartz was observed. Unaltered rock is medium to light grey-green and weathers light to medium grey. Sections of crystal-lithic tuff and minor subvolcanic intrusives are found in the unit. Outcrops in the valley along Lay Creek are composed of the same rock type, as are some drill intersections, including all intersections in the main magnetic anomaly. Within the main anomaly, the unit is further subdivided into an ashy tuff, a highly altered magnetic tuff and a feldspar porphyritic section which is either a flow or a subvolcanic intrusive.

(iv) Altered Andesite Tuff (1c)

Overlying unit 1b is an altered pyritic feldspar crystal tuff that weathers to form a prominent orange gossan visible along the northern side of the KLI claims. The lithology of the zone varies from a

very hard, siliceous, light grey rock to a soft, white, locally schistose rock which is strongly altered to sericite and minor kaolinite. Crystal tuff textures are preserved in the least altered portions of this rock, but are completely destroyed where alteration and shearing are more intensely developed.

On the KLI claims this strongly altered unit represents the extension of a similar siliceous and sericitic light grey pyritic unit which occurs on the SOUP and BAP claims extending northwestward to the KLI property. On the northwest side of the KLI claims the unit interfingers with a quartz-carbonate altered argillaceous unit.

Most of the drill holes outside the main anomaly intersect the altered andesite unit. Unweathered sections found in the drill core are light grey to greenish grey, with strong quartz-sericite  $\pm$  kaolinite alteration and pale chloritic alteration with 3% to 5% disseminated pyrite. In drill hole KL-10 a few layers of tuffaceous argillite are interbedded with the altered tuffs.

The true thickness of the unit is not readily determined in most exposures. In the northwest corner of the claims the altered tuff is between 100 and 200 metres thick, while in the southeast corner it is over 300 metres thick. Pods of unaltered andesite occur within the altered zone indicating that drill hole intersections may not necessarily represent the true thickness of the altered unit on surface.

Intersections in the main magnetic anomaly contain similar horizons of altered tuff in 1 to 10 metre wide bands. They are always sheared, foliated and some contain fault breccia. Quartz-carbonate stringers are common. Contacts with surrounding rock are gradational and intensity of alteration varies with shearing, so that it is likely that the alteration is primarily related to ductile shearing which has occurred within the feldspar-rich tuffs.

(v) Altered Tuffaceous Argillite (ld)

In the northwest corner of the property, the quartz-sericite-pyrite altered tuffs grade into, or interfinger with quartz-carbonate altered tuffaceous argillite. This unit is highly altered, foliated

and schistose in places. Most original textures have been destroyed. There is strong quartz-sericite-chlorite alteration and the rock is weakly to moderately calcareous. Some kaolinite also occurs and schistose zones have a secondary mica sheen on foliation surfaces. The rock contains minor amounts (3%) of disseminated pyrite and weathers to orange-brown. Most of the mapped extent of this unit on the claims is composed of small, flakey talus, with only a few bedrock outcrops. The unit continues to the west where it forms gossanous outcrops near the headwaters of Goldway Creek.

(vi) Hornfelsed Andesite Tuff (1e)

The andesitic tuffs have been weakly hornfelsed in a 500 by 700 metre zone, surrounding a small dioritic plug in the northwest corner of the property. The rocks in this zone vary from fine to medium grained, grey-green andesite to very fine grained, medium to dark grey with faintly relict feldspar crystals. The hornfelsed rock is very hard, slightly pyritic (up to 2%) and in places weakly magnetic, with

moderate iron staining. Small sections of the faulted rock contain up to 10% augite crystals, however, the dominant rock type is feldspar crystal tuff. Whether or not this is a separate unit or part of the Lower or Upper andesite tuff is unclear.

(vii) Limestone Breccia and Tuff (Unit 2)

This unit contains sections of andesitic crystal tuff interlayered with tuff-breccia layers containing highly deformed dark grey limestone lenses and fragments. The limestone content varies from 5% to 40% with fragments up to 1 metre in size. Some limestone-rich sections contain fossils and fossil fragments including brachiopoda shells and Upper Triassic ammonites (Monger 1977). Thin layers of argillite are also present.

The limestone unit outcrops at several localities; on the small ridge directly west of Divide Lake, in a few small outcrops south of West Lake, in the northwest corner of the property and in the central part of the ridge on the north side of the property. In the two eastern exposures, the unit overlies the altered andesite unit (1c), within or at the

base of the upper andesite tuff (1a), whereas, in the northwest corner, it underlies unit 1c. It is unclear if there is more than one limestone bearing unit, or whether structural complications have affected the stratigraphy. Thickness and lateral extent of the unit varies and is largely unknown due to spotty outcropping. It is not intersected in drill holes.

b) Intrusive Rocks

(i) Augite Porphyry Dykes (Unit 3)

Augite porphyry dykes of andesitic to basaltic composition occur throughout the property with  $\leq 1$  metre widths. Augite phenocrysts range from 1 to 4 mm across. The dykes intrude all Takla rocks, but not other intrusives. They are believed to be Takla in age and are present but not abundant within the augite-rich upper andesite tuff (1a).

(ii) Feldspar Porphyry Dykes (Unit 4)

A few feldspar porphyry dykes of intermediate composition occur throughout the KLI claims. The dykes are medium grey-green, less than 10 metres wide and have euhedral to subhedral feldspar

phenocrysts in a fine grained matrix. Most phenocrysts are 1-4 mm in size, however, larger phenocrysts up to 10 mm are present in a dyke in the north-central part of the claims. The feldspar porphyry dykes intrude all the Takla rocks and their similarity in composition suggests that they too are comagmatic dykes.

(iii) Diorite (Unit 5)

Small stocks of diorite which are probably Jurassic to mid-Cretaceous in age intrude the KLI volcanic stratigraphy. In the northwest corner of the property, there is a 200 x 75 metre diorite outcrop composed of 50% to 60% feldspar, 30% hornblende, minor augite and biotite and 5% to 10% interstitial quartz. The rock is medium grey, weakly magnetic with minor disseminated pyrite and weathers pale brown. There are abundant volcanic inclusions at the contacts which are also present up to 30 metres into the intrusive, suggesting forceful emplacement of the magma. Minor flow banding occurs at the outer edge.



Mafic minerals are strongly chloritized. Minor epidote occurs within the matrix and some fractures have sericitic envelopes with coarse disseminated pyrite and magnetite.

A number of dioritic dykes of similar composition transect the Takla rocks adjacent to the main stock and are probably offshoots from it. The size of the hornfels zone suggests that the intrusion increases in size at depth.

(iv) Hornblende Diorite (5a)

Along Lay Creek there is a 20 metre outcrop of hornblende diorite which contains 25% to 35% euhedral hornblende phenocrysts (to 8 mm), in a feldspar-rich matrix. It has minor pyrite and is weakly magnetic. The rock weathers to medium grey and forms small, blocky talus. A 20 metre section of diorite having similar composition was intersected in DDH KL-15.

(v) Minor Dykes

A number of minor dykes of various composition also occur on the property which include:

- a) A 0.5 metre wide biotite-quartz porphyry dyke at 67+35E, 66+20N. It has widely scattered quartz phenocrysts (5 mm) and biotite phenocrysts (2 mm) in a fine grained matrix of pinkish orthoclase, minor plagioclase and quartz.
- b) Andesitic to basaltic dykes which are fine grained to aphanitic, medium to dark green and less than <1 metre thick are found in the drill and on surface. These dykes are presumed to be of Takla age.
- c) Aplite dyke rubble occurs along Lay Creek near 70+65E, 60+40N. Blocks up to 2 metres across are found for 15 metres in a north-south direction. The rock is light brownish to white, aphanitic, and very hard.
- d) A mica lamprophyre dyke occurs within a fault zone in drill hole KL-11. It has scattered biotite and minor hornblende phenocrysts in a feldspar-rich, light brown matrix.

c) Ferricrete Zone

Along the banks of Lay Creek a ferricrete layer contains rounded, multi-lithic clasts cemented with very iron-rich clay and soil. The layer is up to 2 metres thick, flat lying and appears to blanket the underlying bedrock. It is probably a coarse glacial till cemented by ferruginous fine sediments in a groundwater emergent zone. As it is not a rock unit, the ferricrete was not outlined on the geology map. However, its presence may affect surface geochemistry in the area.

2. Structure

Very fine structural orientations were obtained from outcrops containing limestone and argillite pods (Unit 2), which are somewhat disoriented and may not reflect true structural trends. In the eastern part of the property rocks generally strike southeast and dip moderately northeast. In the central area dips are moderately to the west and in the northwest corner the rocks strike southeast and dip moderately northeast. Although some large scale folding is suggested by outcrop patterns, little fold deformation was observed on a smaller scale other than soft sediment deformation in the limestone clasts of unit 2.

Shear zones having variable orientation are particularly notable in the altered andesite tuff unit (1c). On the north-central ridge, shear foliation commonly strikes east-west and dips steeply to the north. In the northwest corner of the claim, the shear direction trends southeast-northwest with moderate to steep northeast dips.

A major fault trends north from Kliyul Creek through Divide Lake and has apparently uplifted the northeast side. Offsets in the gossanous altered andesite unit (1c) on the north ridge suggest a series of faults that downdrop the eastern end of the ridge. In the eastern block the altered tuff (1c) dips easterly beneath the talus and possibly reflects the anticlinal structure which trends north from Kliyul Creek.

### 3. Alteration and Mineralization

The rocks on the Kli claims have all undergone regional greenschist metamorphism, resulting in chloritized mafic minerals and weakly to moderately sericitized feldspars. Propylitic alteration (epidote-quartz-calcite) overprints the chloritic alteration and is common in units 1a and 1b as stringers and is pervasive in the wallrocks. In addition, quartz-sericite-pyrite alteration occurs pervasively in unit 1c and is apparently related to ductile shearing.

Mineralization discovered on the property occurs in three ways; in magnetite-rich skarn; in auriferous quartz veins; and rarely, in shear zones within the altered andesite unit.

a) Magnetite Skarn

The most significant mineralization discovered on the property is in a 200 x 100 metre zone of magnetite-rich skarn that shows up as a pronounced, sinuously shaped, magnetic anomaly. The skarn horizon occurs within the lower andesite tuff (1b). Magnetite is a very fine grained replacement of andesitic tuff and occurs less commonly in stringers. It is associated with moderate to strong silicification and more widespread weak to moderate epidote and chlorite alteration. Calcite is not common and no calc-silicate minerals typical of skarns were observed.

Drill hole data (Appendix 1) indicates that magnetite-rich rock is confined to only one zone. Strong alteration masks original rock textures, but the host rock appears to have been originally an andesitic feldspar crystal ash tuff. Drill hole intersections of skarn range from 5 to 65 metres in width. Mineralization is hosted by less altered andesitic feldspar porphyry and crystal tuff. The feldspar

porphyry unit has variable silicic and epidote alteration with weak to moderate epidote-quartz stringers. In deeper sections quartz-sericite and quartz-chlorite alteration are more common. The three deeper holes, KL-17, 18 and 19, have an andesitic ash tuff with gypsum stringers on one side of the magnetite-rich layer.

Orientation of the stratigraphy in the area of the skarn is difficult to ascertain due to sparse outcrop and destroyed core contacts. Thus, it is unknown whether the magnetite-rich layer is stratigraphically controlled as a favourable skarn horizon, or structurally controlled as a crosscutting replacement feature.

Gold is enhanced throughout all of the drill core within the magnetite anomaly, but economically significant mineralization occurs only within the magnetite-rich layer. Copper occurs as disseminated and stringer chalcopyrite. No visible gold or silver was observed, but a mineralogical study found rare native gold in extremely fine (0.5-1.0 micron) grains enclosed in chalcopyrite and pyrite (Gasparinni 1981).

Intersections near the edge of the magnetic anomaly (KL-19 and KL-13) and in deeper zones (KL-17, KL-18 and 19) show weaker gold values than those in the centre of the anomaly. Therefore, it appears that significant mineralization within the main anomaly does not extend laterally or vertically beyond the area outlined.

b) Quartz Veins

Quartz veins up to 2 metres wide are found at various localities on the property, but not in abundance. They contain up to 5% pyrite and minor chalcopyrite. Sporadic gold values up to 1 oz/ton are also present but generally much lower values were obtained.

A few radiating quartz veins occur in the vicinity of both of the small diorite stocks. Other quartz veins which occur in the eastern part of the property are not obviously associated with intrusive rocks, however, as most of the area is till covered, the nature of veining and potential mineralization is not revealed. In any case, the sporadic nature and limited extent of vein mineralization throughout the property suggests that quartz veins are poor individual exploration targets, however, if found to be present with significant vein density, they might collectively offer potential.

c) Shear Zones (Altered Andesite Tuff)

Only minor gold and copper enrichment was found in the altered andesite tuff (1c), except within two shear zones. The highest values returned from a shear was 3800 ppb gold (1 metre). A high copper value of 3265 ppm over 3 metres was obtained from a sheared feldspar porphyry dyke which cuts the altered tuff. Generally these results concur with the sampling results reported elsewhere in the area where the same, or a similar unit was sampled on the SOUP claims. Although the tuff is enriched in pyrite and has intense gossanous alteration it does not appear to offer significant gold potential on the KLI property.

GEOCHEMISTRY

Geochemical investigations were undertaken on the KLI claims to sample all drill core not previously sampled, to check drill core grades from previous work, and to attempt to locate the source of high gold soil anomalies from a soil grid completed in 1981 by Vital Resources Limited. A total of 269 drill core, 49 rock chip and 2 soil samples were analyzed (Figure 4).

1. Drill Core

Within the main magnetic anomaly all drill core not previously analyzed was split and sampled in 3 metre lengths. One previously sampled hole, KL-17, was 1/4 split and also sampled in 3 metre lengths.



Almost all of the newly sampled core showed minor gold enhancement, but only a small number of samples had greater than 300 ppb Au. Four samples in KL-19 had values in excess of 300 ppb Au in the interval from 72 to 105 metres, which shows the strongest enrichment (890 ppb Au) in the 102 to 105 metre interval.

No new mineralized zones were obtained in hole KL-18 which returned three samples greater than 300 ppb Au. One of these was a resample of previously sampled core, with a second anomalous value adjacent to it. The third sample (350 ppb Au) is in the uppermost interval of the hole.

In KL-16 one sample at 21 to 24 metres returned 985 ppb Au with lower values in adjacent core.

Hole KL-7 was resampled with lower but generally consistent values with those reported earlier. The new results outline a mineralized interval from 35 to 56 metres, grading 0.07 oz/ton gold. Previous results indicate a mineralized interval from 34 to 55 metres, grading 0.08 oz/ton gold. Differences in results may perhaps be due to differing analytical techniques as well as difficulties experienced in obtaining representative samples from previously split core. Other sections that were resampled from previously split core in KL-18 had comparable results to the former work.

Drill core from outlying holes, KL-9 through 12, 14 and 15 were sampled by taking one sample from each box of core. One quarter of the core in each box was split. None of the samples from these holes had gold values in excess of 100 ppb and most were at the detection limit (5 ppb).

## 2. Rock Chip and Soil Samples

Three continuous rock chip sample lines were placed to sample representative sections of the altered rocks (Figure 4). Most samples were taken over 10 metre intervals. The first line extends northward from the base of outcrop on line 65E; the second is through hornfelsed tuff on line 52E and the third extends down a depression through gossanous outcrop between lines 46E and 47E along the north side of the property. In addition, a few selected samples were taken from quartz veins and adjacent wallrock from limestone and argillite (Unit 2) and from the altered andesite tuff (1c). A few sampled veins and wallrocks returned enhanced gold values. The highest sample from a one metre wide vein at 54+00E, 68+10N was 30,600 ppb Au. All remaining vein samples had less than 400 ppb Au.

One sample of the altered andesite tuff (1c) analyzed 3800 ppb Au (sample 873001). It was taken from a one metre

interval across a shear zone. Two other samples from this unit returned 375 ppb (873002) and 115 ppb (873037). All the remaining samples from this unit had low values. A sheared feldspar porphyry dyke within the altered andesite had some localized copper enhancement, (sample 873047 at 3265 ppm Cu). One other sample from a pyritic andesitic tuff along Lay Creek at 69E had minor malachite staining and 375 ppb Au. All other rock chip samples had trace to very minor gold values.

Two soil samples (873033 and 873034) were taken from the clay-rich matrix of the ferricrete layer overlying bedrock along Lay Creek to determine if it could be responsible for high soil gold values found close to the creek. The samples returned had 55 ppb and 85 ppb Au, respectively. This suggests that soil samples taken from this layer may show some till-derived gold enrichment, however, the ferricrete layers may conceivably be blocking even higher values from the bedrock material below.

REFERENCES

- Bradley, M.D., 1984. Geological Compilation Report on the Kliyul Creek, B.C. Cu-Au Play. Unpublished BP-Selco Report.
- Carter, N.C., 1983. Report on Soup and Klisum Mineral Claim Groups of Vital Resources Limited, Omineca Mining Division, British Columbia, Unpublished company report.
- Gasparinni, C., 1981. Study of Gold Distribution in a Sample of Sulphide Concentrate, Minmet Scientific Ltd., Report No. 229.
- McTaggart, K.C., 1965. Geology of the Soup Mineral Claims, Nos. 1 to 10 and Soup Fraction, B.C.D.M. Assessment Report No. 675.
- Monger, J.W.H., 1977. The Triassic Takla Group in McConnell Creek Map-Area, North Central British Columbia, G.S.C. paper 76-29.
- Smit, H.Q. and Meyers, R.E., 1984. Assessment Report of the 1984 Geological and Geochemical Exploration Program on the Soup 8-84 Claim Group. BPVR 84-15.

APPENDIX 1  
DIAMOND DRILL LOGS

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
									Hole previously split and sampled.	
0	6.7	Overburden								
6.7	15.8	Andesite	Med.	Fine	Ppy,	Qtz		50-100	Andesite feld ppy; fine grain; mod. to strong silicic alt. has resulted in a very mottled texture; ppy texture often masked by alt. but where visible there is 40% 1 to 2 mm white to pale green (saussuritized) feldspar in a fine grain matrix; minor chloritized mafic xtals; - mafics chloritized; feldspars seritized; mod. to strong qtz alt; v. minor qtz stringers; weak epidote alt. and minor epidote stringers; moderately magnetic; <1% diss pyrite; trace diss cpy. (6.7 to 15.8) Fe-staining on fractures; v. minor malachite → Oxidat. zone (6.7 to 7.7) rock quite light coloured → bleached.	
		Feld Ppy	Grey-		Mottled	Chlorite				
			Green		Alt.	Epidote				
						Sericite				

SELCO		EXPLORATION WESTERN CANADA		DRILL LOG				HOLE NO. .... KL-5 .....	
DRILLING CO.	LOCATION SKETCH	DEPTH	TESTS DIP ANGLE	AZIMUTH	DATE STARTED:	August 13, 1984	PROJECT:	KL1	
		COLLAR	- 55	060°	DATE COMPLETED:	August 16, 1984	N.T.S.:	94D/B	
					COLLAR ELEV.:	1748 m	LOCATION:	KL1 6 Claim	
					NORTHING:	4S 59+70N			
					EASTING:	10+75W 64+92E			
					AZIMUTH:	060°			
					DEPTH:	82.9 m	DATE LOGGED:	September 18, 1984	
HOLE TYPE					CORE SIZE:	B.Q.	LOGGED BY:	Hans Smit	

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
15.8	41.0	Andesitic	Dark	V. fine	Alt.	Qtz	Cpy	50-100		Andestic Tuff; dark green-grey; variable unit; some very fine grained; some fine grain to ppy texture; and minor what looks like lapilli → but could actually be alt. blebs. Due to the very variable nature of the rock have called it a tuff → but it is possible that it is feld ppy that has been highly, and variably altered → it is same unit as other And. magnetic tuffs in other holes.
		Tuff	Grey-	to	Veining;	Chlorite				- mod. to generally strong qtz alt.; mod. intensity of qtz and greyish qtz (alteration) stringers (where part of host rock remains along stringer intimately mixed with qtz); stringers at various orientation to C.A.
		(Magnetic)	Green	Fine	Blotchy;	Epidote				- mod. epidote alt. and stringers; epidote stringers cross-cut qtz and lie in centre of qtz stringers
					Ppy	Magnetite				- mafic component chloritized
										- strongly magnetic due to very fine grain disseminated MGT and some coarser MGT on fractures
										- v. minor hematite staining on fractures
										- pyrite 1 to 2%, disseminated; with rare pyrite stringers and with qtz stringers
										- cpy 1% with pyrite and rarely by itself
										21 m) An increase in py/cpy stringers (still minor) has resulted in 1 to 2% cpy now (2% pyrite) continues till 25 m when cpy goes back to 1% and pyrite 1 to 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
										25 m) Qtz stringers decrease in abundance, only minor amnts after this; epidote has also decreased some (now weak to mod. amnts.) no longer any hematite on fractures.
										31.2 m) 15 cm of small rubbly core; quite pyritic; only 75% recovery in the interval which it is in, so seems to have lost core here.
			Med. to Dark Grey- Green							32 m) MGT content decreasing; now mod. to occasionally strongly magnetic; only v. minor Qtz veins/stringers left; still mod. to strong pervasive Qtz alt. however; core lighter in colour but still mottled dark grey-green spots.  - cpy now only ~0.2%; pyrite 1%.
										34.6 m) 30 cm of rounded core of light grey highly silicic and pyritic rock 1% to 10% pyrite; only weakly magnetic.
41.0		Andesite	Med. Grey- Green	Fine	Mottled	Qtz Epidote Chlorite	Cpy	100-500		Andesite, fine grained, med. grey-green, some looks igneous, some look tuffaceous so unknown which it is, or possibly both; no sharp contact within however; quite altered and mottled but can sometimes make out original texture which is fine grained, fairly equigranular with up to 20% mafics; rest feldspars and v. fine matrix; sometimes crystals are quite anhedral and rock looks like possibly a tuff, however generally looks more igneous.
						⇒ equivalent to bottom of K11 8				



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
										- mod. qtz alt.; mafics chloritized; only v. minor stringers; mod. epidote alt.; pyrite 1 to 2%; cpy v. minor; rock still moderately magnetic due to very finely diss. MGT.
										→ core recovery and quality is much poorer; mostly core is in small, sometimes rounded, pieces.
										55 m) Decrease in MGT; now weak to moderate.
										(64.0 m to 64.5 m) Light grey silicic rock with 3% diss. py and 0.5% diss. cpy,
										- core in very small, rounded pices from here to 66.1 m; only 60% recovery in 2.5 m interval in which it is in.
										(65.8 to 66.6 m) More light grey siliceous rock with 3% pyrite; rubbly core; core now only occasionally weakly magnetic; epidote also in small amounts.
(69.5	72.2)	Augite Ppy Dyke	Med. Green	Fine	Massive; Ppy	Chlorite Epidote		10-25		Augite ppy dyke; basaltic to andesitic; fine grain, med. green with 5% up to 3 mm augite crystals.
										- mafics chloritized
										- minor epidote alt.; minor calcite stringers
										- occasionally weakly magnetic; now pyritic
										- v. minor hematite on fractures
										- good core recovery in contrast to the rubbly,



EXPLORATION  
WESTERN CANADA

# DRILL LOG

HOLE NO. KL-5





SELCO		EXPLORATION WESTERN CANADA		DRILL LOG				HOLE NO. .... KL-6		
DRILLING CO.	LOCATION SKETCH	DEPTH	TESTS	AZIMUTH	DATE STARTED	August 16, 1984	PROJECT	KL1		
		COLLAR	- 50	180°	DATE COMPLETED	August 17, 1984	N.T.S.	94D/B		
					COLLAR ELEV.	1748 m	LOCATION	KL1 6 Claim		
					NORTHING	45				
					EASTING	10+75W				
					AZIMUTH	180°				
HOLE TYPE					DEPTH	78.9 m	DATE LOGGED	September 5, 1984		
					CORE SIZE	B.Q.	LOGGED BY	Hans Smit		
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	6.84	Overburden							Overburden	
									Note: core previously split and sampled.	
6.84	39.25	Andesite	Med. to	Fine	Ppy	Qtz	Cpy	50-100	Fine grained andesite feldspar-porphyry, 30 to 50% 2 mm and smaller; rarely up to 3 mm very pale green feldspar phenocrysts in an aphanitic to v. fine grain med. to dark grey-green matrix; <5% augite up to 1 mm	
		Feld - Ppy	Dark	to Med.	Mottled	Epidote			- mafics partly chloritized; feldspars saussuritized (weakly).	
			Grey-		Stringers	Chlorite			- moderate to in places strong silicic alt. resulting in a 'mottled' texture	
			Green		Alt.	Calcite			- minor Qtz stringers and v. minor calcite stringers; also occasional weak calcite alt	
						Sericite			- rock occasionally slightly magnetic till 13.3 m and then most of core is slightly to moderately magnetic below this point; at least in part due to disseminated MGT. xtls up to 2 mm (may also be some v. fine in stringers with epidote)	

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L with C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
											- minor to occasionally moderate epidote stringers and occasional epidote specks in rock (stringers multi-directional).
											- pyrite (<1%; diss. in rock and occasionally concentrated along fractures.
											- cpy; trace in occasional small specks; (6.84 to 11.6 m) core more fractured; leached; iron stained ⇒ oxidation zone; also minor malachite staining (with traces still found below this zone).
											- epidote stringers observed cutting qtz alt.; but also qtz stringers observed cutting epidote stringers.
											- some variation in andesite (i.e. amt. and size of feld. xtls) occurs but generally very similar. Slight variations could be due to flow banding or different flows; no definite contacts (flow brxx, chill zones, etc.) observed.
									Qtz/MGT vein 70°		- at 23.35 m start getting v. minor hematite staining on fractures; increases some down core.
											- 29.8 m 7 mm vein with qtz top half; MGT. Bottom half cuts core a 70° to C.A. Rock has increased in magnetism; almost all core is at least moderately magnetic and some is highly magnetic ⇒ much is very fine grain alt. in rock (darker colour to rock). ⇒ often helps give it a mottled or blotchy appearance.
									Qtz 50° to 60°		- some increase in amount of qtz stringers (up to 5 mm, generally at 50 to 60° to C.A.); some contain minor cpy.

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
										total amount of cpy has increased but still <<0.5%; pyrite has increased some too but is also <1%. ⇒ Qtz stringers not always 100% Qtz but stringers where most of the rock is Qtz ⇒ (alt. stringers) ⇒ generally light grey colour; epidote stringers observed cutting Qtz stringers (i.e. by 33.0 m).
(32.8	33.53)	Andesite	Dark	V. fine	Mottled	Qtz	Cpy	50-100		A fine grain interval in the andesite; strong silicic alt.; highly magnetic; core looks very mottled and 'blotchy' due to Qtz alt. stringers, and elongated, highly irregular patches of variable epidote and magnetite alt.; can still see occasional feld. outlines but ppt texture lost; further down hole all the core is like this so probably some intertonguing with next unit here.
			Grey-		Veined;	Epidote				
			Green		Alt.	Magnetite				
(33.53	33.76)	Diorite to Basaltic	Med.	Fine	dyke		-	0-50		A medium green, fine grain dyke; dioritic to basaltic in composition, - it has some Qtz (<5%), is slightly porphyritic (Qtz and feld phenocrysts) with finer green matrix. - not magnetic, no Qtz stringers, no pyrite; post-mineralization. - at 35.4 m a 1 cm barren Qtz vein (milky coloured). - 35.2 m broken rubble of a magnetite-epidote-pyrite vein that was probably at least 1 cm wide. - 35.96 m cpy with calcite on a fracture.
			Green		PPY					

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
									- 37.4 m a pyrite-epidote stringer cuts an epidote stringer; qtz alt. envelope with some magnetite around the pyrite-epidote stringer.	
39.25	65.5	Andesite	Dark	V. fine	Mottled,	Qtz	Cpy	50-100	Fine grain andesite; possibly andesitic ash tuff.	
		Tuff	Grey		Veined	Epidote			- rock is aphanitic to very fine grained; dark grey-green in colour except for lighter grey qtz-alt. areas;	
			Green		Alteration	Magnetite			- strong qtz alt. moderate to strong qtz stringers which are light grey and only alter some of rock to qtz (60-70%); not always linear; often convoluted and irregular; sometimes just grey patches up to 2 cm wide.	
									- minor epidote stringers;	
									- calcite on a few widely spaced fracture surfaces;	
									- minor hematite staining on fracture surfaces;	
									- pyrite ~3%, minor diss. in rock but most in stringers with epidote and qtz and along fracture surfaces;	
									- cpy (0.5% to 1%) in stringers with epidote and qtz (and sometimes MGT); and along fracture surfaces;	
									- some zones up to 10 cm wide that contain up to 20% pyrite and 2 to 4% cpy in highly silicified rock (i.e. - 40.35 m).	
									- Around 44.0 m get some reduction in amnt. of qtz alt. and stringers; cpy still ~0.5% till 49.0 m.	
									{49.0 m to 52.45 m} less cpy (0.5%)	

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
(52.45	52.8)	Andesite	Med.	Fine	Ppy	Qtz				Fine grain andesite feldspar ppy; feld 50%, rest finer
		Feld Ppy	Grey-			Epidote				grained, medium grey-green, moderately to strongly
			Green			Magnetite				silicified; epidote specks; moderately magnetic (less so
										than surrounding rock; 1 to 2% py; assoc. with the qtz alt.
										=> this unit is pre-mineralization.
										(52.45 to 56.5 m) cpy 0.2 to 0.5%
										(56.5 to 58 m) cpy 0.5%
										- cpy drops after 58 m (to <0.2%).
(58.7	59.2)	Dyke	Light	V. fine	Stringers		Cpy			Very fine grain (waphanitic) light greenish grey rock;
			Greenish-							possibly a dyke(?), minor calcite and chlorite stringers;
			Grey							trace cpy in qtz/calcite stringers; weakly magnetic; py
										~1% disseminated => probably a light coloured pre-mineral-
										ization dyke; no contacts preserved; very fine grain =>
										makes it impossible to reduce composition.
										61.87 m - Epidote specks over 10 cm; can make out some
										feldspar xtls => abit coarser grained rock.
										- still minor cpy about (concentrated in a few fractures/ stringers).
										- rock still quite magnetic but less so than before.
										- no longer hematite on fractures.
										63.5 m - Most of core is in small often rounded pieces 2 cm
										and less in size from here to end of hole => hard to see texture, etc.





SELCO		EXPLORATION WESTERN CANADA		DRILL LOG				HOLE NO. KL-7		
DRILLING CO.		LOCATION SKETCH		DEPTH	TESTS DIP ANGLE	AZIMUTH	DATE STARTED:	PROJECT:		
				COLLAR	- 55		August 9, 1984	KL1		
				107	- 54		DATE COMPLETED:	N.T.S.:		
							August 11, 1984	940/8		
							COLLAR ELEV.:	LOCATION:		
							1737.4 m	KL1 4 Claim		
							NORTHING:			
							5+50S 59.15N			
							EASTING:			
							13+50W 64.13E			
							AZIMUTH:			
							060°			
							DEPTH:	DATE LOGGED:		
							107.3 m	September 16, 1984		
HOLE TYPE							CORE SIZE:	LOGGED BY:		
							B.Q.	Hans Smit		
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
										Note: from 9.14 to 83.0 m has been previously split and sampled.
0	7.92	Overburden								
7.92	72.5	Andesite Tuff (Magnetic)	Med. to Dark Grey Green	V. fine to fine	Mottled; Alt. Stringers	Qtz Chlorite Epidote Magn. Calcite	Cpy			Andesitic tuff; v. fine grain to fine xtl tuff; highly altered unit resulting in a mottled to blotchy appearance; occasionally can see original xtls, but generally later alt. has completely obliterated early texture ⇒ mod. to strong qtz alt.; minor to occasionally mod. qtz stringers. ⇒ mod. to strongly magnetic, due to v. fine MGT within rock. ⇒ mafics chloritized and chlorite along fractures. ⇒ v. minor calcite stringers and fracture coatings. ⇒ v. minor epidote alt. and stringers.

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
(7.92	9.0)									Only weak qtz and MGT alt.; can still see original 1 mm broken feld crystals, wear foliation at 8.3 m at 45 to 50° to C.A. outlined by elongated 1 mm and smaller mafics that make up 5% of rock; mod. calcareous (more than lower core).
										Note: from 9.14 on core previously split, till 30 m it is mostly in very small pieces and thus hard to see details.
(7.92	10.7)									Fe stained fractures → oxidation zone.
(9.14	10.36)									Only 25% recovery.
(10.9	11.2)	Altered and	Light		Shear					30 cm light grey to light grey-green sheared rock with 3 to 5% diss. pyrite; non-magnetic → shear zone within the andesite tuff.
			Grey		Foliation					- at 11.2 m get into main tuff unit; pyrite only minor (0.5%); v. minor cpy (maybe ~0.2%).
										(19 to 22 m) cpy 0.5% in this interval, back to 0.2% after 23 m) epidote disappears.
										(22.55 to 23.16) only 55% recovery in this interval; core rounded and in very small pieces; pyrite 2 to 3% in interval.
										(23.16 to 23.75 m) lighter grey-green rock; fine grain; altered; highly siliceous; only weakly magnetic; 5% diss. pyrite.

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS	
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE			L. with C.A.
											24.0 m) start getting minor hematite staining on fractures. Note ⇒ original log notes native cu film on fractures. ⇒ probably mistook hematite for native cu tarnish. Cpy up to 0.2 to 0.5%, diss. in rock and occasionally within qtz stringers.
(25.0	26.1)	Andesite	Light	V. fine	Alt.	Calcite	Cpy				In this interval tuff is lighter colour, grey with some brownish-grey patches and minor yellow-brown to β-brown stringers; more pyrite (5%) than surrounding rock; still mod. to strongly magnetic; not foliated or sheared like qtz-carb alt. usually is; weakly pervasively calcareous; cpy ~ 0.2%; strong qtz at.; alt. and very discontinuous stringers, MGT, etc. has resulted in a very blotchy, mottled texture (25.8 m) 2 cm barren qtz-carb vein.
		Tuff	Grey to Brownish-Grey		Blotchy	Qtz					
						Chlorite					
						MGT					
									Qtz-carb vein 45°		
(27.4	28.4)	Basaltic to Andesitic	Dark Green	V. fine	Massive	Chlorite					A very fine grain basaltic to andesitic dyke, dark green; can make out occasional < 0.5 mm feld crystals but mostly too fine grain to see xtls; weak chlorite and calcite alt.; minor calcite stringers; weakly magnetic due to finely diss. magnetite; trace diss. pyrite also a trace of cpy, indicating that this is a pre-mineralization dyke (that would not get highly altered due to its tight, fine grain, texture).
		Dyke				Calcite					



INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L with C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
											From (38.6 to 42.4) m get 2 to 3% py; occasionally up to 5% along occasional qtz stringers that are generally at low L's to the C.A.; one 8 mm qtz vein running parallel to the C.A. runs along one side of core from 40.34 to 40.84 m; cpy ~ 0.5% in this interval.
											- At 42 m the rock becomes dark green-grey throughout again except for strong qtz alt. stringers and veining (where only part of rock in stringer/vein is qtz, rest is still most rock) which are light grey. These discontinuous and spotty stringers and veins up to 1 cm are most commonly at low angles to the C.A., but occasionally are found up to 45° to C.A.; all the rock is now highly magnetic; still a few minor light $\beta$ -B weathering stringers; also minor hematite staining on fractures continues. At 47.5 m the old log notes native Cu again but suspect that hematite was mistaken for Cu stain.
											- pyrite is 2%; cpy 1%.
(43.0	43.7)	Andesitic to Basaltic Dyke	Dark Green	V. fine	Massive Stringers	Chlorite Qtz					Andesitic to basaltic very fine grain, dark green dyke; mod. intensity of calcite stringers and alt. stringers; mostly at low L's to C.A.; weakly magnetic.
											47.8 m) Qtz-MGT vein; v. fine grain with pyrite in middle and 3% diss. cpy within cuts one side of core ~ 5° to C.A.

