

84-1364-13546
10/85



Province of
British Columbia

Ministry of
Energy, Mines and
Petroleum Resources

ASSESSMENT REPORT
TITLE PAGE AND SUMMARY

TYPE OF REPORT/SURVEY(S) DIAMOND DRILLING	TOTAL COST \$11,800
--	------------------------

AUTHOR(S) Laurence Sookochoff P.Eng. SIGNATURE(S) *[Signature]*

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED October 30, 1984 YEAR OF WORK 1984

PROPERTY NAME(S) Hek Claim Group.

COMMODITIES PRESENT Copper, Gold, Silver

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN

MINING DIVISION Greenwood NTS 82E 1W

LATITUDE 49° 12' N LONGITUDE 118° 27' W

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)]:

Hek (9 Units)

Hel (16 Units)

OWNER(S)

(1) Consolidated Boundary Exploration Ltd. (2)

MAILING ADDRESS

Box 1739
Grand Forks B.C. V0H 1H0

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

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

(1) Grand Forks Mines Ltd.

MAILING ADDRESS

100-450 West Georgia Street
Vancouver, B.C. V6B 1Z3

13,546

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

Permian Anarchist Group enveloped by Paleocene Coryell Intrusions primarily of syenite and Phoenix Volcanics Mineralization occurs as massive pyrrhotite with accompanying pyrite and chalcopyrite hosted by Anarchist rocks. Mineralization also occurs within a quartz filled shear zone with pyrite, pyrrhotite and chalcopyrite.

REFERENCES TO PREVIOUS WORK

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS		COST APPORTIONED
GEOLOGICAL (scale, area)				
Ground				
Photo				
GEOPHYSICAL (line-kilometres)				
Ground				
Magnetic				
Electromagnetic				
Induced Polarization				
Radiometric				
Seismic				
Other				
Airborne				
GEOCHEMICAL (number of samples analysed for)				
Soil				
Silt				
Rock				
Other				
DRILLING (total metres; number of holes, size)				
Core	130	Hek	\$11,800	
Non-core				
RELATED TECHNICAL				
Sampling/assaying				
Petrographic				
Mineralogic				
Metallurgic				
PROSPECTING (scale, area)				
PREPARATORY/PHYSICAL				
Legal surveys (scale, area)				
Topographic (scale, area)				
Photogrammetric (scale, area)				
Line/grid (kilometres)				
Road, local access (kilometres)				
Trench (metres)				
Underground (metres)				
			TOTAL COST	\$11,800

12,270
 ЦЕНТРАЛЬНЫЙ РАЙОН
 ГЕОЛОГИЧЕСКОЕ РАЙОННОЕ УПРАВЛЕНИЕ

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	Rept. No.			Information Class
Date				

1984 ASSESSMENT REPORT
DIAMOND DRILLING PROGRAM
on the
HEK CLAIM GROUP
PASS CREEK AREA

GREENWOOD MINING DIVISION
BRITISH COLUMBIA

for

CONSOLIDATED BOUNDARY EXPLORATIONS LTD.
and
GRAND FORKS MINES LTD.

NTS 82E 1W 49° 12'N 118° 27'W

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,546

LAURENCE SOOKOCHOFF, P.Eng.
CONSULTING GEOLOGIST

JANUARY 25, 1985
VANCOUVER, B.C.



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**1984 ASSESSMENT REPORT
DIAMOND DRILLING PROGRAM
on the
HEK CLAIM GROUP
PASS CREEK AREA, B.C.**

INTRODUCTION

During May 1984, a diamond drilling program was carried out on the HEK mineral claim of the HEK claim group. The purpose of the drill program was to test for vertical and horizontal continuity of mineralized intersections obtained in previous drill holes.

The drilling was performed by Consolidated Boundary Exploration Ltd. as operator of the exploration project. A longyear 38 machine was utilized with BQ size drill rods. A total of 427 feet (130meters) of drilling was completed in two drill holes.

The core from CBG 84-1 is stored in a warehouse at Grand Forks and the core from CBG 84-2 is stored on the property.

