

84-1169-13257

DIAMOND DRILLING REPORT  
ON THE  
IDE 2, IDE 4 AND ANN 4 FRACTION  
MINERAL CLAIMS

PART OF MINING LEASES NO. 9 & NO. 14

HIGHLAND VALLEY

KAMLOOPS MINING DIVISION

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

NIS SHEETS 92I/6, 92I/7

LATITUDE 50°25'N

LONGITUDE 121°00'E

**13,257**

OWNED BY NATIONAL TRUST COMPANY LIMITED

510 BARRARD, VANCOUVER, B.C., V2C 2J7

**PART  
2 OF 2**

OPERATED BY HIGHMONT OPERATING CORPORATION

BOX 3000, LOGAN LAKE, B.C., V0K 1W0

Report Prepared By

L.H.C. TSANG - HIGHMONT CHIEF GEOLOGIST

OCTOBER 10, 1984

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# INDEX MAP SPENCES BRIDGE MAMIT LAKE

EDITION 2

97

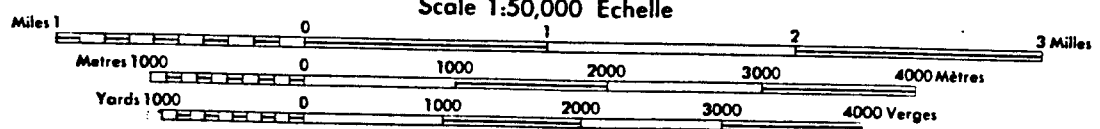
3 05' 37 38 39 40 R 22 641000m. E. 12r00' 643000m. E. 44 45



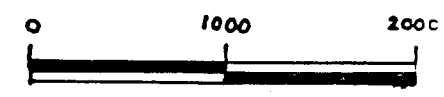
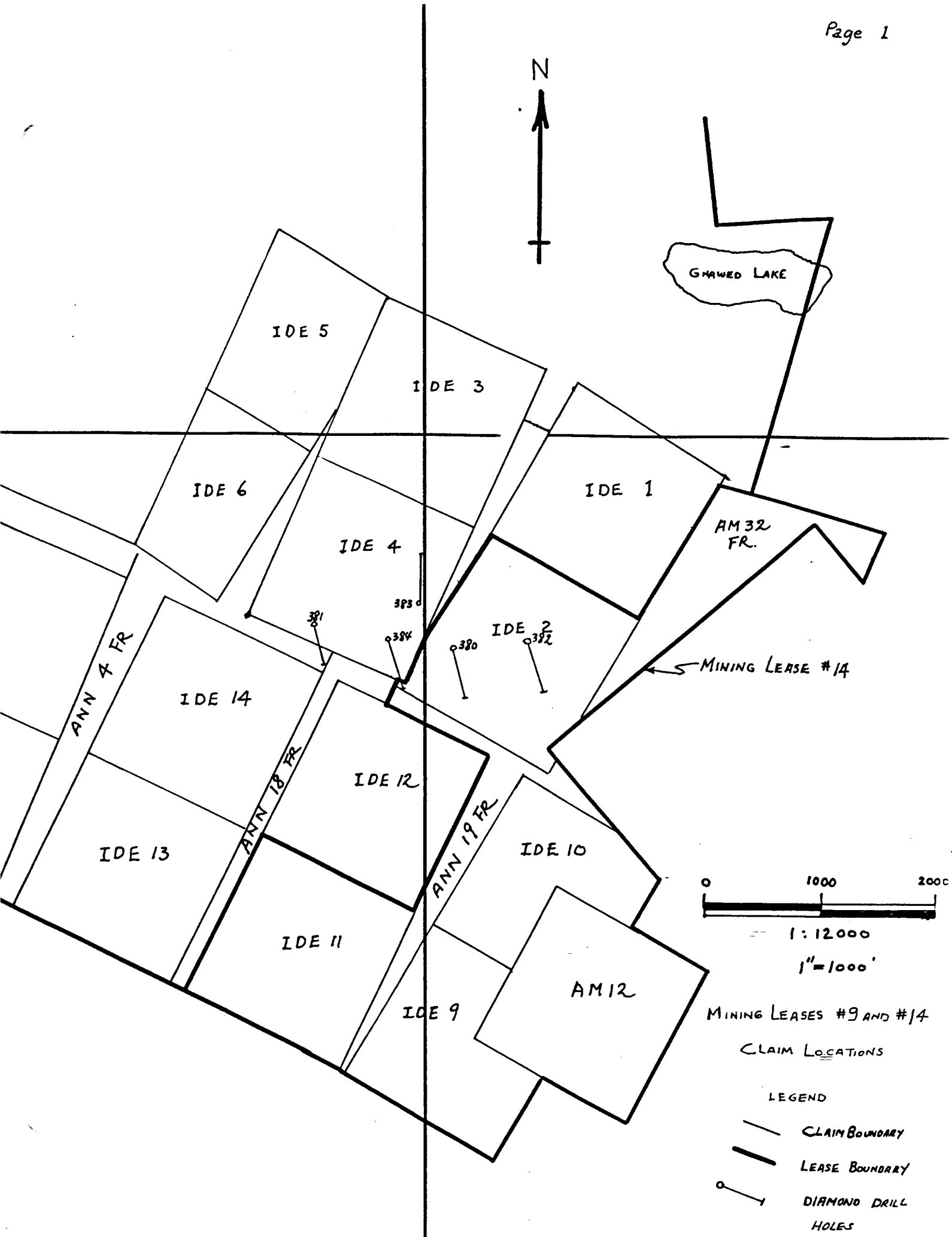
## SPENCES BRIDGE

KAMLOOPS DIVISION OF YALE LAND DISTRICT  
BRITISH COLUMBIA  
WEST OF SIXTH MERIDIAN - OUEST DU SIXIEME MERIDIEN

Scale 1:50,000 Échelle






DWG No. 1



1:12000  
1"=1000'

MINING LEASES #9 AND #14  
CLAIM LOCATIONS

LEGEND

-  CLAIM BOUNDARY
-  LEASE BOUNDARY
-  DIAMOND DRILL HOLES

DIAMOND DRILLING REPORT  
ON THE  
AM, ANN AND IDE MINERAL CLAIMS

PART OF MINING LEASES 9 AND 14

INTRODUCTION

i) Location and Access

Mineral Leases No. 9 and No. 14 are located in the Highland Valley on the southwest flank of Gnawed Mountain, at an elevation of 1585-1747 m. Highmont Operating Corporation's No. 4 mineral deposit, currently being evaluated by this drilling program, lies within these leases.

Access to the Highmont Operation is via the Highmont main access road, an 8 km all-weather gravel road which connects with the paved highway connecting Logan Lake and Ashcroft.

ii) Claim Description

Mining Lease No. 9 consists of 40 mineral claims and fractions and was issued on December 10, 1979. Mining Lease No. 14 consists of 7 claims and fractions and was issued on September 10, 1980. Both were issued for a period of 21 years.

Considerable development work has been done on Highmont's Lease No. 9, beginning with the initial claim staking in 1955 and 1956. Torwest Resources and Highmont Mining Corporation did major percussion and diamond drilling in 1966 and 1967 and then drove some 1170 m. of underground development for bulk sampling and investigations in 1967 and 1968. Additional diamond

drilling was done by Teck Corporation from 1969 to 1971 bringing the exploration drilling total to 46400 m. of diamond drilling and 18800 m. of percussion drilling.

This drilling outlined two large mineralized zones, totalling 122 million tonnes at 0.26% Cu and .027% molybdenum. (No. 1 & 2 ore bodies)

In 1977 and 1979, two fill-in diamond drilling programs totalling 3451 m. were carried out on Highmont's No. 2 ore body to prove up first year production grades and a production decision was announced on April 24, 1979. Stripping commenced in June, 1980 and the first ore was milled in December, 1980.

The claims within Lease No. 14 were purchased from Minex Resources when Highmont announced its production decision in 1979. Minex and Canadian Superior had drilled several diamond and percussion drill holes on this ground, encountering scattered chalcopyrite and molybdenite mineralization.

Other than the two largest ore zones (Nos. 1 and 2) that are currently being mined, the Highmont property includes five small deposits. The current diamond drilling program was carried out to further evaluate the No. 4 deposit.

Several technical papers have been published on this property. Two of these reports are:

- 1) "The Highmont Copper-Molybdenum Deposits, Highland Valley, British Columbia" by Bergey, Carr and Reed, CIMM Bulletin, December, 1971.

- 2) "Highmont" Linearly Zoned Copper-Molybdenum Porphyry Deposits and their Significance in the Genesis of the Highland Valley Ores" CIMM Special Volume No. 15, pp 163-181, by Reed and Jambor 1976.

iii) Summary of Work Done

Drilling

Five NQ size diamond drill holes totalling 1027 meters. Three holes were collared within Mining Lease No. 9 on Mineral Claim Ide 4. Two holes were drilled within Mining Lease No. 14, collared on Ide 2 Mineral Claim. (See Dwg. GD-16)

iv) List of Claims

All work was performed within Mining Leases 9 and 14. The individual claims worked on are tabulated as follows:

	Claim Name	Record Number
Mining Lease No. 9	Ide 4	24997
	Ann 4 FR	45133
Mining Lease No. 14	Ide 2	24995
	Ann 19 FR	46154

As leases, all claims have been surveyed by a B.C. Land Surveyor. The locations of these claims and drill hole projections are shown on the attached drawing GD-16 "Lease and Claim Boundaries (BCLS) 1984 Drilling Program".

DETAILED TECHNICAL DATA & INTERPRETATIONS

i) Purpose

The purpose of the drilling was to both explore the lateral extension of the #4 deposit and to look for possible low strip ratio mineralization.

ii) Results

All drilling was done under contract to Connors Drilling Ltd., Kamloops, B.C. A truck mounted diamond drill was used, and NQ size core recovered.

All other work associated with this program was done by Highmont Operating Corporation, utilizing Highmont personnel. Mr. Peter Folk, P. Eng., of Teck Corporation, supervised the diamond drilling, and logged the core, with Highmont providing overall supervision.

Core was logged and split at the Highmont minesite. Splitting was done in 10 foot lengths (3.048 meters) and assays for copper, molybdenum and silver were done using standard atomic absorption techniques by Highmont's own assay laboratory. Silver assays were only done on those assay intervals considered to be ore. All 5 holes were completely split and assayed for copper and molybdenum.

The drill core is now stored at the Highmont minesite. Diamond drill assay results are tabulated in Appendix I, and diamond drill logs are attached as Appendix III. Assay results are also plotted on individual drill hole sections, on Drawings GC-03A to 03E, in the attached pouch.

The coordinates of the diamond drill holes, in relation to Highmont's grid system (non-metric) are:

<u>HOLE #</u>	<u>SIZE</u>	<u>AZIMUTH</u>	<u>NORTHING</u>	<u>EASTING</u>	<u>ELEVATION</u>	<u>DIP</u>	<u>LENGTH (m)</u>
84-380	NQ	161 <sup>o</sup>	74,148.99	110,270.09	5530.77	-50	198.1
84-381	NQ	162 <sup>o</sup>	74,514.82	108,976.17	5405.64	-49	218.2
84-382	NQ	162 <sup>o</sup>	74,247.25	110,885.38	5624.28	-47	216.4
84-383	NQ	003 <sup>o</sup>	74,566.94	109,961.76	5502.82	-44	179.8
84-384	NQ	159 <sup>o</sup>	74,282.98	109,684.96	5468.21	-46	214.3



Core logging was done on graphic logs, copies of which are attached in Appendix III. Appendix II contains a legend, describing the coding and abbreviations noted on the drill logs.

A complimentary Assessment Report entitled "Geochemical Report of Soil Sampling, Trenching and Geological Mapping on the Am, Ann and Ide Mineral Claims, Part of Mining Leases No. 9 and 14, Highland Valley", dated October 3, 1984 by G.R. Sanford, provided the data base for the drilling program. Soil anomaly positions had been established and structural trends had been delineated by trench mapping. As far as practical, drill holes could be collared to cut mineralized trends at near right angles.

### iii) Interpretations

The entire work area is underlain by Skeena Phase quartz diorite of the Guichon Batholith. A westerly to north westerly trending quartz porphyry dyke of Bethsaida Phase, up to 150 m. wide, cuts through the AM 32 Fraction, Ide 1 and 2, Ide 3 and 4, and Ide 5 and 6.

Ore mineralization can be found as fracture coatings, within shears, or associated with quartz veins in the host Skeena Quartz Diorite. Only small amounts (< 5%) of disseminated mineralization within the quartz diorite itself are noted. The mineralization, consisting of chalcopyrite, bornite and molybdenite is definitely related to the slightly younger Bethsaida Quartz Porphyry Dyke which lies just north of the No. 4 Deposit. Fracture density and rock alteration are both important for ore localization. Known ore deposits occur both on the North and South sides of the Porphyry Dyke.

Rock alteration within the Skeena Quartz Diorite is classed as unaltered, propylitic, argillic, potassic and phyllic (sericite rich). Unaltered to lightly altered rocks have feldspars with a slight greenish tint due to sericitization and mafics are unaltered. Propylitic altered rocks have feldspars which are predominately waxy green or buff due to variable amounts of sericite and carbonate and some chloritization of mafic minerals. Argillic altered rocks have feldspars which are light buff to chalky indicating almost complete replacement by clay and carbonate and mafics are almost completely replaced by chlorite and carbonate. Potassic altered rocks contain hydrothermal biotite which is partially altered to chlorite. Phyllic altered rocks contain quartz-sulphide veinings with envelopes of white flakey sericite. Hydrothermal solutions accompanying the veinings have usually caused very intense alterations of wall rocks over short distances outside the sericite envelope.

As propylitic alteration grades into argillic alteration, the distinction between the two is at times tenuous. Correlation of argillic and propylitic zones between drill holes is difficult as the alteration zones are pod like, and do not have a great lateral extent.

All five holes were entirely within the Skeena Quartz Diorite, except for Hole 84-383 which bottomed in the Quartz Porphyry Dyke. Minor amounts of porphyry and pink aplite were encountered in the other holes.

84-380

This hole was drilled over an anomaly based on the copper soils survey and trench mapping. It was collared on the southwest side of Ide 2, and drilled at  $-50^{\circ}$  towards  $161^{\circ}$ , close to  $90^{\circ}$  to the dominant structural trend of  $50^{\circ}$  towards  $250^{\circ}$  (50/250). In the top 64 m. of the hole, argillic alteration predominated. Over the rest of the hole to the bottom at 198.1 m., propylitic alteration predominated, possibly implying that as distance from the Quartz Porphyry Dyke increases, alteration decreases.

Assay results were encouraging, with intervals from 39.6 - 70.1 m., 91.4 - 158.5 m. and 173.7 - 182.9 m. considered as ore by current Highmont standards. These intervals combined averaged .17% Cu and .027% Mo over 106.7 m. The entire hole averaged 0.13% Cu and .021 Mo over 195.1 m.