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L with C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
											49.8 m) Specular hematite → 15% on a qtz veinlet (3 mm wide) that also has 3 to 5% cpy and 5% pyrite; vein at 5° to C.A.
											(54.0 m to 54.9 m) Qtz-pyrite vein; white to light grey qtz with; 40% coarse diss. pyrite; non-magnetic.
(54.9	57.7)	Altered and/Dacite	Pale brownish-green	V. fine	Alt., Veining, Shearing	Qtz, Chlorite, Sericite, Calcite			Shear 5-15°		Altered and/Dacite; v. fine grain; light brownish green colour; somewhat sheared at 5 to 15° to C.A.; mod. to highly siliceous; minor qtz alt.; minor chlorite and some sericite (soft parts); mod. intensity of qtz stringers; some having light yellow brown coatings, - pyrite 2 to 3% finely disseminated. - non magnetic, no cpy.
											57.7 m Back into the grey-green andesite tuffs; mod. intensity of orange to yellow brown weathering stringers at first but decrease to minor amnts. by 59 m; some of rock is only med. grey-green and a little less magnetic, but generally still strongly magnetic; - noticeably less pyrite and cpy than 42 to 54 m; 1 to 2% pyrite; 0.2 to 0.5% cpy.
(62.9	64.8)	Andesite Dyke	Med. Grey-Green	V. fine	Blotchy	Qtz, Chlorite, Calcite					Andesite dyke; v. fine grain; med. grey-green with greyer qtz-rich patches; mod. to strong qtz alt; mafic component chloritized; minor calcite in stringers; pyrite

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	with C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
											<1%, non magnetic, no cpy; => believe a dyke since non-magnetic interval.
											64.8 m) Back into the magnetic tuff; all tuff strongly magnetic now and a bit more cpy (0.5%) than the interval from 57.7 to 62.9 m; pyrite still 1 to 2%.
											68.6 m) Magnetite content drops suddenly; only weakly magnetic now; rock med. grey-green; cpy 0.2 to 0.5%.
											72.5 m) Magnetite disappears; as does cpy.
72.5	90.0	Andesite Tuff	Med. to Light Grey-Green	V. fine to fine	Mottled	Qtz Chlorite Sericite	Cpy				Andesitic tuff; med. to light grey-green; very mottled and blotchy due to variable qtz alt.; some areas have speckled darker green chlorite particles => altered mafics probably; rock highly altered and any original texture lost; mod. to strong qtz alt.; mafic component chloritized; very minor calcite; no hematite left; 1 to 2% diss. pyrite; trace diss cpy; except for a few weakly magnetic spots; non-magnetic.  Note => this may be the same original rock as the darker-grey-green magnetic andesite of darker core without the magnetite alt.  - Very minor qtz, stringers; do not get the grey qtz 'alt.' stringers of the last unit.



INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS	
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L with C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
79.5	81.5		Brownish			Qtz					- Rock is a light brownish-grey with streaky green (chlorite); looking somewhat dacitic again; streaky chlorite specks outline a weak foliation at 30° to C.A.; still mod. to strongly silicic; some softer rock probably due to seritized feld. component; pyrite 2% finely diss.
			Green-			Sericite					→ This rock is probably an alteration of surrounding tuff unit; (possibly a leaching of mafic component with minor shear). At 81.5 m rock becomes somewhat greener again; still a weak foliation at low L's to C.A. shown by streaky chlorite; pyrite 1% of rock; no cpy observed.
			Grey			Chlorite			Foliation 30°		
									Py-MGT vein 60°		83.8 m) A 4 mm pyrite-MGT vein cuts core at 60° to C.A.
											86 m) Start getting minor β-B weathering Qtz-carb. veins and stringers; most are discontinuous and of highly variable thickness and direct with; rock is becoming occasionally slightly magnetic; at least in part due to minor MGT-pyrite stringers; amnt. of sericite overall increased (rock a bit softer and whole) but still mod. to strong Qtz alt.
											Note: from 85 m on rock not previously split or sampled.
											→ This unit is close to the andesitic to dacitic altered tuff but is still andesitic (not as altered as some to dacitic looking rock)

INTERVAL		ROCK TYPE	DESCRIPTION						L with C.A.	STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE			
90.0	107.3	Sheared	Light	V. fine	Foliation	Qtz		100-500		Sheared andesitic to dacitic altered tuff; possibly tuff-aceous argillite; light grey-green to brownish green; v. fine to occasionally fine grain; moderately sheared and foliated; highly altered (and thus original textures obliterated); foliation is at 60° to C.A. at 90 m. - Mod. Qtz alt.; strong pervasive pale green-grey chlorite; variable sericitic alt. resulting in softer core in places; a few places have minor kaolinite; v. minor calcite. - Minor β-B weathering stringers to 99 m; v. minor Qtz veining (white, barren). - Pyrite, fairly coarse grain, disseminated 1 to 2%; no cpy observed. - A few rare cpy-MGT stringers.  Rock varies from a mottled grey-green andesitic rock to a pale brownish-grey, silicic dacite. The dacite looking rock has more pyrite; contacts between intervals of these rock types are gradational, the dacitic is more sheared; believe that these are just alt. of original andesitic tuffs (sheared, silicified and mafics leached). - Possibly the original rock was an andesitic tuff-aceous argillite?  Qtz vein 91.1 m) A 1.5 cm barren Qtz vein cuts C.A. at 30°.	
		Altered and	green-	to fine	Shear	Chlorite					
		to Dacitic	grey to		Alt.	Sericite					
		Tuff	brown-			Kaolinite			Foliation		
			grey						60°		





PREVIOUSLY SPLIT

54.

SELCO		EXPLORATION WESTERN CANADA		DRILL LOG				sample data				
SAMPLE				CORE RECOVERY		VISUAL ESTIMATES (% ORE MINERALS)	GEOCHEM RESULTS					
NUMBER	FROM	TO	TOTAL METRES	Sp Gr	%		AMT. LOST	Au (ppb)	Cu (ppm)	Ag (ppm)		
871201	7.92	11.0	3.08		87	13	1/2 split	50	480	0.5		
871202	11.0	14.0	3.0		41	59	"	80	704	0.6		
871203	14.0	17.0	3.0		75	25	"	65	765	0.6		
871204	17.0	20.0	3.0		100	Nil		135	1312	0.8		
871205	20.0	23.0	3.0		82	18		375	3165	2.1		
871206	23.0	26.0	3.0		100	Nil		280	1496	1.5		
871207	26.0	29.0	3.0		100	"		290	1602	1.9		
871208	29.0	32.0	3.0		100	"		220	1093	1.3		
871209	32.0	35.0	3.0		100	"		450	1690	1.8		
871210	35.0	38.0	3.0		100	"		2780	905	1.7		
871211	38.0	41.0	3.0		100	"		2100	2068	3.9		
871212	41.0	44.0	3.0		100	"		2000	1036	1.1		
871213	44.0	47.0	3.0		100	"		540	1927	1.6		
871214	47.0	50.0	3.0		100	"		850	2885	2.8		
871215	50.0	53.0	3.0		100	"		2210	3611	3.3		
871216	53.0	56.0	3.0		100	"		6160	2910	7.8		
871217	56.0	59.0	3.0		100	"		320	538	1.8		
871218	59.0	62.0	3.0		100	"		275	972	1.0		
871219	62.0	65.0	3.0		100	"		225	632	0.7		
871220	65.0	68.0	3.0		100	"		640	2033	1.5		
871221	68.0	71.0	3.0		100	"		490	684	0.7		
871222	71.0	74.0	3.0		100	"		95	270	0.7		
871223	74.0	77.0	3.0		100	"		60	343	0.4		
871224	77.0	80.0	3.0		100	"		70	328	0.5		
871225	80.0	83.0	3.0		100	"		90	416	0.9		



INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS	
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L. with C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
10.8	58.0	Andesite	Med.	Medium	Ppy	Qtz		50-100		Andesite feldspar ppy; medium grain, med. grey-green colour.	
		Feld-Ppy	Grey-			Chlorite				- white to v. pale green feld. make up 60 to 70% of rock,	
			Green			Sericite				rest is fine grained green matrix.	
						Calcite				- mafics chloritized; feldspars somewhat soft so weak	
						Epidote				sericite alt.;	
										- rock is massive, unfoliated.	
										- weak to moderate silicic alt. (occasionally strong	
										over a few cm), minor qtz and calcite stringers.	
										- weak calcite alt.	
										- very minor epidote.	
										- minor diss. MGT results in weakly magnetic core.	
										- py ~ 1% diss. in rock and along fractures; rare traces	
										of cpy (i.e. 13.51 m).	
										(14.05 to 14.35 m) Zone of strong silicic alt. that has	
										5% diss. pyrite.	
										(16.52 to 16.62 m) Similar zone, 5 to 10% pyrite.	
										18.2 m) Pyrite and chlorite in a fractured grey qtz vein	
										(replaces the qtz).	
										- 18.0 m get very minor hematite staining on fracture	
										surfaces.	
										- getting slightly more mafic rock and some (<5%)	
										chloritized mafic phenocrysts (augite?) that are 1-2 mm long	

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
										(22.0 to 24.3 m) Somewhat more epidote, but still minor.
										25 m Getting some elongated chloritized crystals up to 1 mm which are probably held; ~2% of rock, still some less elongated which may be augite.
										28.35 5 mm cpy bleb in qtz alt. ⇒ still traces of cpy in rock.
										37.3 m Epidote stringers and alteration increase in intensity some, (up to occasionally moderate) no longer hematite on any fractures.
								Qtz/cpy veins 40°		38.6 m 2~4 mm qtz veins with 25% cpy cut core at 40° to CA.
										39.52 m ⇒ From here on core has been previously split and sampled pyrite (disseminated) sometimes up to 2% of rock now; still traces of diss. cpy.
								Qtz vein 75°		40.6 m Another qtz vein with ~15% cpy; >5 mm; cuts C.A. at 75°.
										52.4 m Rock becomes finer grained.
										56.4 m A few widely spaced pyrite stringers occur; pyrite increases to 3 to 5% of rock; perceptible increase in cpy.



EXPLORATION  
WESTERN CANADA

# DRILL LOG

HOLE NO. KL-8





EXPLORATION  
WESTERN CANADA

# DRILL LOG

HOLE NO. XL-8

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS	
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L with C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
58.0	128.3	Andesite	Dark	Fine to	sometimes Ppy,	Qtz.	Cpy	50-100			Andesite Tuff;
		Tuff	Grey-	V. fine	Mottled	Epidote					- v. fine to fine grain dark green grey andesite tuff;
			Green		Veining	Magnetite					varies from occasional and. feld ppy to an a very fine
					Alt.	Chlorite					grain andesite; highly variable rock, suspect a tuff;
						Calcite					rock is mottled due to variable mode rate to pervasive
											qtz alt.; feldspars weakly seritized, mafics chloritized;
											- rock is moderately to strongly magnetic, mostly due to
											very fine MGT diss. thru rock
											- moderate intensity of qtz and, 'qtz alt.' stringers
											- weak epidote alt. (but increases further down)
											- rare calcareous fractures
											- very minor hematite staining on fractures
											- pyrite 3 to 4% diss. in rock, along fractures and
											especially in areas of pervasive silicic alt.
											- cpy 1%, generally assoc. with high silicic alt.
											- some minor possible pyrrhotite
											Note: This unit is same as MGT rich silic and. tuff
											found in other holes.
											- 62 m Some drop in cpy content (0.5 to 1%).
											- 64 m Increase in epidote alteration from v. weak to
											weak.
									Qtz vein		- 70.05 m 2 cm of ~60% pyrite; qtz vein 1 cm below, gets
									60°		cut by pyrite, qtz vein is light grey, only ~60% qtz,
											rest is host rock (alt. vein); more pyrite veins in next
											metre, resulting in a pyrite content of ~10% over 1 m.

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L with C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
											- getting more pyrite stringers, some with cpy
											- also cpy in qtz stringers and fractures 0.5 to 1% in rock.
											70.5 m Epidote content decreases again, only v. weak epidote stringers remain.
											72.8 m Rubble of coarse crystalline pyrite with cpy between the crystals in mucky quartz.
											(72 to 73 m) Cpy 1%.
											(73 to 75 m) Cpy 1 to 2%.
											(75 to 80 m) Cpy 1%.
											(77.8 to 78.35 m) Rubbly core with high pyrite content (25%); rest very siliceous, light grey colour; only slightly magnetic.
											(80 to 93.6 m) Cpy 2%, along fractures, in qtz stringers and alt. zones and rarely in cpy stringers with minor qtz and epidote. → py 3 to 5%.
											Qtz vein: 53.8 m Qtz vein with 5% cpy cuts core at 40° to C.A.
											40° (92.4 to 92.9 m) Highly silicic (60-70% qtz) interval; py 10%; cpy 3%.
											(93.6 to 109 m) Problems with core and footage numbers; interval covered by one box (#15) which would mean 55%

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
										recovery. No such recovery reported and there is no box #16, while box #17 fits behind #15. → May be that core in this interval was used for the mineralogical tests done on the core of KL-8 in 1980 and then core remaining was put into 1 box instead of previous 2. → Numbers somewhat mixed up so hard to determine intervals. → Interval is all same unit as before; cpy 1 to 2%.
										109 m Rock becoming less magnetic; softer (less qtz alt.); cpy 1%, py 2%.
(112.85	113.5)	Basaltic Dyke	Dark Green	V. fine		Chlorite	-			Basaltic dyke; dark green, very fine grain rock, very chloritic; non-mineralized; last 20 cm have a bit qtz veining, rest minor.
										(113.5 to 114.0 m) A bit lighter more silicic rock with 2% cpy.
(114.0	114.7)	Basaltic Dyke	Dark Green	V. fine		Chlorite	-			Basaltic dyke again; as in 112.85 to 113.5 m, v. weak magnetic.
										(114.7 to 115.2 m) Cpy rock again; 1% decreasing down interval; magnetic.

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L WITH C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
(115.2	116.6)	Basaltic	Dark	V. fine		Qtz	Cpy				Basaltic dyke rock again; not magnetic except a few spots;
		Dyke	Green			Chlorite					not very mineralized; top 30 cm is 40% Qtz veining; veining
						Sericite					is not in distinct veins but in discontinuous, irregular,
											serrated patches that are elongated in weak foliation ~85°
									Foliation		to core axis; trace cpy in Qtz; some sericite with Qtz.
									85°		
											116.6 m Core becomes very rubbly, rounded and small
											chunk for most part. Very poor recovery (and some may
											be removed for mineralogical testing.
											(166.6 to 122.22 m) More andesitic rock again; 44%
											recovery; minor cpy till 118.8, then 2% till 119.8 m,
											minor till 122.22; moderately magnetic at 117 m, weak
											to non-magnetic by 122 m; no hematite staining left.
											(122.22 to 127.4 m) 37% recovery first 1 m. Very rubbly
											light grey, then light green-grey rock; mostly quite
											silicic; also seems to be some sericite, especially the
											light grey rock; only a few weakly magnetic spots; minor
											calcite; trace diss. cpy, py 1%.
(127.4	128.3)	Andesite	Light	V. fine	Alt.	Sericite		>1000	Foliation		(127.4 to 128.3 m) Good core recovery for this interval;
		Dyke (?)	Grey-		Foliation	Chlorite			70°		somewhat less broken, non rounded core. V. fine grain
			Green			Qtz					andesite with strong Qtz sericitic alt. resulting in
											irregular pale cream coloured patches elongated and
											serrated with weak foliation at 70° to C.A. resemble





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
										Note: core in plastic boxes; still fairly good preservation for 1st half; fairly poor preservation in 2nd half; up to 23.5 m (77 ft) previously split.
0	7.3	Overburden								
7.3	22.5	Altered Andesite	Light to Med. Green-Grey	Fine	Mottled	Quartz Sericite Kaolinite Calcite Chlorite		> 500		Andesite; fine grain, light greenish grey at first to later med. green-grey; highly altered; crumbly core in small pieces. - a few pieces that are a bit larger are feld ppy but most of core is in too small pieces and too altered to say if entire unit is: - mod. pale green-grey chlorite alt. - mod. qtz-sericite alt. - earthy smell to core shows weak kaolinite alt. - qtz-chl-ser-kaol alt. has resulted in crumbly core - 3% diss. pyrite, occasionally up to 5% - minor calcareous spots



EXPLORATION  
WESTERN CANADA

# DRILL LOG

HOLE NO. KL-9

DRILLING CO.	LOCATION SKETCH	DEPTH	TESTS DIP ANGLE	AZIMUTH	DATE STARTED:	PROJECT:
		COLLAR	- 90		August 20, 1984	KL1
					DATE COMPLETED:	N.T.S.:
					August 21, 1984	94D08
					COLLAR ELEV.:	LOCATION:
						KL1-17 claim
HOLE TYPE					NORTHING:	
					8+00S	
					EASTING:	
					5+80E	
					AZIMUTH:	
					vertical	
					DEPTH:	DATE LOGGED:
					47.8 m	September 22, 1984
					CORE SIZE:	LOGGED BY:
					B.Q.	Hans Smit

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
										- a few qtz stringers visible in small bits of core
										- non-magentic.
										(7.3 to 9 m) Fe staining on fractures
										⇒ oxidation zone.
										- some pieces show evidence of shearing (minor).
										16.5 m) Alt. decreases; rock becomes more green-grey;
										a bit bigger core pieces (still small) and less crumbly
										core,
										- still same alt. minerals but now weak to mod. intensity
										- pyrite 2 to 3%
										- somewhat larger pieces show that rock is a fine grain,
										non porphyritic, mafic poor (or leathered) andesite.
22.5	30.6	Andesite	Med.	Ppy		Chlorite	Cpy	50-100		Andesite feld ppy; med. green-grey; med. grain; up to
		Feld-Ppy	Green-	Veining		Epidote				4 mm feld xtls make up to 60% of rock; euhedral to mostly
			Grey			Calcite				somewhat rounded ⇒ compact fairly homogeneous rock; xtls
						Sericite				do not appear broken so probably flow or dyke, not tuff,
						Otz				(likely a dyke),
										- mafics ⇒ fine grain, green-grey
										- feldspars pale green and a bit soft (seritized); very
										minor qtz stringers/alt.
										- mafic component chloritized
										- minor very fine grain epidote alt. gives some of the



INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L with C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
										core a lighter, greener, colour	
										- minor to occasionally moderate calcite stringers and calcite plus chlorite fracture coatings	
										- very minor hematite on fractures	
										- minor (<0.5%) diss. pyrite	
										- weakly magnetic	
										- traces of cpy	
										- core is very blocky; larger pieces than intervals	
										to each side.	
										(22.5 to 23.5 m) 0.5% cpy in this interval, diss. in rock and along fractures with calcite, dark green chlorite and qtz.	
									Qtz-carb		
									vein	(23.65 to 24.1 m) A 2 to 5 mm qtz-carb vein at 5° to C.A.	
									5°	runs through core, traces of diss. cpy; minor light yellow-brown weathering.	
										(26 to 27 m) Mod. intensity of off-white calcite stringers at varying orientation; discontinuous;	
										- fractures also are at different L's to C.A., though low L's predominate.	

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
30.6	47.8	Andesite	Med.	Fine	Mottled	Quartz		> 500		Andesite tuff; fine grain, med. green to grey-green; 1 mm and smaller feld ktls sometimes visible, but generally too fine grained and/or altered to see original textures; mottled looking,
		Tuff	Green to			Sericite				- mod. pervasive qtz-sericite alt. has resulted in crumbly, altered core, breaks into 1 cm and smaller pieces.
			Grey-			Chlorite				Rather poor core preservation of the broken core in plastic trays.
			Green			Calcite				- mafic component chloritized
										- very minor calcareous areas
										- very minor qtz and calcite stringers at low L's to C.A. mostly
										- broken surfaces sometimes show a weak foliation which is at low L's to C.A. to parallel C.A.
										- pyrite 3% diss. in rock → sometimes helps outline weak foliation
										- non-magnetic, no cpy observed.
(32.1	32.8)	Andesitic to	Dark	V. fine		Chlorite		50-100		Andesitic to basaltic dyke, very fine grain, dark green,
		Basaltic Dyke	Green			Calcite				- mafic component chloritized
										- minor calcite stringers at various orientations
										- no pyrite, no qtz-sericite alt.
										- rubble of a 1 to 2 cm qtz vein (white barren) at lower end.





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	6	Casing								
6	11.0	Andesite	Med. Grey	V. fine	Alt. Amygda- loids?	Qtz Chlorite Sericite		25-50		Andesite; very fine grained (almost aphanitic); med. grey colour; rounded to oblong up to 6 mm blebs with altered feldspar (soft, white) and lesser epidote and Qtz may represent amygdaloids → flow rock; they make up ~10% of the rock, - rock is highly chloritized and has mod. to strong silicic alt. which has obscured to some extent any textures (such as the possible amyg.) - non-calcareous and non-magnetic - blocky core; fractures at various orientations to C.A.  (6 to 9.4 m) Fe staining along fractures → oxidizing zone, - more Fe staining downhole but only a surface coating and probably stain from exterior sources during core storage.

SELCO		EXPLORATION WESTERN CANADA		DRILL LOG				HOLE NO. KL-10	
DRILLING CO.	LOCATION SKETCH	DEPTH	TESTS DIP ANGLE	AZIMUTH	DATE STARTED:	PROJECT:			
	Note: core in plastic boxes = poor preservation; core movement between rows and boxes; many interval markers out of place.	COLLAR	- 50°	180°	August 23, 1984	KL1			
					DATE COMPLETED:	M.T.S.:			
					August 25, 1984	94D08			
					COLLAR ELEV.:	LOCATION:			
					171.9 m	KL1-19 Claim			
					NORTHING:				
					8+00S				
					EASTING:				
					17+00E				
					AZIMUTH:				
					180°				
					DEPTH:	DATE LOGGED:			
					91.4 m	September 10, 1984			
HOLE TYPE					CORE SIZE:	LOGGED BY:			
					B.Q.	Hans Smit			



INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS	
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L with C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
										17 m) Rock becomes less crumbly; seems to be less ash content; some increase in the amt. of light brown staining on the core = probably post drilling oxid. of pyrite in the core due to the presence of sericite and clays which will decompose readily.	
21.0	21.6	Feld Ppy Dyke	Light Grey	Fine grain	Ppy	Qtz; Sericite	Cpy	50-100		Feld. ppy dyke; 1 to 4 mm subhedral plaq. xtls, (20% of rock), in a fine grain matrix; qtz and sericite (or feld.) alt.; mask much of original texture; weak chocolate brown weathering stain; 3% diss. pyrite; a few spots with minor cpy.	
21.6	39.2	Tuffaceous Argillite	Lt. Grey w. Majenta; Lt. Yellow -brown weathering	Fine	Alt. Mottled	Qtz Sericite Kaolinite Chlorite		500-1000	Foliation 60-80°	Tuffaceous argillite; mottled grey with some majenta (purplish-red); some streaky dark grey to green-grey flakes up to 4 mm (sheared mafic crystals?); weathers light yellowish-brown; rock has weak foliation at high L to C.A. (60 to 80°); not always observable; - core very broken and crumbly - mod. to strong qtz alt.; plus some sericite alt; weak to occasionally mod. kaolinite alt. results in soft clayey zones and an 'earthy' smell to core - py 3% - non-calcareous and non-magnetic	

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS	
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L WITH C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
										21.5 m 2 cm of clay rich fault gouge.	
										28.4 m Pyrite streaked along shear/foliation direct.	
										33.6 m) Start getting minor dark reddish-brown calcareous stringers (hematite + clacite?) with 10 to 70% pyrite at various L's to C.A.	
										- rock has less yellow-brown weathering; less majenta colour on fresh surfaces.	
(36.3	37.1)	Diorite	Med. Grey	Fine		Chlorite Sericite		25-50		Diorite dyke; fine grain; 1 to 2 mm feld (75%); 25% mafics (Hbld. and lesser augite; med. grey colour; interlocking, intrusive texture; mafics chloritized; feld. weakly seriticized; contacts with argillite not preserved so orientation unknown; blocky core.	
										37.1 m) Argillite later is no longer brownish weathering; looks completely recrystallized; still mafid poor; still a streaky foliation at high L's to C.A.; pyrite up to 5% of rock now; diss. within the slightly darker streaks; rock somewhat less crumbly than last interval. (more qtz alt?)	
									Qtz vein 15°	38.1 m) 1 cm qtz vein cuts core at 15° to C.A.;	
										- on bottom side get 3 cm of vuggy, calcareous alt. with minor chlorite.	
										- 37.5 m start getting mod. calcite alt.	



SELCO		EXPLORATION WESTERN CANADA		DRILL LOG						HOLE NO. KL-10	
INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS	
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L with C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
39.2	41.8	Andesite	Med.	Fine	Foliation	Qtz		25-50		Andesitic tuff; fine grain; some relic xtls still discernable; med. grey-green colour; feld. and mafics	
		Tuff	Grey-		Veining,	Calcite				(stretched) in finer grain matrix, but indistinct due to strong qtz and chlorite alt.; feldspar component sericitized;	
			Green		Alt.	Chlorite				mod. intensity of qtz stringers and of calcite stringers;	
						Sericite				most common at 40° to C.A. but other orientations found too.	
									Stringers		
									40 ±10		
									Foliation		
									60°		
										- weak foliation occasionally visible at ~60° to C.A.	
										- core blocky; many fractures have dark green chlorite and lesser calcite coatings	
										- only trace amounts of pyrite	
										- (41.6 to 41.8) is slightly magnetic due to finely diss. MGT.	
41.8	44.0	Tuffaceous	Light	Fine	Foliation	Qtz		100-500		Tuffaceous argillite; same rock as unit in interval from 21.6 to 39.2 m; → seem to be getting interbedded andesitic tuffs and. tuffaceous argillites; rock does not have a	
		Argillite	Grey		Alt.	Chlorite				magenta colour as seen in last tuff arg. interval and is light grey to greenish-grey in colour; but similar to last interval it is highly altered (strong qtz, mod. qtz-sericite)	
						Sericite				occasional kaolinite); quite pyritic (3 to 5%) and mafic poor; minor calcite alt.	
						Kaolinite				- (42.0 to 42.5 m) Brownish weathering; 2 fault gouge zones in interval; kaolinite alt. → rest of interval is not brown weathering and not kaolinitic.	
						Calcite				- core too broken to determine exact orientation of	

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	
										foliation but it appears to be at a mod. to high L to C.A.	
44.0	49.4	Andesitic Tuff (xtl-lithic)	Med. Grey- Green	Fine	Ppy Stringers	Qtz Chlorite Calcite Epidote		25-50		Andesitic xtl-lithic tuff; fine grain with occasional up to 1 cm lithic frags; 40 to 50% feld xtls mostly 1 mm and smaller in a very fine grain grey-green matrix plus minor chloritized mafics; lapilli are of similar comp. to main rock,  - rock has mod. to strong silicic alt.; strong chlorite alt.; weak epidote alt.; weak intensity of qtz stringers and calcite stringers; some epidote along fractures  - trace pyrite at start of interval; 1 to 2% at end (also more pervasive qtz alt.)  - a few slightly magnetic spots  - core is blocky, hard.	
49.4	91.44	Altered Andesitic (to dacite) Tuff Ash to Fine Xtl	Light Grey	Very Fine	Mottled	Qtz Sericitic Kaolinite Chlorite		50-100		Andesitic to dacite tuff; fine grain; light grey; mafic poor → looks almost dacite but this may be due to high alt. → unit is close to the tuffaceous argillite found earlier in core but now less argillic (no foliation; don't get magenta colour within rock, only minor brownish weathering along fractures; only minor kaolinite; less flakey core),  - strong silicic alt., mod. to strong sericitic; occasional kaolinite along fractures and in a few fault zones; 5% diss. pyrite in rock; rare calcite; strong pale green chlorite,  - can make out some feld xtis (2 mm and less) but	

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L. with C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
											generally rock is so altered that any original texture is lost → therefore unknown whether this is a dacite or a highly altered andesite.
											→ a bit diss. pyrite; remnant feld. xtls and alt. give the core a 'speckled to 'mottled' look.
											Note: → core is taking up to 2 x as much space as core interval and boxes are becoming increasingly messy with most interval markers misplaced so measurements are somewhat estimated.
											Fault 60°
											62.44 m 1 cm fault gouge (some clay) - 3 cm interval before has weak foliation ~60° to C.A. shown by pyrite; likely orientation of fault.
											53.1 m Fracture filling that weathers brown and is clay-rich.
											53.7 m) Feld crystals becoming more discernable (up to 40 % of rock); in fine grained to glassy mottled pale greenish-grey matrix; starting to get minor qtz and minor calcite stringers.
											55 m) Rock is going from light grey to light green-grey; more andesitic looking; pyrite becoming less (2 to 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	
										58.3 m) Getting into a xtl tuff that has up to 5% highly chloritized up to 4 mm augite xtls; 40 to 60% less distinct 1 to 3 mm feld xtls and a fine grain matrix - definite andesite, - very minor epidote.	
										60.2 m) 10 cm of fault gouge; brown weathering; clay-rich.	
(61.5	62.8)		Brownish-Grey			Qtz Pyrite		10-25		Either a vein or a zone of very high siliceous alt. that is almost 70% greyish qtz and 30% pyrite with minor chlorite and sericite. Pyrite diss. in bands and along fractures in the qtz; minor calcite in a few fractures, - core is blocky and quite massive.  - Fine grain, mottled looking, altered, greenish grey tuff continues after the above unit.	
(66.3	68.8)	Andesitic Augite Ppy Dyke	Med. Green- Grey	Medium	Ppy	Qtz Chlorite Epidote		10-25		Andesitic augite ppy dyke; medium grey-green; up to 5 mm subeuhedral augite crystals make up 15 to 20% of the rock; matrix is fine grained, grey-green, feld rich; - mafics chloritized - v. minor epidote alt. - core v. hard mostly - suspect qtz alt. - blocky core - cpy 2%; one discontinuous pyrite stringer at 68.2 m; rest diss. and along fractures.	

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
										- non-calcareous and non-magnetic.
										At 68.8 m get back into light grey to grey-green tuff which continues to end of hole; core is broken into small angular pieces and the core has been badly messed up between rows in the plastic boxes (+ some movement between boxes) therefore only a quick observation was made of the 20 cm of core.
68.8	91.44	Altered Andesitic	Light	V. fine	Mottled	Qtz		500-1000		Andesitic to dacitic tuff; mostly ash; v. fine grain;
		to	Grey to		Alt.	Sericite				light grey to grey-green; light grey looks dacitic
		Dacite Tuff	Grey-			Chlorite				(altered and?); mod. to strong Qtz-sericite alt.; kaolinite
			Green			Kaolinite				in occasional fault gouges; occasionally mod. calcite alt.;
										minor Qtz stringers in first few metres but not later,
										pyrite 2 to 3% diss. throughout; not magnetic,
										- this is a continuation of the fine tuff unit found
										in most of this hole
										- generally v. fine to aphanitic; completely recrystal-
										lized; occasionally pale green chlorite flakes (altered
										mafics?).
										80 m) Start getting up to 4 mm dark green chloritic
										grains (up to 10% of rock) - altered augite probably;
										less sericite in rock but still high Qtz alt; can some-
										times make out 1 to 2 mm feld. crystals as well -
										getting into a crystal tuff (aug-feld xtl tuff);



SELCO		EXPLORATION WESTERN CANADA		DRILL LOG				sample data				
SAMPLE					CORE RECOVERY		VISUAL ESTIMATES (% ORE MINERALS)	GEOCHEM RESULTS				
NUMBER	FROM	TO	TOTAL METRES	Sp. Gr.	%	\$ AMT. LOST		Au (ppb)	Cu (ppm)	Ag (ppm)		
				NOTE:-	Each sample is composed of a 15 cm wide zone taken across a box 1 foot from each end.							
					- Boxes (plastic) are 4 foot long resulting in each sample being the 1/2 split of 1/2 of the core in each box.							
871163	6.0	12.22	6.22	Box #1	100	Nil		43	162	0.2		
871164	12.22	17.26	5.04	#2	100	"		60	63	0.1		
871165	17.26	21.60	5.34	#3	100	"		25	176	0.1		
871166	21.60	24.15	2.55	#4	100	"		15	100	0.1		
871167	24.15	28.93	5.78	#5	100	"		5	30	0.1		
871168	28.93	36.5	7.57	#6	80	20		5	17	0.1		
871169	36.5	38.0	1.5	#7	100	Nil		100	20	1.5		
871170	38.0	42.7	4.7	#8	100	"		40	133	0.5		
871171	42.7	49.5	6.8	#9	85	15		35	164	0.1		
871172	49.5	51.4	1.9	#10	100	Nil		15	114	0.1		
871173	51.4	55.2	3.8	#11	100	"		5	33	0.1		
871174	55.2	58.9	3.7	#12	100	"		85	364	0.4		
871175	58.9	62.1	2.2	#13	100	"		5	36	0.2		
871176	62.1	66.1	4.0	#14	100	"		15	89	0.2		
871177	66.1	70.2	4.1	#15	100	"		45	191	0.1		
871178	70.2	73.1	2.9	#16	100	"		25	128	0.1		
871179	73.1	77.3	4.2	#17	100	"		5	20	0.1		
871180	77.3	80.3	3.0	#18	100	"		3	24	0.1		
871181	80.3	83.1	2.8	#19	100	"		5	102	0.1		
871182	83.1	86.5	3.4	#20	100	"	IND. UV WHOLE	5	39	0.1		

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE		REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L to C.D.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
0	11.4	Overburden									
11.4	14.2	Augite Ppy	Med.	Med.	Ppy	Qtz		10-25	Fractures	Augite ppy, (basaltic); 60% generally 2 mm and smaller; occasionally up to 3 mm stubby augite crystals in a fine grain matrix; last 1 m of interval is much finer grained (contact effect?); mafics chloritized	
			Grey-		Veining	Epidote			50°		
			Green			Chlorite			Stringers		
						Calcite			50, 30		
										- weakly magnetic - due to finely diss. mgt.	
										- matrix epidotized in first half of unit (moderate intensity) + minor epid. stringers	
										- minor (at first), to moderate (at end) qtz stringers; mod. calcite stringers after R.S.M.	
										- hematite staining on some fractures	
										- main fractures direct approx. $\geq 50^\circ$ to C.A.	
										- stringers at $50^\circ$ to C.A. and $30^\circ$ to C.A. predominately.	
										- cross cutting calcite fractures observed	
										- core relatively unfractured and blocky	
										- non pyritic.	