SUMMARY

The HEK group is comprised of 25 units located in the Pass Creek area north of Grand Forks, B.C. Exploration of gold occurrences covered by the claim group dates back to 1901. In the 1930's the property was referred to as the Simpson Mine with open cuts, shafts and drifts completed exploring pyrrhotite-pyrite-chalcopyrite zones.

In 1939 Hecla Mining shipped 364 tons which averaged 0.71 oz. Au/ton and 0.25 oz. Ag/ton. A drill hole drilled by Fento Mines reportedly intersected "18 feet" of 0.30 oz. Au/ton, 3.75 oz. Ag/ton and 0.5% Cu. Drilling by Consolidated Boundary up to 1976



disclosed significant gold values in six of the eleven drill holes. The values ranged from 0.088 oz. Au/ton over "nine feet" to 0.28 oz. Au/ton over "34 feet". In 1983 the property was optioned and explored by Grand Forks Mines Ltd. In 1984, two diamond drill holes were put down, the results of which returned a maximum of .027 oz. Au/ton.

PROPERTY

The property is comprised of two contiguous located mineral claims totaling 25 units. Particulars are as follows:

<u>Claim Name</u>	<u>Units</u>	<u>Record No.</u>	<u>Expiry Date</u>
HEK	9	159	Nov. 17, 1987
HEL	16	211	Feb. 05, 1988

The claims are registered in the name of Consolidated Boundary Explorations Ltd. and are under option to Grand Forks Mines Ltd.

LOCATION AND ACCESS

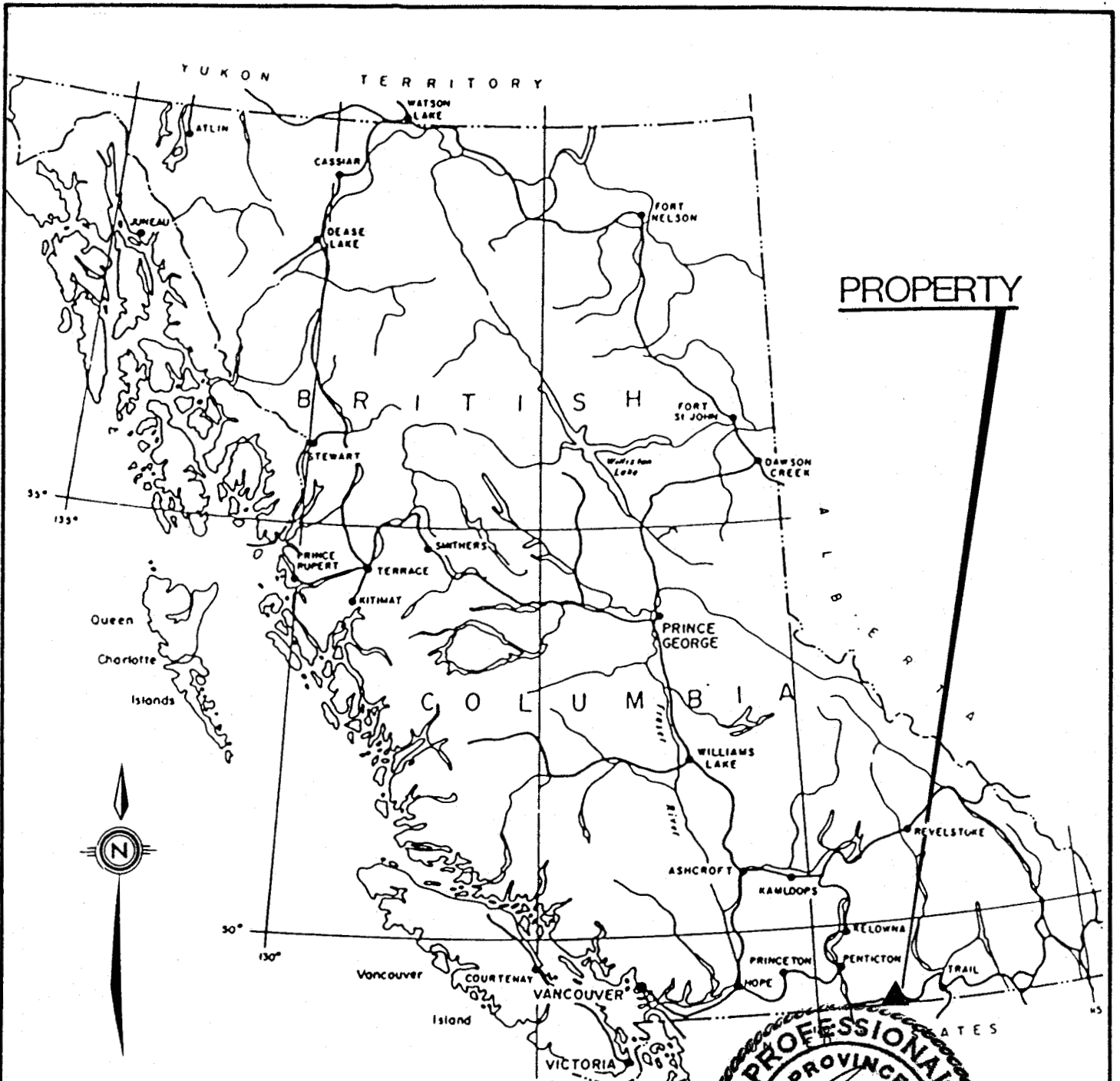
The property is situated 21 km north of Grand Forks adjacent and to the north of Pass Creek, an easterly flowing tributary of the north fork of Granby River.