84-381

This was the most westerly hole drilled, collared on the southwest side of Ide 4, and drilled at  $-49^{\circ}$  towards  $162^{\circ}$ . This hole tested for a westerly extension of the No. 4 Deposit. Unaltered to propylitic alteration predominated over the entire hole. Minor argillic sections were found associated with local shear zones. This hole was further from the main Porphyry Dyke than any of the others and was the least altered. Several short intervals of Quartz Porphyry were noted in the lower half of the hole as were several thin aplite dykes.

The hole assayed ore from 39.6 to 106.7 m. at .20% Cu and .020% Mo. Below 106.7 m., several intervals up to 12.1 m. wide were of ore grade

but discontinuous. The entire hole averaged .13% Cu and .017% Mo over 207.6 m.

84-382

This hole was the most easterly hole drilled, collared in the centre of Ide 2 and drilled at  $-47^{\circ}$  towards  $162^{\circ}$ . This hole was designed to test the eastern extent of No. 4 Deposit and to investigate structures along the continuation of the Water Hole Fault. In Highmonts No. 1 Deposit (East Pit), mineralization is found closely associated with this major regional fault.

Propylitic alteration predominated in the top and bottom one third of the hole while argillic alteration predominated in the central third.

Assay grades differed from the two previous holes. For the top 158.5 m. virtually no molybdenum was present although many sections assayed better than 0.20% Cu. This section averaged .16% Cu, .004% Mo. The hole bottomed in the Water Hole Fault, in an expected higher grade molybdenum zone. Molybdenum grades began to increase within 45 m. of the fault. The last 57.9 m. from 158.5 to 216.4 m. averaged .21% Cu, .023% Mo, with the entire hole averaging .17% Cu, .009% Mo over 213.4 m.

84-383

This hole was collared on the east central edge of Ide 4. It was drilled at  $-44^{\circ}$  towards  $003^{\circ}$ , the only northerly drilled hole.

Alteration varied from unaltered and propylitic at the collar to mixed sections of propylitic, argillic and phyllic before entering

the Porphyry Dyke at 126.5 m.

Assay results were very discouraging in the Skeena rocks, with very few ore intervals greater than 3.1 m. wide. Skeena rocks averaged .11% Cu and .008% Mo. Bethsaida rocks averaged .03% Cu and .003% Mo with the entire hole averaging .09% Cu and .006% Mo over 176.8 m.

84-384

This hole was collared in the southeast corner of Ide 4, midway between Holes 84-380 and 381 and was drilled at  $-46^{\circ}$  towards  $159^{\circ}$ . It tested the ore trend established by Holes 84-380 and 381.

Propylitic alteration predominated with short intervals of argillic alteration. Short intervals of Quartz Porphyry were also noted near the hole bottom.

Assay results were not as encouraging as Holes 380 and 381 with only three short ore intersections. A 9 m. interval from 82.3 to 91.4 assayed .28% Cu and .017% Mo; the second interval from 134.11 to 146.30 (12 m.) assayed .12% Cu and .071% Mo. The last interval from 161.5 to 170.7 (9 m.) assayed .13% Cu and .074% Mo. Overall, the entire 205.1 m. of hole assayed .09% Cu and .015% Mo. The ore intersections between the three holes were correlateable, but discontinuous.

silver assays in the ore intersections averaged 0.033 ounces per ton. Higher silver assays coincided with higher copper assays. Waste intervals assayed averaged .018 oz/ton. The silver mineral is unidentified.

Acidtech tests for dip were done in all five drill holes. Dips did not change.

iv) Conclusions

The known mineralization associated with the No. 4 Deposit was extended, although higher copper grades indicated from previous work were not encountered, and low strip ratio ore was not located.

Silver mineralization is associated with the copper sulphides, in an unidentified mineral.

In general, rock alteration within the Skeena appears to increase as the Quartz Porphyry Dyke is approached.



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L. H. C. TSANG  
Highmont Chief Geologist

COST STATEMENT

MINING LEASE NO. 9

DIAMOND DRILLING

July 17 - Aug. 27, 1984, 3 holes,  
612 m of NQ core @ \$51.22/m, including  
field costs, mobilization, etc. \$31,350.00

ASSAYING

201 Drill core samples, analyzed for  
Cu, Mo @ \$4.00 per element 1,610.00  
43 drill core samples, analyzed for  
Ag @ \$7.00 per sample 300.00

CORE LOGGING, MAPPING, DRILL SUPERVISION

P. Folk, P. Eng.  
July 9 - Aug. 27, 1984, 34 days in period  
@ 184.37 per day 6,270.00

CORE SPLITTING

July 10 - Aug. 27, 1984, 32 days in  
period @ \$80.00 per day 2,560.00

SURVEYING

July - Aug. 1984, 42 hours in period  
@ \$17.42 per hour 730.00

DRAFTING

July - Oct. 1984, 26 hours in period  
@ \$22.50 per hour  
27 hours in period @ 10.00 per hour 860.00

VEHICLE RENTAL

July 11 - Aug. 25, 1984, 30 days in  
period @ \$18.05 per day, Chev. pickup  
includes 15% for fuel and maintainence 620.00

SUPERVISION

July - Aug. 1984, 22 days in period  
miscellaneous Highmont personnel 2,300.00  
@ \$104.44 per day

TRAVEL COSTS

P. Folk, P. Eng.  
July 1- Aug 27, 1984, two return flights 410.00  
Vancouver - Kamloops

LODGING AND MEALS

P. Folk, P. Eng.  
July 1 - Aug. 27, 1984 33 days in period 1,480.00  
@ \$45.00 per day

REPORT PREPARATION

July 1 - Oct. 10, 1984 10 days in period 900.00  
@ \$90.00 per day

MISCELLANEOUS CONSUMABLES

Sample envelopes, Bags, Shovels, PVC pipe  
and Steel pipe left in drill hole collars,  
etc. 430.00

TOTAL

                      
\$49,820.00  
                    

NOTE: Charges for surveying, drafting, vehicle rental, supervision, travel costs, lodging and meals, report preparation and miscellaneous consumables include a portion attributable to, but not included in a separate complimentary Assessment Report entitled "Geochemical Report of Soil Sampling, Trenching, and Geological Mapping on the Am, Ann and Ide Mineral Claims, part of Mining Leases No. 9 and 14, Highland Valley" by G.R. Sanford, 03 October 1984.



COST STATEMENT

MINING LEASE NO. 14

DIAMOND DRILLING

July 17 - Aug. 27, 1984, 2 holes  
415 m. of NQ core @ \$51.21/m  
including field costs, mobilization, etc. \$21,250.00

ASSAYING

136 drill core samples, analyzed for Cu,  
Mo @ \$3.50 per element 950.00  
73 drill core samples, analyzed for Ag @  
\$7.00 per sample 510.00

CORE LOGGING, MAPPING, DRILL SUPERVISION

P. Folk, P. Eng.  
July 9 - Aug. 27, 1984, 15 days in period  
@ \$184.37 per day 2,770.00

CORE SPLITTING

July 10 - Aug. 27, 1984, 16 days in  
period at \$80.00 per day 1,280.00

SURVEYING

July - Aug. 1984, 20 hours in period  
@ \$17.42 per hour 350.00

DRAFTING

July - Oct. 7, 1984  
13 hours in period @ \$22.50 per hour  
13 hours in period @ \$10.00 per hour 420.00

VEHICLE RENTAL

July 11 - Aug 25, 1984, 15 days in period  
@ \$18.05 per day, Chev. pickup, includes  
15% for fuel and maintainence 310.00

SUPERVISION

July - Aug. 1984, 11 days in period  
miscellaneous Highmont Personnel @  
\$104.55 per day 1,150.00

TRAVEL COSTS

P. Folk, P. Eng.  
July 1 - Aug. 27, 1984, return flight  
Vancouver - Kamloops 200.00

LODGING AND MEALS

P. Folk, P. Eng.  
July 1 - Aug 27, 1984, 16 days in  
period @ \$45.00 per day 720.00

REPORT PREPARATION

June 1 - Oct. 10, 1984, 5 days in  
period @ \$80.00 per day 400.00

MISCELLANEOUS CONSUMABLES

Sample envelopes, Bags, shovels, PVC  
pipe and steel pipe left in drill hole  
collars, etc. 210.00

TOTAL \$30,520.00

NOTE: Charges for surveying, drafting, vehicle rental, supervision, travel costs, lodging and meals, report preparation and miscellaneous consumables include a portion attributable to, but not included in a separate complimentary Assessment Report entitled "Geochemical Report of Soil Sampling, Trenching, and Geological Mapping on the AM, Ann and Ide Mineral Claims, Part of Mining Leases No. 9 and 14, Highland Valley" by G.R. Sanford, 03 October 1984.

CERTIFICATE OF QUALIFICATIONS

Peter G. Folk, P. ENG.

I hereby certify that:

1. I graduated from the University of British Columbia in 1971 with a B.A.S.C. degree in geological engineering.
2. I am a member in good standing of the Association of Professional Engineers of the Province of British Columbia.
3. I have worked since graduation as an exploration geologist and mine geologist in Canada and the United States.
4. The work described herein was done under my direct supervision.

*Peter Folk*

Author's Certificate

I, Louis Tsang, of Logan Lake, British Columbia, do hereby certify that:

1. I am a graduate of the University of British Columbia with a B. Sc. degree (1972) in geology and geophysics.
2. I am a member of the Geological Association of Canada.
3. I have practiced my profession since 1972 while employed by Bacon & Crowhurst Consulting Engineering Ltd., (one summer season), and by Zapata-Granby Corporation, Granisle Division (seven years).
4. Present, I am employed by Highmont Operating Corporation Ltd., Post Office Box 3000, Logan Lake, B.C.
5. I have directed the entire drilling program described herein.



Louis H.C. Tsang  
Chief Geologist  
Highmont Operating Corporation

APPENDIX I

DIAMOND DRILL CORE ASSAYS

HOLES 84-380  
84-381  
84-382  
84-383  
84-384

HIGHMONT OPERATING CORPORATION

HOLE 84-380

North 74148.99

East 110270.09

Elevation 5530.77

Azm. 161<sup>o</sup>  
Dip. -50<sup>o</sup>

<u>FOOTAGE</u>	<u>METERS</u>	<u>% CU</u>	<u>% MO</u>	<u>Ag Oz/Ton</u>
10-20	3.05-6.10	.12	.010	.021
20-30	6.10-9.14	.07	.012	.017
30-40	9.14-12.19	.07	.012	.017
40-50	12.19-15.24	.08	.023	.019
50-60	15.24-18.29	.08	.023	.019
60-70	18.29-21.34	.08	.003	.017
70-80	21.34-24.38	.09	.004	.017
80-90	24.38-27.43	.09	.009	.013
90-100	27.43-30.48	.11	.012	.017
100-110	30.48-33.53	.10	.009	.015
110-120	33.53-36.58	.06	.010	.019
120-130	36.58-39.62	.10	.018	.022
130-140	39.62-42.67	.21	.035	.031
140-150	42.67-45.72	.23	.051	.038
150-160	45.72-48.77	.06	.035	.019
160-170	48.77-51.82	.26	.015	.033
170-180	51.82-54.86	.06	.014	.020
180-190	54.86-57.91	.10	.020	.022
190-200	57.91-60.96	.16	.016	.029
200-210	60.96-64.01	.10	.016	
210-220	64.01-67.06	.15	.047	.034
220-230	67.06-70.10	.13	.027	.029
230-240	70.10-73.15	.11	.015	
240-250	73.15-76.20	.05	.005	
250-260	76.20-79.25	.03	.019	
260-270	79.25-82.30	.03	.024	
270-280	82.30-85.34	.10	.014	
280-290	85.34-88.39	.12	.015	.038
290-300	88.39-91.44	.04	.012	
300-310	91.44-94.49	.18	.020	.038
310-320	94.49-97.54	.08	.005	
320-330	97.54-100.58	.21	.015	.043
330-340	100.58-103.63	.71	.077	.098
340-350	103.63-106.68	.24	.093	.056
350-360	106.68-109.73	.14	.032	.029
360-370	109.73-112.78	.07	.037	.023
370-380	112.78-115.82	.07	.007	
380-390	115.82-118.87	.17	.052	.038
390-400	118.87-121.92	.11	.013	
400-410	121.92-124.97	.20	.013	.036
410-420	124.97-128.02	.16	.006	
420-430	128.02-131.06	.05	.078	.017
430-440	131.06-134.11	.16	.029	.027
440-450	134.11-137.16	.24	.027	.033

## HOLE 84-380 (cont'd)

<u>FOOTAGE</u>	<u>METERS</u>	<u>% CU</u>	<u>% MO</u>	<u>Ag Oz/Ton</u>
450-460	137.16-140.21	.13	.011	.032
460-470	140.21-143.26	.19	.019	.036
470-480	143.26-146.30	.22	.019	.044
480-490	146.30-149.35	.14	.017	.030
490-500	149.35-152.40	.14	.016	.027
500-510	152.40-155.45	.14	.014	.027
510-520	155.45-158.50	.11	.052	.032
520-530	158.50-161.54	.08	.012	
530-540	161.54-164.59	.09	.011	
540-550	164.59-167.64	.10	.008	
550-560	167.64-170.69	.07	.005	
560-570	170.69-173.74	.13	.008	
570-580	173.74-176.78	.11	.030	.026
580-590	176.78-179.83	.21	.011	.036
590-600	179.83-182.88	.10	.018	
600-610	182.88-185.93	.15	.008	
610-620	185.93-188.98	.10	.015	
620-630	188.98-192.02	.16	.008	
630-640	192.02-195.07	.12	.003	
640-650	195.07-198.12	.10	.010	