SELCO		EXPLORATION WESTERN CANADA		DRILL LOG				HOLE NO. KL-11	
DRILLING CO.	LOCATION SKETCH	DEPTH	TESTS DIP ANGLE	AZIMUTH	DATE STARTED:	PROJECT:	KL1		
		COLLAR	-50	225°	DATE COMPLETED: Aug. 26, 1974	N.T.S.:	94 D08		
					COLLAR ELEV.: Aug. 28, 1974	LOCATION:	KL1-14 CLAIM		
					NORTHING:				
					EASTING:				
					AZIMUTH:				
					DEPTH: 96.6 m	DATE LOGGED:	Sept. 12, 1984		
HOLE TYPE					CORE SIZE: 139	LOGGED BY:	Hans Smit		



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
										(10.4 to 14.2) Fe staining on fractures > oxidizing zone. 13.8m minor malachite staining along a calcareous fracture.
14.2	17.9	Andesite Ash Tuff	Light grey to greenish grey	v. fine	Blotchy veining Alt	Qtz Chlorite		100-500		Andesitic ash tuff; light grey to greenish grey; very blotchy looking due to mod. to strong Qtz alt (looks completely re-crystallized) w blotchy pale green (chlorite?) intermixed. - calcite on fractures and occasionally moderate calcite alt in rock. - pyrite 1 to 2% ; non magnetic. - minor hematite on fractures - 15.1 small amount of clay-rich, brownish weathering fault gouge.
17.9	26.7	Andesite Feld ppy (possibly diorite)	Med. grey green	Med. to coarse	ppy veining	qtz calcite chlorite sericite	Cpy	50-100		Andesitic feld. ppy; med. grain to sometimes course grain; up to 4 mm feld phenocrysts make up soto 70% of therock; remainder is fine grained feld. and ~15 to 20% mafics. occasional mafic crystals (avaite?) Up to 5mm but not common; massive nature and course



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
										Grain mafic inclusion; also cpy on a fracture surface.
										24.71 another 3 cm fault zone to $\theta$ -B weathering.
										26.1) 8 cm of clayey fault gouge; 15 cm before are partially bleached, qtz rich; and have a fair bit of $\theta$ -B color $\Rightarrow$ seems $\theta$ -B weathering alt $\approx$ is fault controlled $\Rightarrow$ only minor alt $\approx$ in footwall
										- orientation of fault unknown.
26.7	31.2	Andesitic Lapilli Tuff	Med. Grey Green	Lapilli		Calcite (chlorite)		50-100		Andesitic lapilli tuff; matrix supported; 1 cm and smaller; (rarely larger) lapilli in a fine graine med. to dark grey-green matrix; lapilli are white (feld XTLS; euhedral to broken shreds, up to 4 mm long); light green (very fine grain to glassy); and med. grey-green (similar to matrix of tuff); feld XTLS dominate in the upper part; lithic frags in the lower part.
										- weak to moderate pervasive calcite alt $\approx$ ; minor calcite stringers



EXPLORATION  
WESTERN CANADA

**DRILL LOG**

HOLE NO. KL-11

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE		REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L TO G.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
											- minor hematite staining on fractures
											- non magnetic; little qtz alt $\approx$
											- chlorite and calcite along fractures; chlorite alt $\approx$ in matrix
											- very minor finely diss. pyrite
											fault
											65°
											28.6 m) a few mm of brownish clay rich fault gouge at 65° to C.A.
											Possible
											constant
											29.4 m) a 3 cm lighter, qtz altered (hard) zone cuts C.A. at 85 to 90°; rock coarser directly below than 85-90° directly above possible tuff later contact
31.2	63.9	Andesitic	Med. grey	Fine	Alt $\approx$	Calcite		100-500			Andesitic tuff; fine grain w occasionally larger grains in a fine grain matrix; feld-rich; calcareous; variable in texture and appearance.
		Tuff	green		veining	Chlorite					- weak to moderately calcareous (pervasive); mod. to strong calcite stringers; blebs and veins; various orientations.
		Fine Grain	to light			Epidote					- mostly too fine grained or too altered to see any original texture.
		to Lapilli	green			Qtz					
			grey			Sericite					

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
									- strong chlorite alt $\approx$ light to pale green	
									- occasional qtz altered areas	
									- non magnetic	
									- minor diss. pyrite	
									- occasionally shows foliation	
									- first metre has 5 to 10% epidote blebs up to 3mm long (altered mafics?), then no more epidote	
									- feld spar crystals visible are pale green and partly seriticized.	
								Shear	33.5 m) weak shear foliation at 35° to C.A. for 10 cm.	
								35°	34.5 m) 1 cm qtz-carb vein; barren, white cuts C.A. at 45°	
								qtz carb		
								vein 45°	36.6 m) Shear foliation at 70° to C.A. for 25 cm.	
								shear	37.1 ) 10 cm of strongly sqt altered rock w 3% diss. pyrite	
								70°		
									37.9) 1 to 2 mm feld. crystals make up 40% of the rock for 20 cm; euhedral to subhedral; no contacts visible to surrounding dyke but may be a small dyke.	
									41.0 ) epidote blebs up to 3mm for 1 m	





EXPLORATION  
WESTERN CANADA

# DRILL LOG

HOLE NO. KL-11

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
					foliation					48.0 ) starting to get a foliation shown
								foliation		by elongated darker (mafic) fragments
								30°		from 1 to 5 cm long which make up 10% of rock;
										it is at 30° to C.A.
										Foliation is only sometimes visible and is not
										always at same orientation further down hole;
										no longer any hematite staining.
										(51 to 52 m) more lapilli evident, 1cm and less;
										2 to 3% pyrite in this area seems to
										post date deposit as all lapilli equally
										pyritized as is matrix.
										(50.5 to 52) 2 to 3% pyrite in this interval
										51.3) what appears to be a contact between very fine
										tuff above and lapilli tuff below runs at high
										angle to C.A.; not planar contacted however
										as lapilli tuff in next piece of core upwards
										as well believe the fine graine is a >4 cm lithic
										fragment.
										52.27-52.35) Rock is 50% altered to milky white qtz; rest
										still fine grain. Country rock and minor calcite;
										generally more qtz stringers and alt now but still minor

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L TO CA	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC):	MINERALIZATION, TYPE, AGE RELATIONS
											- below get fine grain tuff w weak foliation shown
											Foliation by discontinuous slightly different color 1 mm layers;
									55°		at 55° to C.A.
											(53 to 54.5) Coarser XTL tuff layer; mostly fold,
											10% chloritized, indistinct mafics.
											- below more fine grain to occasional
											lapilli, calcite stringers and also;
											minor fold crystals and minor pyrite;
											core has a blotchy texture.
											58.8 m) clay-rich fault gouge for 10 cm.
											qtz-carb 63.71) 1.5 cm qtz and minor carb vein; pale Ø-B
											vein weathering cuts core at
									40°		40° to C.A.
(63.9	83.0)	Fault Zone	Med. Grey Green to orangy brown	varies	breccia foliation	qtz calcite chlorite clay					a major fault zone is trasected by the core in this interval. It is a zone of shearing, brecciation and highly altered rock; the zone is cut by a non-brecciated or foliated Dyke.



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	
											- andesitic tuff occurs below and above the zone so rock within it is probably former tuff as well.
(63.9	65.7)	Altered Andesite tuff	Specked dark to pale grey	Lapilli	Foliation	Qtz Calcite		10-25	Foliation 40°		Rock is composed of 1 to 4 mm green to grey angular fragments in a lighter Qtz-rich matrix; frags. aligned somewhat to give a foliation at 40° to C.A.; varies some; calcite alt <sup>o</sup> along fractures and v. minor calcite stringers. => Unknown if frags are original (i.e. lapilli tuff) or a result of fault brecciation - rock weakly magnetic 64.6) rock no longer magnetic; rock is becoming broken and decomposed; getting a clayey, earthy greenish grey matrix to angular clasts within foliation distorted.
(65.7	73.3)	Lamprophyre Dyke	Light Brown	PPY	PPY	chlorite decomposed sericite clay		10-25			(exact contact within 50 cm of mush) - lamprophyre dyke; light brown color; 2 mm and smaller feld XTLs (sub to euhedral) make up 30% of rock; 1 mm and smaller

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
										needle-like Hbld. make up 2-3% and 1 mm and smaller
										biotite make up 1-2%, rest is a light brown aphanitic matrix.
										- mafics are chloritized; feldspars are seritized
										- close to half of the core in this unit is fine rubble to Sst (w some clay) due to decomposition of the rock.
										- last 4 cm has rounded clasts of the dyke rock in matrix of same; up to 1.5 cm. as rest of dyke not brecciated or foliated suspect this is due to brecciation along dyke contacts, not fault Brxx.
(73.3	75.0)	Altered Andesite Tuff	Med. Green Grey	Med. to Lapilli	Foliation	Qtz Chlorite Calcite		50-100		Med. grey-green altered, foliated andesitic tuff; abundant discontinuous and distorted Qtz and calcite stringers lapilli or brx clasts plus elongated med. grain feld and mafic crystals - occasionally weakly magnetic.
(75.0	82.0)	Fault Breccia	Light orange brown to green	lapilli	Breccia Foliation Alt $\approx$	Qtz Calcite Chlorite Sericite		50-100	Foliation 40-50°	Fault breccia; matrix supported; 2 cm and smaller light green to med. grey green angular clasts aligned in a foliated light orangish brown to green matrix.



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
83.0	96.6	Andesitic Tuff	Med. to dark grey-green	V. fine to lapilli	veining alt $\checkmark$	Calcite Chlorite Qtz		25-50		Andesitic tuff; ash to Xtl lapilli; med. dark grey green; mod. calcite alt $\checkmark$ and veining; minor Qtz alt $\checkmark$ and veining; highly chloritic. Weak foliation at first (40° to C.A.) but loose this later on; - trace disseminated pyrite - non-magnetic
(83.0	88.7)	Andesitic Ash Tuff	Dark Grey-Green	V. fine				Layering 40°-50°		occasionally can see layering, at 87.6) 40° to C.A. $\rightarrow$ looks like thin laminae 88.7) at 55° to C.A. $\rightarrow$ change to a bit lighter, coarser tuff.
(88.7	96.6)	Andesitic Xtl-Lithic Tuff	Med. Grey-Green	Lapilli						Andesitic crystal-lithic tuff; med. grey-green; lithic fragments up to 2 cm of fine to v. fine grain composition, med. to dark grey-green; but mostly 5 mm and less in a fine grain matrix; (not highly visible) plus 5 to 10% chloritized, broken mafic crystals usually 2 mm and less and occasionally up to 20% plag. crystals $\rightarrow$ appears to be mostly fine grain to lapilli lithic fragments and only minor crystal frags.





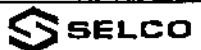
INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS	
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L to C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
											Note: Core stored in plastic boxes; moderately well preserved.
0	7.3	Overburden Altered									
7.3	48.0	Andesite to Dacitic Tuff	Light Grey	v. fine to fine	sheared mottled altered	Qtz Calcite Chlorite Sericite Kaolinite	CPY	100-500			Altered andesite to dacitic tuff; mostly ash but sometimes fine XTL; light grey in color; mafic poor; highly altered; moderately sheared. - most of the rock is aphanitic and completely altered (to pale chlorite, sericite and Qtz w minor calcite) Some of it look almost translucent under hand lens; due to the lack of mafics this rock looks quite dacitic however, sometimes can

SELCO		EXPLORATION WESTERN CANADA		DRILL LOG				HOLE NO. KL-12	
DRILLING CO.	LOCATION SKETCH	DEPTH	TESTS DIP ANGLE	AZIMUTH	DATE STARTED:	PROJECT:	KL1		
		COLLAR	-50	225°	Aug. 28, 1974	DATE COMPLETED:	94D08		
						Aug. 30, 1974	LOCATION:	KL1-11 Claim	
						COLLAR ELEV.: 1720 m			
						NORTHING: 12 + 00S			
						EASTING: 42 + 00W			
HOLE TYPE					AZIMUTH: 225°				
					DEPTH: 100.6 m	DATE LOGGED:	Sept. 19, 1984		
					CORE SIZE: B. Q.	LOGGED BY:	Hans Smit		

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L to C.A.	{FRACTURES, FAULTS, FOLDING, BEDDING, ETC}	MINERALIZATION, TYPE, AGE RELATIONS
											make out 1 mm, occasionally up to 2 mm, feldspar XTLS which sometimes make up most of the rock so possibly this represents a highly altered andesite. It is similar to the altered andesite mapped north of camp in fact.
											- the rock has mod. occasionally strong, patchy qtz and qtz-sericite alt ≈, and minor qtz stringers.
											- weak calcite alt ≈ and minor calcite along fractures.
											- mod. to strong pale chlorite
											- pyrite 3 to occasionally 5% diss. throughout; trace of diss. cpy.
											- non magnetic
									Shear 20-30°		- rock is variably sheared, about 1/2 being quite sheared and the other (more qtz altered) less so. Shear direct ≈ is 20 to 35° to C.A.
											- some of the pyrite is sheared along surfaces; but some is curic & possibly pyrite same time as shear or 2 times as shear and/or pyrite.
											- some of the fractures have a dusting of white "soapy"



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
										powder $\Rightarrow$ probably pyrophyllite; also core has an "earthy" smell (kaolinite) $\Rightarrow$ . . seem to be getting into argillic alt $\approx$ , exp. in highly sheared zones.
										- core is highly fractured and highly sheared zones have small, flakey core; strong qtz-alt $\approx$ zones have blocky core
										7.8 m) Cpy speck in a calcite stringer
										6.0 to 6.6 m ) high kaolinite content; very crumbly core.
										17.0) Rock getting abit greener overall, still predominately grey Less argillic alt.
										Shear 30° to 40° Amt of shearing also decreasing; < 1/4 of the rock sheared (mostly weakly) Shear is at 30 to 40° to C.A.; more blocky core $\Rightarrow$ also less calcite.
										N. Strin ger 45° 18.4) 3 mm pyrite stringer at 45° to C.A. Rock 20 cm below is highly pyritic w 9-10% diss. pyrite
										19.1) another pyrite stringer at 45° to C.A.



EXPLORATION  
WESTERN CANADA

# DRILL LOG

HOLE NO. KL-12



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
(32.0	35.4)	Andesite	Med.	fine	PPY	Qtz		50-100		Andesite dyke; med. green-grey w 2 to 6mm pale green
		Dyke	green		Alt ≈	Epidote				blebs (partly epidote); some of these are fairly
		(Mecalyritic	grey			Chlorite				rectangular and suspect that they represent highly
		feld?)				Calcite				altered feldspar phenocrysts of a feld-megacrystic
										PPY.; they comprise approx. 15% of rock.
										- matrix is very fine grain, med. grey-green to weak
										to mod. intensity of Qtz stringers and weak calcite
										alt ; 2% diss. pyrite; mafic component chloritized.
(35.6	35.86)	Andesitic to	Dark	Fine	PPY	Chlorite		100-500	Dyke	Andesitic to basaltic dyke, fine grain, dark green w
		Basaltic	Green		Alt ≈	Qtz			Contacts	minor (5%) 1/mm light green epmotized feldspar
		Dyke				Calcite			20°	phenocrysts; highly chloritized, minor calcite alt ≈;
						Epidote			Shear	moderately sheared at 20 to 30° to C.A.; mod. intensity
									20-30°	of discontinuous Qtz stringers parallel shear.
										- bottom contact at 20° to C.A. 5 yr. Qtz vein at
										contact.
										(35.86 to 36.1) Main unit but minor light brown
										weathering & contact effect.



INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE		REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	LtoC.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
											- The core becomes quite broken and flakey.
43.8	44.45	Andesitic to Basaltic Dyke	Dark Green	v. fine	Alt ≈ Shearing Veining	Chlorite Calcite		100-500			Very fine grain andesite to basalt dyke; dark green; highly chloritized; mod. calcite alt ≈ and discontinuous stringers; v. minor hematite staining on a few fractures. Shear is at 20 to 30° to C.A.
									Shear 20-30°		- Main unit again after; a bit greener than before; in very small, sheared, flakes.
48.0	56.7	Andesite Tuff	Med. Grey Green	V. Fine	Shearing Alt ≈ Veining	Chlorite Quartz Epidote		100-500			Fine grain andesite tuff; med, grey, green; occasional patches of Imm and less sausseritized (pale green) feldspar Xtls, but mostly too fine grained and altered to see original textures
									Shear 20-30°		- Highly chloritized; mod. qtz alt ≈ and intensity of light grey quartz stringers and veins; minor epidote alt ≈ and stringers
											- Rock weakly to occasionally moderately sheared, mostly at 20 to 30° to C.A.

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 2 - 3% diss in rock; also sheared where rest of rock is. Note: This was probably originally the same rock as the former and idac. tuff unit but less altered and mafics not leached.
52.3	53.0	Aug. Ppy Dyke	Dark Green	Fine	Ppy	Chlorite Calcite Epidote		10-25		Aug. Ppy. dyke, andesitic to basaltic, fine grain, dark green; 30% 1 mm and less chloritized augite in a very fine grain green matrix; minor calcite stringers; weak epidote alt <sup>z</sup> ; no pyrite.  (55.8 to 56.7) greyer tuff, sheared, dacitic unit → small interval of dac. to and tuff unit found in most of earlier core.
56.7	71.0	Andesitic XTL Tuff	Greenish Grey	Med.	Shearing Ppy	Chlorite Qtz Sericite Epidote		100-500		Andesitic feldspar crystal tuff; light to med, greenish grey; med. grain; 40 to 60% rounded to occasionally euhedral feld XTLS up to 3 mm in fine grain matrix; rock sometimes looks

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	
										Flowlike (feld-ppv) but broken nature of many XTLS indicates ruff	
										- strong chlorite alt ≈ (pale gray-green chlorite)	
										- mod. qtz alt ≈; feld component seritized, minor qtz veins and stringers	
										- v. minor epidote alt ≈ and stringers	
										- pyrite 1 to 2% Diss.	
										- weakly sheared; strong chlorite on shears (sometimes thin chlorite films)	
										58.4 m) variable width (5 mm to 2 cm) white qtz vein with a 4 cm long pyrite bleb cuts core at low l's to C.A.	
										63 m) Minor hematite on fracture surfaces starting at 63 m rock becoming more sheared; XTLS often obscured by later alt ≈, main shear at 40° (+ 10) to C.A.	
									Shear 40±10°		
									Gypsum Stringer 5° to 10°	63.9 m) 1 mm thick gypsum film on a fracture at 5 to 10° to C.A. - runs thru core for 35 cm; also highly chloritic along fracture.	



EXPLORATION  
WESTERN CANADA

DRILL LOG

HOLE NO. KL-12

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	
										- very minor gypsum fracture filling below this - pyrite now < 1%.	
										(65.5 to 68) mod. to strongly sheared, but core still fairly coherent	
71.0		Andesitic	Grey-	V. Fine	Altered,	Chlorite		100-500		Andesite tuff; variable and altered unit; med. grey green to light greenish grey in color; ash tuff with some fine XTL (feld) tuff and rare med. grain feld XTL tuff.	
		Tuff	Green	to	Blotchy	Quartz				- variable original rock combined with variable alt <sup>≈</sup> and shearing has resulted in a very inhomogeneous, mottled to blotchy texture.	
		Ash to XTL		rarely	Sheared	Calcite				- strong chlorite alt <sup>≈</sup> ; dark green and mostly pale grey-green chlorite occur; esp. along shears.	
				med.		Sericite				- occasional mod. qtz alt <sup>≈</sup> , mostly no to weak qtz alt <sup>≈</sup> .	
						Epidote				- minor calcite along shears	
						Gypsum				- minor epidote alt <sup>≈</sup> and v. minor stringers	
										- mod. gypsum in stringers and shears	
										- minor hematite staining on fractures.	



INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	LtoC.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)
									Shear	- rock weakly to moderately; pervasively sheared;
									30to40°	mostly 30 to 40° to C.A.
										- pyrite < 1%, diss. in rock and along shears, it is sheared as well.
										- core has remained fairly coherent even w shearing ⇒ perhaps gypsum and chlorite holding it together.
									Contact	- feldspars sericitized & sometimes minor epidotized.
									40°	72.5 m) contact between 2 layers at 40° to C.A. (parallel shear)
									Calcite	75.3 m) 2 to 6 mm calcite vein to minor gypsum
									Vein-35°	cuts core at 35° to C.A.
										75.5 to 75.8 m) pyritic zone; 5 to 10% pyrite, concentrated along shear direct ≈ (30° to C.A.)
(85.5	87.7)									(85.5 to 87.7) some light yellowish brown weathering along shears; some clay alt, rock quite crumbly.
										88.4 m) rock becomes greener overall from here to end of core; mod. intensity of epid. alt ≈ and stringers (pale green)

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE		REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	LtoC.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC):	
									Contact	- starts at a definite contact which is a 40°	
									40°	to C.A., still ash to fine (feld) XTL tuff.	
										- hematite more prevalent, but still minor.	
										88.7 m) 4 to 6 mm gypsum vein w hematite staining	
										at 5 to 10° to C.A. for 30 cm.	
										89.5 m) rock becoming more calcaceous overall.	
										Weak to mod. calcite alt and stringers; stringers	
										mostly discontinuous and parallel shear. (still mostly	
										~40°).	
										(94.1 to 95.0) strong intensity of yellowish-brown	
										qtz - carb stringers, highly distorted and discontinuous	
										parallel to shear; shear is warped and kinked in this	
										interval; plus minor microfaults.	
										(95.2 to 95.8) mod. hematite staining gives rock	
										a reddish hue.	

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS	
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	LtoC.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
									Contact	(95.8 to 96.1) short layer of med. grain feld	
									30°	XTL tuff; contacts at ~30° to C.A.	
									Qtz vein	96.8) 5 to 10 mm white barren qtz vein at 30°	
									30°	to C.A. Gets cut nearly perpendicularly by a gypsum stringer.	
										- below get 20 cm of quite broken rock with gypsum in all the fractures, recementing the rock together; calcite minor again.	
									Qtz vein	99.3 m) another white barren qtz vein; 6 to 8 mm	
									40°	wide at 40° to C.A. 4 cm of weakly magnetic rock below ⇒ only magnetic rock in hole.	
										- 2 to 3% diss. pyrite for 30 cm below; probably minor mgt. as well for 1st 4 cm.	
										- overall pyrite ~1%.	
										100.6 m End of Hole	



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	6.4	Overburden								Note: Core has been previously split and sampled.
6.4	21.8	Andesite Feld Ppy	Med. Grey- Green	Fine	Ppy Veining Alt. Mottled	Qtz Chlorite Epidote		50-10		Fine grain andesite feld ppy; medium grey-green; 2 mm and less pale green feldspar make up 40 to 60% of rock; in a v. fine grain grey-green matrix; mod. to strong silicic alt. results in a mottled texture; mafics chloritized; feldspars partly sericitized; minor qtz stringers (<1 mm wide); minor to moderate epidote stringers and epidote alt.; rock is weakly to occasionally moderately magnetic due to disseminated magnetite; minor diss. pyrite; trace diss. cpy.  (6.4 - 12.9 m) Fe staining and minor malachite staining - oxidized zone.  (6.4 - 6.9 m) Rock very white - bleached due to qtz alt. and weathering.

SELCO		EXPLORATION WESTERN CANADA		DRILL LOG				HOLE NO. KL-13	
DRILLING CO.	LOCATION SKETCH	DEPTH	TESTS DIP ANGLE	AZIMUTH	DATE STARTED:	August 18, 1984	PROJECT:	KL1	
		COLLAR	- 45°	000°	DATE COMPLETED:	August 19, 1984	N.T.S.:	94D/8	
					COLLAR ELEV.:	1748.03	LOCATION:	KL1-6 Claim	
					NORTHING:	4+00S			
					EASTING:	10+75W			
					AZIMUTH:	000°			
					DEPTH:	68.6 m	DATE LOGGED:	September 10, 1984	
HOLE TYPE					CORE SIZE:	B.Q.	LOGGED BY:	Hans Smit	

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 m) Core becoming more broken; ppy texture becoming less distinct.
21.8	39.0	Andesite	Dark	V. fine	Blotchy,	Qtz	Cpy	50-100		Andesitic tuff; v. fine to fine grain; dark grey-green; strong qtz alt. and a bit qtz and 'qtz alt.' stringers and veins; resulting in blotchy texture; minor to moderate epidote veins; rock strongly magnetic; pyrite 1%; diss. cpy and in stringers.
		Tuff	Grey- Green	to fine	Veining, Alt.	Chlorite Epidote Magnetite				Note:- same magnetic andesite tuff as seen in other holes. - very minor calcite veins - cpy 1%.
										28 m) Rock becomes somewhat lighter overall; same only moderately magnetic intervals; pyrtie increased to 2% to 3% of rock.
										30.25 m) 4 cm core piece of greyish qtz with 30% diss. pyrite and 0.5% diss. cpy.
										32.8 m) Rest of core in hole is in plastic trays. Do not preserve core as well - some core obviously moved between rows and many of the wooden interval tags are misplaced or missing.
										33.0 m) Cpy drops considerably after this point ~ 0.2%; amount of qtz stringers and alt. veins also decreasing;


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
										still moderate amounts of epidote stringers. Total magnetite also decreasing - mostly moderate instead of mostly strongly magnetic; core pieces becoming smaller.
										38 m) Epidote minor now.
39.0	45.1	Altered Andesite	Light	V. fine	Alt.	Qtz				Andesite tuff; v. fine to fine grain; light grey-green to brownish grey in colour; mostly too altered to make out any original texture but sometimes can make out xtl shapes (i.e. at 40.5 m can make out 1 to 2 mm chloritized, aligned mafic crystals that make up 30% of rock for 20 cm)
		Tuff	Grey-Green to fine to Brownish-Grey		Veining Foliation	Sericite Calcite Chlorite				- moderate to strong qtz and qtz-sericite alt.; weak to occasionally strong calcite alt.; minor qtz-carb veins with Ø-B alt. - weak foliation; very broken nature of core makes it hard to measure but it seems to be at moderate to high angles to C.A. - pyrite is 1 to 5%; increasing with qtz-sericite alt.; occasionally magnetic - still minor (<0.2% cpy diss. in rock - alt. (qtz-sericite and light brown colour) to a fault zone at 43.5 m 4 cm of fault gouge; below alt. is less again - believe that this unit, which looks dacitic from ~42 to 43.5 m, was originally an andesite which has been altered by qtz-sericite alt. and probably leaching in fault zone - weak foliation not seen elsewhere supports idea.

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
45.1	53.64	Andesite Tuff								Andesite tuff - very poor core recovery; in this interval (25%); no core was recovered from 52.12 to 53.64 m. - from 45.1 to 62.48 m was not sampled - probably due to the poor core recovery - 45.1 to 53.64 m interval - andesitic tuff; fine grain; core with rounded chunks; medium grey-green; Qtz alt.; minor epidote stringers and alt.; occasionally magnetic; minor cpy in magnetic zones; - possible that some of fine grain is a dyke not a tuff but too fine grained and too small pieces to say for sure.
53.64	68.6	Andesite Feld Ppy	Medium to Light Grey-Green med.	Fine to occas.	Ppy Alt.	Qtz Chlorite Sericite	500-1000			Andesite Feld ppy; fine to occasionally medium grain; medium to light grey-green; ppy texture often obscured by later alt. but rock is 40 to 60% feld with up to 5% mafic phenocrysts in a finer matrix. - Rock is highly broken into flakes and looks to be similar to the first andesite ppy unit of KL-19. - Qtz and lesser Qtz-sericite alt.; mafics chloritized; minor calcareous spots; occasionally magnetic spots; pyrite 2 to 3%; minor epidote specks for the first 2 m's, then no more epidote. - Traces of diss. cpy.
(58.75	61.5)		Pale Grey- Green	Fine	Alt.	Qtz Kaolinite, Calcite	500-1000			Lighter colour due to argillic alt. in this zone; rock has clay coatings; quite soft and friable; minor calcite alt.; contacts with darker rock on each side are gradational





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
										Note: Hole previously split and sampled to 46.3 m. Core stored in plastic boxes; fairly good preservation.
0	6.1	Overburden								
6.1	33.7	Andesite	Med.	Med.	Ppy	Qtz		100-500		Medium grain andesite feld ppy; medium greenish grey; 40 to 60%, up to 4 mm feld xtls; sub-euhedral, in a fine grain matrix; compact texture suggests magma rock and not a tuff;
		Feld Ppy	Greenish			Calcite				- chlorite alt. of mafic component, feldspars weakly seritized and now white to pale green
			Grey			Chlorite				- minor Qtz alt. and stringers and minor calcite along fractures and a few stringers
						Sericite				- occasionally weakly magnetic
										- pyrite <1%, finely disseminated
										- some shear along moderate spaced fractures.
										(6.1 to 18.0 m) Fe staining on fractures; very minor malachite. - oxidatn. zone.

 EXPLORATION WESTERN CANADA		<h1>DRILL LOG</h1>				HOLE NO. KL-14		
DRILLING CO.	LOCATION SKETCH	DEPTH	TESTS DIP ANGLE	AZIMUTH	DATE STARTED:	August 21, 1984	PROJECT:	KL1
		COLLAR	- 45°	180°	DATE COMPLETED:	August 22, 1984	N.T.S.:	94D08
					COLLAR ELEV.:	1737 m	LOCATION:	KL1 17 Claim
					NORTHING:	8+00S		
					EASTING:	5+80E		
					AZIMUTH:	180°		
HOLE TYPE					DEPTH:	60.0 m	DATE LOGGED:	September 22, 1984
					CORE SIZE:	B.Q.	LOGGED BY:	Hans Smit

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS	
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L with C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
					Mottled						10 m) Core mostly in very small bits below here; - alt. increases and sometimes get a mottled texture, obscuring ppy texture - moderate qtz alt. (variable) - v. minor epidote after 12.5 m - rock often quite crumbly and has an earthy smell - appear to have weak argillic alt. (also minor white powdery pyrophyllite on some fractures. - Pyrite now ~ 1% finely diss.
(17.6	18.0)	Andesite to Basalt Dyke	Dark Green	Fine		Chlorite Epidote Calcite	Cpy	10-25			Andesite to basalt dyke, fine grain, dark green; - weak calcite and epidote alt.; mafics chloritized - minor diss pyrite and a trace of diss. cpy observed.
									Qtz-Epd vein 30°		17.9 m) 1 cm qtz-epidote (barren) cuts core at 30° to C.A. - Note: core is blocky in dyke interval; return to small broken pieces of andesite feld ppy after 18 cm.
											(19 to 20 m) Traces of diss. cpy observed very fine grain, <0.5% at 20 m none of the rock magnetic anymore.
											22 m Core becomes a bit blockier and less crumbly and less mottled looking (weaker alt.) - still weak qtz and epidote and calcite alt., chloritization of mafics; and still weak clay (argillic) alt. but not strong enough to cause crumbly core for most part.

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 0.5 to 1% finely diss. and in rare qtz stringers. - very minor epidote stringers occur as well.
										27.3 m) Cpy specks for 15 cm in small bits of pyrite stringer.
										28 m) Some increase in calcite; still minor amounts; also a bit more epidote (still minor).
33.7	44.0	Altered Andesite	Med. Grey- Green	Fine to Med.	Mottled Alt.	Qtz Chlorite Sericite Kaolinite	Cpy	500		Andesite, fine to medium grain, medium green-grey; core in small bits and rock quite altered so unknown if a flow or a tuff; some indistinct feld. xtls 1 to 2 mm long discernable but mostly rock too mottled to see original texture. - strong light grey-green chlorite alt. - moderate intensity of qtz, sericite and kaolinite (quite earthy smell) results in crumbly core - minor calcite alt.; no epidote, no magnetite - pyrite 2% disseminated; minor disseminated cpy - no stringers visible
										38 m) Getting up to 3 mm dark green chlorite patches; not really sharp boundaries but sometimes rectangular; these probably are altered augites and now getting into an aug ppy or aug tuff (still andesitic). Also smaller streakier dark chlorite specks (smaller xtls or xtl pieces)

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
										5 to 10%, rarely up to 20% of rock composed darker chlorite;
										- other alt. weaker, core a bit blockier but still in quite small pieces. (weak to moderate qtz-sericite,
										- weak kaolinite),
										- diss. pyrite now 3%, still minor diss. cpy
										- can still sometimes make out feld xtls.
44.0	50.4	Andesitic	Med.	Med.	Ppy	Chlorite	Cpy	100-200		Andesitic feld-aug ppy; medium grain. Alt. has resulted in a mottled texture with former augites a dark green in a grey-green matrix of feldspar xtls and v. fine grain xtls; highly chloritized augite up to 3 mm, but mostly 2 mm, make up 20% of rock; due to alt. their crystal boundaries are not distinct but shapes vary from rectangular to highly anhedral and interlocked with feldspar;
		Feld - Aug	Grey-		Alt.	Quartz				- feldspar xtls are also fairly indistinct but are 1 to 2 mm and appear to make up 40 to 50% of the rock, rest is fine grain matrix.
		Ppy	Green		Mottled	Epidote				- mafics chloritized; feld weakly seritized
						Sericite				- moderate qtz alt. and a few qtz stringers
										- minor to moderate epidote alt. and stringers, a few qtz-epidote stringers
										- non-calcareous, non-magnetic
										- pyrite 3% diss. in rock; very minor disseminated cpy.
										Note:- this unit could be considered to start at 38 m in the previous andesite unit. - core fairly blocky.