Access is provided by paved, gravel and secondary roads to the property.

WATER AND POWER

Sufficient water for all phases of the exploration program should be available from Glover Creek or other water courses on the property.





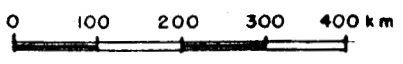
PROPERTY

FIGURE 1

SOOKOCHAI CONSULTANTS INC.
 CONSOLIDATED BOUNDARY EXPLORATIONS LTD. &
 & GRAND FORKS MINES LTD.
 HER PROPERTY

N.T.S. 82E-1W GREENWOOD M.D., B.C.

LOCATION MAP



SCALE 1:6,300,000	DATE JAN. 1985	NTS 82E-1W	JOB NO.	FIGURE 1
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TRANSPORTATION AND SUPPLIES

Trail is located 90km east of Grand Forks where smelter facilities are available. Castlegar, 90km east of Grand Forks, is served daily by commercial airlines.

HISTORY

The history of the area stems from placer deposits discovered along Rock Creek and Boundary Creek west of Grand Forks in the early 1850's.

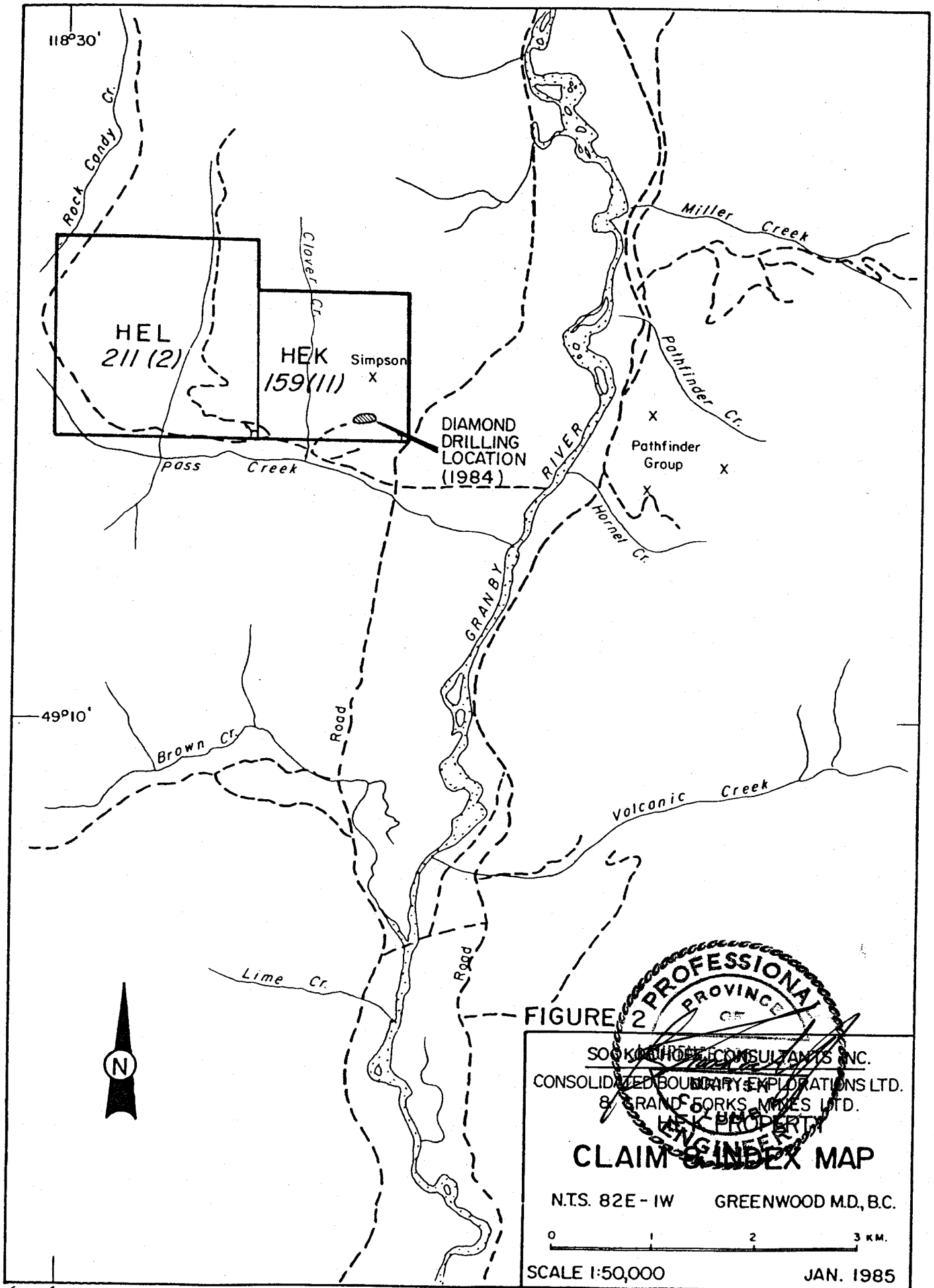
Then in 1890, gold-copper deposits were discovered at Rossland, 55km east of Grand Forks stimulating prospecting throughout the area. The following year, large low grade copper deposits were discovered near Phoenix, 13km northeast of Grand Forks. The Phoenix district produced about 15 million tons of ore averaging slightly over 1.5% copper with significant gold and silver values. The Phoenix mine ceased operations in 1919, however was later reopened and in production to 1978.