HIGHMONT OPERATING CORPORATION

HOLE 84-381

North 74514.82

East 108976.17

Elevation 5405.64

Azm. 162<sup>o</sup>  
Dip. -49<sup>o</sup>

<u>FOOTAGE</u>	<u>METERS</u>	<u>% CU</u>	<u>% MO</u>	<u>Ag Oz/Ton</u>
35-40	10.67-12.19	.03	.002	
40-50	12.19-15.24	.08	.075	.023
50-60	15.24-18.29	.02	.003	
60-70	18.29-21.34	.02	.002	
70-80	21.34-24.38	.07	.004	
80-90	24.38-27.43	.04	.004	
90-100	27.43-30.48	.08	.008	
100-110	30.48-33.53	.02	.004	
110-120	33.53-36.58	.04	.005	
120-130	36.58-39.62	.08	.008	
130-140	39.62-42.67	.24	.014	.025
140-150	42.67-45.72	.07	.006	
150-160	45.72-48.77	.10	.031	.019
160-170	48.77-51.82	.18	.016	.026
170-180	51.82-54.86	.39	.066	.037
180-190	54.86-57.91	.32	.012	.039
190-200	57.91-60.96	.16	.022	.026
200-210	60.96-64.01	.23	.004	
210-220	64.01-67.06	.04	.003	
220-230	67.06-70.10	.06	.017	
230-240	70.10-73.15	.10	.005	
240-250	73.15-76.20	.21	.030	.023
250-260	76.20-79.25	.20	.029	.029
260-270	79.25-82.30	.08	.004	
270-280	82.30-85.34	.34	.017	.043
280-290	85.34-88.39	.39	.040	.039
290-300	88.39-91.44	.17	.009	
300-310	91.44-94.49	.17	.012	
310-320	94.49-97.54	.15	.014	
320-330	97.54-100.58	.25	.032	.030
330-340	100.58-103.63	.23	.026	.030
340-350	103.63-106.68	.25	.022	.027
350-360	106.68-109.73	.06	.005	
360-370	109.73-112.78	.02	.005	
370-380	112.78-115.82	.18	.029	.021
380-390	115.82-118.87	.14	.029	.020
390-400	118.87-121.92	.11	.010	
400-410	121.92-124.97	.07	.010	
410-420	124.97-128.02	.08	.021	
420-430	128.02-131.06	.06	.035	
430-440	131.06-134.11	.16	.009	
440-450	134.11-137.16	.04	.005	



HOLE 84-381 (cont'd)

<u>FOOTAGE</u>	<u>METERS</u>	<u>% CU</u>	<u>% MO</u>	<u>Ag Oz/Ton</u>
450-460	137.16-140.21	.04	.010	
460-470	140.21-143.26	.05	.009	
470-480	143.26-146.30	.06	.014	
480-490	146.30-149.35	.06	.018	
490-500	149.35-152.40	.05	.025	.026
500-510	152.40-155.45	.10	.011	
510-520	155.45-158.50	.11	.016	
520-530	158.50-161.54	.08	.010	
530-540	161.54-164.59	.08	.004	
540-550	164.59-167.64	.08	.002	
550-560	167.64-170.69	.18	.021	.029
560-570	170.69-173.74	.22	.028	.032
570-580	173.74-176.78	.19	.023	.021
580-590	176.78-179.83	.18	.018	.026
590-600	179.83-182.88	.07	.010	.021
600-610	182.88-185.93	.01	.002	
610-620	185.93-188.98	.14	.056	.035
620-630	188.98-192.02	.03	.005	
630-640	192.02-195.07	.13	.015	
640-650	195.07-198.12	.18	.021	
650-660	198.12-201.17	.14	.023	
660-670	201.17-204.22	.14	.019	
670-680	204.22-207.26	.14	.026	
680-690	207.26-210.31	.18	.036	
690-700	210.31-213.36	.13	.013	
700-710	213.36-216.41	.10	.011	
710-716	216.41-218.24	.09	.013	

HIGHMONT OPERATING CORPORATION

HOLE 84-382

North 74247.25

East 110885.38

Elevation 5624.28

Azm. 162<sup>o</sup>  
Dip. -47<sup>o</sup>

<u>FOOTAGE</u>	<u>METERS</u>	<u>% CU</u>	<u>% MO</u>	<u>Ag Oz/Ton</u>
10-20	3.05-6.10	.26	TF	
20-30	6.10-9.14	.14	.001	
30-40	9.14-12.19	.24	.001	.045
40-50	12.19-15.24	.23	.002	.039
50-60	15.24-18.29	.28	.002	.047
60-70	18.29-21.34	.21	.001	.036
70-80	21.34-24.38	.25	.002	.028
80-90	24.38-27.43	.10	.004	
90-100	27.43-30.48	.16	.024	.038
100-110	30.48-33.53	.03	.002	
110-120	33.53-36.58	.02	.002	
120-130	36.58-39.62	.10	.002	
130-140	39.62-42.67	.05	.002	
140-150	42.67-45.72	.13	.002	
150-160	45.72-48.77	.10	.002	
160-170	48.77-51.82	.19	.002	
170-180	51.82-54.86	.04	.001	
180-190	54.86-57.91	.18	.001	
190-200	57.91-60.96	.06	.002	
200-210	60.96-64.01	.14	.002	
210-220	64.01-67.06	.28	.003	.032
220-230	67.06-70.10	.37	.002	.055
230-240	70.10-73.15	.07	.002	
240-250	73.15-76.20	.33	.006	.058
250-260	76.20-79.25	.22	.004	.036
260-270	79.25-82.30	.16	.006	
270-280	82.30-85.34	.04	.004	
280-290	85.34-88.39	.13	.005	
290-300	88.39-91.44	.12	.004	
300-310	91.44-94.49	.28	.003	.050
310-320	94.49-97.54	.24	.003	.042
320-330	97.54-100.58	.15	.003	
330-340	100.58-103.63	.25	.004	.042
340-350	103.63-106.68	.21	.004	.036
350-360	106.68-109.75	.25	.004	.042
360-370	109.75-112.78	.26	.002	.045
370-380	112.78-115.82	.23	.005	.033
380-390	115.82-118.87	.16	.010	
390-400	118.87-121.92	.08	.003	
400-410	121.92-124.97	.14	.003	
410-420	124.97-128.02	.14	.002	

## HOLE 84-382 (cont'd)

<u>FOOTAGE</u>	<u>METERS</u>	<u>% CU</u>	<u>% MO</u>	<u>Ag Oz/Ton</u>
420-430	128.02-131.06	.06	.003	
430-440	131.06-134.11	.13	.006	
440-450	134.11-137.16	.19	.021	.041
450-460	137.16-140.21	.18	.011	
460-470	140.21-143.26	.09	.008	
470-480	143.26-146.30	.07	.008	
480-490	146.30-149.35	.10	.006	
490-500	149.35-152.40	.09	.001	
500-510	152.40-155.45	.03	Tr	
510-520	155.45-158.50	.04	.002	
520-530	158.50-161.54	.07	.020	
530-540	161.54-164.59	.12	.007	
540-550	164.59-167.64	.44	.031	.080
550-560	167.64-170.69	.19	.011	.030
560-570	170.69-173.74	.32	.003	.054
570-580	173.74-176.78	.11	.013	
580-590	176.78-179.83	.14	.008	
590-600	179.83-182.88	.14	.021	.045
600-610	182.88-185.93	.09	.006	
610-620	185.93-188.98	.17	.006	
620-630	188.98-192.02	.18	.012	.036
630-640	192.02-195.07	.32	.033	.033
640-650	195.07-198.12	.21	.024	.026
650-660	198.12-201.17	.16	.022	.023
660-670	201.17-204.22	.13	.093	.032
670-680	204.22-207.26	.18	.065	.032
680-690	207.26-210.31	.26	.018	.033
690-700	210.31-213.36	.46	.040	.067
700-710	213.36-216.41	.36	.014	.047

HIGHMONT OPERATING CORPORATION

HOLE 84-383

North 74566.94

East 109961.76

Elevation 5502.82

Azm. 003<sup>o</sup>  
Dip. -44<sup>o</sup>

<u>FOOTAGE</u>	<u>METERS</u>	<u>% CU</u>	<u>% MO</u>	<u>Ag Oz/Ton</u>
10-20	3.05-6.10	.04	.017	
20-30	6.10-9.14	.20	.016	.029
30-40	9.14-12.19	.14	.010	
40-50	12.19-15.24	.02	.015	
50-60	15.24-18.29	.03	.005	
60-70	18.29-21.34	.05	.005	
70-80	21.34-24.38	.01	.002	
80-90	24.38-27.43	.01	.003	
90-100	27.43-30.48	.08	.006	
100-110	30.48-33.53	.14	.016	.021
110-120	33.53-36.58	.11	.008	
120-130	36.58-39.62	.18	.010	.023
130-140	39.62-42.67	.06	.004	
140-150	42.67-45.72	.09	.011	
150-160	45.72-48.77	.07	.024	.021
160-170	48.77-51.82	.15	.013	
170-180	51.82-54.86	.08	.005	
180-190	54.86-57.91	.03	.008	
190-200	57.91-60.96	.03	.005	
200-210	60.96-64.01	.10	.005	
210-220	64.01-67.06	.13	.017	.024
220-230	67.06-70.10	.40	.013	.035
230-240	70.10-73.15	.52	.013	.025
240-250	73.15-76.20	.03	.007	
250-260	76.20-79.25	.08	.004	
260-270	79.25-82.30	.09	.004	
270-280	82.30-85.34	.07	.006	
280-290	85.34-88.39	.06	.005	
290-300	88.39-91.44	.11	.005	
300-310	91.44-94.49	.14	.004	
310-320	94.49-97.54	.36	.030	.058
320-330	97.54-100.58	.07	.002	
330-340	100.58-103.63	.14	.005	
340-350	103.63-106.68	.09	.004	
350-360	106.68-109.73	.06	.001	
360-370	109.73-112.78	.06	.004	
370-380	112.78-115.82	.20	.008	
380-390	115.82-118.87	.14	.003	
390-400	118.87-121.92	.13	.004	
400-410	121.92-124.97	.03	.001	
410-420	124.97-128.02	.04	.001	
420-430	128.02-131.06	.04	.002	

HOLE 84-383 (cont'd)

<u>FOOTAGE</u>	<u>METERS</u>	<u>% CU</u>	<u>% MO</u>	<u>Ag Oz/Ton</u>
430-440	131.06-134.11	.01	.001	
440-450	134.11-137.16	.01	.003	
450-460	137.16-140.21	.01	.003	
460-470	140.21-143.26	.01	.002	
470-480	143.26-146.30	.06	.007	
480-490	146.30-149.35	.04	.002	
490-500	149.35-152.40	.03	.003	
500-510	152.40-155.45	.04	.002	
510-520	155.45-158.50	.05	.002	
520-530	158.50-161.54	.04	.003	
530-540	161.54-164.59	.02	.002	
540-550	164.59-167.64	.02	.001	
550-560	167.64-170.69	.03	.003	
560-570	170.69-173.74	.02	.003	
570-580	173.74-176.78	.03	.005	
580-590	176.78-179.83	.03	.003	

HOLE 84-384

North 74,282.98  
East 109,684.21

Azm. 159°  
Dip. -46°

Elevation 5468.21

<u>FOOTAGE</u>	<u>METERS</u>	<u>%CU</u>	<u>%MO</u>	<u>Ag Oz/Ton</u>
30-40	9.14-12.19	.14	.005	
40-50	12.19-15.24	.20	.016	.017
50-60	15.24-18.29	.05	.004	
60-70	18.29-21.34	.06	.008	
70-80	21.34-24.38	.03	.004	
80-90	24.38-27.43	.06	.005	
90-100	27.43-30.48	.09	.004	
100-110	30.48-33.53	.10	.014	
110-120	33.53-36.58	.03	.002	
120-130	36.58-39.62	.05	.006	
130-140	29.62-42.67	.03	.008	
140-150	42.67-45.72	.02	.004	
150-160	45.72-48.77	.03	.009	
160-170	48.77-51.82	.04	.008	
170-180	51.82-54.86	.02	.005	
180-190	54.86-57.91	.13	.004	
190-200	57.91-60.96	.05	.011	
200-210	60.96-64.01	.05	.013	
210-220	64.01-67.06	.02	.002	
220-230	67.06-70.10	.05	.007	
230-240	70.10-73.15	.06	.006	
240-250	73.15-76.20	.04	.005	
250-260	76.20-79.25	.02	.005	
260-270	79.25-82.30	.06	.007	
270-280	82.30-85.34	.19	.016	.022
280-290	85.34-88.39	.43	.022	.052
290-300	88.39-91.44	.21	.012	.022
300-310	91.44-94.49	.05	.010	
310-320	94.49-97.54	.04	.003	
320-330	97.54-100.58	.04	.004	
330-340	100.58-103.63	.09	.006	
340-350	103.63-106.68	.09	.015	
350-360	106.68-109.73	.05	.024	
360-370	109.73-112.78	.05	.012	
370-380	112.78-115.82	.10	.010	
380-390	115.82-118.87	.04	.029	
390-400	118.87-121.92	.09	.018	
400-410	121.92-124.97	.13	.017	.022
410-420	124.97-128.02	.11	.017	
420-430	128.02-131.06	.05	.007	
430-440	131.06-134.11	.12	.005	
440-450	134.11-137.16	.25	.078	.034
450-460	137.16-140.21	.11	.160	.017
460-470	140.21-143.26	.08	.025	.013





HOLE 84-384 (continued)

<u>FOOTAGE</u>	<u>METERS</u>	<u>%CU</u>	<u>%MO</u>	<u>Ag Oz/Ton</u>
470-480	143.26-146.30	.12	.020	.013
480-490	146.30-149.35	.06	.010	
490-500	149.35-152.40	.06	.007	
500-510	152.40-155.45	.06	.008	
510-520	155.45-158.50	.13	.016	
520-530	158.50-161.54	.07	.006	
530-540	161.54-164.59	.14	.029	.024
540-550	164.59-167.64	.13	.104	.024
550-560	167.64-170.69	.11	.088	.024
560-570	170.69-173.74	.11	.005	
570-580	173.74-176.78	.12	.009	
580-590	176.78-179.83	.14	.011	
590-600	179.83-182.88	.06	.006	
600-610	182.88-185.93	.09	.006	
610-620	185.93-188.98	.08	.004	
620-630	188.98-192.02	.05	.002	
630-640	192.02-195.07	.03	.003	
640-650	195.07-198.12	.04	.006	
650-660	198.12-201.17	.07	.008	
660-670	210.17-204.22	.12	.010	
670-680	204.22-207.26	.08	.007	
680-690	207.26 210.31	.05	.006	
690-703	210.31-214.27	.06	.007	

APPENDIX II  
DIAMOND DRILL LOG LEGEND



## DRILL LOG LEGEND

- FT. - Footage; core is logged and split in 10 foot intervals.
- GRAPH
- A graphic representation of the drill core, including
    - a) Rock Type - SK = Skeena Quartz Diorite, QFP = Bethsaida Quartz Feldspar Porphyry, BX = Breccia.
    - b) Alt - Alteration, which is described as being;  
U = Unaltered, P = Propylitic, A = Argillic, K = Potassic, M = Phyllic (Sericite Rich), ~~///~~ = Highly Fractured, PIP = Intense Propylitic
  - Fracture Fillings  
MAL = Malachite, LIM = Limonite, HEM = Hematite, Q = Quartz, BN = Bornite, CP = Chalcopyrite, CC = Chalcocite, MO = Molybdenite, TO = Tourmaline, CO<sub>3</sub> = Carbonate, PY = Pyrite, EP = Epidote, MU = Muscovite (Sericite), usually as selvages, CL = Chlorite, KF = Potassium Feldspar, BI = Secondary Biotite, CLAY = Clay, CARE = Calcite Veins, fractures, MAG = Magnetite.
  - Fracture Types  
Joint Fracture   
Minor Shear   
Shear   
Fault 
  - c) Angle CA - Angle to Core Axis
  - Structural angles are measured from the core axis
- FRACT
- Fractures, an actual count of Cu (Copper), Mo (Molybdenite), and Qtz (Quartz) bearing structures over the 10 foot interval. UNMIN = Unmineralized.
  - RQD = Rock Quality Designation,  
= No. of pieces of core in the interval which exceed 4 inches in length.