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L with C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
50.4	60.0	Andesite	Med.	Med.	Ppy	Qtz		50-100		Andesite feld-ppy; medium grain; medium grey-green; up to 3 mm euhedral to sub-euhedral feld. crystals make up 40 to 50% of rock, rest fine grain green-grey matrix;	
		Feld Ppy	Grey-Green		Veining	Chlorite				- mafics chloritized; feld weakly seritized	
						Epidote				- moderate qtz alt.	
						Sericite				- moderate intensity of qtz-chlorite-calcite-pyrite veins	
						Calcite				- weak to moderate epidote alt. and stringers	
										- minor disseminated pyrite	
										- core blocky	
										(50.4 to 51.4 m) Fine grained with few feld phenocrysts - contact zone.	
									veins 45°	51.3 m) 2 sub-parallel qtz-calcite, chlorite veins 1 cm apart; minor diss. pyrite; veins 2 to 8 mm wide; at ~45° to C.A. chlorite is dark green.	
										(54 to 54.4 m) Rubble of a qtz-chlorite vein with minor calcite and pyrite; qtz white; chlorite dark green.	
										(54.6 to 55.1) Crumbly qtz-chlorite and epidote rich core.	
										60.0 m END OF HOLE	



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
									Note:- Core stored in plastic boxes. Fairly good preservation - most of hole previously split and sampled.	
0	15.2	Overburden								
15.2	72.5	Altered Andesite	Light Grey-Green	V. fine to fine	Alt. Mottled	Qtz Sericite Chlorite Kaolinite Calcite	>500		Altered andesite, very fine grain to occasionally fine grain with visible, altered relic feld. xtl's; probably an altered ash to fine xtl tuff; light grey-green in colour, strongly altered resulting in crumbly core, mottled texture, - core in small, angular pieces - strong pervasive qtz-sericite alt - mafic component chloritized; light green-grey chlorite on moderately spaced weakly sheared fractures. - minor calcareous patches - a few weakly kaolinitic zones - pyrite v. fine to occasionally medium grain 3% to occasionally 5% diss. in rock	

SELCO EXPLORATION WESTERN CANADA		DRILL LOG			HOLE NO. KL-15	
DRILLING CO.	LOCATION SKETCH	DEPTH	TESTS DIP ANGLE	AZIMUTH	DATE STARTED:	PROJECT:
		COLLAR	- 45°	000°	August 31, 1984	XL1
		121.9	- 50°	000°	DATE COMPLETED:	N.T.S.:
					September 1, 1984	94D08
					COLLAR ELEV.:	LOCATION:
					1745 m	KL1-17 Claim
					NORTHING:	
					10+00S	
					EASTING:	
					11+45E	
					AZIMUTH:	
					000°	
					DEPTH:	DATE LOGGED:
					121.9 m	September 23, 1984
HOLE TYPE					CORE SIZE:	LOGGED BY:
					B.Q.	Hans Smit



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	
										- non-magnetic, no cpy observed	
										- very minor qtz stringers	
										- there is a weak foliation and most common fracture direct. in core of the rock. Appears to be at low $\angle$ to C.A. However highly broken nature of rock makes it impossible to say if this is always so.	
										(24.5 - 25.0 m) Very sericitic, soft core layered $\wedge$ parallel C.A.; pulverizes into soft mush; not as pyritic as main part of unit.	
										28.0 m) A decrease in alt.: moderate qtz-sericite, still minor calcite plus moderate pale chlorite;	
										- rock a little less broken and crumbly	
										- pyrite 2 to 3%	
										32 m) Alt. back to original strength.	
(33.7	35.0)	Andesite	Med.	V. fine	Stringers	Qtz		50-100		Very fine grain andesitic dyke; medium greenish grey; silicic alt. makes it quite hard; mafic component chloritized; minor discontinuous calcite stringers at various orientations; minor diss. pyrite.	
		Dyke	Greenish			Calcite					
			Grey			Chlorite					
										35 m) Return to a thick section of the altered andesite; pale grey-green, strong qtz-sericite alt. minor pale chloritic shears; minor calcite; 3% diss. pyrite;	

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	
										occasional weak kaolinite, - highly altered, crumbly rock in small angular pieces - very minor qtz stringers - occasionally can make out 1 to 1.5 mm feld xtls but mostly too altered of fine grain to see original texture.	
										47.4 m) Rock becomes a bit darker, greener; - less qtz-sericite alt.; old log reports magnetite around 48.5 m but none was detected so any MGT is very minor, pyrite 2 to 3%; a few tiny specks of cpy found at 49.0 m. - core a little less crumbly and broken.	
										52.2 m) Qtz-sericite alt. increases again and is strong to very strong by 54 m. Rock pale grey-green again, shearing also increases, mostly parallel to subparallel C.A.; pyrite 2 to 3%. - occasionally get minor kaolinite again.	
										(57.5 to 60.5 m) Zone of highly sheared rock strong alt; crumbly, flakey rock very sericitic, minor kaolinite.	
										62.8 m) A few pyrite-qtz stringers with minor cpy - old logs mention clay and pyrite banding here - only minor cpy, a few stringers, not banding.	

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
63.8	64.3	Andesite	Dark	V. fine	Veining	Chlorite		50-100		Very fine grain andesitic to basaltic dyke, mafic component chloritized; broken core with 8 mm Qtz-carb vein; only a trace of pyrite.
		to Basaltic	Green			Qtz				
		Dyke				Calcite				
										64.3 m) Alt. decreasing in main altered andesite unit.
										68.1 m) Further decrease in alt.; rock now fairly green, only minor sericite, pyrite ~2%;
										- from here to end of unit at 72.3 m get 20 to 40 cm intervals of quite green, blocky core, interspersed in more altered, greyer and more crumbly core.
72.5	92.1	Hornblende	Med.	V. fine	Ppy	Chlorite	Cpy	50-100		Hornblende diorite; v. fine to medium grain, medium grey-green.
		Diorite	Green-	to fine		Quartz				
			Grey	to med.		Calcite				- Up to 73.5 m the rock is very fine grain and textures not easily discernable but at 73.5 m it gets up to fine grain and can see euhedral Hbld. in a feld-rich matrix with minor augite. By about 82 m the rock becomes medium to fine grain and the Hbld-ppy texture is quite distinctive.
										- Get 25 to 30% fairly euhedral hbl crystals, majority < 1 mm but commonly 1 to 2 mm and occasionally larger (up to 10 mm observed); dark green, chloritized,
										- in a white, feldspar-rich matrix
										- < 5% 1 to 2mm, more equidimensional augite - hbl are highly elongated to needlelike

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
										- mafics chloritized; chlorite on moderate spaced fractures.
										- minor calcite stringers, generally discontinuous at moderate to high L's to C.A.,
										- very minor qtz-carb stringers and veins,
										- very minor hematite on fractures,
										- minor (<0.5%) diss. pyrite,
										- trace of diss. cpy along fractures observed.
										Note:- This unit was called a basaltic andesite in old log; core of this unit was not previously split, except for one sample taken from the entire interval of 72.2 to 96.6 m.
										(- An outcrop of similar hbl'd diorite is found along creek below camp).
										(79.8 to 80.3 m) Quite silicified; core pieces somewhat rounded.
										80.7 m) 5 cm of rubbly calcareous core - small fault probably.
										(85.1 - 85.6 m) Lighter grey-green, silicified, moderately sericitic, 2% pyrite; highly altered, mottled rock; weak foliation at 30 to 40° to C.A.
										- either highly altered hbl'd diorite or else a short



EXPLORATION  
WESTERN CANADA

# DRILL LOG

HOLE NO. KL-15

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	
										interval of the main altered andesite unit.	
92.1	101	Altered Andesite	Pale to Light Grey- Green	V. fine	Mottled Sheared Altered	Qtz Sericite Chlorite		500		Altered andesite; same unit as beginning of hole; pale to light grey-green; moderately to strong Qtz-sericite alt.; pale grey-green chlorite along shears; minor calcite; pyrite 3% diss. in rock, - rock too fine grained and/or altered to see original texture, - minor kaolinite - weak to moderately sheared at low L's to parallel to C.A., - core brittle and crumbly.	
										(92.1 - 94.0 m) Minor diss cpy; trace cpy after that	
										(100.5 to 101) Very strongly altered, strongly sheared; rock quite pale coloured; some of core quite disintegrated.	
101	121.9	Andesitic Augite Xtl Tuff	Med. to Dark Green	Fine	Mottled Altered	Qtz Sericite Chlorite Calcite	Cpy	100-500		Andesitic augite crystal tuff; fine grain, medium to dark green. Quite altered and sheared but can still make out some chloritized augite crystals; generally too altered and mottled to make out original texture, - mafics chloritized plus dark green chlorite along fractures, - moderate intensity of pervasive Qtz-sericite alt.,	

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
										- minor calcareous fractures,
										- rock somewhat brittle; fractures at low L's to C.A.; some weak to moderate shearing,
										- pyrite 3% to 104 m, 1 to 2% after that,
										- occasionally weakly magnetic due to very fine grain MGT along fractures,
										- minor diss. cpy along fractures (sporadic occurrences),
										- core in angular, generally less than 3 cm long, often flakey pieces.
										110.5 m) A 5 cm block of less altered core shows original textures; 1 to 3 mm augite crystals, dark green, chloritized; stretched out at low L to C.A. make up ~3% of the rock; pyrite now mostly 1% and less; occasionally 2%. Still minor sporadic cpy.
										116 m) Rock a bit more pyritic again (1 to 2%).
										120.3 m) 20 cm interval, highly siliceous, with 3 to 4% cpy diss. in rock.
										121.9 m END OF HOLE



SELCO		EXPLORATION WESTERN CANADA		DRILL LOG						HOLE NO. KL-16		
DRILLING CO.		LOCATION SKETCH		DEPTH	TESTS DIP ANGLE	AZIMUTH	DATE STARTED:		PROJECT:			
				COLLAR	- 60°	240°	August 1984		KL1			
							DATE COMPLETED:		N.T.S.:			
							August 1984		94D/8			
							COLLAR ELEV.:		LOCATION:			
							NORTHING:		KL1 4 Claim			
			400S 59+70N									
			EASTING:									
			1075W 64+90E									
			AZIMUTH:									
			240°									
			DEPTH:									
			163.4 m		DATE LOGGED:							
			CORE SIZE:		August 30, 1984							
			N.Q.		LOGGED BY:							
					Hans Smit							
INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE		REMARKS	
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	I. with C.A.	{FRACTURES, FAULTS, FOLDING, BEDDING, ETC}	MINERALIZATION, TYPE, AGE RELATIONS	
0	9.14	Casing										
9.14	14.0	Andesitic	Med.	Fine	Lappilli	Epidote	-	50-100	Fractures	Andesitic xtl-lithic tuff; 1 to 2 -m pale green		
		Crystal-Lithic	Grey-		Ppy	Chlorite			45°, 20°	(saussuritized) feld xtls in an aphanitic grey-green		
		Tuff	Green			Qtz				matrix with rare darker lapilli up to 2 cm;		
										- up to 2 mm wide rare epidote stringers,		
										- rare Qtz stringers up to 4 mm a 45° to C.A.,		
										- core slightly to moderately magnetic; <1% finely diss. pyrite,		
										- minor broken augite crystals,		
										- mafics chloritized,		
										- core blocky, fractures at 20° and 45° to C.A.		
14.0	70.2	Andesitic Feld	Med.	Fine	Ppy	Epidote	-	50-100	Fractures	Andesitic feld ppy; lose lapilli and tuff texture but		
		Ppy	Grey-			Chlorite			45°, 20°	similar rock; at (15.0 - 16.5 m) rock is more mottled		
			Green			Qtz				textured; irregular white masses constitute up to 30%		
										of the core surface with porphyritic texture for rest -		
										alt. by silica results in hard rock; rock appears more		



INTERVAL		ROCK TYPE	DESCRIPTION						L. with C.A.	STRUCTURE (FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	REMARKS MINERALIZATION, TYPE, AGE RELATIONS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE			
										flow-like (more euhedral feldspar and no lapilli) but no contact with tuff seen. Rare qtz stringer still; some cocks-comb texture and open spaces; core more magnetic; trace diss. MGT in core and MGT along fractures and stringers with epidote; pyrite constitutes up to 5% of some epidote stringers but is <1% of total rock; vug at 18.0 m that has qtz enveloped with fine xtl epidote inside and pyrite coating the epidote, showing relationships; trace cpy in stringers; moderate to weak stringer intensity	
(20.2	20.53)	Andesite		Very Fine	Fine					Far less feld xtls, fine grain tuff layer or non-pyritic flow (top ?); top contact in broken rock but bottom contact visible; runs ~20° to core axis; no contact metamorphic effects; qtz stringer covers some of contact; minor calcite blebs in this unit.	
				Fine	Grained					- At 21.95 there is a 4 cm highly pyritic zone; stringers of pyrite up to 3 mm; ~ 10% of rock is py over 4 cm.	
									Fractures 10°-20°	- At 22.75 m chlorite and epidote plus striations along fractures that are 10° to 20° from core axis.	
(23.90	24.28)	Contact								Contact between medium fine feld porphyritic andesite and a fine grain and. runs ~ 11 to C.A. cut off at top by a fracture running 020° to C.A.; ~0.5 cm chill zone - either flow contact or else subvolcanic dyking.	

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE		REMARKS	
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L with C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
(24.28	24.58)	Shear Zone				Argillic/ Sericitic		>100	10-30°		Zone of strong shearing; argillic alt. in shears; py 1%; minor carbonate; epidote; below the zone there is ~40 cm of fairly strong epidote stringering; some calcite;	
(26.42	29.40)		Med. Grey								Core very broken, rounded, only 37% recovery; some of it it is softer (sericitic alt.?) and paler grey with 1 to 3% diss. py throughout (~1/3 is, but likely much of this rock type is lost).	
(29.40	32.26)			Fine to V. fine				>100			Core more blocky again; medium grey-green andesite; fine grain; still porphyritic; moderate epidote stringers; minor epidote stringers; minor qtz with envelopes up to 4 cm that contain 5-15% pyrite (fine xline); rock gets more rounded by 32.26.	
(32.46	32.76)		Light Grey	V. fine		Sericitic					Small rounded core; light grey; soft; suspect an altered feld-rich dyke; no contacts preserved cut by minor silicic and pyritic stringers. Not magnetic.	
											Core adjacent downwards is lighter grey-green and grades to medium colour over ~40 cm. Traces of cpy including one 3 mm bleb; still generally quite broken but more angular; minor calcite, chlorite along slickensides.	
(35.51	36.40)		Lt. Grey to Green Grey	V. fine to fine							Another light grey unit 28 cm long followed by light grey green fine grain and. for 35 cm, 10 cm of grey and then more light and.; core very broken so no contacts observable; not magnetic.	

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L with C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC):	MINERALIZATION, TYPE, AGE RELATIONS
(36.42	39.60)	Andesite	Med. to	Fine to	Porph.	Qtz		50-100			Fine to medium fine grain massive andesite; trace diss. py within; less stringers than before; now only minor Qtz and epidote stringers; Qtz alt. pyrite up to 5% in alt. zones a few mm wide; rock only slightly magnetic to non-magnetic; appears to be some weak alignment of feld xtls; some carbonate along a few sporadic shears (<1 m).
			Light	(occasionally medium)		Epidote					
			Grey-Green								
(39.60	41.18)	Andesite/Dacite	Light		Fine						Lighter less green rock; possibly more dacite layer or possibly silica altered andesite no contact preserved 1 to 2% pyrite; harder than the grey unit of 35.51-36.42 m.
			Grey		Grain						
(41.18	60.75)				Porph.						After get back into fine grain feld ppy andesite. A few dark green highly chloritic bands up to 3 mm (only one side preserved) with up to 2 cm lighter alt. in andesite along them (depletion phenomenon??); rock only occasionally magnetic; only minor Qtz and epidote; trace calcite in shears with chlorite; core quite broken but not very sheared.
									Comp. bands 30°		-At 48.75 m get a few faint bands (comp. layering?) that are 30° to C.A. some calcite in fracture all to C.A.
									Fractures 70°, 45°		before this rock 48.75 m to ~49 m is greyer, 2 to 3% pyrite, then back into grey-green rock. At about 53 m rock gets a bit darker colour but for the rest it is the same;
									Fault 45°		-At 56.9 m there is a fault zone with fault gouge at 45° to C.A.; 10 cm of greyer pyritic rock below; fault gouge and a few spots below are calcareous;

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS	
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	J. WITH C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
											-At 59.9 m there is a > 2 cm qtz-epidote and pyrite alt. envelope that is at 35° to C.A.
(60.75	61.86)		Med. Grey- Green	Fine	Mottled				Fracture 70°, 40°		Rock has a distinctive mottled texture with dark blebs up to 1 cm across in light greenish rock; finely diss. pyrite throughout; (<1%); rock more equigranular, fine grain; cause of mottled texture uncertain; rock moderately soft; light green due to epidote; darker colour uncertain (chlorite??), - occasionally slightly magnetic.
(61.86	62.65)	Andesite Feld Ppy	Light Grey- Green								Rock becomes lighter colour, still mottled; occasional calcite altered fractures with some chlorite; calcareous fault gouge at 62.26 m, 3-5% py in rock, especially along fractures; rock harder; green (darker) patches appear to be due to very fine chlorite in rock, - still rare magnetic pieces (weak).
(62.65	64.2)		Med. Grey- Green					> 100			Medium grey-green colour to rock again same as unit from 60.75 m to 61.86 m, except more py (1 to 2%); epidote as fracture coating and some within rock, but not many stringers left. -At about 64.2 m mottled texture becomes less prominent.
(64.2	70.2)		Grey- Green	Fine	Ppy	Epidote Chlorite		100	Fract. 90°, 45° 65°, 20°		Back into a fine grain andesite feld ppy; grades from medium grey-green to light grey green over ~40 cm. - pyrite 2 to 3% diss. and in stringers; not magnetic;



EXPLORATION  
WESTERN CANADA

# DRILL LOG

HOLE NO. KL-16

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	WICH C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
											More calcite along fractures now than before; but still only weak amounts; some minor chlorite along shears as well, but generally core is quite hard and mafics do not appear to be highly altered. At the bottom of this unit is a broken 1 cm barren qtz vein.
70.2	137	Andesite	Med. Grey	Fine	Foliation	Chlorite	Cpy	>100	Shear		Marked difference in core appearance; no longer porphyritic; rock much softer (altered); chlorite alt. and moderately to occasionally strong calcite alt.; calcite stringers of moderate intensity; somewhat less pyrite (1 to 2%); grades from a medium to dark grey-green at 70.2 to a light greenish grey at 72.2 m; lighter colour has more mottled texture; only trace amounts of epidote; in darker core lighter calcareous blebs up to 2 mm outline foliation; after 71.3 m core becomes very broken; a few zones (i.e. 74.4 to 74.6 m) are light green-grey ppy as seen above - possibly interbedded flows and tuffs; minor qtz stringers (discontinuous), especially after 76.4 m, - occasionally weakly magnetic.
		Tuff	Green to Green		Shearing	Calcite			Calcite Str. 40°		
					Stringers	Qtz			Fractures	90,55,45, 20,70°	
						Sericite					
						Epidote					
(75.9	79.8)	Andesite	Med.	Fine	Ppy	Saussuritized					Another larger ppy unit within the tuffs; feld sauss.; minor epidote; calcite; minor calcite and qtz stringers; appears some as upper andesites; py <1%, (rarely up to 2%); foliation not developed in this unit but do get calcite stringers at 40-45° (minor, < 1 mm to 2 mm). Traces of cpy, some along fracture at 79.6 m.
		Feld Ppy	Grey-Green			Epidote	Cpy	>100	Stringers	40-45°	
						Chlorite					

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS	
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L with C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
			Med. to	Fine	Foliation	Calcite		> 100		- At 79.8 m start back into tuffs; gradational contact;	
			Light	to med.	Shearing	Chlorite				foliation shown by mafics at 10 to 20° to C.A.	
			Grey-Green		Alt.		CPY		Foliation	- At 84.0 m start getting pale orange-brown coatings on calcite stringers, which become moderately abundant below; (probably post-drilling oxid.) trace cpy found except for a few places such as 84.05 m where the rock is ~1% cpy over 4 cm; cpy is diss. along foliation, concentrated in mafic grains; at 83.25 get calcareous fault gouge at 10° to core axis, continues till 83.55 m.	
									10-20°		
									Veins mostly	- Sometimes some qtz in stringers such as a variable width (up to 8 mm) qtz-carb one at 87.02 m with abundant pyrite; but most stringers are soft, white (β-B weathering) and calcareous - not all are 100% calcite - possibly a lot of host rock still, or possibly some albite with stringers.	
									10-20°		
										- By 88.5 m alt. halos around the stringers become more pronounced and the rock sometimes has a patchy appearance with the rock a light brownish light grey in patches and grey-green for the rest; the brownish-grey patches are soft and occasionally mildly calcareous - sericitic??	
									MGT band	- At 89.5 m a 1 cm wide MGT band cuts the core at 30° to C.A.	
									30°	cut off by fracture running 10° to C.A.	
										- mafics are highly chloritized, elongated with foliation, up to 2 mm long; foliation angle seems to change but is most often 40-45°; sometimes less by 90 m.	



EXPLORATION  
WESTERN CANADA

# DRILL LOG

HOLE NO. KL-16

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS	
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L with C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
		Andesitic							MGT/py	At 91.90 m another 5 mm MGT/py vein cuts core at 35°	
		Tuff							35°	- around 93.3 m get up to 1 cm elongated dark green blebs - possibly mafic lapilli elongated along foliation	
										minor to trace cpy in core.	
(95.32)	(95.60)	Shear Zone	Light	Fine	Foliated	Chlorite		>1000	Shear	Shear zone; fault gouge; highly broken; moderately calcareous; some qtz veins (up to 1 cm).	
			Grey-Green		Sheared	Calcite			45°		
					Faulted	Sericite					
(95.60)	(106.0)		Med.	Fine to		Chlorite				Core goes from light to medium grey-green; fewer $\beta$ -B weathering stringers; a bit harder rock; only very slightly calcareous except for a few stringers, <1% diss py, except for occasionally stringers; still a weak foliation present at first but lose it as rock becomes very fine grained and very recrystallized looking; amount of deformation increases, get multi-directional fractures; non-linear shears and stringers; still a few calcite stringers; trace cpy in in diss. blebs.	
			Grey-Green	V. fine		Calcite		>500			
			Green						Cpy		
(106.0)	(118.9)	Andesite-Dacite	Light	Fine	Foliated	Calcite			Faulting	Rock becomes lighter again; increase in pale $\beta$ -B weathering; rock intensely deformed; foliations with some compositional banding deformed in multi-direct., small (1 to 3 mm) qtz banding (rare); fault gouge zones up to 2 cm wide preserved; seem to be ~60° to C.A.; py ~1%; rock appears to be completely recrystallized.	
		Ash Tuff	Greenish		Folded	Chlorite			60°		
			Grey		Sheared	Sericite					
					Faulted	Qtz					

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L with C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
(108.6	108.85)	Gabbro	Med. to Dark Green	Fine	Ppy	-	-	>100		Rounded core of a medium to dark green gabbro dyke with 1.5 mm rounded feld phenocrysts in a fine grain matrix; trace diss. pyrite; contacts not preserved; not sheared or altered.	
					Shear Faulting Foliated					(109.1 - 109.5 m) Fault zone, at least 3 fault cut through, 2 at 60°, other unknown, core has a 'swirly' texture.	
						qtz				After about 1/2 m foliation becomes less pronounced, but unit continues till 118.9 m (with some foliation areas and microfaulting still prevalent); some qtz alt., especially 115.6 - 115.8 m.	
(118.9	126)	Xtl-lithic Tuff	Med. Green- Grey	Fine		Chlorite Sericite		>100		Not a sharp contact but rock becomes darker green-grey over 10 cm; don't see good composition foliation anymore. Looks more xtlite - xtl tuff; still somewhat deformed but less so; at 121.75 get highly elongated lapilli up to 2 cm, foliation running 45° to C.A.; not multi-deformed anymore by this point; py 1-3%; minor calcareous stringers; py diss. throughout rock and in thin diss. stringers; unit grades into more ppy looking unit.	
(126	131.70)	Andesite Feld Ppy	Med. Green- Grey	Fine to Med.	Ppy Massive	Chlorite Sericite	Cpy	50-100 15,45,70°	Fractures	Contact with overlying xtl-lithic tuff taken as the point where pale green feld phenocrysts become prevalent for an extended length; get anhedral to subhedral feld up to 4 mm, saussuritized; generally coarser grained feldspar than	



INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L with C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
											earlier andesite; massive; some fractures have chlorite/calcite coating and slickensides; at 127.8 m there is a 1 cm wide chlorite vein within a qtz envelope.
											-At 128.5 m 1 cm qtz vein running 30° to C.A. with a few blebs of cpy up to 1 cm big; rock quite hard so not highly altered; pyrite <1%, finely disseminated.
130	140.3	Andesite									Hematite staining along moderately spaced fractures, some with calcite; rock still weakly alt., not very much hematite generally;
											- another 1 cm qtz vein with cpy at 131.6 m, some chlorite in vein as well.
132.3	137	Andesite	Med.			Chlorite	Cpy				Once again contact between this unit and overlying not definite, but ppy text becomes less obvious; xtls look more broken, areas where no xtls evident; minor epidote stringers; chlorite alt. of mafics; minor diss. cpy; and minor cpy along fractures with epidote, chlorite and calcite; core quite broken and rounded near end of this unit
		Xtl Tuff	Grey-			Epidote					
			Green			Sericite					
137	163.4	Andesite Tuff	Med.	V. fine	Veining	Gypsum	Cpy	50-100	Fractures		Most notable feature is quality of core; long, unbroken pieces.
		(Ash to	Grey-	to fine	massive	Epidote			70, 30°		
		fine Xtl)	Green			Calcite			Stringers		-Andesitic ash tuff, massive; medium green grey; fine grained; some feld xtls up to 1 mm.
						Chlorite			35-45°		

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L. with C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
						Quartz					Make up to 2% of rock; also rare darker green lapilli up to 0.5 cm;
						Calcite					- abundant <1 to 5 mm (mostly <1 mm) calcite stringers, moderately spaced up to 5 mm epidote stringers and occasional gypsum stringers; a few zones up to 10 cm wide have abundant stringers, pale brownish-grey colour and sometimes qtz-sericite alt; mafic chlorite;
											- diss. py (1 to 2%) and minor cpy plus some diss. cpy in calcite stringers; only minor amounts; a few qtz stringers with cpy as well; occasionally weakly magnetic
											- fractures are moderately to closely spaced; 30° and 70° to C.A. are predominant direct.
(138.1	138.84)	Fault Zone							Fault zone 50°		Fault zone; rock disintegrates into small bits; no apparent increase in mineralization; traces of hematite staining; top is at 50° to C.A.; bottom not preserved; core rubbly for next 40 cm after, then less broken again.
(139.44	139.78)	Fault Zone							Fault 15°		A fault gouge zone runs 15° from C.A.; bottom half side of core is much; gypsum, minor calcite in zone.
											By 143.5 m qtz stringers and alt. becomes more common, and calcite somewhat less, still minor epidote and gypsum; some fine xtl tuff layers (144 m to 145 m; 147 to 148 m) but no definite contact.

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS	
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L with C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
									Qtz, 1/8 in 25°	145.48 m - 1 cm wide white, barren qtz-gypsum vein at 25° to C.A.; chloritic shear runs parallel to it 1 cm below; some qtz alt. for 6 cm below; rock occasionally magnetic.	
(146.6	146.82)	Fault Zone								Fault zone; core breaks into small bits, soft; minor gypsum.	
(149.53	149.6)		Lt. Grey			Qtz				Rock is light grey due to qtz alt. some gypsum stringers.	
(150.07	150.20)					Qtz			Alt.	13 cm zone of strong gypsum, qtz alt.; lies 60° to C.A., weak layering parallel to this; may be due to alt. but may be original composition - if is possibly qtz and gypsum is chemical sed, not alt.	
						Gypsum			Zone - 60°		
									contact?	-At 150.63 possible tuff contact, not planar, runs 40 to 60° to C.A.	
									40°-60°		
(150.95	151.85)	Xtl Tuff								Fine xtl tuff with ~5% aug xtls, minor diss. MGT, contact gradational on each side.	
									Qtz vein 30°	-154.53 m - 1.5 cm qtz vein runs 30° to C.A.; milky white, barren.	
									Alt. 60°	-154.04 m - 5 cm wide zone with ~15% gypsum, 15% pyrite - highly fractured.	



SELCO		EXPLORATION WESTERN CANADA		DRILL LOG				sample data				
SAMPLE				CORE RECOVERY		VISUAL ESTIMATES (% ORE MINERALS)	GEOCHEM RESULTS					
NUMBER	FROM	TO	TOTAL METRES	Sp. Gr	%		AMT. LOST	Au (ppb)	Cu (ppm)	Ag (ppm)		
871001	9.14	12.0	2.86		100			65	320	0.3		
871002	12.0	15.0	3.0		100			45	728	0.4		
871003	15.0	18.0	3.0		100			150	1862	1.3		
871004	18.0	21.0	3.0		83	17		110	535	0.8		
871005	21.0	24.0	3.0		95	5		985	1630	3.8		
871006	24.0	27.0	3.0		95	5		245	846	1.6		
871007	27.0	30.0	3.0		20	80		65	538	0.6		
871008	30.0	33.0	3.0		85	15		125	873	1.0		
871009	33.0	36.0	3.0		100			30	439	0.3		
871010	36.0	39.0	3.0		100			40	394	0.3		
871011	39.0	42.0	3.0		100			35	347	0.4		
871012	42.0	45.0	3.0		72	28		15	277	0.2		
871013	45.0	48.0	3.0		100			85	212	0.2		
871014	48.0	51.0	3.0		100			20	185	0.3		
871015	51.0	54.0	3.0		100			15	180	0.1		
871016	54.0	57.0	3.0		100			5	100	0.2		
871017	57.0	60.0	3.0		100			15	216	0.3		
871018	60.0	63.0	3.0		100			60	634	0.8		
871019	63.0	66.0	3.0		100			20	192	0.3		
871020	66.0	69.0	3.0		100			60	903	0.7		
871021	69.0	72.0	3.0		100			5	244	0.3		
871022	72.0	75.0	3.0		100			20	122	0.2		
871023	75.0	78.0	3.0		100			30	404	0.3		
871024	78.0	81.0	3.0		100			60	653	0.6		
871025	81.0	84.0	3.0		100			175	586	1.7		

SELCO		EXPLORATION WESTERN CANADA		DRILL LOG				sample data					
SAMPLE				CORE RECOVERY		VISUAL ESTIMATES (% ORE MINERALS)	GEOCHEM RESULTS						
NUMBER	FROM	TO	TOTAL METRES	Sp. Gr.	%		% AMT. LOST	Au (ppb)	Cu (ppm)	Ag (ppm)			
871026	84.0	87.0	3.0		100	Nil		105	707	0.7			
871027	87.0	90.0	3.0		100	"	1% calcopyrite	265	1934	1.6			
871028	90.0	93.0	3.0		100	"		60	423	0.7			
871029	93.0	96.0	3.0		100	"		45	274	0.7			
871030	96.0	99.0	3.0		100	"		75	543	0.6			
871031	99.0	102.0	3.0		100	"		95	824	0.7			
871032	102.0	105.0	3.0		100	"		60	274	0.3			
871033	105.0	108.0	3.0		100	"		55	284	0.7			
871034	108.0	111.0	3.0		100	"		210	307	1.1			
871035	111.0	114.0	3.0		100	"		80	387	0.6			
871036	114.0	117.0	3.0		100	"		150	408	1.8			
871037	117.0	120.0	3.0		100	"		75	465	0.9			
871038	120.0	123.0	3.0		100	"		30	241	0.2			
871039	123.0	126.0	3.0		100	"		30	153	0.1			
871040	126.0	129.0	3.0		100	"	Trace calcopyrite	5	58	0.1			
871041	129.0	132.0	3.0		100	"		5	142	0.1			
871042	132.0	135.0	3.0		85	15		20	217	0.1			
871043	135.0	138.0	3.0		85	15		30	312	0.1			
871044	138.0	141.0	3.0		100	Nil		25	204	0.1			
871045	141.0	144.0	3.0		100	"		55	254	0.4			
871046	144.0	147.0	3.0		100	"		80	323	0.2			
871047	147.0	150.0	3.0		100	"	Trace calcopyrite	190	319	0.3			
871048	150.0	153.0	3.0		100	"		50	443	0.3			
871049	153.0	156.0	3.0		100	"		130	606	0.3			
871050	156.0	159.0	3.0		100	"		55	481	0.3			
871051	159.0	161.0	3.0		100	"		75	588	0.3			



INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE		REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L with C.A.	{ FRACTURES, FAULTS, FOLDING, BEDDING, ETC }	MINERALIZATION, TYPE, AGE RELATIONS
0	6.1	Casing									
6.1	39.15	Andesite	Med.	Fine	Ppy	Chlorite	Cpy	50-100	Fractures	Fine grain feld-ppy andesite; medium grey-green colour;	
		Feld Ppy	Grey-			Calcite			Stringers	generally ~1 mm but up to 2 mm light greenish white feld-	
			Green			Epidote				spar xtls make up ~30% of rock, subhedral; to anhedral;	
						Sericite				rest is matrix of very fine to aphanitic slightly chlorit-	
						Qtz				ized mafics and probably more feldspar.	
										- Minor epidote stringers, v. minor calcite on fracture	
										surfaces; mafics weakly chloritized; feldspar saussur-	
										itized; most of rock is weakly magnetic, rarely mod.	
										magnetic, minor pyrite diss. throughout, and with epidote	
										stringers; trace diss. cpy; blocky core.	

SELCO		EXPLORATION WESTERN CANADA		DRILL LOG				HOLE NO. XL-17	
DRILLING CO.	LOCATION SKETCH	DEPTH	TESTS DIP ANGLE	AZIMUTH	DATE STARTED:	PROJECT:			
		COLLAR	90°	240°	August 15, 1981	KL1			
					DATE COMPLETED:	N.T.S.:			
					August 17, 1981	94/B			
					COLLAR ELEV.:	LOCATION:			
						KL1 6 Claim			
					NORTHING:				
					400S 59+70N				
					EASTING:				
					1075W 64+90E				
					AZIMUTH:				
					240°				
					DEPTH:				
					54.6 m	DATE LOGGED:			
					CORE SIZE:	September 1, 1984			
					N.O.	LOGGED BY:			
						Hans Smit			



INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS	
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L WITH C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
6.1	14.33	Oxidation Zone			Iron Staining						From the casing to 14.33 m get iron oxide staining and minor malachite staining - oxidat. zone.
7.6	33.0				Blotchy	Qtz					Moderate to strong quartz alt. that affects about 10 to 15% of the rock results in a 'blotchy' appearance due to its lighter green colour than non-qtz altered rock - Note; only rare qtz stringers.
12.6	15.0							>1000			Core is very broken; mostly ~1 cm rounded pebbles - same rock as blocky core so reason for core disintegration unknown.
15.45	15.75	Andesite	Med. Grey- Green	V. fine Grain							Very fine grain andesite, not porphyritic; contacts with ppy not preserved so unknown if dyke or possibly a flow top
									MGT /Epid vein 300		At 17.0 m a 2 mm MGT/epidote vein runs at 30° to C.A.; some MGT found with epidote in stringers but ones of this thickness or MGT content are rare. - Fractures have up to 3 to 5% py coating, but total py still <1%.
19.0	21.05				Breccia.			>1000			Around 19 m the rock becomes much more broken; ppy texture largely masked by irregular lighter and darker areas; as rock after this is slightly different in texture and comp. than preceding rock suspect that this is a flow top breccia

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	
										zone; the last 20 cm or so of this interval contain abundant pyrite (5%) in association with epidote fairly magnetic.	
(21.05	32.8)	Andesite	Lt.-med.	Fine	Ppy	Epidote				A lighter andesite feld ppy, also fine grain, feld phenocrysts not as visible but actually more abundant than before (~50%); still minor epidote stringers, rare calcite and qtz epidote stringers, rare calcite and qtz stringers; minor pyrite stringers and diss. pyrite (<1%); less magnetic than previous interval at first but as go down get increasing magnetism, epidote and magnetite stringers; rock gets blotchy dark green patches within are more magnetic - (appear to be magnetite and some chlorite alt.); fracture controlled, up to 40% of rock altered in some spots; fractures and MGT/epidote stringers are closely spaced, multi-directional; rock gets more 'shattered' looking and by 25.8 m most fracture spacings <1 cm in any direction.	
		Feld Ppy	Green Grey to Med.-Dk. Grey- Green		Veining; Alt.	Chlorite Magnetite				- Traces to minor amounts of cpy and minor pyrite stringers also occur. - Rock looks darker green-grey much of the time but believe this is a product of later alt., not original composition. - Amount of cpy higher in this zone than before but still much <1% of rock.	
										Note:- pyrite/epidote vein, non magnetic, cuts altered rock.	