In the immediate vicinity of the HEK claim group, exploration and development on the Pathfinder property (one km to the east) to 1920 resulted in "1,250 tons of ore being shipped assaying 0.43 oz. Au/ton and 3.9 oz. Ag/ton".

In a 1983 drill program on the Richmond claim of the Pathfinder property, values of up to 1.4 oz. Au/ton across 2.4 feet and .12 oz Au/ton across 12.2 feet were reported. Geological mapping and sampling on the Pathfinder in 1984 returned encouraging results in the location of gold values associated with volcanic flows.

Recent exploration has also been performed on other properties in the immediate area, including an adjacent property to the north.





118°30'

HEL
211(2)

HEK
159(11)

Simpson
X

DIAMOND
DRILLING
LOCATION
(1984)

Pathfinder
Group
X

49°10'

FIGURE 2



SOOKHOFF CONSULTANTS INC.
CONSOLIDATED BOUNDARY EXPLORATIONS LTD.
& GRAND FORKS MINES LTD.
HEK PROPERTY

CLAIM & INDEX MAP

N.T.S. 82E - 1W GREENWOOD M.D., B.C.



SCALE 1:50,000

JAN. 1985

CHONG

On the ground covered by the HEK and HEL claims, the history dates back to 1901 when the property was known as the "Exchange". In 1939, Hecla Mining carried out a program of drifting and crosscutting resulting in the shipment of 364 tons of material from the Simpson zone (on the HEK claim) to the Trail smelter.

From 1966 to 1969, Bryell Minerals and Fento Mines carried out an exploration program of I.P. surveys, stripping and the diamond drilling of six holes on the Glover zone on the HEK claim (F69 1-6).