## MINERALIZATION

- A subjective estimate of mineralization, on a scale of 0 - 5. 0 is none or trace, 5 is high grade.  
CP = Chalcopyrite, Mo = Molybdenite, Bo = Bornite

- M = Mode of occurrence, such as D (Disseminated), Q (Quartz Vein), F (Fracture Filling), S (Shear or Fault Zone)  
A = Amount from 0 - 5.

ALTERATION - A subjective estimate of alteration, on a scale of 0 - 5.  
0 is none or trace, 5 is the maximum encountered.  
Code is as under GRAPH

ROCK TYPE, NOTES Visual Description

FT. BLOCK - Footage Blocks  
- Count of footage blocks placed by diamond drillers.

REC - Recovery  
- Expressed as a %

FT - Footage of interval being logged.

SAMPLE NUMBER = Assay sample tag.

CU, MO, AG = Copper, Molybdenum, Silver assay values as a %

Cu E = Copper Equivalent values in % based on a complex formula.





# HIGHMONT OPERATING CORPORATION

DDH # 89-380

COLLAR: EAST \_\_\_\_\_ NORTH \_\_\_\_\_ ELEV \_\_\_\_\_ AZIMUTH \_\_\_\_\_

DIP \_\_\_\_\_ TESTS \_\_\_\_\_

CORE SIZE \_\_\_\_\_

STARTED \_\_\_\_\_

COMPLETED \_\_\_\_\_

DEPTH	LOGGED	ROCK TYPE, NOTES	ALTERATION											MINERALIZATION						FRACT	GRAPH																										
			DESCRIPTION	K	B	M	P	CLAY	C	E	P	C	H	T	M	A	CP	Mo	BN			M	A	CU	MO	QZ	UNKN	RD																			
70		SKRNA, CLAY ALT. CORE RELATIVELY UNFRACTURED	ARGILLIC WITH SOME KSPAR + MU. HEM. AFTER MAG	1	0	1	0	3	1	0	1	1	1	0	0											2	1	2	16	15	F	1	F	0	Q	1								SK	ALT		
80		SKRNA, CLAY ALT. OF FALDSPARS	ARGILLIC, INCREASED KSPAR, MINOR MU	2	0	1	0	3	1	0	0	1	1	0	0											3	1	2	20	14		0	Q	0	Q	F	1								SK	ALT	
90		AS ABOVE	AS ABOVE TO ON FRACT.	1	0	1	0	3	1	0	0	1	2	0	0											4	1	1	22	16		0	Q	0	F	Q	1								SK	ALT	
100		SKRNA, MODERATE FRACT, WITH A SMALL FAULT, NO BEARING @ 107	AS ABOVE INCREASED KSPAR	2	0	1	0	3	1	0	0	1	1	0	0											2	2	2	30	12		0	Q	1	Q	1								SK	ALT		
110		FRACTURED SKRNA WITH ONE NO MIN. FAULT. 6' WIDE.	ARGILLIC ALT, SOME KSPAR, VERY LITTLE MU. HEM AFTER MAG	1	0	0	0	3	1	0	1	1	0	0	0											4	4	2		6	F	0	S	D	1	F	Q	1								SK	ALT
120		UNFRACTURED SKRNA WITH A SET OF BN FRACTS @ 20-25° TRACES TO, HEM. AFTER MAG.	ARGILLIC WITH SOME KSPAR, AND PROPYLITIC	2	0	0	0	2	2	0	2	1	1	0	0											11	4	3		20	F	0	F	Q	1	F	Q	2								SK	ALT
130		UNFRACT SKRNA WITH FAULT @ 138-139. PROPYLITIC ZONE HAS DISSIM MAG. WHICH IS ALT TO HEM IN MAG. ZONE.	PROPYLITIC ALT TO 135 THEN KSPAR ALT. ARGILLIC	2	0	1	0	2	2	0	2	1	1	0	2											6	5	1		10		0	F	S	1	F	Q	2								SK	ALT

DEPTH	LOGGED	SAMPLE NUMBER	CU %	CU AVG %	MO %	MO AVG %	Ag %	CuE
70		4054	0.09		.004		.017	.070
80		4055	0.09		.009		.013	.159
90		4056	0.11		.012		.017	.213
100		4057	0.10		.009		.015	.169
110		4058	0.06		.010		.019	.141
120		4059	0.10		.018		.022	.270
130		4060	0.21		.035		.031	.612

HIGHMONT OPERATING CORPORATION

DDH # 84-380

PAGE 3 OF 1

COLLAR: EAST NORTH ELEV AZIMUTH DIP TESTS

CORE SIZE

STARTED COMPLETED

DEPTH LOGGED

Ft	ROCK	FRACT	MINERALIZATION	ALTERATION													DEPTH	LOGGED	SAMPLE NUMBER	CU %	CU AVG %	MO %	MO AVG %	Ag	CuE				
				DESCRIPTION	K	B	M	P	C	L	E	P	C	A	H	T										L	M	M	A
140	S		CU MO QZ CO <sub>2</sub> APD CP Mo BN MA MA MA MA	PROPYLITIC TO ARGILLIC ALT. WITH KSPAR + MV UP TO 1" THICK	2	0	2	0	2	2	0	1	1	1	0	1	0	1	0	1			140	96	4061	0.23	.051	.038	.852
150	S		CU MO QZ CO <sub>2</sub> APD CP Mo BN MA MA MA MA	ARGILLIC ALT. PLUS IMPORTANT KSPAR ALT + MV SELVAGES	3	0	2	0	3	1	0	1	1	1	0	0	0	0	0	0			150	96	4062	0.06	.035	.019	.463
160	S		CU MO QZ CO <sub>2</sub> APD CP Mo BN MA MA MA MA	ARGILLIC ALT. SOME KSPAR + MV.	2	0	1	0	4	0	0	3	3	1	0	0	0	0	0			160	96	4063	0.26	.015	.033	.401	
170	S		CU MO QZ CO <sub>2</sub> APD CP Mo BN MA MA MA MA	AS ABOVE	2	0	1	0	4	0	0	3	3	0	0	0	0	0	0			170	90	4064	0.06	.019	.020	.188	
180	S		CU MO QZ CO <sub>2</sub> APD CP Mo BN MA MA MA MA	ARGILLIC MINOR KSPAR, MV	1	0	1	0	4	0	0	3	3	1	0	0	0	0	0			180	95	4065	0.10	.020	.022	.303	
190	S		CU MO QZ CO <sub>2</sub> APD CP Mo BN MA MA MA MA	ARGILLIC AND PROP. COARSE Bi -> CHL. BOOKS IN PROP. SECTION	1	0	1	0	2	2	0	3	2	0	0	1	0	1	0			190	97	4066	.16	.16	.016	.029	
200	S		CU MO QZ CO <sub>2</sub> APD CP Mo BN MA MA MA MA	ARGILLIC + PROP AS ABOVE	1	0	1	0	2	2	1	3	1	1	0	1	0	1	0			200	98	4067	.10	.10	.016	.016	

ROCK TYPE NOTES  
 LIGHTLY FRACT SKENNA, CHLORITIC ZONE CONTAINS DISSSEM MAGS, ARGILLIC ZONE HEM AFTER MAG. NOTE IMPORTANT MV ALONG QTZ-BN VEINS

LIGHTLY FRACT SKENNA. 2" QTZ, MINOR MO @151.5 CO<sub>2</sub>-MO SHEARING

SHEARED SKENNA. ABUNDANT HEMATITIC SHEARING

SHEARED SKENNA. LESS HEMATITIC SHEARING

SHEARED SKENNA. HEMATITIC SHEARING, SOME MO. HAIRLINE BN.

5" QTZ. VN WITH CP, BN, MO NOTE 2 DIRECTIONS BN FRACT, INTERSECT SHEARED SKENNA, HEMATITE SHEARS + CO<sub>2</sub> HEMATITIC FAULT @ 193, 20° HAIRLINE BN

PROPYLITIC ZONE IS WEAKLY MAGNETIC FROM DISS. MAG. AND IS UNFRACTURED

FAIRLY MASSIVE SKENNA WITH CO<sub>2</sub> FRACTS AND SHEARS ALMOST ⊥ TO CORE. HAIRLINE MINERALIZATION.









COLLAR: EAST NORTH ELEV AZIMUTH DIP TESTS CORE SIZE

Table with columns for GRAFH, FRACT, MINERALIZATION, ALTERATION, and ROCK TYPE. Rows include sample data for SK and SA cores at various depths (420-490 ft).







84-381

# HIGHMONT OPERATING CORPORATION

DDH # 89-381

COLLAR: EAST 108976.17 NORTH 79514.82

ELEV 5405.64 AZIMUTH 162°

DIP -49° TESTS -49° @ 340'  
-49° @ 650'

CORE SIZE NQ  
STARTED 26 JUL  
COMPLETED 28 AUG

DEPTH 716

LOGGED P.F.

Feet	Graph	FRACT						MINERALIZATION				ALTERATION											ROCK TYPE, NOTES	REL	K	SAMPLE NUMBER	Cu %	Cu AVG	Mo %	Mo AVG	Ag 02/4	CaE											
		CU	MO	QZ	UNKN	FRD	FR	CP MA	MO MA	BN MA	MA	DESCRIPTION	K F	B I	M U	P Y	CLAY	C L	E P	CARB	HEM	T O											L I	M A									
30																										30							OVERBURDEN.	35		11838	.03	.03	.002			.034	
40																									40							PROPYLITIC ALT. WITH ARG. ALT. FROM 43-47 POSSIBLY SOME SEC. BI	46	88	11839	.08	.08	.076 .074	.075	.023		1.04	
50																									50							PROPYLITIC ALT. CHL., EP, CO <sub>3</sub> , KAM.	56	80	11840	.02	.02	.003 .003	.003			.035	
60																									60							PROP. ALT. INTENSE CALCAREOUS ALT. → FRACT.	66	70	11841	.02	.02	.002 .002	.002			.026	
70																									70							PROPYLITIC ALT. MINOR CHAY ALT. SOME MV SALVAGES	76	87	11842	.07	.07	.004 .004	.004			.089	
80																									80							WEAK PROP. ALT.	84	98	11843	.04	.04	.005 .004	.004			.060	
90																									90							WEAK PROP. ALT.	91	95	11844	.04	.08	.009 .008	.008			.149	
100																									100																		

103





# HIGHMONT OPERATING CORPORATION

DDH # 84-301

COLLAR: EAST      NORTH      ELEV      AZIMUTH      DIP      TESTS      CORE SIZE

STARTED  
COMPLETED

Ft	Rock Type	ALT	ANGLE	FRACT					MINERALIZATION					ALTERATION													DEPTH	LOGGED	SAMPLE NUMBER	ROCK TYPE, NOTES					CuE	
				Cu	Mo	Qtz	UNMIN	SPD	CP	MA	Mo	BN	MA	MA	DESCRIPTION	K	B	M	P	CLAY	C	E	P	CA	HE	T				L	MA	AG	REL	F		CU
170	SXK	CP	10	6	1				4	D	F	3	S	3		0												170		21252	.39	.39	.065	.066	.037	1.23
180	SXK	CP	35	5	1			3	F		D	0	F	1													180		21253	.32	.32	.012		.039	.425	
190	SXK	CP	25	2	2			5	F	1	D	0	F	1													190		21254	.16	.16	.021		.026	.389	
200	SXK	CP	20	4	1			6	F	1	D	0	F	0													200		21255	.23	.23	.009		.005	.240	
210	SXK	CP	10	2	0			13	F	0	D	0	F	0													210		21256	.09	.09	.003		.003	.051	
220	SXK	CP	25	6	1			8	F	1	D	0	F	1													220		21257	.06	.06	.016		.017	.225	
230	SXK	CP	35	10	1			15	F	2	F	1	F	0													230		21258	.10	.10	.009		.005	.120	



HIGHMONT OPERATING CORPORATION

DDH # 84-381

COLLAR: EAST NORTH ELEV AZIMUTH DIP TESTS

CORE SIZE

STARTED

COMPLETED

GRAPH FRACT MINERALIZATION ALTERATION DEPTH LOGGED

Table with columns for FT, GRAPH, FRACT, MINERALIZATION, ALTERATION, ROCK TYPE, NOTES, and various chemical analysis columns (Cu, Mo, Ag, CaE).

Row 1: 310-315 ft depth. Graph: S, P, K. FRACT: 11 1 0. MINERALIZATION: F 2 F 1 F 1. ALTERATION: 1 0 1 0 1 2 0 2 0 0 0 3. ROCK TYPE: LIGHTLY FRACT SKERNA. NOTES: FRESH BIOTITE, NOT SECONDARY. THIN MIN. FRACTS SAME WITH THIN MV ENVELOPES.

Row 2: 320-330 ft depth. Graph: S, P, K. FRACT: 10 2 2. MINERALIZATION: F 2 F 1 F 1. ALTERATION: 2 0 2 0 1 2 1 2 1 0 0 2. ROCK TYPE: LIGHTLY FRACT SKERNA. NOTES: 1/2" QTZ. KP @ 40° 326'; 1/2" QTZ. BN CP 20° 327'.

Row 3: 330-340 ft depth. Graph: S, P, K. FRACT: 10 3 1. MINERALIZATION: F 2 F 1 F 1. ALTERATION: 1 0 2 0 1 2 1 1 1 0 0 2. ROCK TYPE: MODERATELY FRACT SKERNA. NOTES: 1" QTZ Mo. 45° @ 338.

Row 4: 340-350 ft depth. Graph: S, P, K. FRACT: 6 3 0. MINERALIZATION: F 1 F 1 F 1. ALTERATION: 2 0 1 0 2 2 0 1 2 0 0 2. ROCK TYPE: HIGHLY FRACT. NOTES: Mo, HEM FAULT @ 40°.

Row 5: 350-360 ft depth. Graph: S, P, K. FRACT: 5 1 0. MINERALIZATION: F 1 S 1 F 0. ALTERATION: 1 0 1 0 1 2 0 1 0 0 0 1. ROCK TYPE: MINOR Mo IN FAULT @ 356' 70°. NOTES: SLIGHT BLEACHING ALONG FRACTURES.