INTERVAL		ROCK TYPE	DESCRIPTION							SYRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS	
32.8	33.95	Andesite	Med.	Fine	Ppy	Epidote	Cpy	100-500	Qtz	At 32.8 m there is a 2 mm qtz stringer running 30° to C.A.;	
			Grey-			Qtz			30°	below the stringer rock is much less fractured, less	
			Green			Magnetite				magnetic (but still moderately) and more homogeneous	
										looking (not mottled or blotchy). Fine grain feld ppy	
										texture like that in begin of core is found; minor qtz	
										and epidote vein stringers; minor py, trace cpy.	
33.95	39.15	Andesite	Med.-Dk.	V. fine	Alt.	Epidote	Cpy	100-500		Andesite, very fine grain, medium to dark grey-green;	
		Tuff	Grey-Green		Veining	Magnetite				- ppy texture suddenly end; colour darkens and magnetism	
						Qtz				increases; possibly more altered interval of above	
						Calcite				layer that masks ppy texture but not sure - else	
										finer grain andesite or maybe andesitic tuff;	
										- moderate to minor epidote veining, moderately spaced	
										qtz stringers often with 1 to 2 mm wide qtz alt.	
										envelopes; epidote veins observed cutting qtz; v.	
										minor calcite sometimes with qtz; magnetite not readily	
										visible so most must be very fine grain within the rock,	
										quite magnetic;	
										- pyrite (~1%) with epidote in stringers and lesser	
										amounts in qtz stringers; py/epidote stringers are	
										multi-directional; cut qtz stringers; cross-cut each	
										other; they are generally 1 mm and less in thickness	
										and of weak to moderate intensity;	
										- minor cpy is found associated with both the quartz and	
										epidote/pyrite stringers in a few places it constitutes	
										close to 1% of the rock over a few cm, but generally	

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
										is much 1% of rock; v. minor hematite staining on fractures.
(39.15	48.4)	Andesite	Med.	Fine to	Ppy	Epidote	Cpy	>1000		Medium grey-green fine to medium grain andesite, feld 60 to 70%, mafics 30 to 40%; core is largely in small chunks 2 cm and less in size; increasingly poor core recovery was obtained from here to end of hole.
		Feld-Ppy	Grey-	Med.	Alt.	Qtz				
		(Diorite?)	Green		Veining	Chlorite				- Generally more intrusive looking (diorite?) than previous andesite and feld ppy, interlocking xtls, 'grainy' texture (from 6.1 to 39.15 m). - Minor epidote stringers and minor Qtz stringers, sometimes with Qtz alt. envelopes; except for a few small zones, rock only very slightly magnetic; pyrite (1 to 2%) diss. in rock along fractures, and in epidote stringers; minor cpy found - seems to be most commonly assoc. with Qtz stringers and alt; minor MGT concentrated in a few 1 to 2 cm zones.
(48.5	48.95)	Diorite	Med. to	V. fine	Massive	Calcite		500-1000		A 45 cm diorite to basalt dyke that is darker grey-green and much finer grained than main andesite diorite; no contacts preserved; weak calcite and chlorite alt.; minor calcite stringers; no pyrite or cpy.
		to Basalt	Dark Grey-Green			Chlorite				- Main and/diorite is on each side.

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
48.4	49.70	Andesite	Med. to	Fine	Ppy	Epidote	Cpy	500-1000		Fine grain medium grey-green andesite feld-ppy; this unit resembles other andesite feld-ppy higher in hole (30% feid phenocryst generally ~1 mm long, saussuritized, in an aphanitic medium to dark grey-green matrix); upper contact with overlying andesite not preserved; by bottom contact there is 3 cm of sheared looking chlorite/calcite/qtz - suspect this interval is a fault slice of andesite within the dioritic andesite.
		Feld-Ppy	Dark Grey-Green		Alt. Veining	Magnetite Qtz				Rock is quite magnetic; epidote/pyrite stringers of moderate intensity; also moderate amounts of qtz stringers and qtz alt.; pyrite ~3 to 4%; trace cpy; Note: rock less broken than above and./diorite unit: - epidote/pyrite cuts qtz, - a few zones (i.e. at 48.9 m) where get high alt. over a few cm with rock 10-15% pyrite and 1 to 2% cpy.
49.70	54.6	And./Diorite	Med. Grey	Fine	Ppy	Qtz	Cpy	>1000		Fine grain and./diorite feld-ppy; same rock as that of interval between 39.15 m and 48.4 m; in the last 2 to 3 m mafics become up to 10% of rock; core pieces become increasingly smaller; (caving of hole and only 60 to 70% recovery achieved); only slightly magnetic; minor epidote and minor atz stringers; a few zones up to 2 cm of high magnetism; pyrite 1 to 2%, cpy (trace) but much could have been lost.
		Feld-Ppy	-Green to Light Greenish Grey		Stringers	Epidote Magnetite Chlorite				
										54.6 m END OF HOLE

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE		REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L. with C.A.	{FRACTURES, FAULTS, FOLDING, BEDDING, ETC.}	MINERALIZATION, TYPE, AGE RELATIONS
0	6.4	Casing									
6.4	16.1	Altered And./Dacitic Tuff	Light Brownish Grey	Fine	Alt. Veining Foliation	Qtz Carbonate Sericite Chlorite	Cpy	100	Foliation 45° Fractures 45,70,20° Stringers 45,20°	Fine grained altered andesitic/dacitic tuff; ash to fine xtl; mostly feldspar (~70-80%); minor Qtz, rest very fine mafics, appear to be chloritized; rare lapilli up to 0.5 cm; rock sometimes shows weak foliation at 45° to C.A.; - Qtz-carb stringers up to 3 mm of moderate intensity are found in various directions but 45° and 20° to C.A. predominate; ~1% py diss. throughout rock, trace of diss. cpy; - core generally blocky - a few spots are weakly magnetic - Qtz-carb veins have light β-B colour; this combined with the brownish colour and tuffaceous nature of the rock make it a likely equivalent of the 106.0 to 118.9 m interval in KL-16, though it is less deformed. - Bottom contact is not sharp; rock becomes greener over a metre or so, and the distinctive β-B weathering	

SELCO		EXPLORATION WESTERN CANADA		DRILL LOG				HOLE NO. ... KL-18	
DRILLING CO.	LOCATION SKETCH	DEPTH	TESTS DIP ANGLE	AZIMUTH	DATE STARTED:	August 21, 1981	PROJECT:	KL1	
		COLLAR	- 60°	150° T	DATE COMPLETED:	August 25, 1981	N.T.S.:	94D/8	
					COLLAR ELEV.:		LOCATION:	KL1 4 Claim	
					NORTHING:	380S 59+66N			
					EASTING:	1240W 64+40E			
					AZIMUTH:	150° T			
					DEPTH:	142.3 m	DATE LOGGED:	September 3, 1984	
HOLE TYPE					CORE SIZE:	N.Q.	LOGGED BY:	Hans Smit	

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-carb stringers disappear.
										Note:- There is some possibility that the paler, more dacitic look to this unit is more due to pervasive alt. than original compositional differences.
7.8	8.72	Breccia	Light Grey-Green		Breccia	Qtz		50-100		A breccia; up to 5 cm angular clasts of the dacitic to andesitic light brownish grey tuff unit and about 20% white barren qtz clasts; in a matrix of fine bits of similar composition and fine grain chloritized mafics; clast supported; last 3 cm is a qtz vein (white, barren) - suspect a fault brxx; clasts show some alignment but direction variable.
16.1	28.0	Andesite	Med. Grey-Green	Fine	Ppy	Calcite	Cpy	500-1000		Fine grain andesite, possibly xtl tuff; 40 to 60% feld xtls in a matrix of more feld that is finer grained; mafics and feld; also occasional aug xtls up to 2 mm; some qtz seen (< 5%); - mafics are chloritized; feldspars are somewhat soft, therefore probably sericitized; rock mildly to moderated calcareous; minor qtz and calcite stringers; py diss. throughout rock (1 to 2%), trace diss. magnetite and trace cpy; minor epidote alt. in a few places; - core is much more broken than previous interval.

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L with C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
28.0	41.15	Andesite or Diorite? Feld-Ppy	Light to Med. Grey- Green	Fine to Med.		Calcite Chlorite Sericite Qtz					Rock has become slightly less mafic, abundant, coarser grained and more 'intrusive' looking, (interlocking crystals homogeneous) may still be andesite, but definitely not tuff; - no definite contact with overlying unit so may be same or else possibly subvolcanic dyke that does not show good contacts; still slightly calcareous, minor Qtz alt.; mafics chloritized, 1 to 2% pyrite; a bit more cpy but still only trace amounts (diss. and a bit in rare Qtz-carb stringers). Note:- Feldspars subhedral to euhedral, mafics anhedral. At 40.0 m start getting minor Qtz-carb stringers (< 1 mm) with $\beta$ -B weathering. A few have Qtz alt. envelopes up to 4 mm wide, minor hematite staining on fractures.
(41.15	45.30)	Altered And./ Dacite Tuff	Light Brown to Med. Grey- Green	Fine to Med.	Foliation Veining Alt.	Qtz Carbonate Chlorite	Cpy	100	Stretch Lineation 45°	$\beta$ -B weathering, foliated andesite/dacite tuff originally slightly darker green than preceding unit; fewer feldspars; now highly altered by Qtz-carb. alt.; Qtz-carb stringers increase in number towards upper contact and then become very abundant within this unit, and alt. quite widespread; foliation appears - stretching foliation (and lineation) outlined by highly elongated feldspars, most common at 45° to core axis; but sometimes warped; Qtz (with lesser carb) stringers up to 5 mm thick cut core at various angles but most commonly ~45° - they also have been deformed; 1 to 2% diss. pyrite throughout; trace cpy; minor mariposite	



INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS	
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L with C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
										around 42.8 m.	
										- (42.3 to 42.6 m) highly deformed zone with abundant qtz-carb alt., 5% pyrite; very soft and broken carb.	
										- Amount of qtz alt. gets less towards the lower contact of this unit and does not continue below.	
									Contact 40°	- Lower contact is at 40° to C.A.; and distinct. - Rock finer grained for last 5 cm (contact mmf effect?)	
45.30	90.53	Andesite Feld-Ppy	Med. Grey-Green to Med. Grey	Fine		Calcite Qtz Chlorite Sericitic Epidote	Cpy	100-500		Fine grain andesite feld ppy; a bit more mafics but other- wise similar to unit before last; (may be a diorite as well); feldspar xtls up to 60% of rock (1 to 2 mm); in a matrix of finer feld and mafics; rare zones of qtz alt. are lighter coloured; mafics chloritized, feldspars soft so suspect sericitic; weakly to occasionally moderately cal- careous; py ~1% diss. throughout; trace diss. cpy, in this and earlier feld units in this hole the feldspar pheno- crysts do not stand out as readily as those in some of the feld-and. of other holes. - Minor calcite and qtz stringers.	
										Note:- At 48.7 m start on split core (sampled in 1981 to end of hole from here).	
									Contact 30°	At 49.5 m rock becomes a bit lighter, contact runs ~30° to C.A., 2 mm qtz stringer by contact, seems to be some increase in qtz alt. and some increase in pyrite but hard	



EXPLORATION  
WESTERN CANADA

# DRILL LOG

HOLE NO. KL-18

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
										to say for sure due to highly broken core; basically same as previous unit except less mafics - different flows?
										By 53 m rock is medium dark-green again, no contact visible.
										At 55.8 m get minor epidote; a few minor pyrite stringers. Occasionally getting a 'blotchy' texture due to greyer alt. in the rock (probably qtz-sericite) that is only in patches.
										Rock only calcareous on occasional fracture surfaces now. Fine to very fine medium grey-green to medium grey andesite with occasional 'blotchy' alt. spots continues for some distance; occasionally distinct feldspar xtls seen but often fine grain nature of rock and/or alt. mask all textures. Possible that these are fine grain tuffs and not flow rocks.
67.6	69.3	Andesite Feld-Ppy	Med. Grey- Green	Fine	Ppy	Qtz	Cpy	50-100		Andesite feld ppy, grey-green; fine grained; - Coarser than last unit but still fine grained; what sets this unit apart from preceding unit is the distinctive light green feldspar phenocrysts (saussuritized) - Rock is composed of ~60% generally (<1 mm, occasionally 2 mm feldspar phenocrysts in a finer grained medium grey-green matrix; larger core pieces than preceding and succeeding units. - minor (<5% augite xtls).

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L WITH C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
											- Crystals are not very euhedral but compact nature of rock indicates flow rock, not a tuff.
											After this get back into slightly greyer rock with less distinct feld phenocrysts; still minor epidote/pyrite stringers; occasionally rock has 2 to 3% pyrite; grain size about same as previous interval; trace diss. pyrite cpy.
(73.5	90.53)	Andesite	Med.	Fine to	Ppy	Epidote	Cpy	50-100			Andesite feld ppy; rock becomes greener, coarser grained again - seems to be dealing with a succession of flow units; no good flow contacts observed however;
		Feld-Ppy	Grey-Green	Med.		Qtz					- feldspar xtls generally <2 mm, occasionally up to 3 mm make up 40 to 50% of rock; rest is fine grained greenish matrix;
						Sericite					- feldspars pale green (saussuritized); mafics fairly soft (chloritized) and minor epidote in rock - rock only weakly altered looking though;
						Chlorite					- minor epidote and rare calcite and rare Qtz stringers; <1% pyrite diss. throughout and some pyrite/epidote stringers trace to occasionally minor diss. cpy.
									Fractures		Note:- 2 boxes (76.2 to 87.9 m) were not split in 1981 for some reason.
									70,15,90°		- Rare zones of Qtz alt. (i.e. at 75.9 to 76.05 m) which have very small rubbly core; rest of core quite blocky.

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L with C.A.	{FRACTURES, FAULTS, FOLDING, BEDDING, ETC}	MINERALIZATION, TYPE, AGE RELATIONS
											- Unit continues for some distance.
									Qtz vein		At 80.2 m get a 1 cm Qtz vein at 45° to C.A.; milky white; trace diss. pyrite; minor assoc. chlorite; 2 cm of Qtz alt. above it, but nothing below.
											At 80.5 m start getting trace disseminated magnetite; a few cpy blebs in a Qtz stringer here as well.
											(82.4 to 82.8 m) - Aphanitic to fine grained light grey rock, moderately soft - textures either too fine or masked by rextlization; a few feld xtls visible at beginning of unit - perhaps an ash tuff layer? - more of previous rock after it, no contacts preserved.
											- Core tending to be less blocky; broken, rounded sections more prevalent.
											(87.5 to 87.65 m); fine grain rock with ppy on both sides; somewhat blotchy appearance due to Qtz alt.; 2 to 3% py, suspect flow contact (no flow brxx though).
90.53	121.4	Andesitic	Med. to	v. fine	Veining	Qtz	Cpy	50-100			Andesitic ash to fine xtl tuff occasional xtl-lithic tuff; ppy texture disappears, rock is much finer grained; less homogeneous, more altered; rare lapilli found; only very minor epidote remains; Qtz-stringers of minor to moderate intensity; more calcareous than previous unit; minor hematite staining on fractures; colour varies from a medium dark grey green to a brownish grey (due to alt); rock more
		Tuff	Dk. Grey	to fine	Alt.	Calcite					
			Green to			Chlorite					
			Brownish			Sericite					
			Grey								

INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L with C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
											magnetic (slightly up to occasionally strongly).
(90.53)	91.29)		Light to Med. Grey Green								Contact zone - broken core, only 80% recovery; quite calcareous; rock too broken to see good contact but must be in this zone somewhere.
(91.29)	96.9)	Andesitic Xtl Tuff	Med. to Dk. Grey Green	v. fine to fine	Veining Alt.	Qtz Calcite Sericite Chlorite	Cpy	50-100			Fine grain andesitic xtl tuff, medium dark grey-green; 10% feld xtls up to 1 mm, rest very fine grain feld and mafic crystals; - intensity of qtz stringers and alt. increases downwards (gets to moderate intensity); weak, to occasionally moderate over a few cm, calcite stringers. - Rock fairly magnetic due to diss. magnetite and rare MGT stringers. - A few fractures and up to 4 mm wide zones of abundant py and up to 5% cpy (i.e. at 91.4 m); overall: py 1 to 2%, cpy minor; minor hematite staining on fractures. Qtz vein 45° At 96.65 m get a 5mm qtz vein with 5% cpy at 45° to C.A.
(96.9)	98.95)	Andesite Xtl-Lithic Tuff	Light Brownish Grey	Fine WITH OCCAS- ional Lapilli)	Alt. Veining	Qtz Carbonate Sericite Chlorite					Brownish grey fine grain xtl tuff with occasional dark green mafic lapilli up to 1 cm long; once again unknown if colour change due to original compositional difference or to later alt.; moderate intensity quartz and carbonate stringers; some with pale Ø-B weathering; slightly magnetic, still minor hematite staining along fractures; py <1%; cpy trace.

EXPLORATION  
WESTERN CANADA

## DRILL LOG

HOLE NO. KL-18

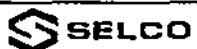
INTERVAL		ROCK TYPE	DESCRIPTION						L WITH C.A.	STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE		{FRACTURES, FAULTS, FOLDING, BEDDING, ETC}	MINERALIZATION, TYPE, AGE RELATIONS
(97.9	98.05)	Breccia	Grey- Green		Brx Veining					{97.9 m - 98.05 m); Highly veined and brecciated rock; greener than surrounding rock; angular blocks up to 7 cm - possible fault breccia recemented by qtz; general align- ment of darker and lighter bands at 30° to C.A.; py 1 to 2%; cpy minor.	
(98.4	98.8)	Breccia	Grey- Green		Brx Veining				Qtz-carb vein 30°	{98.4 m - 98.8 m) Similar zone with a 2 cm wide qtz-carb {milky white) vein with green angular pieces up to 1 cm cutting the brxx and 5 cm of gabbroic looking rock in centre - possibly a fault causing brxx, basaltic intrusion within; and then qtz-carb veining.  At 98.95 all rock becomes greener; very mottled looking due to spotty qtz alt. Note:- from 96.62 m to 101.5 m not previously sampled.	
(98.95	117.7)	Andesite Tuff	Med. Green- Grey	V. fine to fine	'Blotchy Alt. Veining	Qtz Calcite Chlorite Magnetite	Cpy	100-500		Fine grain andesitic tuff; medium; occasionally light grey-green; most noticeable feature is a blotchy to mottled texture - due to variable alt.; - moderate to strong qtz alt.; weak to moderate calcite alt.; mafics chloritized; minor qtz and calcite stringers get some β-B weathering of stringers till 99.7 m; but not below; - get a few zones with angular clasts in more altered matrix (i.e. 104.1 m) and discontinuous, irregular alt. veins.	

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
										105.1 m 4 m carbonate vein with MGT in the middle and chlorite selvages; cut by a chlorite filled fracture.
										Magnetite in rare stringers and diss. in rock; py 1%, cpy in minor amounts; rock moderately to occasionally strongly magnetic.
										- Very minor epidote observed; minor hematite staining on fractures.
										- The amount of qtz alt. decreases down hole while the amount of calcite alt. increases.
										- Get a few spots where MGT is >50% of rock over a few cm
										- a bit more cpy down hole as well but still well below 1%.
(117.7	121.4)	Altered Andesite Tuff	Dk. Grey Green to Lt. Grey Green	Fine	Shearing Foliation Veining Alt.	Calcite Qtz Magnetite	Cpy	100-500		Shear zone in andesitic tuff; colour varies from light grey-green with light $\beta$ -B weathering calcite and qtz-carb stringers to dark grey-green of MGT-rich, less sheared rock of previous unit; foliation 50 to 70° to C.A. in some zones. Note:- Pyrite smeared along foliation so it was there before. - Strong calcite alt.; weak to moderate qtz alt. - Py 2 to 5%, cpy ~1%, locally up to 5%, >10 cm qtz vein at 121 m with 2% cpy; then abundant qtz alt. to bottom of zone (121.4 m). - Minor specular hematite in zone.

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
121.4	142.34	Andesitic Ash	Med.	V. fine	Mottled	Calcite	Cpy	100		Andesitic ash tuff; medium grey-green; mottled texture
		Tuff	Grey-	to fine	Veining	Qtz				due to variation in alt. and/or composition.
			Green		Alt.	Chlorite				Very fine to fine grain; occasional feldspar xtls seen
						Gypsum				but generally too fine grained and altered to see original
						Epidote				texture.
										- Weak to moderate qtz alt. occasionally strong over a few cm, weak to moderate calcite alt., also concentrated in occasional zones or bands.
										- Discontinuous calcite stringers of moderate intensity and minor qtz stringers.
										- Notable feature is gypsum veining of minor, occasionally moderate intensity - gypsum stringers in and. ash tuff makes this probably same unit as 137 to 163.4 m (end of hole) in KL-16.
										- Moderately magnetic; amount decreases down hole. Somewhat - due to finely disseminated magnetite.
										- Unsplit core fractured but still coherent.
										- To 124 m get some $\phi$ -B weathering on qtz-carb alt., but not below.
										- Still hematite staining on fractures (minor).
										- Py <1%, cpy trace.
										Note:- 125.8 to 127.3 m not split,
										- fractures and stringers in various orientations but



INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L WITH C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC)	MINERALIZATION, TYPE, AGE RELATIONS
											40 to 60° to C.A. predominate.
											127.7 m - start getting minor epidote stringers.
											(130 - 130.5 m) - fine feld xtl tuff, no good contacts visible.
											132.4 m - minor cpy stringers.
											By 133 m calcite alt. only weak, qtz alt. increasing in amount, as are qtz stringers, still only weak to moderate with intensity; in a few places get gypsum stringers up to 4 mm in a qtz envelope.
											Note:- From 136.25 m to 142.34 m (end of hole) not previously split.
											136.5 - a few lapilli (darker green) up to 1 cm visible.
											(137 - 137.15 m) A chlorite and lesser qtz zone cuts side of core; has up to 4 mm pyritic crystal and up to 4 mm cpy blebs.
											Alt. vein 45° At 137.20 a 4 cm wide qtz-calcite-gypsum band cuts core at 45°; has minor py, cpy.
139	142.34										One box (last one) appears to be missing (3.35 m of core) 142.3 END OF HOLE.



EXPLORATION  
WESTERN CANADA


# DRILL LOG

HOLE NO. KL-18

SELCO		EXPLORATION WESTERN CANADA		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)	G E O C H E M 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	A u (p p b)	C u (p p m)	A g (p p m)		
871053	6.4	9.0	2.6		87	13		350	390	1.4		
871054	9.0	12.0	3.0		97	3		150	216	0.7		
871055	12.0	15.0	3.0		100	Nil		60	282	0.3		
871056	15.0	18.0	3.0		92	8		70	344	0.3		
871057	18.0	21.0	3.0		80	20		65	312	0.2		
871058	21.0	24.0	3.0		53	47		30	144	0.1		
871059	24.0	28.8	4.8		50	50		35	136	0.1		
871060	28.8	30.0	1.2		100	Nil		25	185	0.2		
871061	30.0	33.0	3.0		100	"		50	233	0.1		
871062	33.0	36.0	3.0		100	"		55	274	0.2		
871063	36.0	39.0	3.0		100	"		140	505	0.5		
871064	39.0	42.0	3.0		100	"		80	524	0.5		
871065	42.0	45.0	3.0		100	"		170	174	1.6		
871066	45.0	48.7	3.3		100	"		5	71	0.2		
871067	48.7	51.0	3.0		100	"	Previously split	165	303	1.5		
871068	51.0	54.0	3.0		100	"	" "	40	83	0.1		
871069	54.0	57.0	3.0		100	"	" "	50	521	0.4		
871070	57.0	60.0	3.0		100	"	" "	45	145	0.4		
871071	60.0	63.0	3.0		100	"	" "	50	179	1.4		
871072	63.0	66.0	3.0		63	37	" "	90	264	0.4		
871073	66.0	69.0	3.0		100	Nil	" "	40	269	0.2		
871074	69.0	72.0	3.0		100	"	" "	120	1298	0.9		
871075	72.0	75.0	3.0		100	"	" "	45	268	0.2		
871076	75.0	76.6	1.6		100	"	" "	175	1513	1.2		
871077	76.6	78.0	1.4		100	"	Unsplit	40	120	0.1		
871078	78.0	81.0	3.0		100	"	"	55	253	0.2		



INTERVAL		ROCK TYPE	DESCRIPTION							STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L with C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
0	6.1	Casing									Casing
6.1	6.25	Overburden									
6.25	128	Andesite Feld- Ppy	Med. Grey- Green	Med.	Ppy	Qtz Sericite Epidote Chlorite Kaolinite	Cpy	100-500		Fractures 30-40°	Andesite feldspar porphyry; medium green-grey, medium grain; 40 to 50% pale green 1 to 2 mm feld xtls in a fine grain medium green-grey matrix and up to 5% up to 2 mm chloritized mafic (augite) crystals; rare dark green chloritized mafic inclusions up to 1 cm; variable Qtz-sericite alt. results in lighter (and softer) zones in rock;  - very minor epidote along fractures - pyrite 1%, concentrated in zones of Qtz-sericite alt. and with minor Qtz stringers - traces of diss. Cpy blebs - rock highly fractured; most frequently at ~30° to (less often) 45° to C.A. - the Qtz-sericite alt. is weak to strong with about 10%

 EXPLORATION WESTERN CANADA		<h1>DRILL LOG</h1>				HOLE NO. KL-19	
DRILLING CO.  HOLE TYPE	LOCATION SKETCH	DEPTH	TESTS DIP ANGLE	AZIMUTH	DATE STARTED:	PROJECT:	
		COLLAR	- 71°		August 27, 1981	KL1	
					DATE COMPLETED:	N.T.S.:	
					August 30, 1981	94D/8	
					COLLAR ELEV.:	LOCATION:	
						KL1 4 Claim	
					NORTHING:		
					245S 60+06N		
					EASTING:		
					1680W 63+02E		
					AZIMUTH:		
					130° T		
					DEPTH:	DATE LOGGED:	
					242.9 m	September 7, 1984	
					CORE SIZE:	LOGGED BY:	
					N.Q.	Hans Smit	

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
										of core strongly altered (in zones up to 10 cm wide; which are lighter grey) - rock is now magnetic and now calcareous
										14 m Rock becoming even more fractured; subparallel fractures results in 'flakey' rock, quite crumbly.
										15.85 m Very crumbled rock - (2 mm bits) pyrite 3 to 4%, fault zone; only 83% recovery in the marked interval in which this occurs so may have lost some core here 18 m pyrite up to 2% of rock.
										(19.2 to 20.42 m) Only 40% recover; rounded pebbly core; some is quite hard and silicic; contrast with more crumbly core on both sides may account for poor recovery.
		Andesite			Mottled Alt.					20 m A few minor chlorite stringers and alt. patches over 10 cm. Variable chlorite alt. and qtz-sericite alt. is resulting in a mottled to blotchy texture in core; much of original texture is becoming masked by later alt. -Alt. is becoming stronger and even more pervasive; core getting even more broken (from flakes to 1 to 2 cm angular bits); pyrite also increased to 3 to 5% of rock; no cpy observed anymore. -Ppy texture mostly masked.
										24.3 m Pyrite stringers with crystalline pyrite begin to occur (weak intensity). Core recovery becoming very poor (60% in interval 24 to 32 m).

INTERVAL		ROCK TYPE	DESCRIPTION						L with C.A.	STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE		{FRACTURES, FAULTS, FOLDING, BEDDING, ETC.}	MINERALIZATION, TYPE, AGE RELATIONS
(27.5	37.0)	Argillic Alt.	Light to			Argillic				27.5 m Getting increasing 'soapy' feel to rock; white	
			Med.			Kaolinite				soft coating, crumbly qtz - argillic alt. weak for a few	
			Grey-Green			pyrophyllite)				metres before (but this zone high in qtz-sericite); now	
										strong argillic alt. till 31.4 m.	
										30.75 m 1 cm grey qtz vein with 30% pyrite and highly	
										sericitic selvage.	
								Qtz-py		(30.95 - 30.15 m) Qtz pyrite veins cut C.A. at 65°;	
								veins 65		abundant py in surrounding rock (5%).	
										(132 - 35m) Some improvement in recovery to 83%; seems	
										to be still some kaolinite as well as qtz-sericite.	
										31.4 m Argillic alt. decrease in intensity (rock harder).	
										32.0 m - ?? 30 cm of rounded pebbly core - a lot probably	
										lost.	
										(32.48 - 33.28 m) Strong argillic alt. again.	
										33.6 m 10 cm of moderately calcareous rock	
										- pyrite now ~2 to 3%.	
										37 m Traces of finely diss. cpy (35 - 39) better (95%)	
										recovery.	

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
									(39 - 51 m) Only 63% recovery core in small bits for most part.	
									- By 37 m appear to be more or less out of the argillic alt. and into moderate to strong phyllic alt. (qtz-sericite) rock is harder and a bit darker than the argillic intervals.	
									- Still v. minor epidote; strong chlorite (now largely replaced by later qtz-sericite alt.).	
									(43.9 - 44.65 m) Very silicic rock; light grey, pyrite 5 to 10%.	
									46 m Rock becomes a bit greener; slight increase in the amount of epidote.	
(46.83	47.85)	Magnetic	Med. to	Fine	Alt.	Qtz		100-500	Magnetic interval (weak at first, moderate at end); rock is medium grey-green; minor epidote; less broken than core following (which is non-magnetic and small bits); quite strong qtz-chlorite alt.	
			Dark Grey-Green		Mottled	Chlorite				
						Sericite				
									47.85 m) Since about 46 m quality of core has been improving somewhat (back to flakes from small bits); next 30 cm is very small rounded pebbles again however) greyish qtz-sericite rock, possibly argillic; then more light to medium grey-green andesite with moderate to strong qtz (qtz-sericite) alt.	

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 - 57 m) 95% core recovery.	
									- Rare qtz stringers and up to 1 cm qtz veins which are light grey and contain up to 25% pyrite; frequently grade into the surrounding qtz altered rock with no definite boundary.	
									- Pyrite 3 to 5% of rock; still a few discontinuous pyrite stringers.	
									- Can still occasionally see ppy texture; original rock is now fine grained feld-ppy, but generally alt. masks texture.	
									(57 - 63 m) Recovery is only 50%; most of core is in flakes except (57.5 - 57.8 m) and (60.0 - 60.8 m) which are composed of rounded, pebbly core; to clayey white coatings - probably argillic zones in which most of the rock was very soft and lost; and only silicic bits are left.	
(58.6	63.2)	Magnetic	Med. to Dk. Grey- Green	Fine	Alt. Mottled	Chlorite Qtz Sericite	100-500		Magnetic interval again; qtz-chlorite alt. results in darker colour in core, still sericitic; v. weak epidote; mottled texture.	
									(63.2 - ?) 25 cm of very broken, rounded core; only 42% recovery in 3 m interval it is in so probably represents only a small % of original rock; lighter colour; harder than magnetite section; but probably only siliceous bits	



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
										left; rest lost.
										(63 to 72 m) Only 50% recovery - medium to medium-dark grey-green; flakey to pebbly (rounded) core; occasional weakly to moderate magnetic; lighter core more rounded; strong chlorite-qtz, some sericite in darker, more angular core; rounded core has some whitish coating - may be remains of argillically altered rock; 20% of rock is rounded like this - but may have 50% or so originally with rest lost during drilling; pyrite 1 to 2%, but most is probably lost; a bit more cpy in this section than before (still v. minor amounts).
(73	75)									(73 - 75 m) 95% core recovery, rock is mostly slightly magnetic chl-qtz-sericite altered rock - indicating this is more resistant rock (still highly broken but very angular).
(75	84)									(75 - 84 m) 53% recovery, rock mostly same except get some rounded, pebbly core which is moderate magnetic; medium grey with pyrite (3%) and epidote (4%). - Epidote increasing to now minor amounts. - Cpy has also increased and is now 0.2 to 0.5%.
(80.67	81.08)	Basalt	Med.	Fine		Chlorite				Basalt Dyke; fine grain, non-magnetic; strong chlorite; lesser epidote alt.; better core recovery than rest of rock; may be post-mineralization.
		Dyke	Green			Epidote				

SELCO		EXPLORATION WESTERN CANADA		DRILL LOG						HOLE NO. KL-19	
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	
(81.68	81.28)	Basalt?	Dark	V. fine		Chlorite	Cpy			Dark green v. fine grain rock; chloritized; moderately magnetic; trace cpy - may be another basic dyke that doesn't have much epidote but does have some mineralization (pre mineralization).	
			Green								
		Andesite								Afterwards back to qtz-sericite altered andesite that is slightly to moderately magnetic; minor pyrite stringers;	
										(83.7 to 84.43) Rock is dark grey, very siliceous; qtz-pyrite stringers common; minor epidote stringers cut the qtz stringers; pyrite 3 to 5%, cpy 0.5%; rock moderate to strongly magnetic.	
(84	99.67)									(84 - 99.67 m) Only 20% recovery; rounded pebbles; weakly to moderate magnetic; minor epidote; medium grey green to medium grey; last 15 cm in interval is sand (fault zone?)	
(99.67	112)	Andesite								33% recovery; rounded core till 107 m, then small chips till 112 m; rock is medium grey-green; qtz-sericite and chlorite alt.; occasionally magnetic; minor epidote; minor py and v. minor cpy remain (assoc. with qtz commonly).	
(112	121)									Recovery 50%; more and larger flakes; still pebbly rubble between; now to slightly magnetic; minor to moderate epidote alt.; between 112 and 114 m get fine grain medium green grey andesite feld-ppv; epidote, chlorite alt.;	

INTERVAL		ROCK TYPE	DESCRIPTION						L with C.A.	STRUCTURE	REMARKS
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE		(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
(117.5	120.7)	Andesite Dyke								1% py; 0.29 to 0.5% cpy; flakey fracturing. (117.5 - 120.7 m) Very fine grained andesite; medium green; very hard; blocky core with pieces up to 5 cm long; slightly magnetic - suspect a dyke; only 50% recovery in interval it is in but lost core may be in small (in box) distance before this.	
(121	128)									19% recovery; core in small pebbles again; medium grey-grey and, fine grain; occasionally magnetic; few cpy blebs still left; minor pyrite; minor epidote.	
128	171.B	Andesite	Light to	V. fine	Blotchy	Chlorite	Cpy			Andesitic ash tuff; medium to light greenish grey to light	
		Ash Tuff	Med.		Veining	Gypsum		100-500	Stringers	grey; very fine grained; very blotchy due to alt.; strong	
			Green-Grey to Light			Epidote			15,40°	chlorite (pale translucent green) alt.; rock generally	
			Grey			Qtz				somewhat soft, suggesting feldspar component	
						Sericite				is seritized; occasionally harder strong qtz-alt. zones	
						Calcite				mostly weak to moderate qtz alt.; abundant gypsum in	
										stringers and fractures; very minor epidote alt.; rare calcite alt.	
										Note:- Same unit as seen in KL-16 and KL-18.	
										Rock is highly fractured but has remained coherent (i.e. long unbroken pieces, good recovery) - possibly gypsum is holding core together.	
										- Most common stringer direct. are: 15° and 40° to C.A.	
										- Pyrite 2 to 3% diss. in rock and in pyrite stringers + some pyrite-gypsum stringers.	