From 1975 to 1976, Consolidated Boundary Exploration carried out a program of geological mapping, magnetometer surveys and the diamond drilling of eleven holes (CB75 1-11) for 1,973 feet on the Glover zone on the HEK claim.

In June and July of 1976, Hecla Mining Company of Canada carried out detailed geological, geochemical and magnetometer surveys on the HEK claim.

In 1983, Grand Forks Mines, under option from Consolidated Boundary Exploration and as operator completed an exploration program of geological mapping, soil sampling, magnetometer surveys and trenching. The work was concentrated on the Glover zone.

In May, 1984, two diamond drill holes (CBG 85-102) were put down on the HEK claim. The information on the 1984 drilling is the basis for this report.

RESULTS OF PREVIOUS EXPLORATION

T. Klobusicky reported on the exploration results to 1972 that:

1. Numerous anomalous areas were indicated from a 1966 I.P. survey. The readings ranged from two to three times that of background.
2. The geological environment is comparable to the geology of the gold and silver bearing copper ores of the Greenwood-Phoenix-Grand Forks mining

district.

- 3. Diamond drill hole No. F-69-1 drilled to a depth of 389 feet encountered trace mineralization. Diamond drill hole No. F-69-2 intersected an estimated 18 feet (true width) of .30 oz. Au/ton, 3.75 oz. Ag/ton and .54% Cu. The length of the hole was 258 feet.

The Consolidated Boundary Explorations program results of 1975 - 1976 were as follows:

- 1. In the 1,973 feet of AQ drilling in 11 holes pertinent and significant intersections were obtained in six of the holes. The information on the holes is as follows:

<u>Hole No.</u>	<u>Dip</u>	<u>Depth (feet)</u>	<u>Intersection (footage)</u>	<u>Length (feet)</u>	<u>oz Au/ton</u>
CB75- 1	-50	93	10 - 85	75	0.0732
CB75- 2	-90	39	0 - 34	34	0.2802
CB75- 3	-50	60	30 - 55	25	0.0924
CB75- 4	-50	45	0 - 23	23	0.164
CB75- 5	-45	100	no significant values		
CB75- 6	-70	245	no significant values		
CB75- 7	-50	340	60 - 89	26	0.200
CB75- 8	-50	442	160 - 169	9	0.088
CB75- 9	-50	112	no significant values		
CB75-10	-50	242	four feet of massive sulphides - no assays		
CB75-11	-50	255	no significant values		

The results of the 1976 Hecla exploration program are reported as follows:

- 1. The soil copper-gold geochemical was reportedly unsuccessful in delineating known bearing areas.
- 2. The magnetometer survey revealed low to moderate magnetic variations. An extension of the magnetometer survey was recommended.

From the 1983 Grand Forks Mines - Consolidated Boundary results, geological mapping by D. Runkle M.Sc. disclosed that



mineralization is limited to Anarchist Group rocks.

Trenching and sampling of the Glover zone disclosed a correlation between gold and copper mineralization. A possibility of several similar parallel zone were indicated.

The soil geochemistry disclosed a small area of interest between the main (Glover) showing and the Simpson Mine on line 1400E.