Row 6: 360-370 ft depth. Graph: S, P, K. FRACT: 0 0 0. MINERALIZATION: 2 0 0 0. ALTERATION: 0 0 0 0 1 1 0 0 0 0 0 0. ROCK TYPE: VARY WEAK ALT. SOME FELDSPARS BLEACHED WHITE. NOTES: 30% QUARTZ FELDSPAR PORPHYRY, 40% FINE GRAINED GRAY-GREEN MATRIX WITH MINOR BIOTITE.

Row 7: 370-380 ft depth. Graph: S, P, K. FRACT: 14 4 0. MINERALIZATION: 3 F 2 F 1 F 1. ALTERATION: 3 0 2 0 2 2 1 3 2 0 0 1. ROCK TYPE: PROPYLITIC WITH KSPAR FLOODING. ARGILLIC ALT ASSOCIATED WITH FAULT. NOTES: IRREGULAR CONTACTS. FRACT. SKERNA. WELL MINERALIZED ON HAIRLINE MV FRACTS. SOME DISSEMINATION. 375' UNMIN. FAULT @ 90°.

# HIGHMONT OPERATING CORPORATION

DDH # 84-381

COLLAR: EAST

NORTH

ELEV

AZIMUTH

DIP

TESTS

CORE SIZE

STARTED

COMPLETED

Ft	ROCK TYPE	GRAVE	MINERALIZATION												ALTERATION												DEPTH	LOGGED	SAMPLE NUMBER	ANALYSES					
			CU	MO	QTZ	CHL	KSPAR	MAG	B	M	P	CLAY	C	E	CARB	HEM	T	L	MAG	Cu	Cu	Mo	Mo	Mg	Ct Mo										
																										%				Avg	%	Avg	oz/t	oz/t	
380	S.K. P.P.P.	100-100	30																									21273	.14	.14	.029	.029	.020	.961	
390	S.K. P.P.P.	100-100	15																									21274	.11		.010			.190	
400	S.K. P.P.P.	100-100	4	1	1																							21276	.07		.010			.151	
410	S.K. A.P.P.	100-100	8	1	1																							21277	.08		.021			.297	
420	S.K. P.P.P.	100-100	2	1	1																							21278	.06		.035			.463	
430	S.K. P.P.P.	100-100	5	1	1																							21279	.16		.009			.228	
440	S.K. P.P.P.	100-100	4	0	1																							21280	.04		.005			.069	













84-382



# HIGHMONT OPERATING CORPORATION

DDH # 84-382

COLLAR: EAST \_\_\_\_\_ NORTH \_\_\_\_\_ ELEV \_\_\_\_\_ AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_ TESTS \_\_\_\_\_

CORE SIZE \_\_\_\_\_

STARTED \_\_\_\_\_

COMPLETED \_\_\_\_\_

Ft	Rock	ALT	FRACT	MINERALIZATION				ALTERATION											DEPTH	LOGGED	SAMPLE NUMBER	ROCK TYPE NOTES													
				Cu	Mo	QTZ	RD	CP	Mo	BN	MAL	DESCRIPTION	K	B	M	P	CLAY	C				E	CA	H	T	L	M	A	G	Cu	Cu	Mo	Mo	Ag	Cu
70	S	K	70	0	0	1	0	0	0	1	0	2	0	0	0	1	1	2	0	3	2	1	3	2	1	2	0	70	21407	.25	.25	.002	.002	.028	.252
80	S	K	80	0	0	6	0	0	0	1	0	1	0	1	0	1	0	1	1	3	3	1	2	1	1	2	80	21408	.10	.10	.004	.004		.118	
90	S	K	90	10	2	9	6	0	0	1	0	2	0	0	0	1	2	0	3	3	1	2	0	2	1	2	90	21409	.16	.16	.023	.024	.038	.415	
100	S	K	100	1	0	8	7	0	0	0	1	0	0	0	0	1	0	1	1	3	3	1	2	0	3	0	100	21410	.03	.03	.002	.002		.034	
110	S	K	110	0	0	10	8	0	0	0	0	0	0	0	0	1	0	1	1	3	2	2	2	1	5	1	110	21411	.02	.02	.002	.002		.026	
120	S	K	120	3	0	10	12	0	0	0	0	0	0	0	0	1	2	1	1	2	2	2	2	1	5	1	120	21412	.10	.10	.002	.002		.101	
130	S	K	130	1	0	10	6	0	0	0	1	0	1	0	1	0	1	2	0	1	3	3	3	3	2	3	2	130	21413	.05	.05	.002	.002		.052

HIGHMONT OPERATING CORPORATION

DDH # 84-382

COLLAR: EAST NORTH ELEV AZIMUTH DIP TESTS

CORE SIZE STARTED COMPLETED

Fe	ROCK	ALT	ANGLE	FRACT				MINERALIZATION				ALTERATION												DEPTH	LOGGED	SAMPLE NUMBER	ROCK TYPE, NOTES														
				Cu	Mo	Qtz	Ksp	Cp	Mo	Bn	MAL	DESCRIPTION	K	B	M	P	CLAY	C	E	CAR	H	T	L				M	A	G	REL	PER	CU	CU	MO	MO	CuEq					
140	S	P	25	5	0	4	0	0	0	0	1	1	0	0	0	0	0	0	0	2	0	1	0	3	3	1	3	3	2	2	0	140	21414	INTENSLEY FRACT. ASSOCIATED WITH FAULT ZONE UNKNOWN ANGLE.	50	146	.13	.13	.002	.002	.130
150	S	P	35	0	0	10	1	0	0	0	0	0	0	1	1	1	0	3	3	2	3	2	3	2	4	1	0	150	21415	PROP. ALT WITH ARGIL. CLAY. QTZ-TOURMALINE-BI-CHL BRACCIA 151-154. FAULT 156-157	68	154	.09	.10	.002	.002	.101				
160	S	P	15	12	0	4	3	0	0	0	1	1	0	0	0	0	0	0	1	0	1	0	1	2	1	2	1	2	1	1	160	21416	PROP ALT. MINOR KF. WALL FRACT SKENA WEAK MIN, POSSIBLY LOW GRADE ORE.	87	167	.19	.19	.002	.002	.191	
170	S	P	40	3	0	10	4	0	0	0	0	0	1	1	1	0	1	2	2	2	2	3	1	1	1	1	170	21417	PROP ALT. SIGNIFICANT QTZ-TOURMALINE, EP, HEM. FRACT SKENA. MINOR MIN. 3 SECTIONS OF QTZ-TOURMALINE BRACCIA.	82	172	.04	.04	.001	.001	.04					
180	S	P	15	5	0	7	2	0	0	0	1	1	0	0	0	0	0	0	2	0	1	0	1	2	0	3	2	1	1	1	180	21418	PROP ALT WITH QTZ. KSPAR. WEAKLY MIN SKENA WITH 10% QTZ VEINING. 182 - 1' QTZ @ 15' BAREN. HIGHLY FRACT. 189 - 1' QTZ @ 15' HEM, TO BAREN QTZ. WITH HEM + TO, AND FAULT ZONE.	80	187	.18	.18	.001	.001	.18	
190	T	A	10	0	0	10	0	0	0	0	0	0	0	1	0	0	0	4	0	0	4	3	1	3	0	190	21419	QUARTZ + ARGILLIC ALT. ASSOC. WITH FAULT. 189 - 1' QTZ @ 15' HEM, TO BAREN QTZ. WITH HEM + TO, AND FAULT ZONE.	30	190	.06	.06	.002	.002	.062						
200	K	P	65	3	0	3	8	0	0	0	1	1	0	0	0	0	0	0	3	0	1	0	4	1	0	3	1	1	2	0	200	21420	ARGILLIC AND POTASSIC ALT. HIGHLY ALT SKENA. ARGILLIC ALT TO 205. ABUNDANT KSPAR 205-210. NOTE: ONE SMALL PROP. ALT SECTION CONTAINS FINE FRACT BA. WHICH IS NOT VISIBLE IN REST OF SECTION.	90	205	.13	.14	.002	.002	.140	
210	K	P	60																													210									





# HIGHMONT OPERATING CORPORATION

DDH # 84-382

COLLAR: EAST

NORTH

ELEV

AZIMUTH

DIP

TESTS

CORE SIZE

STARTED

DEPTH

LOGGED

COMPLETED

Ft	GRAPH					FRACT				MINERALIZATION				ALTERATION										ROCK TYPE, NOTES	CORRECTED	RECORDED	SAMPLE NUMBER	Cu %	Cu AVG	Mo %	Mo AVG	Ag	Cu+Mo										
	ALT	MO	QTZ	SP	CP	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA	MA											MA	MA	MA	MA	MA	MA				
	FRAC	MIN	AL	CHALCO	ARG	HEM	LI	MAG	DESCRIPTION	K	B	M	P	CLAY	C	E	P	C	A	R	H	O	L											M	A	G							
350						6	1	2	1	0	S	I	Φ	F	D	2																		INTENSELY FRACT & SHEARED MO, POSSIBLY SOME CHALCO ON FRACT, DISSIM, QTZ.			21435	.25	.25	.004	.004	.042	.269
360						16	1	3	6	0	S	Φ	Φ	F	D	4																	FRACT. CLAY ALT SEEKNA GOOD BN MINERALIZATION. AND SOME CHALCO.			21436	.26	.26	.002	.002	.045	.262	
370						12	0	4	8	0	D	Φ	Φ	F	D	3																	HIGHTLY FRACT EXCEPT 377-380 BN. MIN. ON FRACTS + QTZ SKINS.			21437	.23	.23	.005	.005	.033	.258	
380						6	2	2	5	0	Φ	Φ	Φ	F	F	1																	HIGHTLY ALT SEEKNA. MODERATE FRACT 383-2" QTZ. MO @ 60° 384-6" HEM SHEAR ZONE, SOLID CORN @ 60° 1" QTZ. BN @ 386. CUT BY MO SHEAR.			21438	.17	.16	.010	.010	.010	.239	
390						8	0	1	7	0	0	Φ	Φ	F	D	2																		KSPAR ALT WITH CLAY. ABUNDANT HEM & CO3 SOME SERICITE			21439	.08	.09	.003	.003	.003	.090
400						8	0	2	11	0	0	Φ	Φ	F	D	2																		KSPAR ALT WITH CLAY & SERICITE ALT. ZONES MV RARE AS SELVAGES			21440	.14	.14	.003	.003	.003	.149
410						8	0	2	15	0	0	Φ	Φ	F	D	2																		PHYLLIC ALT AS PERVASIVE MV ALT. OF HEAD AND VEINING PERVASIVE KSPAR AND CHAY			21441	.14	.15	.002	.002	.003	.140

# HIGHMONT OPERATING CORPORATION

DDH # 24-382

COLLAR: EAST \_\_\_\_\_ NORTH \_\_\_\_\_ ELEV \_\_\_\_\_ AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_ TESTS \_\_\_\_\_ CORE SIZE \_\_\_\_\_

DEPTH \_\_\_\_\_ LOGGED \_\_\_\_\_ STARTED \_\_\_\_\_ COMPLETED \_\_\_\_\_

Feet	GRAPH	FRACT						MINERALIZATION					ALTERATION										ROCK TYPE, NOTES	DEPTH	LOGGED	SAMPLE NUMBER	Cu %	Cu AVG	Mo %	Mo AVG	Ag	G.E. Cat											
		Cu	Mo	Qz	Rpd	CP	MA	M <sub>o</sub>	BN	MA	MA	MA	MA	DESCRIPTION	K	B	M	P	CLAY	C	E	SR											HE	T	LI	MAG							
420	SKK	2	1	0	7	S	O	S	I	F	1																							420	90	21442	.06	.06	.003	.003		.070	
430	SKA	2	2	0	5	D	S	2	S	1	0																							430	90	21443	.13	.13	.006	.006		.167	
440	SKA	1	3	1	15	D	S	1	S	1	F	D	1																					440	98	21444	.19	.19	.021	.021	.041	.406	
450	SKP	1	0	1	6	0	D	1	F	D	2																							450	90	21445	.18	.18	.011	.011		.271	
460	BRCP	0	0	0	9	0	D	1	D	1																								460	93	21446	.09	.09	.007	.008		.148	
470	BRP	0	1	0	7	0	S	D	1	D	2																								470	82	21447	.07	.07	.008	.008		.128
480	SKP	1	2	0	17	0	S	2	F	D	1																								480	96	21448	.09	.10	.006	.006	.006	.137



# HIGHMONT OPERATING CORPORATION

DDH # 84-382

COLLAR: EAST

NORTH

ELEV

AZIMUTH

DIP

TESTS

CORE SIZE

STARTED  
COMPLETED

DEPTH	LOGGED	SAMPLE NUMBER	Cu		Mo		Ag	Cu E
			%	AVG	%	AVG		
490	98	21449	.09	.09	.001	.001	.084	
500	95	21450	.03	.03	T <sub>n</sub>	T <sub>n</sub>	.026	
510	98	21451	.04	.04	.002	.002	.043	
520	97	21452	.07	.07	.021	.020	.274	
530	99	21453	.12	.12	.007	.007	.167	
540	99	21454	.44	.44	.031	.031	.792	
550	99	21455	.19	.19	.012	.011	.281	

GRAPH		FRACT		MINERALIZATION				ALTERATION																													
Block	ALT	Cu	Mo	Qtz	SPD	CP	Mo	BN	DESCRIPTION																												
INCH	FT					M	A	M	A	M	A	M	A	K	B	M	P	CLAY	C	L	E	P	C	A	R	D	H	E	M	T	O	L	I	M	M	A	G

### ROCK TYPE NOTES

LIGHTLY FRACT SKRNA.  
MIN. ON HAIRLINE FRACTURES  
QUITE WEAK.

UNFRACT  
NO MIN.  
1" APLITE VEIN

WEAKLY FRACT SKRNA.  
WEAK MIN.

521 - 6" PEGMATITE VEIN @ 50°  
LIGHTLY FRACT. WEAK MIN.

528-530 KSPAR-HEM ZONE  
@ 30°?

LIGHTLY FRACT.  
SLIGHT INC. IN MIN.

WEAKLY FRACT SKRNA WITH  
GOOD MO-BN MIN  
MO WITH QTZ, BN WITH  
MU THICK SALVAGES

AS ABOVE.  
DISSEM MAG IN PROPYLITIC  
ZONE.

WEAK PROP.  
ALT WITH  
SOME FRESH  
LOOKING BI  
BOOKS.

AS ABOVE  
WITH SOME  
KSPAR  
508-510

WEAK PROP.  
ALT  
MINOR  
KSPAR

PROPYLITIC  
ALT. WITH  
SOME KSPAR

PROP. ALT.  
SOME KSPAR

INTERM KSPAR  
FLOODING  
WITH QTZ.  
VENING &  
GOOD SERICITE  
DEVELOPMENT.  
CHLORITE-SER  
SHEARS

AS ABOVE  
ALTERATION  
DECREASING  
DOWNWARDS







84-383

HIGHMONT OPERATING CORPORATION

DDH # 84-383

COLLAR: EAST 109961.8 NORTH 74566.9

ELEV 5502.9

AZIMUTH 02° 50' DIP -44°

TESTS 350' -44°

CORE SIZE 1/2

STARTED 13B

DEPTH 590'

LOGGED

P.F.