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS	
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L with C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
											- Rare magnetic zones.
											- Traces of diss. chalcopyrite within pyrite veins.
											132.95 m; 4 cm wide magnetic band; fair bit of epidote in zone.
											Py vein 45° 136.85 m 1 cm wide vein of very fine pyrite cuts core at 40° to C.A. Gypsum vein selvages; moderate qtz alt. in surrounding rock.
											(138.95 - 139.31 m) Greenish, silicic altered rock is fractured into small angular bits with gypsum and gypsum-pyrite-qtz stringers and irregular veins holding the rock together.
											139.4 m Rock is 10 to 15% py over 15 cm, disseminated in rock with moderate qtz alt.; very minor cpy with the pyrite. Rock is now 3 to 5% of total rock overall, higher in zones of high qtz alt.
											(148.3 - 149.2 m) Pyrite/qtz vein subparallel to core axis composes up to half of core; vein is 50% pyrite, 20% white to grey qtz and the rest original rock.
											(154.83 - 155.18 m) Interval is about 30% gypsum, mostly a 1.5 cm white aphanitic gypsum vein that cuts parallel

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
										to core and then gets sheared and disappears at upper end; ~ 3% pyrite within the vein.
										- Abundant pyrite stringers (with some gypsum) below for 2 m.
										160.2 m 10 cm of strong qtz alt. that has 30% pyrite.
										161.5 m 1/3 of core is a piece of feld ppy, fine grain; greener than rock around it; has diss. pyrite (3%) whether it is a bit of dyke or part of a large brxx block is unknown; about 15 cm long.
										(163.5 - 165.1 m) Strong qtz alt.; 5 to 10% diss. pyrite (164.1 to 164.6 m has 10% gypsum).
165.1	169.0		Med. Greyish-Green							Rock becomes greener; more epidote (now weak to moderate amounts); more magnetic (occasional MGT stringers and magnetic bands up to 46 m wide); pyrite 2 to 3% of rock.
										166.5) Get faint outlines of altered feld xtls over 20 cm - ~20% of rock - possibly some xtl in ash tuff??
169.0	169.72	Andesite Ash Tuff	Med. Grey							Greyer rock as before last interval.

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
169.72	171.38	Basalt (?)	Dark Green-Grey	V. fine	Alt. Veining	Qtz Calcite Gypsum Chlorite		50-100	Dark green-grey rock, possibly a basalt; a few minor up to 7 mm darker fragments suggest a tuff; rock is chloritized has moderate qtz alt. with discontinuous qtz stringers and minor veining; minor to moderate calcite alt. and calcite stringer; notable feature are 1 to 6 mm subangular to rounded creamy white blebs which are composed of qtz and sometimes some softer mineral (sericite?) - suspect that these are altered feldspar xtls; make up 5% of rock in interval. - Could be that this is a feld-ppy dyke and that darker 'fragments' are poorly formed mafic xtls. - In first half of the interval fractures have calcareous coatings with 2 mm reddish brown spots (soft) - unknown cause, possibly from oxide of some sort? - Minor gypsum in fractures.	
171.38	171.8				Alt.	Gypsum Qtz			At bottom of last interval get 40 cm of gypsum-pyrite-qtz; layered in zone, but highly variable layering; bottom 5 cm is mostly qtz and original rock; top part mostly gypsum and pyrite - fault zone?	
171.8	182.16	Andesite Xtl Tuff	Medium Greyish Green	Pine	Alt. Veining Mottled	Qtz Chlorite Gypsum Epidote Calcite	Cpy	100-500	Andesite xtl tuff; medium greyish-green colour; varies from fine grain to fine grain with up to 3 mm 'phenocrysts' moderate epidote alt. and stringers; occasional qtz stringers (usually with pyrite) and occasional calcite stringers; minor - to moderate gypsum in stringers and a	

INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS	
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L WITH C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
										few brecciated zones; about 30% of rock is weakly to moderately magnetic due to finely diss. MGT and rare MGT in stringers; traces of cpy in a few places (i.e. 174.8 m). Note:- Rock is very variable in this interval due to alt. and variation in phenocrysts; phenocrysts are generally <2 mm, rarely up to 3 mm, very pale to light green - altered feldspar; about 40% of the rock in the interval has these phenocrysts in amounts from 20 to 40%; no sharp contact between parts with phenocrysts usually anhedral and often not very distinct.	
									Fault Brx 55°	173.0 4 cm wide zone with brecciated rock that are cemented together with gypsum and lesser epidote; just before this get 6 cm of core that is composed 50% gypsum.	
187.16	184.9	Feld Ppy Dyke	Med. Grey	Med.	Ppy	Sericite Chlorite Calcite	25-50			Feld ppy dyke; very pale green feld crystals up to 6 mm in a fine grained medium grey matrix; phenocrysts make up 30 to 40% of the rock; they are mostly subhedral. - First 50 cm has 5 to 10% mafic phenocrysts (augite?) up to 2 mm, but these increase afterwards; top 10 cm and bottom 20 cm have few phenocrysts - contact zones (may be partly altered host rock making up these zones that now is greyer due to contact effects. - Feldspars are partly sericitized; mafics are chloritized; moderate intensity of qtz stringers in fractures; rock weakly magnetic; minor pyrite diss. in rock; stringers	



EXPLORATION  
WESTERN CANADA

# DRILL LOG

HOLE NO. KL-19

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	
											vary in orientation but calcite ones are generally at low L's to C.A.; gypsum filled fractures are 45 to 70° to C.A.
184.9	215.6	Andesitic Tuff	Med. Grey-Green	V. fine to fine	Mottled Stringers	Qtz Calcite Alt. Chlorite Epidote Gypsum	Cpy	50-100			Andesitic tuff; ash to crystal; medium grey-green; mottled texture; mostly very fine grained but can sometimes distinguish feld xtls - some xtl tuff may be too altered to see xtls anymore. - Weak to moderate calcite stringers and occasional weak calcite alt.; minor greyish Qtz (±pyrite) stringers; weak to moderate epidote stringers and alt. - About 40% of rock is weakly to moderately magnetic. - Variable Qtz alt., chlorite alt. and epidote alt. results in mottled and blotchy texture. - Minor gypsum on fracture surfaces and rare thicker, non-continuous bits; rock much less fractured than earlier and. as h tuff unit - may account for less gypsum as gypsum appears to be later filling of fractures. - Py 1% diss. in rock and in stringer with Qtz and with calcite. - Cpy 0.2 to 0.5% diss. in rock and in stringers assoc. with calcite.
											190.8 m) Rest of core has been previously split and sampled.



INTERVAL		ROCK TYPE	DESCRIPTION						STRUCTURE	REMARKS	
FROM	TO		COLOUR	GRAIN SIZE	TEXTURE	ALTERATION	ORE MINERALS	FRACTURES PER METRE	L with C.A.	(FRACTURES, FAULTS, FOLDING, BEDDING, ETC.)	MINERALIZATION, TYPE, AGE RELATIONS
									Qtz-MGT vein 50°	190.95 m 8 mm vein cuts core at 50° to C.A.; qtz with minor py on outside; 2 mm of MGT with very minor cpy in middle.	
										191.85 m 8 cm wide brecciated zone with inter clast spaces filled with epidote, and then (later) gypsum; diss. pyrite (3%) within.	
										192.5 m Clear qtz in a fracture parallel C.A. with ~5% cpy on fracture surface.	
(193.17	195.02)	Augite Ppy Dyke	Dark Green	Med.	Ppy	Epidote Chlorite		10-25		Andesitic to basaltic augite ppy dyke, dark green; 50 to 60% augite xtls up to 8 mm but generally 1 to 2 mm in a very fine grain matrix; minor diss. MGT; minor epidote alt. and veining, minor qtz stringers; a few fractures have gypsum coatings; contacts are 2 to 3 cm, fine grained.	
									Qtz Stringers	195.02 m) Back into the and. tuff; rock is getting very mottled and blotchy; qtz alt. is increasing; getting discontinuous, irregular MGT veins (usually with some cpy), plus moderate but highly irregular epidote alt. and stringers; py 2%, cpy 1% with qtz stringers and MGT stringers.	
										- Continues to be minor gypsum along fractures.	
										- Rock has become harder and less fractured - possibly due to higher qtz alt. and stringers.	



SELCO		EXPLORATION WESTERN CANADA		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)	G E O C H E M 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	A u (p p b)	C u (p p m)	A g (p p m)		
871101	6.1	9.0	2.9		100	Nil		15	93	0.2		
871102	9.0	12.0	3.0		100	"		10	111	0.2		
871103	12.0	15.0	3.0		85	15		5	70	0.1		
871104	15.0	18.0	3.0		95	5		10	101	0.2		
871105	18.0	21.0	3.0		55	45		5	63	0.2		
871106	21.0	24.0	3.0		71	29		5	129	0.1		
871107	24.0	27.0	3.0		42	58		5	128	0.2		
871108	27.0	30.0	3.0		76	24		15	182	0.3		
871109	30.0	33.0	3.0		84	16		40	205	0.3		
871110	33.0	36.0	3.0		63	37		5	128	0.1		
871111	36.0	39.0	3.0		83	17		45	535	0.3		
871112	39.0	42.0	3.0		55	45		45	479	0.2		
871113	42.0	45.0	3.0		63	37		80	1073	0.7		
871114	45.0	48.0	3.0		60	40		35	524	0.1		
871115	48.0	51.0	3.0		46	54		5	352	0.1		
871116	51.0	54.0	3.0		100	Nil		5	216	0.1		
871117	54.0	57.0	3.0		90	10		5	355	0.2		
871118	57.0	60.0	3.0		68	32		5	527	0.1		
871119	60.0	63.0	3.0		32	68		90	950	0.2		
871120	63.0	66.0	3.0		39	61		75	889	0.1		
871121	66.0	69.0	3.0		57	43		170	1193	0.2		
871122	69.0	72.0	3.0		55	45		210	1580	0.5		
871123	72.70	75.0	3.0		82	18		490	2508	0.7		
871124	75.0	78.0	3.0		75	25		505	1577	0.8		
871125	78.0	81.0	3.0		49	51		205	726	0.8		
871126	81.0	84.0	3.0		47	53		230	654	0.5		

SELCO		EXPLORATION WESTERN CANADA		DRILL LOG				sample data					
SAMPLE				CORE RECOVERY		VISUAL ESTIMATES (% ORE MINERALS)	GEOCHEM RESULTS						
NUMBER	FROM	TO	TOTAL METRES	Sp. Gr	%		% AMT. LOST	Au (ppb)	Cu (ppm)	Ag (ppm)			
871127	84.0	87.0	3.0		30	70		305	952	0.3			
871128	87.0	90.0	3.0		21	79		175	661	0.1			
871129	90.0	93.0	3.0		11	89		15	587	0.2			
871130	93.0	96.0	3.0		16	84		490	1942	1.0			
871131	96.0	99.0	3.0		19	81		190	1023	0.6			
871132	99.0	102.0	3.0		23	77		155	878	0.5			
871133	102.0	105.0	3.0		37	63		890	1925	1.0			
871134	105.0	108.0	3.0		55	45		240	2266	1.2			
871135	108.0	111.0	3.0		5	95		120	2108	1.2			
871136	111.0	114.0	3.0		50	50		30	881	0.5			
871137	114.0	117.0	3.0		45	55		60	721	0.5			
871138	117.0	120.0	3.0		48	52		5	213	0.2			
871139	120.0	123.0	3.0		24	76		30	678	0.1			
871140	123.0	126.0	3.0		15	85		35	691	0.1			
871141	126.0	129.0	3.0		35	65		25	462	0.2			
871142	129.0	132.0	3.0		100	Nil		15	492	0.4			
871143	132.0	135.0	3.0		100	"		5	579	0.2			
871144	135.0	138.0	3.0		100	"		5	240	0.2			
871145	138.0	141.0	3.0		100	"		5	278	0.3			
871146	141.0	144.0	3.0		100	"		5	155	0.2			
871147	144.0	147.0	3.0		100	"		15	279	0.3			
871148	147.0	150.0	3.0		100	"		5	261	0.3			
871149	150.0	153.0	3.0		100	"		20	187	0.1			
871150	153.0	156.0	3.0		100	"		25	384	0.2			
871151	156.0	159.0	3.0		100	"		5	250	0.1			
871152	159.0	162.0	3.0		100	"		20	322	0.1			



APPENDIX 2

GEOCHEMICAL PREPARATION AND ANALYTICAL PROCEDURES



## ACME ANALYTICAL LABORATORIES LTD.

Assaying &amp; Trace Analysis

852 E. Hastings St., Vancouver, B.C. V6A 1R6

Telephone : 253-3158

GEOCHEMICAL LABORATORY METHODOLOGY - 1984Sample Preparation

1. Soil samples are dried at 60°C and sieved to -80 mesh.
2. Rock samples are pulverized to -100 mesh.

Geochemical Analysis (AA and ICP)

0.5 gram samples are digested in hot dilute aqua regia in a boiling water bath and diluted to 10 ml with demineralized water. Extracted metals are determined by :

## A. Atomic Absorption (AA)

Ag\*, Bi\*, Cd\*, Co, Cu, Fe, Ga, In, Mn, Mo, Ni, Pb, Sb\*, Tl, V, Zn  
 (\* denotes with background correction.)

## B. Inductively Coupled Argon Plasma (ICP)

Ag, Al, As, Au, B, Ba, Bi, Ca, Cd, Co, Cu, Cr, Fe, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Sr, Th, Ti, U, V, W, Zn.

Geochemical Analysis for Au\*

10.0 gram samples that have been ignited overnight at 600°C are digested with hot dilute aqua regia, and the clear solution obtained is extracted with Methyl Isobutyl Ketone.

Au is determined in the MIBK extract by Atomic Absorption using background correction (Detection Limit = 5 ppb direct AA and 1 ppb graphite AA.)

Geochemical Analysis for Au\*\*, Pd, Pt, Rh

10.0 - 30.0 gram samples are subjected to Fire Assay preconcentration techniques to produce silver beads.

The silver beads are dissolved and Au, Pd, Pt and Rh are determined in the solution by graphite furnace Atomic Absorption.

Geochemical Analysis for As

0.5 gram samples are digested with hot dilute aqua regia and diluted to 10 ml. As is determined in the solution by Graphite Furnace Atomic Absorption (AA) or by Inductively Coupled Argon Plasma (ICP).

Geochemical Analysis for Barium

0.1 gram samples are digested with hot NaOH and EDTA solution, and diluted to 10 ml.

Ba is determined in the solution by Atomic Absorption or ICP.

Geochemical Analysis for Tungsten

1.0 gram samples are fused with KCl, KNO<sub>3</sub> and Na<sub>2</sub>CO<sub>3</sub> flux in a test tube, and the fusions are leached with 20 ml water. W in the solution determined by ICP with a detection of 1 ppm.



## ACME ANALYTICAL LABORATORIES LTD.

Assaying &amp; Trace Analysis

852 E. Hastings St., Vancouver, B.C. V6A 1R6

Telephone: 253-3158

Geochemical Analysis for Uranium

0.5 gram samples are digested with hot aqua regia and diluted to 10 ml.

Aliquots of the acid extract are solvent extracted using a salting agent and aliquots of the solvent extract are fused with NaF,  $K_2CO_3$  and  $Na_2CO_3$  flux in a platinum dish.

The fluorescence of the pellet is determined on the Jarrel Ash Fluorometer.

Geochemical Analysis for Fluorine

0.25 gram samples are fused with sodium hydroxide and leached with 10 ml water. The solution is neutralized, buffered, adjusted to pH 7.8 and diluted to 100 ml.

Fluorine is determined by Specific Ion Electrode using an Orion Model 404 meter.

Geochemical Analysis for Tin

1.0 gram samples are fused with ammonium iodide in a test tube. The sublimed iodine is leached with dilute hydrochloric acid.

The solution is extracted with MIBK and tin is determined in the extract by Atomic Absorption.

Geochemical Analysis for Chromium

0.1 gram samples are fused with  $Na_2O_2$ . The melt is leached with HCl and analysed by AA or ICP.

Geochemical Analysis for Hg

0.5 gram samples is digested with aqua regia and diluted with 20% HCl.

Hg in the solution is determined by cold vapour AA using a F & J Scientific Hg assembly. An aliquot of the extract is added to a stannous chloride / hydrochloric acid solution. The reduced Hg is swept out of the solution and passed into the Hg cell where it is measured by AA.

Geochemical Analysis for Ga & Ge

0.5 gram samples are digested with hot aqua regia with HF in pressure bombs.

Ga and Ge in the solution are determined by graphite furnace AA.

Geochemical Analysis for Tl (Thallium)

0.5 gram samples are digested with 1:1  $HNO_3$ . Tl is determined in the extract by graphite AA.

Geochemical Analysis for Te (Tellurium)

0.5 gram samples are digested with hot aqua regia. The Te extracted in MIBK is analysed by AA graphite furnace.



APPENDIX 3  
LIST OF ANALYTICAL DATA

H.S./F

10114

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE 253-3108 DATA LINE 251-1011

RECEIVED  
OCT 11 1984  
SELCO-BP RESOURCES  
VANCOUVER, B.C.

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-3 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
THIS LEACH IS PARTIAL FOR KM.FE.CA.P.CR.MG.BA.TI.B.AL.NA.K.W.SI.ZR.CE.SK.Y.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM  
- SAMPLE TYPE: P1-5011S P2-3 ROCKS P4-11 DRILL CORES AU ANALYSIS BY AA FROM 10 GRAM SAMPLE.

DATE RECEIVED: OCT 1 1984 DATE REPORT MAILED: *Oct 10/84* ASSAYER: *A. Joffe* DEAN TOYE, CERTIFIED B.C. ASSAYER

SOILS

SELCO - A DIVISION OF BP PROJECT # 560 FILE # 84-2847

PAGE 1

SAMPLE	NO	CU	PB	IN	AG	XI	CO	MN	FE	AS	U	AU	TH	SR	CD	SB	BI	V	CA	P	LA	CR	MG	BA	TI	B	AL	NA	K	W	AU
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM
5084560 873033	5	155	19	70	.5	11	9	425	4.12	4	5	ND	2	24	1	2	2	53	.14	.13	4	25	.90	68	.09	4	1.73	.01	.07	2	55
5084560 873034	5	185	18	70	.4	15	13	725	4.75	6	5	ND	2	27	1	2	2	64	.17	.15	4	30	1.06	118	.10	5	2.13	.01	.13	2	85

187.

ROCK CHIP

SELCO - A DIVISION OF BP PROJECT # 560 FILE # 84-2847

PAGE 2

SAMPLE#	MO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	CO PPM	NH PPM	FE PPM	AS PPM	U PPM	AU PPM	TH PPM	SR PPM	ED PPM	SB PPM	BI PPM	V PPM	CA PPM	P PPM	LA PPM	CR PPM	MG PPM	BA PPM	TI PPM	B PPM	AL PPM	NA PPM	K PPM	M PPM	AU1 PPM
B184560 872001	2	641	6	7	48.6	4	3	123	4.27	5	5	30	2	10	1	2	12	23	.13	.02	2	5	.12	58	.03	2	.31	.03	.11	167	36600
B184560 872002	1	41	4	51	1.3	6	10	743	3.13	8	5	ND	2	35	1	3	2	52	.70	.09	2	8	1.46	86	.18	2	2.22	.17	1.02	6	750
STD C	19	58	40	128	6.6	75	28	1077	3.82	38	17	7	39	50	17	15	22	60	.42	.15	38	61	.89	180	.08	36	1.72	.06	.13	17	-
B184560 873001	2	82	7	11	5.3	3	2	101	3.88	7	5	3	2	4	1	2	2	10	.03	.03	5	3	.57	82	.02	4	.48	.01	.11	13	3800
B184560 873002	2	51	7	65	1.1	12	10	542	3.71	15	5	ND	2	46	1	2	2	35	.72	.15	3	18	1.40	62	.07	4	1.85	.12	.08	4	375
B184560 873003	1	57	9	64	.3	5	8	430	4.01	10	5	ND	2	49	1	2	2	35	.51	.17	2	8	1.24	56	.10	2	1.65	.09	.08	2	5
B184560 873004	2	39	6	31	.2	6	4	304	3.90	9	5	ND	2	31	1	2	2	41	.26	.12	4	13	.92	42	.03	2	1.44	.08	.04	2	5
B184560 873005	2	15	5	3	.2	2	1	26	1.81	11	5	ND	2	14	1	2	2	6	.06	.08	3	1	.10	56	.01	3	.41	.05	.09	2	5
B184560 873006	2	18	5	23	.1	4	3	328	2.38	6	5	ND	2	16	1	2	2	20	.12	.05	3	3	.59	35	.02	2	.82	.04	.09	2	5
B184560 873007	3	38	9	25	.1	9	4	209	4.40	2	5	ND	2	47	1	2	2	26	.08	.08	2	23	.98	49	.03	4	1.08	.06	.07	2	5
B184560 873008	3	76	3	18	.2	19	6	224	3.18	9	5	ND	3	16	1	2	2	35	.07	.06	3	27	.97	39	.01	4	1.22	.04	.10	2	5
B184560 873009	1	22	6	70	.2	44	15	930	3.25	2	5	ND	2	49	1	2	2	79	1.07	.15	2	58	1.99	122	.16	2	2.12	.07	.75	2	35
B184560 873010	1	25	3	55	.2	36	12	967	3.01	12	5	ND	2	23	1	3	2	63	1.03	.16	3	46	1.47	68	.14	4	1.72	.08	.69	2	35
B184560 873011	1	135	1	67	.3	25	12	833	3.06	4	5	ND	2	49	1	2	2	75	.79	.17	3	47	1.62	164	.16	2	1.92	.08	.62	2	5
B184560 873012	1	63	4	70	.1	21	13	645	3.20	2	5	ND	2	51	1	2	2	86	.80	.14	4	51	1.69	212	.19	4	1.78	.07	.38	2	5
B184560 873013	1	24	5	71	.1	14	12	583	3.08	2	5	ND	2	50	1	3	2	73	.75	.15	4	95	1.70	349	.20	2	1.70	.05	.49	2	5
B184560 873014	1	24	4	78	.1	67	16	757	3.47	3	5	ND	2	78	1	2	2	58	.76	.20	4	57	2.47	147	.15	2	2.36	.06	.39	2	5
B184560 873015	1	84	1	61	.1	47	15	732	3.46	3	5	ND	2	45	1	2	2	55	.72	.17	2	70	2.26	159	.16	2	2.21	.06	.48	2	5
B184560 873016	1	54	5	55	.1	48	12	595	3.02	7	5	ND	2	34	1	2	2	54	.61	.16	2	66	1.90	184	.14	2	2.01	.07	.43	2	5
B184560 873017	1	29	9	17	.1	7	5	174	4.27	10	5	ND	3	6	1	2	2	15	.10	.10	4	8	.49	38	.07	2	.65	.01	.13	2	5
B184560 873018	1	22	10	29	.4	19	2	370	4.77	7	5	ND	2	6	1	2	6	30	.02	.11	3	42	1.24	30	.03	3	1.25	.01	.10	2	5
B184560 873019	1	95	2	63	.3	11	12	814	4.53	7	5	ND	2	26	1	2	2	99	.48	.08	2	19	1.84	86	.19	2	2.07	.06	.57	2	5
B184560 873020	1	61	4	53	.1	12	11	603	3.42	9	5	ND	2	29	1	2	2	94	.60	.09	3	13	1.42	183	.18	4	1.75	.10	.56	2	5
B184560 873021	1	68	4	54	.2	14	13	683	3.45	8	5	ND	2	38	1	2	2	102	.64	.08	2	24	1.47	214	.19	2	1.91	.14	.81	2	5
B184560 873022	1	80	6	49	.1	10	15	671	3.68	6	5	ND	2	34	1	3	2	88	.82	.10	2	9	1.50	184	.19	2	2.33	.20	.80	2	5
B184560 873023	1	38	4	35	.1	9	10	487	2.40	9	5	ND	2	33	1	2	2	67	.74	.08	2	16	1.08	87	.18	3	1.44	.09	.31	2	5
B184560 873024	1	42	4	39	.1	16	12	534	3.50	3	5	ND	2	32	1	2	2	96	.57	.08	2	33	1.50	120	.18	2	1.65	.07	.41	5	5
B184560 873025	1	111	3	39	.1	11	14	575	3.66	9	5	ND	2	45	1	2	2	108	.62	.09	2	25	1.48	78	.17	4	1.69	.06	.23	2	5
B184560 873026	198	70	8	13	1.1	4	3	198	2.55	10	5	ND	2	10	1	2	2	25	.03	.04	3	7	.40	706	.03	5	.35	.02	.02	2	375
B184560 873027	6	30	13	88	.2	30	4	950	1.31	37	5	ND	2	217	2	2	2	37	23.19	.13	4	26	.39	46	.02	3	.50	.01	.08	2	5
B184560 873028	2	88	7	44	.3	28	16	413	3.67	9	5	ND	2	99	1	2	2	60	2.33	.09	4	44	.85	65	.17	4	2.25	.28	.05	2	5
B184560 873029	1	77	15	176	.1	10	10	684	3.63	12	5	ND	3	42	1	2	2	42	.51	.19	8	9	1.19	57	.12	5	1.51	.03	.09	2	5
RE B184560 873015	1	86	3	60	.1	47	15	723	3.39	5	5	ND	2	45	1	2	2	55	.73	.17	3	65	2.21	159	.16	4	2.23	.07	.48	3	5
B184560 873030	6	327	10	219	1.6	10	4	551	5.40	11	5	ND	3	12	1	2	2	39	.25	.12	4	22	1.81	36	.09	4	1.94	.02	.12	2	375
B184560 873031	2	25	5	42	.5	5	5	190	3.17	11	5	ND	2	3	1	2	2	7	.13	.08	3	5	.10	23	.01	3	.24	.02	.09	2	55
B184560 873032	115	9	4	5	.1	6	3	70	1.40	12	5	ND	2	1	1	2	3	6	.01	.02	2	7	.10	15	.01	2	.19	.03	.07	2	25
B184560 873033	4	7	7	3	1.0	3	4	27	1.95	10	5	ND	2	4	1	2	3	5	.02	.08	3	1	.04	28	.01	3	.21	.02	.14	2	435
B184560 873036	3	43	7	161	.1	6	7	920	4.56	41	5	ND	2	20	1	2	3	46	.20	.09	4	8	1.74	63	.04	2	1.86	.03	.06	2	15
B184560 873037	4	55	9	120	.7	3	2	93	5.80	13	5	ND	2	2	1	2	5	15	.02	.10	7	2	.46	35	.01	3	.73	.02	.11	2	115
STD C/AN-0.5	19	57	39	127	6.5	72	28	1080	3.82	40	18	8	37	50	17	15	19	59	.44	.15	38	58	.88	186	.07	37	1.64	.06	.14	12	505

188.

# ROCK CHIP

SELCO - A DIVISION OF BP PROJECT # 550 FILE # 24-2847

PAGE 3

SAMPLE#	MO PPM	CU PPM	PB PPM	ZN PPM	AS PPM	NI PPM	CO PPM	MN PPM	FE %	AG PPM	V PPM	RU PPM	TH PPM	SR PPM	CD PPM	SB PPM	BI PPM	V PPM	CA %	P %	LA PPM	CR PPM	MG %	BA PPM	TI %	S PPM	AL %	NA %	K %	X PPM	AUT PPM
STD C	18	59	40	122	6.5	69	27	1105	3.82	39	17	7	35	49	16	15	19	57	.44	.14	38	57	.88	183	.07	37	1.64	.07	.14	14	-
8184560 873038	3	26	5	73	.2	2	3	400	4.83	8	5	ND	2	9	1	2	2	56	.07	.09	10	9	1.42	68	.13	3	1.28	.94	.05	2	5
8184560 873039	2	26	10	70	.2	5	3	515	4.88	5	5	ND	2	11	1	2	2	55	.12	.09	8	7	1.64	30	.11	2	1.57	.05	.03	2	5
8184560 873040	2	35	8	67	.1	5	4	719	5.07	3	5	ND	2	15	1	2	2	44	.35	.10	12	10	1.49	71	.67	2	1.64	.04	.07	2	5
8184560 873041	2	29	10	82	.1	5	4	914	5.07	5	5	ND	2	8	1	2	2	40	.14	.10	10	9	1.85	69	.03	2	1.89	.04	.07	2	5
8184560 873042	6	54	12	62	.3	4	5	481	4.10	4	5	ND	2	9	1	2	2	21	.13	.08	7	5	1.27	44	.09	2	1.17	.04	.09	2	5
8184560 873043	1	19	8	96	.4	3	2	781	4.14	8	6	ND	2	6	1	2	2	45	.12	.09	4	6	1.78	34	.17	2	1.58	.03	.09	2	5
8184560 873044	1	52	7	83	.1	4	2	553	6.33	4	5	ND	2	13	1	2	2	60	.13	.09	4	7	1.84	19	.06	2	2.13	.06	.04	2	25
8184560 873045	1	39	9	93	.1	3	3	710	5.84	6	5	ND	2	14	1	2	2	60	.14	.08	4	3	1.84	20	.09	2	2.08	.06	.03	2	15
8184560 873046	1	47	12	120	.1	4	3	802	6.26	3	5	ND	2	12	1	2	2	62	.11	.08	3	11	1.63	21	.15	2	1.93	.04	.03	2	15
8184560 873047	1	3265	5	108	.1	6	11	868	3.44	3	5	ND	2	74	1	2	2	28	1.52	.15	11	6	.97	111	.02	3	1.68	.06	.07	2	15
8184560 873048	1	322	6	1279	.4	35	17	2685	4.16	6	5	ND	2	131	7	2	2	71	11.37	.05	2	85	2.45	8	.04	2	2.24	.01	.01	2	5
8184560 873049	13	996	6	76	.1	10	8	534	5.47	2	5	ND	2	13	1	2	2	48	.22	.08	5	16	1.53	35	.06	2	1.64	.04	.05	2	35
STD C/AU-0.5	18	58	41	120	6.3	68	26	1083	3.75	38	17	7	34	48	16	14	18	56	.45	.14	37	56	.86	179	.07	36	1.60	.06	.14	13	510

DRILL CORE →

SELCO - A DIVISION OF BP PROJECT # 560 FILE # 84-2847

SAMPLE#	MG PPM	CU PPM	PB PPM	ZN PPM	AS PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU PPM	TH PPM	SR PPM	CD PPM	SB PPM	SI PPM	V PPM	CA %	P %	LA PPM	CR PPM	KG %	BA PPM	TI %	B PPM	AL %	HA %	K %	W PPM	AUI PPM	PPB
8484560 871001	1	320	22	255	.3	5	5	597	3.12	5	6	ND	2	26	1	2	2	26	.51	.12	2	9	.97	44	.07	10	1.31	.04	.08	2	65	
8484560 871002	1	728	19	357	.4	5	6	533	3.18	4	5	ND	2	24	1	2	3	25	.38	.11	2	7	.98	38	.06	7	1.30	.03	.07	2	45	
8484560 871003	2	1862	35	329	1.3	5	10	745	5.40	5	5	ND	2	19	1	2	2	35	.35	.11	2	9	.93	32	.07	5	1.33	.04	.04	2	150	
8484560 871004	2	535	10	531	.8	6	9	691	4.73	5	5	ND	2	18	5	2	2	34	.59	.11	2	8	.85	28	.05	2	1.20	.03	.06	2	110	
8484560 871005	2	1630	7	283	3.8	6	9	682	4.80	6	5	ND	2	16	2	2	2	33	.43	.09	2	9	.78	25	.06	4	1.13	.02	.06	2	985	
8484560 871006	3	846	4	513	1.6	6	14	746	6.73	8	5	ND	2	23	3	2	2	31	1.22	.08	2	4	.58	27	.05	3	.89	.02	.07	2	245	
STD C	17	61	37	119	6.0	68	26	1068	3.79	41	17	7	35	47	15	16	19	56	.44	.14	38	55	.87	179	.07	39	1.67	.06	.13	12	-	
8484560 871007	2	538	6	218	.6	5	8	559	5.86	7	5	ND	2	16	1	2	3	34	.39	.10	3	8	.70	33	.05	4	1.06	.02	.10	2	55	
8484560 871008	2	873	5	198	1.0	5	10	719	5.30	8	5	ND	2	12	1	2	2	30	.54	.10	2	3	.77	22	.04	2	1.08	.02	.09	2	125	
8484560 871009	2	439	3	254	.3	7	8	579	4.39	9	5	ND	2	13	1	2	7	26	.35	.10	2	8	.89	26	.06	2	1.20	.03	.09	2	30	
8484560 871010	2	394	4	220	.3	6	6	471	2.62	2	5	ND	2	23	1	2	2	21	.71	.12	3	8	.96	46	.04	2	1.14	.03	.10	2	40	
8484560 871011	1	347	2	123	.4	7	8	426	2.93	6	7	ND	2	22	1	2	7	22	.50	.11	2	9	.96	60	.07	2	1.12	.04	.09	2	35	
8484560 871012	1	277	1	155	.2	8	10	469	3.16	2	5	ND	2	25	1	2	8	23	.46	.12	3	10	1.10	82	.07	3	1.30	.03	.09	2	15	
8484560 871013	1	212	8	150	.2	6	8	458	2.49	8	5	ND	2	30	1	2	4	18	.89	.12	3	9	.99	55	.07	5	1.10	.03	.09	2	85	
8484560 871014	2	185	3	114	.3	7	7	448	2.50	4	5	ND	2	19	1	2	5	12	.81	.10	4	7	.89	61	.07	4	.94	.02	.13	2	20	
8484560 871015	3	180	3	93	.1	7	7	464	2.55	4	5	ND	2	27	1	2	5	20	.81	.10	3	9	1.05	58	.08	5	1.15	.04	.09	2	15	
8484560 871016	1	100	1	83	.2	6	7	430	2.36	4	5	ND	2	27	1	2	5	20	.65	.11	3	8	1.00	48	.07	3	1.18	.04	.07	2	5	
8484560 871017	1	216	2	135	.3	7	7	627	2.71	11	6	ND	2	25	1	2	2	20	1.01	.10	3	7	1.00	54	.06	4	1.21	.03	.09	2	15	
8484560 871018	2	634	4	118	.8	7	6	612	2.75	6	5	ND	2	20	1	2	2	13	.87	.10	3	7	.79	55	.05	3	.99	.02	.11	2	60	
8484560 871019	2	192	4	88	.3	7	6	503	2.72	11	5	ND	2	15	1	2	2	11	.70	.10	3	6	.73	53	.06	2	.82	.04	.11	2	20	
8484560 871020	2	903	6	91	.7	6	7	490	2.82	9	5	ND	2	16	1	2	3	13	.68	.11	4	7	.86	46	.05	2	.96	.02	.09	2	60	
RE 8484560 871008	1	901	7	205	1.1	5	10	748	5.43	9	5	ND	2	13	1	2	2	32	.56	.10	3	3	.80	23	.04	3	1.14	.02	.09	2	190	
8484560 871021	2	244	6	136	.3	39	16	1206	4.47	6	5	ND	2	40	1	2	2	85	4.22	.10	3	225	2.93	24	.02	2	2.71	.02	.02	3	5	
8484560 871022	2	122	6	44	.2	6	9	280	3.24	14	6	ND	2	11	1	2	2	8	1.04	.11	3	3	.53	35	.03	2	.70	.02	.10	2	20	
8484560 871023	4	404	1	109	.3	7	6	464	2.66	5	5	ND	2	18	1	2	2	22	1.04	.11	4	12	1.09	43	.05	5	1.41	.02	.07	2	30	
8484560 871024	6	653	3	111	.6	6	8	463	3.17	9	5	ND	2	19	1	2	2	20	1.38	.09	4	8	.98	43	.02	2	1.38	.03	.07	2	60	
8484560 871025	2	596	9	88	1.7	5	7	738	3.51	3	5	ND	2	23	1	2	2	11	2.38	.09	2	5	.82	35	.01	2	1.25	.02	.10	2	175	
8484560 871026	3	707	5	74	.7	6	10	702	3.55	7	5	ND	2	15	1	2	2	9	2.03	.09	3	5	.88	28	.01	2	1.06	.02	.11	2	105	
8484560 871027	2	1934	6	86	1.6	9	7	1055	3.65	7	5	ND	2	19	1	2	2	9	2.61	.08	5	9	.89	29	.01	4	.97	.02	.11	2	265	
8484560 871028	1	423	4	85	.7	5	7	975	3.24	3	5	ND	2	18	1	2	2	7	2.47	.10	3	5	.86	30	.01	4	.68	.02	.13	2	60	
8484560 871029	2	274	6	57	.7	6	11	697	3.52	7	5	ND	2	19	1	2	2	5	2.28	.10	4	2	.64	37	.01	6	.37	.02	.11	7	45	
8484560 871030	1	543	2	71	.6	6	9	537	3.24	4	5	ND	2	23	1	2	2	12	2.12	.11	4	6	.79	42	.01	5	.82	.02	.10	2	75	
8484560 871031	2	824	6	67	.7	7	7	537	2.91	5	5	ND	2	27	1	2	2	15	2.58	.09	5	9	.84	45	.01	4	1.07	.04	.08	2	95	
8484560 871032	2	274	5	46	.3	7	8	469	3.73	10	5	ND	2	23	1	2	2	16	2.30	.12	4	8	.75	35	.01	4	1.13	.03	.09	2	60	
8484560 871033	2	284	5	36	.7	7	6	436	3.09	2	5	ND	2	20	1	2	2	8	2.26	.10	3	3	.70	26	.01	4	.67	.02	.10	2	55	
8484560 871034	2	307	11	156	1.1	7	8	569	3.04	4	5	ND	2	19	1	2	2	4	1.84	.11	4	2	.62	30	.01	7	.34	.02	.15	2	210	
8484560 871035	1	387	2	55	.6	5	6	805	2.56	2	5	ND	2	20	1	2	2	4	2.99	.10	4	3	.70	22	.01	4	.50	.02	.13	2	80	
8484560 871036	3	408	4	49	1.8	19	11	824	2.94	7	5	ND	2	25	1	2	2	4	3.04	.10	2	9	.84	30	.01	3	.29	.01	.12	9	150	
8484560 871037	1	465	3	33	.9	13	12	520	3.13	2	5	ND	2	17	1	2	4	11	2.16	.10	4	19	.78	29	.01	2	.92	.01	.13	2	75	
STD C/AU-0.5	18	61	39	121	6.2	67	27	1086	3.82	38	17	7	34	48	16	15	21	56	.44	.14	38	58	.88	194	.07	38	1.65	.06	.13	13	490	

190.