COMPLETED 20

Table with columns for GRAPH, FRACT, MINERALIZATION, ALTERATION, and ROCK TYPE, NOTES. Rows include sample numbers, mineralization data, alteration descriptions, and rock type notes.







# HIGHMONT OPERATING CORPORATION

DDH # 04-393

COLLAR: EAST \_\_\_\_\_ NORTH \_\_\_\_\_ ELEV \_\_\_\_\_ AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_ TESTS \_\_\_\_\_

CORE SIZE \_\_\_\_\_

GRAPH		FRACT		MINERALIZATION			ALTERATION										DEPTH	LOGGED	STARTED	COMPLETED																
Rock Type	ALT	ANGLE	CU	MO	PTZ	CP	MA	M	BN	MA	MA	MA	MA	DESCRIPTION	K	B					M	P	CLAY	C	E	P	HEM	T	H	M	AG	ROCK TYPE	NOTES	SAMPLE NUMBER	CU	CU
SK	ALT	20	6	4	1	5	F	2	F	2	F	1		PREDOMINANTLY ARGILLIC ALT WITH SERICITE ALT + A SHARP PROPYLITIC ZONE	0	0	4	0	3	2	0	4	1	0	0	0	0	MODERATELY FRACT. HIGHLY ALT SKERNA ABUNDANT CO <sub>2</sub> - VUGGY SECTIONS MU AS SALVAGES AND FELD ALT. HIGHLY MIN. 219-220	219	95	21491	.13	.13	.017	.017	.024
SK	ALT	50	7	2	2	11	F	4	F	4	F	1		INTENSIVE PHYLIC ALT WELL MIN. TO 220 CLAY ALT TO 230	0	0	4	0	4	0	0	3	2	0	0	0	LIGHTLY FRACT HIGHLY ALT SKERNA LATER CO <sub>2</sub> VEINS - FRACTURES. EXCELLENT CP BN MO MIN. ON CLOSELY SPACED MV SALVAGES.	220	90	21492	.39	.40	.014	.013	.035	
SK	ALT	60	7	3	3	5	F	3	S	3	0		ARGILLIC ALT WITH SOME SERICITE	1	0	2	0	4	0	0	3	2	0	0	0	0	MODERATELY FRACT. SK. HIGHLY ALT. GOOD MIN. 234-236 MAIN FAULT 238-239	238	65	21494	.52	.52	.013	.013	.025	
SK	ALT	60	3	1	0	5	F	1	F	1	F	1		ARGILLIC ALT WITH SOME PROPYLITIC ONLY MINOR MU	2	0	1	0	4	1	0	2	1	1	0	0	MODERATELY FRACT SKERNA CLAY ON FRACTURES. 6" APLITE @ 243 WEAK MIN.	243	90	21495	.03	.03	.008	0	.007	
SK	ALT	50	7	1	1	5	F	1	F	1	F	2		ARGILLIC ALT. MINOR MU ABUNDANT CO <sub>2</sub> ON FRACTS MIN VEINS	2	0	2	0	5	0	0	4	1	1	0	0	HIGHLY FRACT. SKERNA. WITH TO - BV ON HAIRLINE FRACTS. VEINS APLITE + PRIGMATITIC POSSIBLY LOW GRADE URK.	250	95	21496	.07	.08	.004	.004	.004	
SK	ALT	35	9	1	0	7	F	2	F	1	F	1		PROPYLITIC ALT. MINOR MU SALVAGES NOTE TRACES PY	2	0	2	1	1	2	1	2	1	1	0	1	MODERATE FRACT. 6" APLITE @ 263' 45" CO <sub>2</sub> VEIN 1/2" @ 70° LATER THAN MIN. FRACTURES	263	93	21497	.08	.09	.004	.005	.004	
SK	ALT	40	11	1	0	9	F	2	F	1	F	2		AS ABOVE	2	0	1	1	3	2	2	1	1	0	2	LIGHTLY FRACT NOTE INCREASING Ep - CHLORITE FRACTURES	270	95	21498	.07	.07	.007	.006	.006		

# HIGHMONT OPERATING CORPORATION

DDH # 84-383

COLLAR: EAST \_\_\_\_\_ NORTH \_\_\_\_\_ ELEV \_\_\_\_\_ AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_ TESTS \_\_\_\_\_

CORE SIZE \_\_\_\_\_  
STARTED \_\_\_\_\_  
COMPLETED \_\_\_\_\_

DEPTH	ROCK TYPE	NOTES	ALTERATION										MINERALIZATION					FRACT			GRAPH									
			K	B	M	P	CLAY	C	E	P	HA	HE	TO	LI	MA	F	CU	MO	QTZ	RD	CP	MO	BN	MA	CU	MO	QTZ	ALT	ANGLE	
280	SKRNA	WITH APLITE.	2	0	2	1	3	2	1	3	1	2	0	0	0	1	0	7	F	2	F	1	F	D	1	0	1	0	A	50
285																													40	
290																													35	
295																													60	
220																														
295	SKRNA	LIGHT FRACT.	1	0	2	0	3	2	0	2	2	1	0	0	9	2	1	17	F	1	F	1	F	2				A	45	
300																													50	
305																													65	
310																													45	
315																													60	
320																													70	
325																													20	
330																													40	
335																													60	
340																													40	
345																													45	
350																													35	
355																													40	
360																													50	
365																													50	
370																													50	
375																													50	
380																													50	

HIGHMONT OPERATING CORPORATION

DDH # 84-383

COLLAR: EAST

NORTH

ELEV

AZIMUTH

DIP

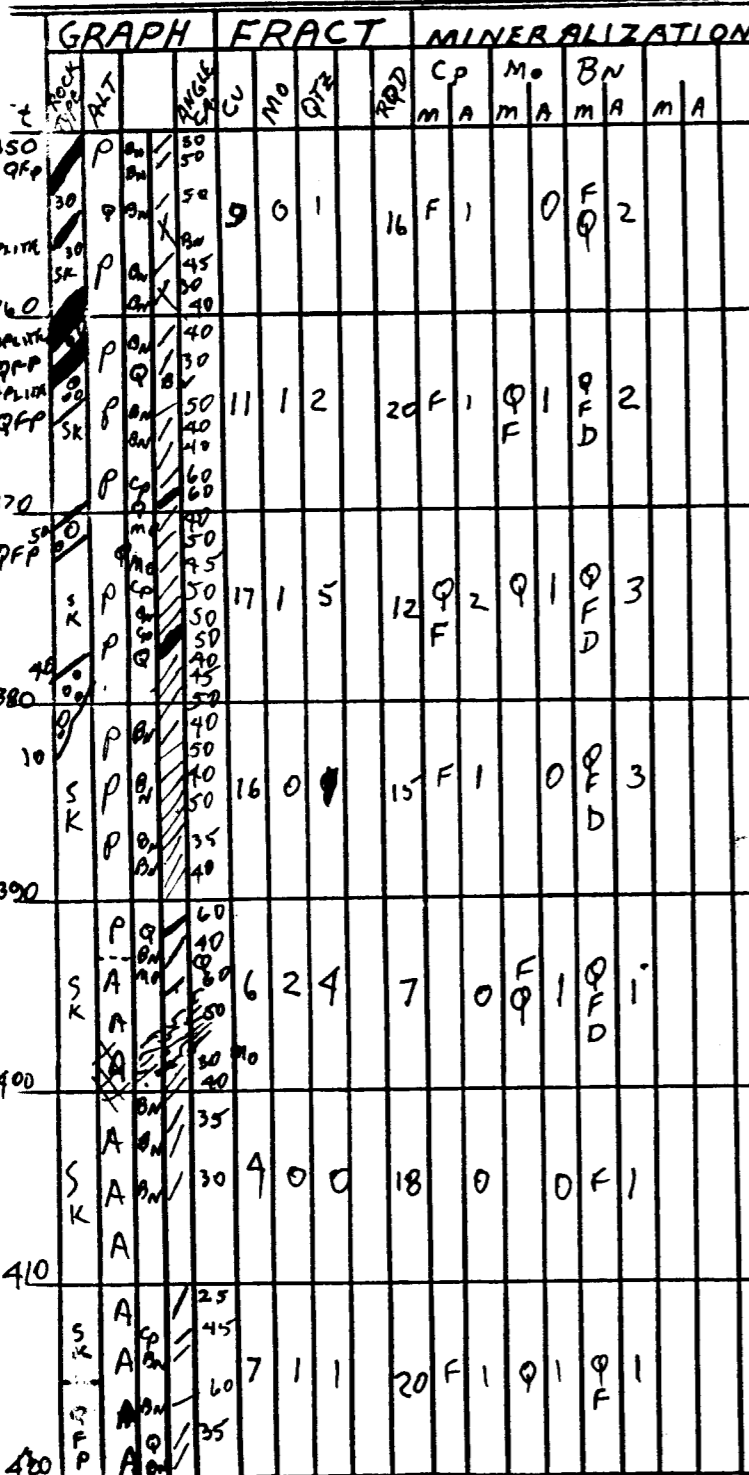
TESTS

CORE SIZE

STARTED

COMPLETED

DEPTH	LOGGED	ROCK TYPE, NOTES	SAMPLE NUMBER	Cu				Mo				MAG
				%	AVG	%	AVG	%	AVG	%	AVG	
350		SKAENA WITH MIXED APLITE AND QFP DYKES. LIGHT FRACT.										
360		POSSIBLY LOW GRADE ORR? LIGHTLY FRACT SKAENA, APLITE, QFP DYKES. ABUNDANT EP, HAM. ASSOC. WITH DYKES. LOW GRADE ORR?	21506	.06	.06	.001	.001	.06	.06	.001	.001	
370		LIGHTLY FRACT SKAENA AND PINK KSPAR RICH QFP AND APLITE MIXED.	21507	.06	.06	.004	.004	.06	.06	.004	.004	
380		LIGHTLY FRACT SKAENA AND PINK KSPAR RICH QFP AND APLITE MIXED. 3" QTZ @ 374' @ 50° CPBN HIGHLY MINERALIZED. ORR	21508	.20	.20	.008	.008	.20	.20	.008	.008	
390		LIGHTLY FRACT SKAENA HAIRLINE FRACT FILLED WITH BN PLUS MINOR DISSIMINATIONS.	21509	.14	.14	.003	.003	.14	.14	.003	.003	
400		ALTERED SKAENA WITH 3' FAULT ZONE 30% REC. K SCAICITE ALT OF FELD. WEAK. MIN.	21510	.13	.13	.004	.004	.13	.13	.004	.004	
410		LIGHTLY FRACT SK. WITH INCREASED TO ALONG FRACTURES ALMOST UNMINERALIZED.	21511	.03	.03	.001	.001	.03	.03	.001	.001	
420		401- 2" HAM-CO <sub>2</sub> VAIN. @ 25° QFP. WITH QTZ. PERNOCRYSTS UP TO 3/8" DIAMETER. CLAY ALT FELD. MATRIX	21512	.04	.04	.001	.001	.04	.04	.001	.001	



DESCRIPTION	ALTERATION												
	K	B	M	P	C	E	C	H	T	L	M	M	A
PROPYLITIC ALT WITH SOME FRASH SCACTIONS	1	1	0	0	2	2	1	2	1	0	1		
PROPYLITIC ALT. WITH APIDOTE HAMATITE VEINS.	0	0	2	0	0	3	3	1	3	1	0	1	
PROPYLITIC ALT. WITH SIGNIFICANT MU SALVAGES SOME CLAY ALT.	1	0	2	0	2	2	0	1	1	2	0	1	
PROPYLITIC ALT. WITH SIGNIFICANT MU SALVAGES	1	0	2	0	1	2	1	2	0	1	0	2	
PROPYLITIC → CLAY ALT WITH SOME SCAICITE ALT OF FELD.	1	0	1	0	3	1	1	2	0	2	0	0	
ARGILLIC ALT. WITH SCAIC. ALT OF FELD.	0	0	2	0	3	2	0	2	1	2	0	1	
ARGILLIC ALT.	0	0	0	0	5	0	0	2	2	2	0	0	

DEPTH	LOGGED	ROCK TYPE, NOTES	SAMPLE NUMBER	Cu				Mo				MAG
				%	AVG	%	AVG	%	AVG	%	AVG	
350		SKAENA WITH MIXED APLITE AND QFP DYKES. LIGHT FRACT.										
360		POSSIBLY LOW GRADE ORR? LIGHTLY FRACT SKAENA, APLITE, QFP DYKES. ABUNDANT EP, HAM. ASSOC. WITH DYKES. LOW GRADE ORR?	21506	.06	.06	.001	.001	.06	.06	.001	.001	
370		LIGHTLY FRACT SKAENA AND PINK KSPAR RICH QFP AND APLITE MIXED.	21507	.06	.06	.004	.004	.06	.06	.004	.004	
380		LIGHTLY FRACT SKAENA AND PINK KSPAR RICH QFP AND APLITE MIXED. 3" QTZ @ 374' @ 50° CPBN HIGHLY MINERALIZED. ORR	21508	.20	.20	.008	.008	.20	.20	.008	.008	
390		LIGHTLY FRACT SKAENA HAIRLINE FRACT FILLED WITH BN PLUS MINOR DISSIMINATIONS.	21509	.14	.14	.003	.003	.14	.14	.003	.003	
400		ALTERED SKAENA WITH 3' FAULT ZONE 30% REC. K SCAICITE ALT OF FELD. WEAK. MIN.	21510	.13	.13	.004	.004	.13	.13	.004	.004	
410		LIGHTLY FRACT SK. WITH INCREASED TO ALONG FRACTURES ALMOST UNMINERALIZED.	21511	.03	.03	.001	.001	.03	.03	.001	.001	
420		401- 2" HAM-CO <sub>2</sub> VAIN. @ 25° QFP. WITH QTZ. PERNOCRYSTS UP TO 3/8" DIAMETER. CLAY ALT FELD. MATRIX	21512	.04	.04	.001	.001	.04	.04	.001	.001	



# HIGHMONT OPERATING CORPORATION

DDH # 84-383

PAGE 8 OF 9

COLLAR: EAST \_\_\_\_\_ NORTH \_\_\_\_\_ ELEV \_\_\_\_\_ AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_ TESTS \_\_\_\_\_

CORE SIZE \_\_\_\_\_  
STARTED \_\_\_\_\_  
COMPLETED \_\_\_\_\_

DEPTH	LOGGED	ROCK TYPE	NOTES	SAMPLE ANALYSIS				CuE CUTN	
				SAMPLE NUMBER	Cu %	Ca %	Mo %		Mo %
490	99	21528	PROPYLITIC ALT. SOME SARCITIC FELD. ALT. NO MU SALVAGES	21528	.03	.03	.003	.003	.072
500	97	21529	AS ABOVE	21529	.04	.04	.002	.002	.093
510	99	21530	WEAK PROP. ALT	21530	.05	.05	.003	.002	
520	99	21531	ARGILLIC ALT WITH SARCITIC ALT OF FELD. IN SOME SECTIONS	21531	.04	.09	.003	.003	
530	99	21532	PROP. ALT	21532	.01	.02	.002	.002	
540	99	21533	PROP. ALT	21533	.01	.02	.001	.001	
550	99	21534	PROP. ALT	21534	.03	.03	.003	.003	

HIGHMONT OPERATING CORPORATION

DDH # 04-383

COLLAR: EAST \_\_\_\_\_ NORTH \_\_\_\_\_ ELEV \_\_\_\_\_ AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_ TESTS \_\_\_\_\_

CORE SIZE \_\_\_\_\_

STARTED \_\_\_\_\_

COMPLETED \_\_\_\_\_

DEPTH	CORRECTED ALT	ANGLE	FRACT				MINERALIZATION				ALTERATION											ROCK TYPE	NOTES	LOGGED	SAMPLE NUMBER	Cu %	Cu % AVG	Mo %	Mo % AVG										
			QU	MO	PTZ	APD	CP MA	MO MA	BN MA	MA MA	DESCRIPTION	K F	B I	M U	P Y	CLAY	C L	E P	CARB	HEM	TO									LIM	MAG								
560	P	45																																					
	F	35																																					
	P	35	2	0	0			12	F	0	0	F	1																										
570	P	40																																					
	F	50																																					
	P	50	6	1	0			10	F	1	S	F	1																										
580	P	60																																					
	F	60																																					
590	P	120	4	0	0			4	F	0	0	F	1																										
	F	120																																					
600		50																																					

E04 590'

84-384





HIGHMONT OPERATING CORPORATION

DDH # 84-384

DIP \_\_\_\_\_ TESTS \_\_\_\_\_ CORE SIZE \_\_\_\_\_

NORTH \_\_\_\_\_

ELEV \_\_\_\_\_ AZIMUTH \_\_\_\_\_

DEPTH \_\_\_\_\_

LOGGED \_\_\_\_\_

STARTED \_\_\_\_\_

COMPLETED \_\_\_\_\_

Ft	ROCK TYPE	FRACT	MINERALIZATION	ALTERATION										DESCRIPTION	ROCK TYPE NOTES	DEPTH	LOGGED	SAMPLE NUMBER	Cu		Mo		Ag					
				Cu	Mo	QZ	SP	CP	MA	MA	MA	MA	MA						MA	K	B	M		P	C	E	C	H
90	SK	P													PROPYLITIC ALT → PHYLLIC ALT WITH MU SELVAGAS + PERVASIVE SERICITE ALT.	LIGHTLY FRACT. ALT. SKARN WEAKLY MIN.	92	98	21544	.09 .09	.09	.004 .004	.004 .004					
100	SK	M													SERICITIC + ARGILLIC ALT ASSOC. WITH FAULT.	2" QZ. MO @ 100.5 106-112 FAULT ZONE. HAM, MO, BN.	82	100	21545	.10 .10	.10	.014 .014	.014 .014					
110	SK	P													PROPYLITIC ALT.	HIGHLY FRACT SKARN. WEAK MIN.	112	116	21546	.03 .03	.03	.003 .002	.002 .002					
120	SK	P													PROPYLITIC ALT. EXCEPT ARGILLIC ALT NEAR FAULT.	HIGHLY FRACT. NEAR FAULT.	124	130	21547	.05 .05	.05	.006 .006	.006 .006					
130	SK	P													ARGILLIC + KSPAR ALT WITH SOME SER. ALT OF FELD.	HIGHLY FRACT SKARN NO MINERALIZATION * PERVASIVE SERICITE ALT OF FELD. MAG → HEM.	79	137	21548	.03 .03	.03	.009 .008	.008 .008					
140	SK	P													PROP. ALT.	LIGHTLY FRACT. EP-CHL. ON FRACTS CHL. ALT OF MAFICS. ALMOST UNMINERALIZED.	142	150	21549	.02 .02	.02	.004 .005	.004 .004					
150	SK	P													WEAK PROPYLITIC ALT.	LIGHTLY FRACT. TRACKS MIN.	156	160	21550	.03 .03 .03	.03	.009 .008 .009	.009 .008 .009					

# HIGHMONT OPERATING CORPORATION

DDH # 84-384

DIRECTION: EAST    NORTH    ELEV    AZIMUTH    DIP    TESTS

CORE SIZE \_\_\_\_\_  
 STARTED \_\_\_\_\_  
 COMPLETED \_\_\_\_\_

Ft	GRAPH		FRACT				MINERALIZATION					ALTERATION										DEPTH	LOGGED	SAMPLE NUMBER	Cu %	Cu AVG	Mo %	Mo AVG	Ag						
	ANGLE	SCALE	Cu	Mo	QZ	SP	CP	Mo	BN	MA	MA	MA	DESCRIPTION	K	B	M	P	CLAY	C	E	P									CARB	HEM	T	L	M	MAG
160	45	25	4	2	1	14	F	1	0	1	0	0	0	0	0	1	0	2	1	0	1	0	0	0	2			21551	.04	.04	.008	.008			
170	50		2	1	1	5	0	S	1	S	1					1	0	1	0	2	3	2	2	1	0	1			21552	.02	.02	.005	.005		
180	25	45	8	0	1	5	F	1	D	0	F	1				0	0	1	0	1	2	1	2	0	0	2			21553	.13	.13	.004	.004		
190	15	55	7	2	1	9	F	1	D	2	F	2				3	0	1	0	4	0	0	3	2	1	0	0			21554	.04	.05	.01	.011	
200	25	35	5	1	0	4	F	0	D	1	D	F	1			2	0	1	0	3	1	1	2	2	1	0	0			21555	.05	.05	.013	.013	
210	10	10	4	0	0	13	F	1	0	D	1					1	0	0	0	2	2	1	3	2	0	0	2			21556	.02	.02	.002	.002	
220	30	70	3	1	0	16	F	1	F	1	F	1				0	0	0	0	3	2	1	1	1	0	3			21557	.05	.05	.007	.007		
230	25																																		

### ROCK TYPE, NOTES

LIGHT FRACT. WEAKLY MIN.  
 WITH MINOR SPLITE @  
 80° & 45°  
 NOTE TRACE PYRRHOTITE.  
 SOME MAG → HEM.

LIGHT FRACT. TO INTENSE  
 FRACT NEAR FAULT  
 POOR RECOVERY IN FAULT.  
 SOME BN & MO INDICATED.

MODERATE FRACT.  
 NOTE MINERALIZATION AT  
 TWO ANGLES.  
 POSSIBLY LOW GRADE ORE.

HIGHLY ALT. SILICIA WITH  
 FINE FRACT. + SIGNIFICANT  
 DISSIMINATED MO, BN.

AS ABOVE, WEAKER MIN.

MODERATE FRACT.  
 SOME DISSAM. MIN IN ALTERED  
 SECTIONS, LOW GRADE.

3" CALCITE @ 220' @ 70°

LIGHTLY FRACT  
 SUB ORE MIN.









HIGHMONT OPERATING CORPORATION

DDH # 84-384

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COLLAR: EAST NORTH ELEV AZIMUTH DIP TESTS

CORE SIZE

DEPTH LOGGED

STARTED COMPLETED

FT	FRACT	MINERALIZATION	ALTERATION													ROCK TYPE, NOTES	DEPTH	LOGGED	SAMPLE NUMBER	Cu	Mo	Ag	CuE																						
			DESCRIPTION	K	B	M	P	C	L	E	P	C	A	R	B									H	T	L	M	A	G																
510	P																							PROPYLITIC ALT. SOME KSPAR.	1	0	0	0	0	2	1	2	1	1	0	3	MODERATELY FRACT SKRNA SPECULARITE VEIN @ 518 SUB-ORE MINERALIZATION.	517	98	21663	.13	.01			.282
520	P																							AS ABOVE	2	0	0	0	1	2	0	3	2	2	0	3	MODERATELY FRACT SKRNA, HEMATITIC FRACTURES + CO3 WEAK MINERALIZATION.	520	98	21664	.07	.006			.108
530	P																							PROPYLITIC ALT WITH KSPAR, CLAY + CO3 WITH FAULT.	2	0	1	0	2	2	1	3	2	2	0	2	FRACTURING ASSOC. WITH HEMATITIC FAULT @ 75° INCREASED MO MIN. CO3-MO-TO SHEAR @ 70°	530	97	21665	.04	.029	.024		.461
540	P																							PROPYLITIC ALT WITH KSPAR 545-550	3	0	0	0	2	3	1	3	2	0	0	2	CO3 SHEARING IN LIGHTLY FRACT SKRNA. ORA GRADE MO, MINOR Cu 1' WALL MIN QTZ-MO @ 550	540	95	21666	.13	.104	.024		.193
550	P																							PROPYLITIC ALT. SOME KSPAR	1	0	0	0	1	2	1	2	1	0	0	2	QFP CONTACT @ 60° ORA GRADE MO, MINOR Cu	550	99	21667	.11	.088	.024		.128
560	P																							PROPYLITIC + CLAY ALT CO3 + HEM FAULT ZONE	1	0	0	0	2	2	2	3	3	0	0	2	LOWER CONTACT OF QFP @ 40° WEAK MIN. CO3+HEM FAULT ZONE.	560	99	21668	.11	.005			.137
570	P																							PROP ALT WITH HEM + CO3 SHEARS	1	0	0	0	1	4	3	2	2	0	0	2	ABUNDANT HEALED SHEARING MINOR CHLORITIC FRACTURE BRACCIA. WEAK MIN.	570	99	21669	.12	.009			.189
580	P																																					580							





# HIGHMONT OPERATING CORPORATION

DDH # 84-384

COLLAR: EAST \_\_\_\_\_ NORTH \_\_\_\_\_ ELEV \_\_\_\_\_ AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_ TESTS \_\_\_\_\_

CORE SIZE \_\_\_\_\_

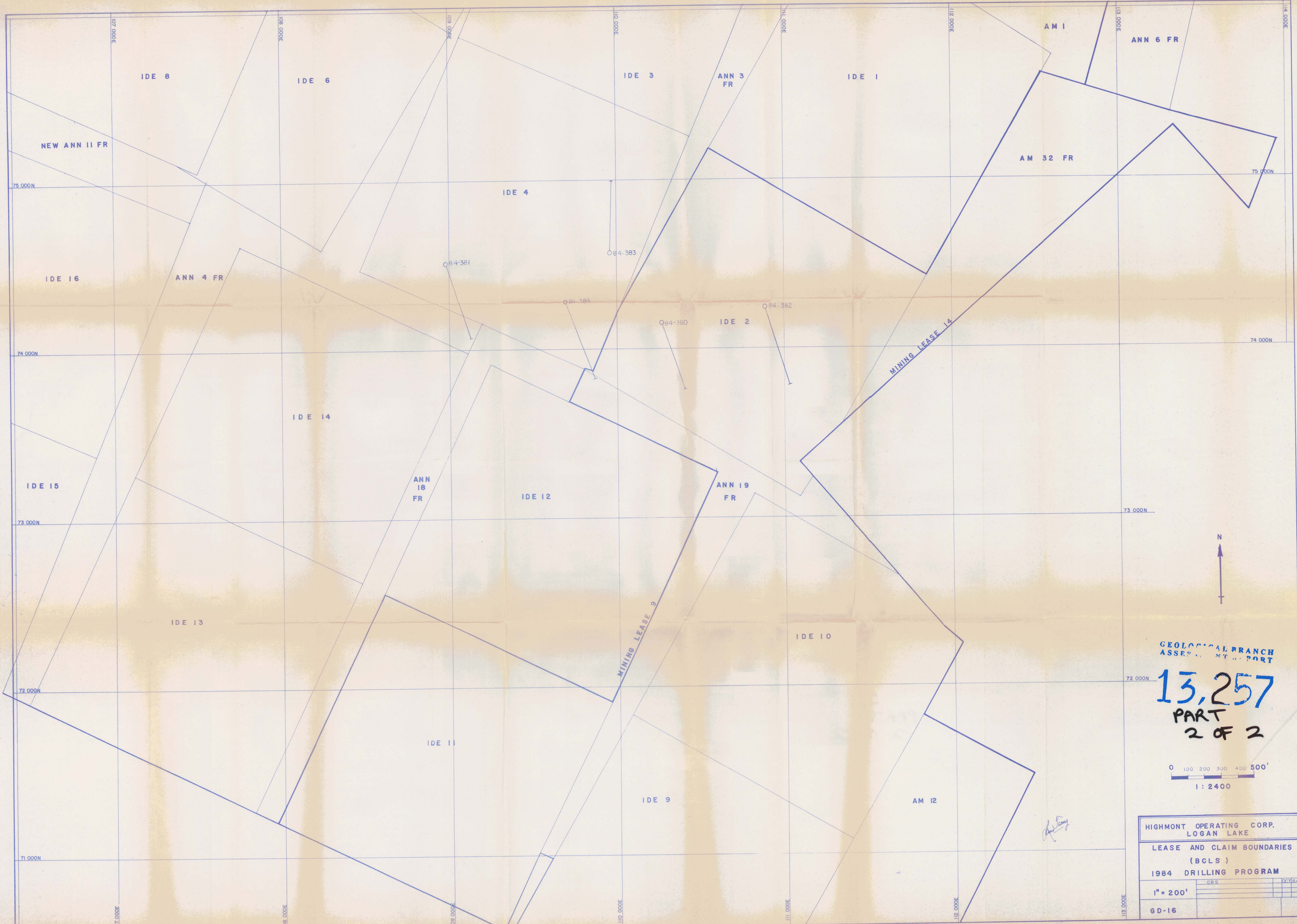
STARTED \_\_\_\_\_

COMPLETED \_\_\_\_\_

Fe	GRAPH		FRACT			MINERALIZATION					ALTERATION										DEPTH	LOGGED	ROCK TYPE, NOTES	SAMPLE NUMBER	Cu	Mo		CuE				
	ACT	ALT	Cu	Mo	QZ	Cp	Mo	BN	MA	MA	MA	DESCRIPTION	K	B	M	P	C	E	A	H									T	L	M	A
	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F									F	F	F	F
650	S	P	30 10	4	0	0	16	F	D	F	1															650	21677	.07	.008		.120	
660	S	P	55 40 60 20 10 60 20	10	2	1	9	F	2	D	F	1														660	21678	.12	.010		.200	
670	S	P	50 15 20	6	1	0	3	F	1	F	1	0														670	21679	.08	.007		.120	
680	S	P	70 20 40	5	1	0	9	F	0	F	1	F	1													680	21680	.05	.006		.080	
690	S	P	25 45	2	0	0	9	F	1	0	0															690	21681	.06	.007		.108	
700	S	K	35																							700						
																										700						
710																										710						