SELCO - A DIVISION OF BP PROJECT # 560 FILE # 84-2947

SAMPLE	NO	CU	FE	ZN	AS	NI	CO	NR	FE	AS	U	AU	TH	SR	CD	SB	BI	V	CA	F	LA	CR	MG	BA	TI	B	AL	WA	K	M	HUI
	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH
8484560 871028	2	241	4	46	2	25	9	420	3.28	8	5	NO	2	18	1	2	2	30	2.20	.09	2	72	1.80	27	.01	28	1.22	.02	.04	2	30
RE 2184560 871057	1	200	1	127	.2	5	6	837	2.88	8	5	NO	2	29	1	2	2	14	2.71	.11	2	5	.95	42	.01	28	1.41	.02	.07	2	50
8484560 871029	1	152	1	40	.1	6	7	492	2.74	16	5	NO	2	17	1	2	2	8	1.56	.10	2	4	.85	37	.01	29	1.00	.02	.05	2	30
8484560 871040	1	58	6	82	.1	7	7	768	2.62	2	5	NO	2	62	1	2	2	31	2.02	.14	2	7	1.05	65	.05	30	1.29	.03	.07	2	5
2484560 871041	1	142	5	67	.1	14	8	855	2.72	2	5	NO	2	69	1	2	2	31	2.54	.13	3	20	1.20	83	.03	13	1.43	.03	.07	2	5
8484560 871042	1	212	4	50	.1	7	4	597	2.95	3	5	NO	2	35	1	2	2	25	1.81	.11	3	7	.97	39	.02	14	1.31	.03	.05	2	20
319 C	17	59	38	115	6.2	65	25	1077	3.80	37	19	7	31	45	16	16	18	57	.43	.14	38	55	.87	188	.06	39	1.62	.06	.10	13	-
8484560 871043	2	312	5	50	.1	7	6	524	2.41	5	5	NO	2	29	1	2	2	12	2.44	.10	1	6	.82	41	.01	14	1.12	.02	.02	2	30
3484560 871044	1	204	4	61	.1	6	7	512	2.92	4	5	NO	2	28	1	2	2	14	2.27	.10	4	5	.83	49	.01	28	1.21	.02	.05	2	25
6484560 871045	1	254	5	44	.4	6	7	432	2.64	3	5	NO	2	40	1	2	2	13	2.21	.09	2	9	.78	44	.01	29	1.13	.02	.07	2	55
2484560 871046	2	322	4	39	.2	6	8	348	2.80	4	5	NO	2	51	1	2	2	18	1.82	.09	2	4	.82	46	.01	30	1.13	.02	.04	2	80
8484560 871047	2	319	4	32	.3	6	7	278	2.30	4	5	NO	2	60	1	2	2	12	1.71	.08	2	9	.88	43	.03	30	.88	.02	.06	2	190
8484560 871048	1	443	4	43	.3	6	6	392	2.52	2	5	NO	2	81	1	2	2	16	2.10	.10	1	6	.82	41	.01	16	1.08	.02	.02	2	50
8484560 871049	3	605	5	37	.3	6	8	340	2.59	6	5	NO	2	62	1	2	2	17	1.85	.06	2	7	.76	34	.03	15	.87	.02	.03	2	130
8484560 871050	1	481	3	42	.3	8	9	444	2.54	7	5	NO	2	44	1	2	2	31	1.65	.08	2	14	1.01	46	.04	17	1.01	.02	.05	2	55
8484560 871051	2	589	5	43	.3	6	6	414	2.79	5	5	NO	2	70	1	2	2	21	2.52	.07	2	7	.79	27	.04	15	.91	.02	.02	2	75
2484560 871052	2	905	5	40	.4	6	7	330	3.15	3	5	NO	2	76	1	2	2	17	2.24	.07	2	5	.76	44	.04	13	.89	.02	.06	2	160
8484560 871053	2	390	8	311	1.4	6	7	759	3.55	2	5	NO	2	25	2	2	2	10	1.74	.09	3	5	.64	49	.01	30	.64	.03	.08	2	350
3484560 871054	2	216	7	75	.7	5	4	842	2.33	2	5	NO	2	31	1	2	2	3	2.54	.10	2	1	.80	48	.01	27	.24	.01	.12	2	150
8484560 871055	1	282	4	88	.3	5	4	861	2.56	3	5	NO	2	30	1	2	2	5	2.76	.09	3	4	.84	42	.04	30	.33	.02	.10	2	60
6484560 871056	1	344	1	130	.3	6	7	725	3.06	9	5	NO	2	21	1	2	2	12	2.49	.10	3	6	.79	43	.01	25	1.12	.03	.08	2	70
8484560 871057	2	312	7	133	.2	7	6	868	3.01	9	5	NO	2	29	1	2	2	15	2.87	.11	2	8	.99	38	.01	15	1.45	.02	.08	2	85
8484560 871058	1	144	4	115	.1	6	5	607	3.01	27	5	NO	2	19	1	2	2	22	1.73	.10	3	8	.99	42	.01	29	1.38	.03	.09	2	30
8484560 871059	1	136	6	87	.1	7	5	537	2.75	37	5	NO	2	22	2	2	2	22	1.78	.10	2	8	.86	47	.02	15	1.23	.03	.07	2	35
8484560 871060	2	185	1	68	.2	7	4	418	2.82	2	5	NO	2	24	1	2	2	33	1.34	.10	3	10	.97	43	.02	30	1.22	.04	.05	2	25
8484560 871061	1	232	6	66	.1	7	9	371	3.07	15	5	NO	2	19	1	2	2	23	1.19	.10	4	8	.89	54	.01	31	1.07	.04	.06	2	50
9484560 871062	2	274	7	82	.2	7	7	479	2.95	2	5	NO	2	23	1	2	2	26	1.55	.10	3	9	.91	54	.01	14	1.12	.02	.06	2	55
8484560 871063	4	505	3	127	.5	7	7	644	2.79	8	5	NO	2	28	1	2	2	16	2.21	.09	2	7	.84	54	.01	29	.86	.03	.07	2	140
8484560 871064	7	524	7	104	.5	7	7	506	2.72	2	5	NO	2	21	1	2	2	12	1.27	.10	4	6	.84	54	.01	30	.63	.03	.08	2	80
8484560 871065	5	174	17	187	1.6	30	13	1490	4.18	4	5	NO	2	39	1	2	2	15	6.25	.09	2	40	2.76	37	.01	26	.58	.02	.07	2	170
8484560 871066	1	71	5	95	.2	21	9	711	2.95	2	5	NO	2	33	1	2	2	31	2.75	.09	3	53	1.44	39	.01	28	1.45	.03	.07	2	5
8484560 871067	1	303	12	82	1.5	6	7	691	2.60	6	5	NO	2	18	1	2	2	4	2.99	.08	3	5	.40	56	.01	25	.50	.02	.10	2	165
8484560 871068	1	83	5	57	.1	7	6	491	1.94	6	5	NO	2	15	1	2	2	7	1.62	.09	3	7	.52	48	.01	25	.65	.02	.11	2	40
8484560 871069	3	521	4	62	.4	6	6	435	2.85	4	5	NO	2	16	1	2	2	15	1.34	.10	3	8	.85	37	.01	14	.96	.03	.07	2	50
8484560 871070	6	145	4	53	.4	7	9	440	2.64	6	5	NO	2	10	1	2	2	11	1.11	.10	3	6	.74	48	.03	31	.84	.03	.11	2	45
8484560 871071	2	179	6	39	1.4	7	8	358	2.87	5	5	NO	2	8	1	2	2	8	1.07	.10	3	6	.60	42	.03	31	.67	.03	.10	2	50
8484560 871072	1	264	5	51	.4	7	6	400	2.55	2	5	NO	2	9	1	2	2	9	.56	.10	3	6	.87	40	.01	30	1.03	.04	.10	2	90
8484560 871073	1	269	5	56	.2	7	7	386	2.18	2	7	NO	2	8	1	2	2	10	.67	.10	3	5	.94	46	.04	27	.99	.02	.10	2	40
8484560 871074	1	1298	3	80	.9	7	6	471	2.44	3	5	NO	2	9	1	2	2	16	.69	.09	3	7	.88	57	.04	32	1.01	.02	.08	2	120
519 C/ML-0.5	17	59	37	116	5.9	67	25	1091	3.82	39	18	7	33	46	15	15	19	59	.44	.14	38	55	.82	188	.07	36	1.64	.06	.11	12	500

SAMPLE#	NO PPM	CU PPM	PB PPM	ZK PPM	AS PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU PPM	TH PPM	SR PPM	CO PPM	SB PPM	BI PPM	Z PPM	CA %	F %	LA PPM	CR PPM	H6 %	BA PPM	T1 %	B PPM	AL %	NR %	K %	W PPM	AUT PPM
8484560 871075	3	268	4	92	.2	7	11	355	2.50	16	5	ND	2	13	1	2	2	18	.65	.10	2	9	.87	43	.02	24	.95	.03	.05	2	45
8484560 871076	6	1513	2	83	1.2	6	8	339	2.66	9	5	ND	2	11	1	2	2	18	.47	.10	2	7	.78	53	.03	23	.87	.03	.06	2	175
8484560 871077	1	120	3	79	.1	6	8	364	2.55	20	5	ND	2	9	1	2	2	13	.54	.10	2	7	.78	60	.02	25	.83	.03	.07	2	40
8484560 871078	2	253	3	81	.2	6	9	434	2.54	14	5	ND	2	13	1	2	2	18	.90	.10	2	7	.79	51	.03	28	.88	.03	.06	2	55
8484560 871079	2	259	2	54	.1	7	7	335	2.24	6	5	ND	2	10	1	2	2	14	.66	.10	3	6	.72	52	.03	26	.87	.02	.08	2	60
8484560 871080	2	222	2	54	.1	6	7	421	2.71	2	5	ND	2	10	1	2	2	17	.78	.10	3	7	.87	50	.03	27	1.09	.03	.07	2	40
8484560 871081	5	456	1	51	.2	5	5	331	1.85	3	5	ND	2	8	1	2	2	15	.43	.10	3	7	.84	38	.03	25	.90	.03	.06	2	55
8484560 871082	4	1569	1	68	.9	6	10	468	3.01	9	5	ND	2	12	1	2	2	25	.86	.09	2	7	.86	39	.03	21	1.10	.03	.06	2	175
8484560 871083	3	1314	5	100	.8	15	16	1004	8.76	6	5	ND	2	23	1	2	2	117	2.48	.05	2	40	1.82	22	.05	23	1.89	.01	.01	2	370
8484560 871084	4	2071	9	137	1.4	7	14	916	12.51	21	5	ND	2	8	1	2	2	87	.64	.03	3	6	.92	24	.02	28	1.54	.02	.01	2	630
8484560 871085	2	388	4	91	.4	4	9	857	4.87	6	5	ND	2	74	1	2	2	33	2.70	.11	3	2	.55	60	.01	20	.68	.02	.07	2	70
8484560 871086	4	623	7	180	.6	4	12	1063	8.80	5	5	ND	2	30	1	2	2	97	1.55	.08	2	2	.90	26	.01	23	1.29	.03	.02	2	60
8484560 871087	5	348	7	133	.3	5	9	1067	5.89	8	5	ND	2	65	1	2	2	62	2.70	.08	2	2	.92	82	.01	26	1.20	.02	.04	2	50
8484560 871088	4	1093	3	58	.6	5	7	508	4.56	3	5	ND	2	186	1	2	2	45	3.17	.06	2	4	.67	38	.03	24	.76	.02	.06	2	285
8484560 871089	1	264	7	41	.8	13	9	639	2.56	2	5	ND	2	31	1	2	2	7	2.26	.10	4	8	.85	38	.01	25	.29	.01	.11	2	200
8484560 871090	1	154	4	60	.2	15	8	476	2.49	3	5	ND	2	21	1	2	2	14	1.82	.11	3	9	.72	37	.01	22	.70	.02	.09	2	50
8484560 871091	1	196	5	77	.5	6	6	426	3.14	6	5	ND	2	19	1	2	3	31	1.31	.11	4	7	.88	31	.01	20	1.19	.03	.05	2	55
8484560 871092	1	241	4	87	.2	6	5	396	3.15	7	5	ND	2	22	1	2	4	33	1.16	.11	4	7	.95	47	.01	26	1.09	.03	.04	2	35
8484560 871093	1	284	6	101	.2	7	5	491	3.29	4	5	ND	2	35	1	2	2	34	1.78	.11	4	8	.93	59	.01	20	1.20	.03	.03	2	30
8484560 871094	1	152	8	159	.2	6	8	481	2.63	6	5	ND	2	25	1	2	2	22	1.42	.10	3	7	.73	48	.01	17	.98	.03	.07	2	25
8484560 871095	1	94	4	91	.2	6	6	371	2.01	7	5	ND	2	20	1	2	2	16	1.13	.10	4	5	.76	47	.03	20	.87	.03	.08	2	30
8484560 871096	1	124	6	172	.2	6	5	507	2.28	2	5	ND	2	23	1	2	2	19	1.43	.10	3	6	.76	53	.03	14	.83	.03	.08	2	25
8484560 871097	1	112	9	1129	.3	5	6	433	2.35	3	5	ND	2	16	7	2	2	17	1.03	.11	4	5	.69	59	.03	21	.76	.03	.10	2	30
8484560 871098	2	186	8	1611	.5	6	6	450	2.24	11	5	ND	2	16	9	2	2	13	1.03	.11	4	4	.58	68	.02	25	.66	.03	.11	2	60
STD C	18	58	37	122	6.6	66	27	1054	3.70	38	19	7	35	46	16	16	21	60	.40	.14	37	51	.83	174	.06	39	1.53	.06	.12	12	-
8484560 871099	1	201	5	354	.4	6	7	392	2.00	4	5	ND	2	17	2	2	2	17	.75	.10	3	7	.76	59	.04	34	.79	.03	.07	2	25
8484560 871101	1	93	23	206	.2	14	11	361	2.98	2	5	ND	2	12	1	2	2	36	.29	.11	3	29	1.50	53	.05	32	1.64	.03	.06	2	15
8484560 871102	1	111	3	152	.2	12	13	340	3.27	3	5	ND	2	11	1	2	2	27	.27	.11	4	22	1.44	35	.03	28	1.64	.02	.03	2	10
8484560 871103	1	70	4	156	.1	10	8	298	2.44	3	5	ND	2	8	1	2	2	22	.25	.12	3	17	1.16	44	.03	24	1.17	.03	.06	2	5
8484560 871104	1	101	3	216	.2	12	9	398	2.92	2	5	ND	2	11	1	2	2	35	.27	.11	4	25	1.59	36	.03	35	1.70	.03	.03	2	10
8484560 871105	1	63	3	132	.2	12	9	363	2.66	3	5	ND	2	9	1	2	2	36	.28	.11	2	27	1.67	38	.04	32	1.63	.03	.04	2	5
8484560 871106	1	129	2	98	.1	12	15	303	3.18	7	5	ND	2	10	1	2	2	33	.28	.12	4	21	1.54	38	.04	35	1.53	.03	.04	2	5
8484560 871107	2	128	2	139	.2	9	8	409	3.24	2	5	ND	2	11	1	2	2	37	.30	.12	3	18	1.72	35	.05	34	1.80	.03	.05	2	5
8484560 871108	2	182	6	68	.3	6	6	242	3.57	4	5	ND	2	7	1	2	2	20	.34	.12	4	4	1.12	32	.04	15	1.04	.02	.08	2	15
8484560 871109	5	205	12	64	.3	8	9	398	2.92	2	5	ND	2	10	1	2	2	10	1.04	.12	3	7	.71	35	.03	26	.67	.02	.10	2	40
8484560 871110	3	128	9	63	.1	9	7	282	2.09	3	5	ND	2	11	1	2	3	19	.29	.09	4	16	1.11	31	.04	30	.92	.02	.07	2	5
8484560 871111	10	535	5	81	.3	7	8	495	2.79	2	5	ND	2	8	1	2	3	32	.27	.10	3	10	1.67	28	.04	24	1.38	.02	.06	2	45
STD C/AU-0.5	19	59	37	124	6.4	69	27	1062	3.82	42	17	8	35	49	17	15	20	60	.44	.15	39	58	.88	182	.07	40	1.65	.06	.14	13	500

192.

SELCO - A DIVISION OF BP PROJECT # 560 FILE # 84-2847

SAMPLE#	MO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU PPM	TH PPM	SR PPM	CD PPM	SB PPM	BI PPM	V PPM	CA %	P %	LA PPM	CR PPM	M6 %	BA PPM	TI %	B PPM	AL %	HA %	K %	W PPM	AUS PPM
8484560 871112	10	479	6	112	.2	6	14	543	3.12	4	5	ND	2	13	1	2	2	36	.34	.10	2	3	1.72	31	.05	8	1.59	.03	.08	2	45
8484560 871113	22	1073	10	170	.7	11	15	496	2.54	4	5	ND	2	9	1	2	2	18	.31	.08	2	9	1.20	21	.04	10	1.05	.03	.08	2	80
8484560 871114	9	524	4	128	.1	8	9	412	3.34	5	5	ND	2	14	1	2	2	28	.29	.09	4	10	1.18	45	.04	8	1.29	.02	.11	2	35
RE 8484560 871134	1	2273	3	92	1.4	13	6	884	2.90	2	5	ND	2	10	1	2	2	29	.29	.08	2	19	1.34	23	.04	5	1.41	.03	.04	2	230
8484560 871115	5	352	4	81	.1	7	11	412	3.00	8	5	ND	2	8	1	2	2	26	.25	.10	3	10	1.39	37	.05	7	1.22	.03	.08	2	5
8484560 871116	2	216	1	74	.1	5	6	497	2.93	2	5	ND	2	12	1	2	2	38	.31	.11	3	6	1.80	30	.05	7	1.54	.03	.07	2	5
8484560 871117	4	355	4	76	.2	7	12	531	3.47	5	5	ND	2	7	1	2	2	30	.28	.11	2	6	1.30	26	.04	7	1.13	.03	.05	2	5
8484560 871118	4	527	7	155	.1	7	12	557	4.92	4	5	ND	2	7	1	2	2	46	.28	.10	3	5	1.49	33	.04	9	1.56	.02	.07	2	5
STD C	20	60	37	124	6.7	70	28	1074	3.95	38	17	8	37	49	17	16	21	56	.42	.15	38	55	.88	172	.06	40	1.61	.06	.13	13	-
8484560 871119	3	950	8	62	.2	7	11	335	3.45	2	5	ND	2	11	1	2	3	51	.23	.04	3	8	1.33	49	.06	12	1.44	.03	.09	2	90
8484560 871120	4	889	2	70	.1	18	9	373	4.18	4	5	ND	2	9	1	2	2	32	.36	.11	3	25	1.30	48	.05	7	1.42	.02	.10	2	75
8484560 871121	3	1193	2	58	.2	12	7	309	3.72	6	5	ND	2	8	1	2	2	22	.29	.09	3	18	.92	33	.04	7	1.00	.03	.10	2	170
8484560 871122	3	1580	6	59	.5	8	8	427	4.77	7	5	ND	2	7	1	2	3	46	.45	.08	2	6	1.26	20	.04	7	1.32	.03	.07	2	210
8484560 871123	3	2508	3	69	.7	7	7	529	5.20	7	5	ND	2	9	1	2	2	44	.29	.08	3	4	1.42	18	.05	7	1.50	.03	.06	2	490
8484560 871124	3	1577	3	100	.8	8	8	741	4.09	3	5	ND	2	8	1	2	2	32	.26	.09	2	7	1.37	23	.05	5	1.38	.02	.10	2	505
8484560 871125	1	726	5	103	.8	13	14	737	5.43	5	5	ND	2	19	1	2	3	30	.54	.12	2	9	1.50	38	.06	2	1.49	.01	.12	2	205
8484560 871126	2	654	6	175	.5	9	12	664	7.54	12	5	ND	2	9	1	2	2	38	.35	.08	2	9	1.04	27	.04	7	1.10	.01	.13	2	230
8484560 871127	3	952	6	37	.3	7	9	287	6.43	10	5	ND	2	6	1	2	3	27	.41	.07	2	13	.41	26	.03	9	.51	.02	.09	2	305
8484560 871128	2	661	3	74	.1	8	8	474	5.30	10	5	ND	2	8	1	2	2	48	.32	.12	2	17	1.14	20	.04	6	1.21	.03	.05	2	175
8484560 871129	3	587	3	60	.2	9	7	386	6.26	6	5	ND	2	7	1	2	2	49	.29	.11	2	17	.87	24	.04	7	.96	.03	.08	2	15
8484560 871130	2	1942	8	69	1.0	7	11	402	4.93	7	5	ND	2	7	1	2	2	30	.38	.09	2	21	.65	31	.04	6	.72	.02	.09	2	490
8484560 871131	2	1023	5	100	.6	6	8	524	5.57	4	5	ND	2	6	1	2	3	52	.37	.08	2	5	1.06	17	.05	6	1.12	.02	.07	5	190
8484560 871132	1	878	6	77	.5	7	5	444	2.04	3	5	ND	2	7	1	2	2	19	.22	.06	2	3	.73	38	.05	2	.79	.02	.10	2	155
8484560 871133	2	1925	2	66	1.0	9	4	506	2.62	6	5	ND	2	9	1	2	2	29	.28	.06	2	12	.79	41	.04	2	.87	.03	.10	2	890
8484560 871134	1	2266	3	102	1.2	12	6	889	2.92	3	5	ND	2	10	1	2	2	29	.28	.08	2	21	1.34	24	.04	3	1.39	.03	.05	2	240
8484560 871135	1	2108	4	90	1.2	8	11	991	4.78	7	5	ND	2	8	1	2	2	51	.24	.08	2	4	1.53	27	.05	7	1.67	.03	.08	2	120
8484560 871136	1	881	4	131	.5	7	10	1141	3.59	4	5	ND	2	11	1	2	2	36	.31	.10	3	9	1.71	15	.05	5	1.85	.02	.06	2	30
8484560 871137	2	721	2	83	.5	5	8	929	2.50	6	5	ND	2	13	1	2	2	21	1.00	.10	2	3	1.22	21	.04	3	1.30	.01	.10	2	60
8484560 871138	1	212	5	86	.2	2	13	701	3.68	2	5	ND	2	23	1	2	2	49	.73	.14	2	3	1.40	25	.07	6	1.53	.02	.05	2	5
8484560 871139	3	678	5	97	.1	7	11	541	3.61	10	5	ND	2	20	1	2	2	50	.55	.11	2	11	1.11	34	.07	4	1.22	.02	.07	2	30
8484560 871140	1	691	5	51	.1	6	7	372	3.73	5	5	ND	2	13	1	2	2	39	.39	.09	2	7	.83	37	.05	4	.99	.02	.09	2	35
8484560 871141	3	462	3	35	.2	4	8	252	1.76	7	5	ND	2	38	1	2	2	17	2.68	.08	2	2	.73	17	.04	2	.77	.01	.05	2	25
8484560 871142	3	492	4	25	.4	5	7	166	1.74	6	5	ND	3	82	1	2	2	9	4.38	.09	2	1	.35	18	.03	2	.37	.01	.05	2	15
8484560 871143	10	579	5	38	.2	5	12	107	1.95	6	5	ND	2	111	1	2	2	12	3.41	.07	2	3	.59	18	.03	2	.54	.02	.03	2	5
8484560 871144	8	240	3	22	.2	4	12	98	2.99	10	5	ND	2	108	1	2	2	9	3.53	.09	2	2	.41	21	.03	4	.39	.01	.06	2	5
8484560 871145	6	278	5	30	.3	5	11	135	2.32	11	5	ND	2	115	1	2	2	10	3.66	.08	2	2	.57	18	.03	2	.53	.01	.06	2	5
8484560 871146	4	155	7	27	.2	4	9	179	2.22	7	5	ND	2	98	1	2	2	13	3.86	.09	2	2	.64	19	.03	3	.59	.01	.07	2	5
8484560 871147	7	279	4	24	.3	5	13	127	1.87	12	5	ND	2	164	1	2	2	8	4.52	.09	2	2	.38	25	.03	3	.39	.01	.06	2	15
8484560 871148	24	261	4	20	.3	8	36	135	2.85	8	5	ND	3	172	1	2	2	4	7.36	.08	2	1	.18	26	.02	3	.22	.01	.04	2	5
STD CAU-0.5	19	57	38	123	6.4	70	27	1051	3.92	40	18	7	35	49	16	15	20	57	.44	.14	37	57	.88	181	.07	40	1.64	.06	.14	13	510

193.



SELCO - A DIVISION OF BP PROJECT # 560 FILE # 94-2847

SMPL#	NO	CU	PB	TK	AG	NI	CO	NI	FE	AS	U	AU	TR	SR	CD	SB	BT	V	CA	P	LA	CR	MG	BA	TI	B	AL	MG	K	M	AUT
8181560 871157	1	319	2	71	2	13	6	607	3.13	4	2	ND	2	105	1	2	4	30	3.53	.07	5	19	1.06	17	.02	5	1.06	.91	.07	2	35
8181560 871155	2	187	3	52	1	23	11	506	2.61	4	5	ND	2	100	1	2	8	22	3.33	.14	6	28	1.26	25	.03	3	1.04	.02	.12	2	55
8181560 871156	2	654	5	67	5	22	12	424	2.65	2	6	ND	2	149	1	2	3	33	4.11	.07	5	43	1.45	17	.03	2	1.28	.01	.06	2	30
8181560 871152	1	17	3	27	1	5	18	281	4.56	3	5	ND	2	5	1	2	5	17	5.57	.09	8	3	1.12	16	.02	5	.86	.02	.12	2	5
8181560 871153	9	271	3	101	2	12	18	98	2.37	6	5	ND	2	99	1	2	5	4	3.19	.07	5	8	.28	15	.01	3	.24	.01	.07	2	25
8181560 871154	1	319	2	71	2	13	6	607	3.13	4	2	ND	2	105	1	2	4	30	3.53	.07	5	19	1.06	17	.02	5	1.06	.91	.07	2	35
8181560 871155	2	187	3	52	1	23	11	506	2.61	4	5	ND	2	100	1	2	8	22	3.33	.14	6	28	1.26	25	.03	3	1.04	.02	.12	2	55
8181560 871156	2	654	5	67	5	22	12	424	2.65	2	6	ND	2	149	1	2	3	33	4.11	.07	5	43	1.45	17	.03	2	1.28	.01	.06	2	30
8181560 871157	3	525	2	86	2	5	12	408	3.25	5	5	ND	2	76	1	2	2	43	2.89	.10	6	4	1.51	21	.04	3	1.61	.03	.07	2	45
8181560 871158	4	939	4	84	4	4	13	483	3.75	5	5	ND	2	60	1	3	2	52	2.57	.08	7	4	1.60	17	.05	5	1.62	.02	.06	2	135
8181560 871159	1	421	4	65	2	5	12	484	2.81	2	5	ND	2	35	1	2	2	33	2.27	.11	6	5	1.53	27	.06	4	1.51	.02	.11	2	60
8181560 871160	1	132	5	57	7	12	9	733	2.69	6	5	ND	2	70	1	3	2	30	2.63	.15	7	14	1.19	56	.06	3	1.15	.02	.17	2	145
8181560 871161	2	1336	3	61	4	4	11	322	2.62	9	5	ND	2	129	1	2	2	29	3.71	.08	5	2	1.14	17	.03	3	1.13	.02	.08	2	150
8181560 871162	2	596	4	47	2	4	13	329	3.31	7	5	ND	2	80	1	2	2	37	3.30	.08	7	2	1.14	17	.03	4	1.17	.02	.07	2	50
8181560 871163	1	162	4	41	2	3	13	236	3.56	7	5	ND	2	9	1	2	2	23	3.01	.12	7	3	1.22	21	.04	5	1.27	.03	.11	2	15
8181560 871164	1	62	3	41	1	5	19	248	3.69	4	5	ND	2	8	1	3	2	23	3.34	.10	8	2	1.37	16	.05	7	1.19	.02	.10	2	60
8181560 871165	1	126	4	37	1	6	16	201	4.12	5	5	ND	2	9	2	2	2	21	2.23	.09	8	2	1.40	20	.03	4	1.21	.03	.10	2	75
8181560 871166	1	100	3	36	3	5	15	239	3.19	6	5	ND	2	5	1	2	2	22	2.27	.11	10	3	1.32	18	.03	6	1.03	.02	.09	2	15
8181560 871167	5	30	4	26	1	5	14	203	4.80	2	5	ND	2	5	1	2	2	21	2.27	.11	8	4	1.33	15	.03	5	1.03	.03	.11	2	5
8181560 871168	2	17	4	28	1	5	19	292	4.63	5	5	ND	2	5	1	2	2	18	2.57	.09	10	3	1.17	15	.02	5	.93	.02	.12	2	5
8181560 871169	3	20	6	28	1.5	15	12	593	3.82	6	5	ND	2	27	1	2	2	14	2.16	.10	8	15	1.32	16	.01	3	.85	.02	.12	2	100
8181560 871170	1	133	3	46	5	21	17	756	3.83	5	5	ND	2	22	1	2	2	45	3.70	.11	6	31	2.29	12	.01	2	2.06	.01	.08	2	40
8181560 871171	1	164	4	44	1	11	13	644	4.28	11	5	ND	2	9	1	2	4	46	4.87	.11	7	16	1.82	11	.01	3	1.92	.03	.07	2	35
8181560 871172	1	114	2	24	1	10	9	190	4.16	15	5	ND	2	5	1	2	2	27	3.33	.10	9	4	1.41	12	.01	4	1.16	.02	.09	2	15
8181560 871173	1	33	8	19	1	10	10	155	4.61	6	5	ND	2	4	1	2	2	15	2.54	.10	9	10	1.14	12	.01	4	.85	.02	.11	2	5
8181560 871174	1	364	3	10	1	7	7	476	4.19	7	5	ND	2	7	1	2	2	20	1.29	.12	7	10	1.53	15	.01	2	1.24	.02	.11	2	83
8181560 871175	17	59	40	114	6.0	52	25	1083	3.73	40	18	7	36	47	17	15	21	54	4.45	.15	38	51	.95	138	.05	37	1.64	.06	.17	14	-
8181560 871176	1	69	5	25	2	12	8	232	4.52	7	5	ND	2	5	1	2	4	17	3.63	.11	8	8	1.31	19	.01	5	.89	.02	.13	2	5
8181560 871177	1	191	5	53	1	10	8	526	4.18	4	5	ND	2	9	1	2	2	22	2.25	.10	8	9	1.25	15	.01	4	1.03	.03	.09	2	15
8181560 871178	1	128	2	27	1	5	17	281	3.62	7	5	ND	2	5	1	2	2	24	3.1	.11	8	2	1.29	13	.01	4	1.02	.02	.11	2	25
8181560 871179	1	20	30	21	1	4	18	243	4.03	7	5	ND	2	4	1	2	3	14	3.0	.11	8	2	.99	13	.02	5	.76	.02	.11	2	5
8181560 871180	1	24	5	18	1	3	21	209	4.43	7	5	ND	2	4	1	2	2	13	3.3	.10	9	1	.82	13	.02	7	.66	.02	.13	2	5
8181560 871181	1	102	5	25	1	2	11	243	3.22	3	5	ND	2	5	1	2	5	25	2.52	.11	6	1	1.26	9	.03	4	.90	.02	.10	2	5
8181560 871182	3	39	5	29	1	3	17	382	4.09	5	5	ND	2	7	1	2	2	29	.83	.10	9	2	1.53	11	.03	5	1.21	.02	.10	2	5
8181560 871183	1	86	4	53	1	19	17	977	3.95	3	5	ND	2	99	1	2	2	94	5.63	.10	8	81	2.13	92	.04	3	2.06	.02	.06	2	5
8181560 871184	1	182	3	41	1	3	10	701	3.07	2	5	ND	2	57	1	2	2	23	3.56	.12	10	4	.98	43	.01	25	1.18	.03	.10	2	10
8181560 871185	1	299	4	50	2	3	6	800	2.58	2	5	ND	2	99	1	2	2	24	3.03	.16	10	4	.88	72	.01	4	1.22	.02	.10	2	5
S1D C.M-0.5	18	58	38	119	5.9	64	26	1088	3.78	41	18	7	35	50	17	15	21	58	.48	.15	36	56	.97	178	.06	40	1.80	.06	.17	13	190