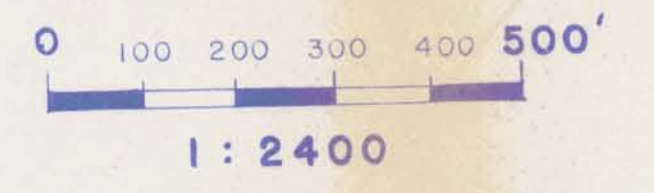
EOH 703





GEOLOGICAL BRANCH  
ASSESSMENT REPORT

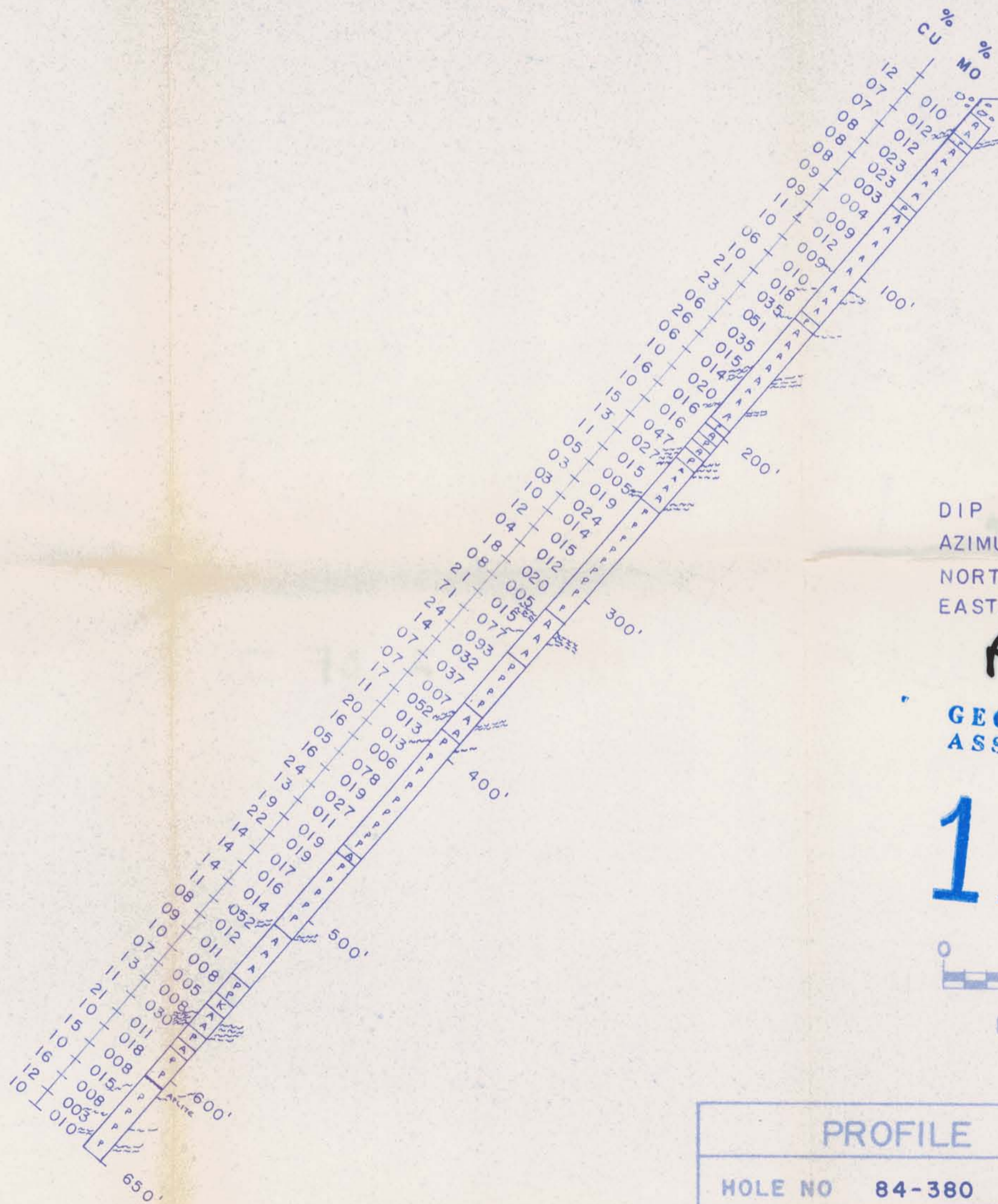
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PART  
2 OF 2



HIGHMONT OPERATING CORP. LOGAN LAKE	
LEASE AND CLAIM BOUNDARIES (BCLS)	
1984 DRILLING PROGRAM	
1" = 200'	GRS
GD-16	OCT 1984

*Paul Young*





DIP -50°  
 AZIMUTH 161°  
 NORTH. 74148.99  
 EAST. 110270.09

**PART 2 OF 2**

**GEOLOGICAL BRANCH  
 ASSESSMENT REPORT**

**13,257**



1 : 600

*Kevin Tong*

PROFILE		SECTION	
HOLE NO	84-380	JULY	1984
SCALE	1" = 50'	FIGURE NO.	GC-03A
LOOKING WESTERLY		DWN BY	GRS
		CHK BY	GRS





EL: 5405.64

DIP-49°  
 AZIMUTH 162°  
 NORTH: 74514.82  
 EAST: 108976.17

PART 2 OF 2

GEOLOGICAL BRANCH  
 ASSESSMENT REPORT

13,257

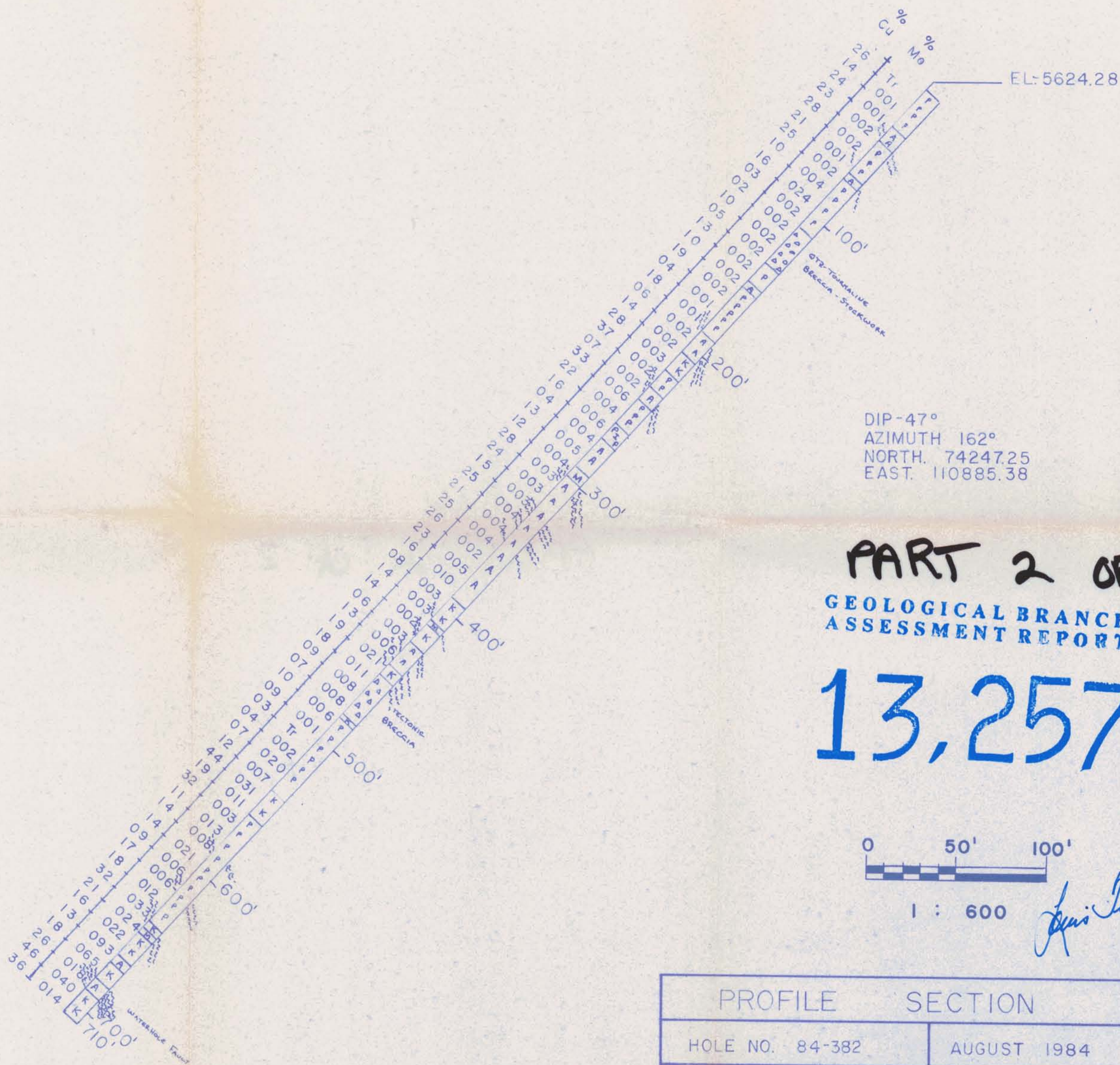


1 : 600

*John Tseng*

PROFILE	SECTION
HOLE NO. 84-381	JULY 1984
SCALE 1"= 50'	FIGURE NO. GC-03B
LOOKING WESTERLY	DWN BY CHK BY GRS



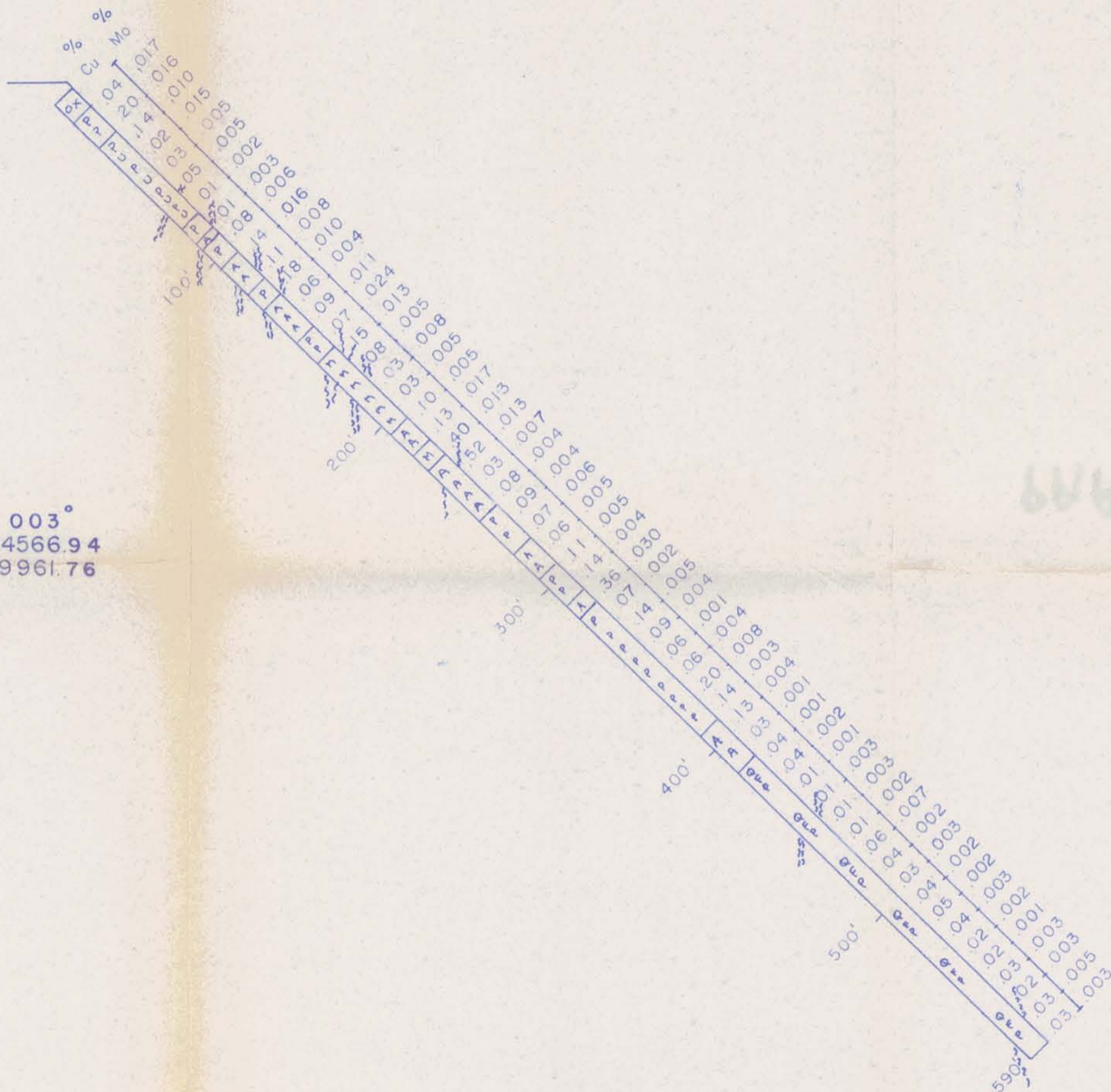


PROFILE	SECTION
HOLE NO. 84-382	AUGUST 1984
SCALE 1" = 50'	FIGURE NO. GC-03C
LOOKING WESTERLY	DWN BY CHK BY GRS



EL. 5502.82

DIP -44°  
 AZIMUTH 003°  
 NORTH. 74566.94  
 EAST. 109961.76



1 : 600

*Kevin Tsang*

PROFILE		SECTION	
HOLE NO	84-383	AUG	1984
SCALE	1" = 50'	FIGURE NO.	GC-03D
LOOKING	WESTERLY	DWN BY	CHK BY GRS

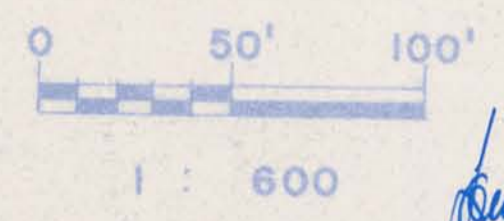




DIP -46°  
 AZIMUTH 159°  
 NORTH. 74282.98  
 EAST. 109684.21

**PART 2 OF 2**  
**GEOLOGICAL BRANCH**  
**ASSESSMENT REPORT**

**13,257**



*Louis Young*

PROFILE SECTION	
HOLE NO 84-384	AUG 1984
SCALE 1" = 50'	FIGURE NO. GC-03E
LOOKING WESTERLY	DWN BY GRS CHK BY GRS