SELCO - A DIVISION OF BP PROJECT # 560 FILE # 84-2847

SAMPLE#	NO	CU	PB	ZN	AG	NI	CO	MN	FE	AS	U	AU	TH	SR	CD	SS	BI	V	CR	P	LA	CR	MG	BA	TI	B	AL	NA	K	V	AU
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	%	PPM	PPM
8484560 871186	1	226	5	68	.1	6	7	864	3.27	2	5	ND	2	69	1	2	2	36	3.03	.09	7	9	1.23	69	.01	3	1.54	.02	.05	2	5
8484560 871187	4	96	7	72	.2	6	12	916	4.54	3	5	ND	2	58	1	3	2	48	3.44	.06	5	8	1.78	28	.01	3	2.49	.03	.04	2	5
8484560 871188	3	456	6	51	.3	5	12	597	3.62	2	5	ND	2	34	1	3	2	34	2.50	.07	5	5	1.48	24	.01	14	1.84	.03	.03	2	5
8484560 871189	2	339	3	56	.3	5	8	693	3.77	2	5	ND	2	41	1	3	2	38	2.62	.06	6	8	1.61	24	.01	14	2.18	.04	.03	2	5
8484560 871190	2	298	5	53	.3	4	7	703	3.03	2	5	ND	2	50	1	2	3	30	2.93	.07	3	8	1.23	38	.01	14	1.75	.03	.05	2	5
8484560 871191	10	43	1	43	.2	7	17	508	4.54	2	5	ND	2	41	1	2	3	34	2.89	.08	4	8	1.41	25	.01	14	1.56	.04	.04	2	5
8484560 871192	3	52	6	55	.1	13	11	952	4.28	5	5	ND	2	120	1	3	4	46	4.93	.06	4	33	1.63	23	.01	12	1.95	.02	.03	2	5
8484560 871193	2	35	7	73	.1	88	16	1056	4.89	2	5	ND	2	93	1	2	5	73	4.04	.12	2	176	2.88	25	.01	13	2.56	.03	.03	2	5
8484560 871194	4	11	6	65	.1	89	13	1246	4.01	2	5	ND	2	144	1	2	4	44	7.70	.11	5	138	2.88	111	.01	19	1.98	.02	.05	2	5
8484560 871195	2	11	17	52	.1	212	14	615	2.39	3	5	ND	2	145	1	2	6	51	3.88	.11	7	341	3.05	226	.02	17	1.87	.02	.12	2	5
8484560 871196	1	32	10	48	.1	229	18	614	2.80	4	5	ND	2	224	1	3	5	68	4.49	.18	8	377	3.88	220	.01	20	2.02	.02	.10	2	5
8484560 871197	2	57	17	68	.1	281	26	908	4.29	2	5	ND	2	288	1	2	4	80	7.11	.19	4	467	6.52	613	.01	17	1.79	.01	.01	2	5
8484560 871198	2	58	8	62	.1	53	16	954	4.99	7	5	ND	2	80	1	2	4	84	4.57	.06	5	137	3.43	178	.01	14	2.50	.02	.04	2	5
8484560 871199	2	78	7	65	.1	70	17	891	4.80	4	5	ND	2	46	1	2	3	101	3.12	.06	4	187	3.59	56	.10	24	3.34	.02	.01	2	5
8484560 871200	3	74	7	56	.1	56	16	759	4.13	6	5	ND	2	58	1	2	2	75	3.60	.04	4	108	3.11	49	.12	24	2.69	.01	.05	2	5
8484560 871201	2	480	8	181	.5	8	13	1001	5.22	3	5	ND	2	38	1	2	2	76	2.82	.11	4	15	1.92	48	.01	22	1.99	.03	.05	10	50
8484560 871202	2	704	5	278	.6	5	13	736	5.77	2	5	ND	2	9	1	2	2	96	.87	.09	5	6	1.80	33	.03	18	2.12	.03	.02	2	80
STD C	17	60	39	123	6.1	67	26	1035	3.77	37	18	7	32	44	17	16	19	56	4.43	.13	37	55	.86	172	.06	38	1.65	.05	.11	12	-
8484560 871203	2	765	5	417	.6	4	11	992	5.57	5	5	ND	2	8	1	2	2	76	.56	.09	4	4	1.53	37	.04	23	1.99	.03	.04	2	65
8484560 871204	2	1312	8	450	.8	4	9	1001	6.44	4	5	ND	2	9	2	2	2	105	.96	.08	7	4	1.42	31	.04	27	1.95	.02	.03	2	135
8484560 871205	2	3165	8	700	2.1	4	11	867	6.15	8	5	ND	2	12	3	2	2	70	1.20	.07	4	6	1.25	39	.02	25	1.92	.03	.05	2	375
8484560 871206	2	1496	8	731	1.5	4	9	762	7.46	4	5	ND	2	17	4	2	2	61	1.71	.08	7	2	1.06	37	.01	24	1.56	.02	.06	2	280
8484560 871207	2	1602	7	315	1.9	7	13	971	7.51	6	5	ND	2	25	1	3	2	106	2.79	.07	4	10	1.54	28	.01	23	1.59	.03	.02	2	290
8484560 871208	2	1093	7	306	1.3	4	9	832	7.74	6	5	ND	2	22	1	2	2	70	1.83	.07	9	4	1.10	35	.01	26	.93	.03	.03	2	220
8484560 871209	3	1690	8	258	1.8	5	12	1385	9.11	5	5	ND	2	29	1	2	2	58	2.47	.05	9	3	1.28	21	.01	15	.88	.02	.04	2	450
8484560 871210	4	905	8	142	1.7	4	13	1427	9.49	4	5	ND	2	34	1	2	3	40	2.84	.06	5	2	1.13	25	.01	23	.32	.02	.06	2	2780
8484560 871211	5	2068	11	138	3.9	6	15	1285	10.24	4	5	ND	2	37	1	2	2	37	2.59	.07	8	2	1.26	22	.01	19	.55	.02	.04	2	3100
8484560 871212	3	1036	9	177	1.1	9	14	1422	8.32	5	5	ND	2	36	1	2	2	77	3.38	.07	3	19	1.37	30	.01	18	2.10	.01	.06	2	2000
8484560 871213	4	1927	11	223	1.6	5	14	1012	12.62	5	5	ND	2	18	1	2	2	84	1.48	.03	10	2	.96	25	.01	21	1.43	.02	.04	1	540
8484560 871214	6	2885	12	237	2.8	5	16	1056	12.46	7	5	ND	2	20	1	2	2	81	1.58	.03	4	1	.92	28	.01	24	.95	.02	.04	2	850
RE 8484560 871194	3	13	7	66	.1	93	14	1269	4.12	5	6	ND	2	146	1	2	3	45	7.71	.11	5	145	2.93	114	.01	21	2.02	.02	.06	2	5
8484560 871215	3	3611	11	140	3.3	4	14	1013	13.35	2	5	ND	2	21	1	2	2	69	1.60	.01	3	1	.69	22	.01	10	.50	.02	.04	2	2210
8484560 871216	2	2910	51	322	7.8	6	14	1185	11.56	9	5	4	2	28	3	2	2	25	2.04	.05	12	1	.73	21	.01	22	.21	.01	.05	2	6160
8484560 871217	3	538	37	107	1.9	5	9	1002	4.91	5	5	ND	2	26	1	3	3	17	2.01	.09	4	1	.82	30	.01	18	.42	.01	.10	51	320
8484560 871218	1	972	9	153	1.0	4	12	864	11.52	3	5	ND	2	14	1	2	2	80	1.29	.04	12	3	.77	25	.01	21	1.08	.02	.04	2	275
8484560 871219	2	632	8	187	.7	5	9	634	6.73	8	5	ND	2	15	1	2	2	35	1.41	.04	5	8	.67	35	.01	24	.97	.02	.08	2	225
8484560 871220	1	2033	6	116	1.5	6	8	696	9.05	7	5	ND	2	10	1	2	2	69	.83	.04	11	5	.69	23	.02	22	1.16	.02	.04	2	640
8484560 871221	1	684	5	76	.7	5	6	795	3.99	6	5	ND	2	18	1	3	2	28	1.69	.07	5	7	.78	35	.01	20	1.17	.02	.08	2	490
8484560 871222	2	270	1	63	.7	6	8	790	2.59	8	5	ND	2	27	1	3	2	12	2.52	.09	5	4	.59	31	.01	17	.84	.02	.08	2	95
STD C/AU-0.5	17	59	37	124	6.0	67	24	1063	3.82	39	19	7	33	46	14	15	19	58	.44	.13	37	58	.88	188	.07	37	1.74	.05	.11	13	505

195.

SELCO - A DIVISION OF BP PROJECT # 560 FILE # B4-2847

SAMPLE	NO	CU	PG	TR	AG	MI	CO	NR	FE	AS	V	NO	TH	SR	CO	SB	BT	V	CA	P	LA	CR	MG	BA	TI	B	AL	NA	K	V	AM
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	
8484560 871228	2	585	4	61	2.3	6	10	765	3.96	5	5	NO	2	20	1	2	2	2	2.08	.11	2	1	.58	23	.01	7	.23	.01	.13	2	95
8484560 871229	2	597	6	41	1.1	6	14	548	3.12	12	5	NO	2	23	1	2	2	4	2.31	.10	2	2	.74	28	.01	7	.26	.02	.10	2	120
8484560 871230	2	313	2	63	.3	7	7	584	3.20	10	5	NO	2	26	1	2	2	6	2.57	.12	3	4	1.04	36	.01	7	.52	.02	.10	2	70
8484560 871231	2	281	5	61	.2	7	6	730	3.12	7	5	NO	2	17	1	2	2	5	2.29	.11	5	4	.87	32	.01	9	.54	.02	.11	2	68
8484560 871232	1	181	4	49	.2	6	7	795	2.72	11	5	NO	2	20	1	2	3	4	2.57	.11	3	1	.75	26	.01	6	.38	.01	.12	2	45
8484560 871233	2	378	5	31	1.1	6	7	637	2.92	6	5	NO	2	17	1	2	3	2	2.08	.11	2	1	.58	23	.01	7	.23	.01	.13	2	95
8484560 871234	1	996	6	148	.4	42	23	1023	4.93	9	5	NO	2	33	1	2	2	105	2.37	.12	3	72	3.29	55	.15	9	2.78	.01	.26	2	135
8484560 871235	1	992	2	139	.3	7	10	437	4.65	5	5	NO	2	15	1	2	2	77	.40	.11	4	7	1.65	110	.14	10	1.61	.02	.42	2	125
8484560 871248	1	478	4	61	.1	13	12	580	4.58	2	5	NO	2	19	1	2	2	76	1.00	.04	2	28	2.16	14	.08	6	2.30	.02	.01	2	30
8484560 871246	1	897	1	110	.4	6	12	425	3.90	4	5	NO	2	14	1	2	2	72	.36	.10	3	4	1.50	121	.12	38	1.47	.03	.38	2	170
8484560 871237	1	658	5	135	.3	5	11	433	3.86	4	5	NO	2	12	1	2	2	72	.38	.11	1	4	1.54	87	.15	8	1.45	.03	.24	2	85
8484560 871238	1	117	3	36	.1	8	16	514	4.70	8	5	NO	2	26	1	2	2	35	2.39	.10	6	4	1.56	18	.06	12	1.49	.05	.32	2	20
8484560 871239	1	63	4	102	.1	16	22	286	4.55	3	5	NO	2	20	1	2	2	48	1.48	.08	4	14	1.75	17	.09	8	1.47	.05	.02	2	5
8484560 871240	1	73	2	51	.1	12	20	197	5.33	1	5	NO	2	19	1	2	2	38	1.82	.06	4	11	1.44	12	.07	12	1.45	.04	.01	2	30
8484560 871241	3	94	1	263	.2	11	17	416	5.05	7	5	NO	2	21	1	2	2	28	1.48	.09	5	11	1.35	19	.06	11	1.27	.04	.03	2	25
8484560 871242	1	112	4	542	.1	11	15	384	4.63	5	5	NO	2	25	1	2	2	32	1.33	.08	4	15	1.44	13	.07	10	1.28	.05	.02	2	35
8484560 871243	3	111	3	70	.2	18	16	735	4.30	7	5	NO	2	25	1	2	2	53	2.78	.07	4	37	2.25	10	.09	11	1.98	.02	.01	2	20
8484560 871244	1	75	3	46	.1	24	15	534	4.79	4	5	NO	2	19	1	2	2	51	1.38	.11	6	55	2.21	16	.08	12	1.90	.03	.01	2	10
8484560 871245	1	88	2	31	.1	9	16	308	5.13	4	5	NO	2	18	1	2	2	30	1.43	.09	3	10	1.45	20	.05	8	1.27	.04	.03	2	25
8484560 871246	2	97	5	42	.1	19	22	447	5.39	7	5	NO	2	35	1	2	2	72	4.10	.10	4	67	2.31	11	.01	10	2.24	.03	.01	2	20
8484560 871247	1	719	3	90	.3	13	16	1043	5.36	9	5	NO	2	33	1	2	2	66	3.43	.05	4	20	2.00	26	.01	10	2.28	.03	.02	2	50
8484560 871248	1	467	4	59	.1	12	11	574	4.57	3	5	NO	2	19	1	2	2	76	1.00	.04	5	29	2.16	14	.08	9	2.29	.02	.01	2	30
8484560 871249	1	231	2	51	.1	6	10	422	3.34	2	5	NO	2	18	1	2	4	11	1.24	.10	3	4	.74	53	.01	9	.78	.03	.07	2	20
8484560 871250	1	134	1	120	.1	7	7	949	2.81	2	5	NO	2	22	1	2	3	19	1.05	.07	2	7	1.08	55	.02	6	1.14	.02	.05	2	5
510 C	19	57	38	123	6.3	65	27	1105	3.98	11	19	NO	8	35	47	17	15	61	.45	.15	38	54	.91	183	.06	41	1.62	.05	.14	12	-
8484560 871251	1	110	2	67	.1	6	9	736	4.22	7	5	NO	2	62	1	2	3	12	1.84	.10	5	3	.92	26	.01	22	1.02	.02	.05	2	30
8484560 871252	1	107	1	74	.1	6	9	772	2.87	5	5	NO	2	38	1	2	2	23	1.62	.09	3	16	1.34	73	.04	19	1.45	.02	.05	2	20
8484560 871253	1	209	2	51	.2	10	10	432	3.64	4	5	NO	2	44	1	2	3	21	2.03	.09	4	14	1.24	42	.04	8	1.22	.03	.05	2	40
8484560 871254	2	223	2	39	.1	7	10	413	3.53	4	5	NO	2	53	1	2	2	19	2.53	.07	2	9	.94	33	.02	7	.90	.02	.04	2	25
8484560 871255	6	784	1	57	.4	13	11	630	3.43	8	5	NO	2	59	1	2	2	27	2.56	.09	3	12	1.23	36	.06	8	1.13	.02	.04	2	50
8484560 871256	5	197	1	87	.2	14	11	1028	3.27	6	5	NO	2	75	1	2	2	32	3.16	.07	3	30	1.37	51	.02	5	1.41	.01	.03	2	25
8484560 871257	1	257	2	40	.3	28	15	978	3.65	2	5	NO	2	37	1	2	2	60	2.47	.05	3	63	2.40	5	.07	8	2.07	.01	.01	2	40
8484560 871258	1	645	1	73	.2	5	13	598	2.44	6	5	NO	2	16	1	2	2	22	1.14	.09	4	7	.98	42	.05	6	1.52	.02	.09	2	55
8484560 871259	1	17	1	57	.4	6	6	770	1.92	3	5	NO	2	23	1	2	2	27	1.82	.07	4	7	.98	42	.05	5	1.69	.02	.03	2	20
510 C/ML-0.5	18	53	35	121	6.2	66	29	1072	3.82	40	17	NO	7	34	48	16	19	81	.44	.14	38	54	.88	176	.07	42	1.66	.06	.12	13	480

SAMPLE#	MO PPM	CU PPM	PB PPM	ZN PPM	AS PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU PPM	TH PPM	SR PPM	CO PPM	SB PPM	BI PPM	V PPM	CA %	P %	LA PPM	CR PPM	MG %	BA PPM	TI %	B PPM	AL %	HA %	K %	W PPM	AU+ PPM
STD C	18	58	39	125	6.8	70	27	1064	3.75	40	18	8	37	50	17	14	20	58	.43	.14	40	57	.86	177	.07	37	1.62	.06	.11	10	-
8484560 871260	1	322	6	62	.3	5	6	589	1.98	2	5	ND	2	30	1	2	2	30	.86	.09	3	7	1.00	74	.08	3	1.17	.05	.07	2	25
8484560 871261	1	24	7	70	.3	5	7	1098	2.70	5	5	ND	2	138	1	2	2	21	3.48	.17	6	4	.80	89	.01	2	1.09	.01	.11	2	10
8484560 871262	6	254	8	51	.1	10	13	545	3.30	2	5	ND	2	36	1	2	2	42	1.49	.11	2	12	1.61	51	.03	2	1.79	.04	.09	2	5
8484560 871263	7	459	6	49	.3	5	16	621	4.40	4	5	ND	2	15	1	2	2	32	1.53	.10	2	2	1.83	44	.01	25	2.06	.03	.13	2	15
8484560 871264	7	662	9	42	1.9	5	19	431	3.72	3	5	ND	2	20	1	2	2	19	1.38	.07	2	3	1.17	44	.01	22	1.39	.02	.12	2	85
8484560 871265	6	834	7	42	1.3	5	18	441	3.41	7	5	ND	2	33	1	2	2	14	2.17	.07	2	1	.94	26	.01	2	1.04	.01	.12	2	45
8484560 871266	1	42	7	56	.4	23	9	780	2.64	6	5	ND	2	143	1	2	2	25	2.74	.13	6	25	1.34	244	.01	2	1.32	.02	.07	2	5
8484560 871267	1	37	14	100	.1	24	10	789	2.77	2	5	ND	2	131	1	2	2	32	2.48	.14	7	35	1.41	297	.04	14	1.45	.03	.08	2	5
8484560 871268	1	68	8	57	.1	23	11	675	2.83	6	5	ND	2	115	1	2	2	37	2.21	.13	7	37	1.43	137	.08	2	1.45	.03	.10	2	5
8484560 871269	3	262	6	57	.2	20	13	670	3.16	7	5	ND	2	101	1	2	2	35	2.14	.14	4	29	1.47	120	.06	28	1.39	.03	.12	2	5
STD C	18	59	40	128	6.9	71	28	1085	3.82	41	18	8	38	51	17	15	21	59	.44	.15	40	58	.88	180	.07	38	1.65	.06	.12	12	-

APPENDIX 4  
STATEMENT OF COSTS

## KLI 84-1 ASSESSMENT REPORT

STATEMENT OF COSTS

## ANALYTICAL COSTS

275 Drill core samples @ \$13.10	\$ 3,602.50
49 Rock chip samples @ \$13.10	641.90
<u>2 Soil samples @ \$10.95</u>	<u>21.90</u>
326 Samples	\$ 4,266.30
Data Processing @ \$2.00/sample	652.00
Interpretation, S.J. Hoffman, Geochemist (1 day)	<u>300.00</u>

TOTAL ANALYTICAL COSTS \$5,218.30

## FIELD LABOUR COSTS

Project Geologist -4 days @ \$141.13	\$ 564.52
Geologist -32 days @ \$89.24	2,855.68
Geologist -8 days @ \$99.00	792.00
Field Assistant -32 days @ \$55.17	1,765.44
Geological Assistant -3 days @ \$55.00	165.00
Supervisory Visit - 1 day @ \$200.00	<u>200.00</u>

TOTAL FIELD LABOUR \$6,342.64

## CAMP COSTS

4 men, 4 days @ \$50/man/day	\$ 800.00
2 men, 28 days @ \$ 50/man/day	<u>2,800.00</u>

TOTAL CAMP COSTS \$3,600.00

## AIR CHARTERS

Helicopter 13.5 hours @ \$486.00	\$6,561.00
Fixed Wing (Share of 3 flights)	<u>1,000.00</u>

TOTAL AIR CHARGES \$7,561.00

## TRAVEL EXPENSES

Hotel, meals; 4 men, 2 nights @ \$50/man	\$ 400.00
2 men, 2 nights @ \$50/man	200.00
1 return airfare, Vancouver-Smithers	<u>295.00</u>

TOTAL TRAVEL \$ 895.00

## TRANSPORTATION

Truck rental - 1 month @ \$900	900.00	
Haulage (camp mob., demob.)	700.00	
Fuel	<u>300.00</u>	
		\$1,900.00

## MAPS AND REPORT PREPARATION

Project Geologist -5 days @ \$141.13	\$ 705.65	
Drafting -15 hours @ \$18.00	270.00	
Materials	<u>100.00</u>	
TOTAL		<u>\$ 1,075.65</u>

TOTAL ASSESSMENT COSTS		\$26,592.59
------------------------	--	-------------

=====

APPORTIONMENT OF COSTS

<u>CLAIM</u>	<u>RECORD NOS.</u>	<u>UNITS</u>	<u>APPLIED TO EACH CLAIM</u>	
KLI 1-8	89985-89992	8	1 YR. @ \$200.00	\$1,600.00
KLI 11-15	89995-89999	5	1 YR. @ \$200.00	1,000.00
KLI 17,19	90001,90003	2	1 YR. @ \$200.00	400.00
CHRIS 1-2	4855-4856	40	2 YRS. @ \$100.00	8,000.00
CHRIS 3-5	6220-6222	45	2 YRS. @ \$100.00	<u>9,000.00</u>
			TOTAL	\$20,000.00

Applied to PAC account, BP Resources Canada limited \$6,592.59

APPENDIX 5  
STATEMENTS OF QUALIFICATION



STATEMENT OF QUALIFICATIONS - H.O. SMIT

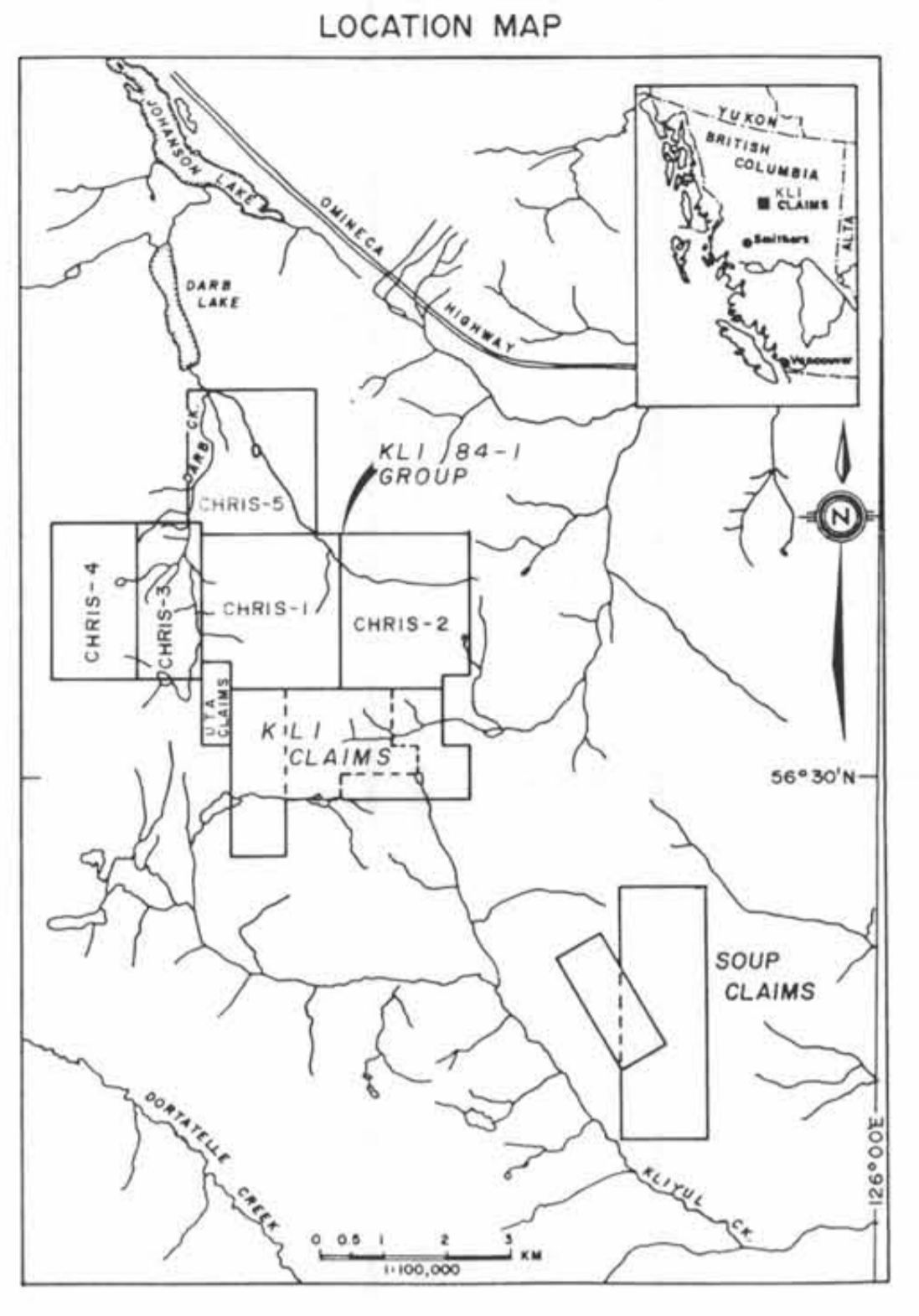
B.Sc. (Hons.) Geology, 1984 - University of British Columbia,  
Vancouver.

H.Q. Smit was employed as an exploration geologist with BP Resources Canada Limited from May to November, 1984. Prior to this he was employed for two field seasons with the Geological Survey of Canada and has held field assistant positions with various mining and exploration companies in Western Canada.

STATEMENT OF QUALIFICATIONS - R.E. MEYERS

B.Sc. (Hons.) Geology, 1974 - Carleton University, Ottawa  
M.Sc. Economic Geology, 1980 - McGill University, Montreal  
Associate Member of the Geological Association of Canada (1974)  
Member of the Canadian Institute of Mining and Metallurgy

I have practised my profession continuously since graduation in 1974, as a Mine-Geologist (1974-1977); in Economic Geology research (1977-1979); and in mineral exploration (1979-present).



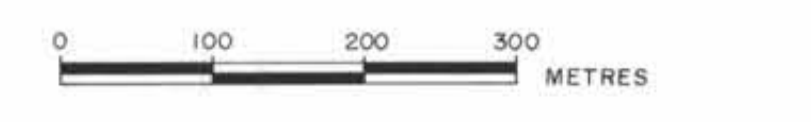
- LEGEND**
- OMINECA INTRUSIONS JURA - CRETACEOUS**
- 5 DIORITE, QUARTZ DIORITE
  - 5a HORNBLENDE DIORITE
- TAKLA GROUP - UPPER TRIASSIC - LOWER JURASSIC**
- 4 FELDSPAR PORPHYRY DYKES (FPd)
  - 3 AUGITE PORPHYRY DYKES (APd)
  - 2 LIMESTONE AND TUFF - Limestone breccia in tuff, minor lenses of limestone and argillite
  - 1 ANDESITE TUFF
- 1e. Andesite tuff, hornfelsed  
 1d. Tuffaceous argillite, quartz-carbonate - altered  
 1c. Andesite tuff, feldspar crystal tuff, quartz-sericite-pyrite - altered (dacitic?)  
 1b. Lower andesite tuff, predominantly feldspar crystal tuff  
 1a. Upper andesite tuff, augite-bearing crystal and lapilli tuff, minor agglomerate

- SYMBOLS**
- OUTCROP
  - GEOLOGICAL CONTACT, PROJECTED
  - - - FAULT, PROJECTED
  - DIAMOND DRILL HOLE; INCLINED, VERTICAL
  - + QUARTZ VEIN, ORIENTATION UNKNOWN
  - ↗ FOLIATION
  - ↘ BEDDING

- ABBREVIATION**
- Mgt MAGNETITE
  - Py PYRITE
  - Cp CHALCOPYRITE
  - Qv QUARTZ VEIN

**GEOLOGICAL BRANCH ASSESSMENT REPORT**

**13,258**

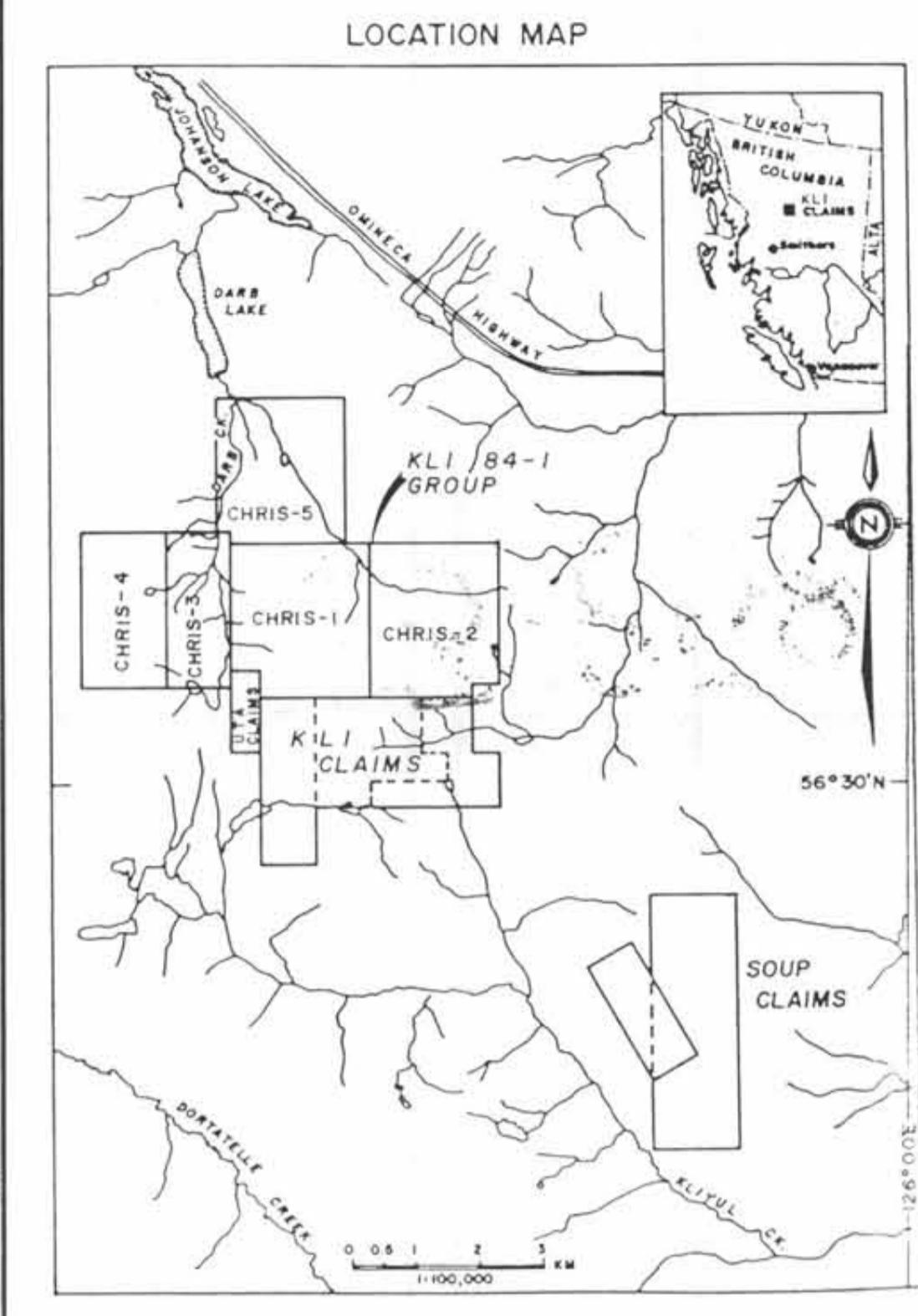


**BP SELCO DIVISION - BP RESOURCES CANADA LIMITED**

**KLI CLAIMS**

**GEOLOGY**

SCALE 1 : 5,000	DRAWN BY: H. SMIT	FIG. 3
DATE NOV ' 1984	DRAFTED BY: E. B. W.	
N.T.S. 94 D / 8	PROJ. 10116	REPORT BPVR 84 - 49



SAMPLE #	SAMPLE TYPE	LITHOLOGY	AU	CU	AG	LENGTH (m)
873001	Rock Chip	OV	34600	441	48.6	1.0
873002	Rock Chip	OVW	730	41	1.3	0.5
873003	Rock Chip	1c (shredded)	3800	82	5.3	1.0
873004	1c		375	51	1.1	10.0
873005	1c		5	37	0.1	10.0
873006	1c		5	39	0.2	10.0
873007	1c		5	15	0.2	10.0
873008	1c		5	18	0.1	10.0
873009	1c		5	28	0.1	10.0
873010	1c		35	76	0.2	10.0
873011	1c		35	22	0.2	10.0
873012	1c		35	35	0.3	10.0
873013	1c		5	125	0.1	10.0
873014	1c		5	43	0.1	10.0
873015	1c		5	24	0.1	10.0
873016	1c		5	84	0.1	10.0
873017	1c		5	54	0.1	10.0
873018	1c		5	25	0.4	10.0
873019	1c		5	25	0.3	10.0
873020	1c		5	61	0.1	10.0
873021	1c		5	68	0.1	10.0
873022	1c		5	80	0.1	10.0
873023	1c		5	42	0.1	10.0
873024	1c		5	111	0.1	10.0
873025	OV		375	70	1.2	10.0
873026	OV		5	30	0.2	10.0
873027	2a		5	25	0.1	10.0
873028	2b		5	88	0.3	10.0
873029	2c		375	327	1.6	5.0
873030	OVW		55	25	0.5	1.0
873031	OV		25	9	0.1	0.5
873032	Soil		55	155	0.5	1.0
873033	Soil		435	195	0.8	1.0
873034	Rock Chip	OVW	47	1.0	0.5	1.0
873035	OV		115	53	0.7	10.0
873036	1c		5	26	0.2	10.0
873037	1c		5	26	0.2	10.0
873038	1c		5	29	0.1	10.0
873039	1c		5	29	0.1	10.0
873040	1c		5	19	0.4	10.0
873041	1c		25	92	0.1	10.0
873042	1c		25	39	0.1	10.0
873043	1c		15	87	0.1	10.0
873044	1c		15	3245	0.1	3.0
873045	1c		15	3245	0.1	10.0
873046	1c		35	996	0.1	10.0

**LEGEND**  
 [873030] ROCK CHIP SAMPLE LOCATION  
 ● [873035] SOIL SAMPLE LOCATION

**GEOLOGICAL BRANCH  
 ASSESSMENT REPORT**  
**13,258**  
 0 100 200 300 METRES

**BP** SELCO DIVISION -  
 BP RESOURCES CANADA LIMITED

**KLI CLAIMS  
 ROCK CHIP & SOIL SAMPLE  
 LOCATIONS &  
 Au, Cu, Ag GEOCHEMISTRY**

SCALE 1:5,000 DRAWN BY: H. SMIT  
 DATE NOV 1984 DRAFTED BY: E. B. W. FIG. 4  
 N.T.S. 94 D / 8 PROJ. 10116 REPORT BPVR 84-49