REGIONAL GEOLOGY

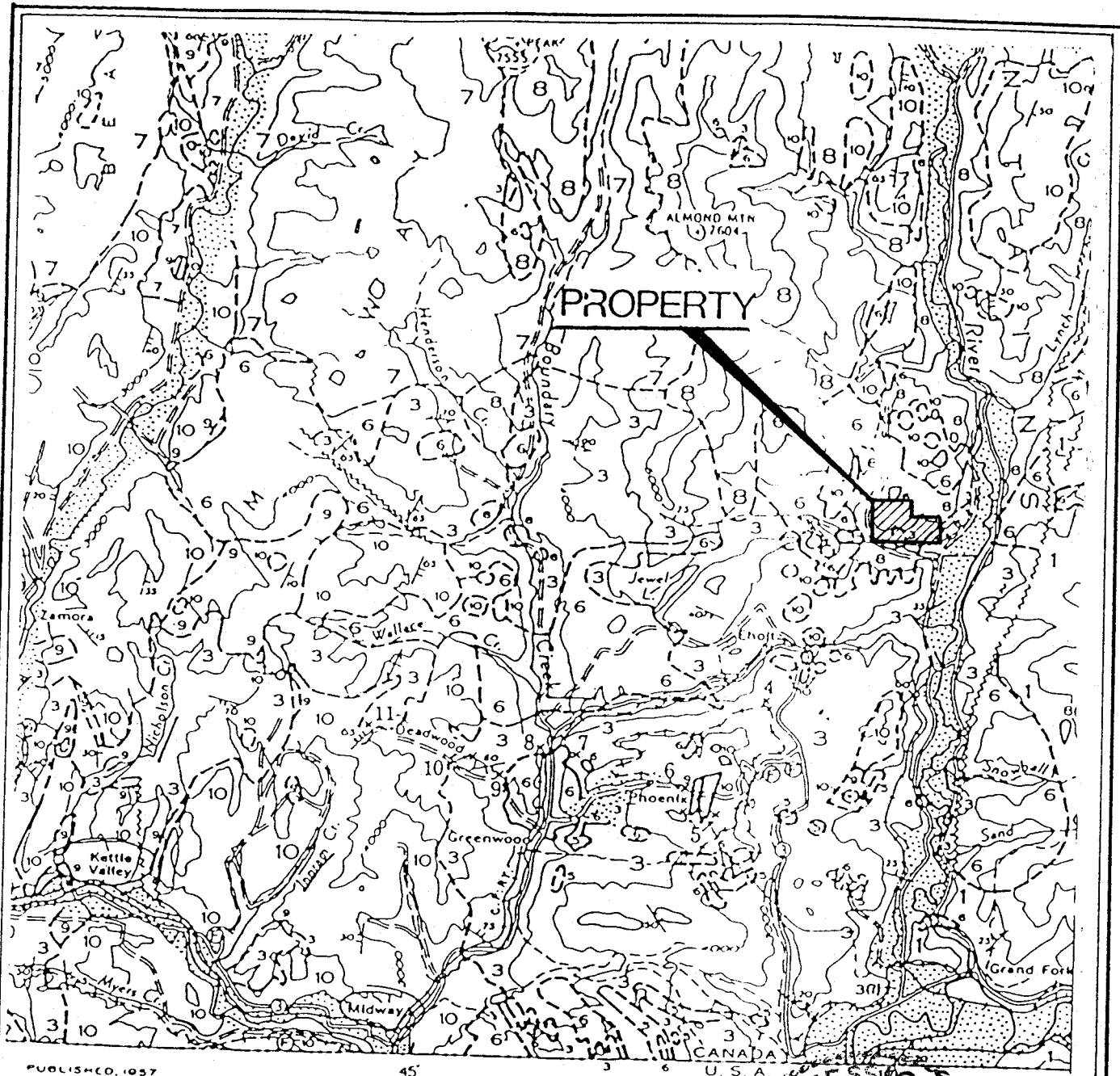
The general geology of the area is of Nelson and Coryell and Valhalla Intrusives to the north in contact with sedimentary rocks and greenstones (Anarchist Group) of Palaeozoic age to the south. Local to extensive areas of Intrusive also occur within the Palaeozoic rocks. Overlying are the Paleocene or Eocene Phoenix group of predominantly volcanics with minor tuffs and sediments and the Kettle River Formation of predominantly rhyolitic intrusives and flows in addition to local sediments.

The Anarchist Group consists very largely of highly metamorphosed sedimentary rocks but includes also altered greenstones and possibly also altered intrusive rocks. The sedimentary members of the group are the altered equivalents of quartzite, slate and limestone, micaceous quartzites, mica schists and crystalline limestone. The sheared greenstones possibly represent both intrusive and extrusive types.

A second group of rocks within the Anarchist series are light grey, granitic rocks, quite generally gneissic, the outcrops of which have in some cases a slightly rusty appearance. Quartz and microcline predominate with orthoclase and albitic oligoclase generally present. These granitic rocks are intrusive into the schists of the Anarchist series.

Another group of rocks within the Anarchist series consists of sheared basic intrusives which can in local areas be represented as serpentine with considerable pyrite development in association with shear zones.





PUBLISHED 1957

45'

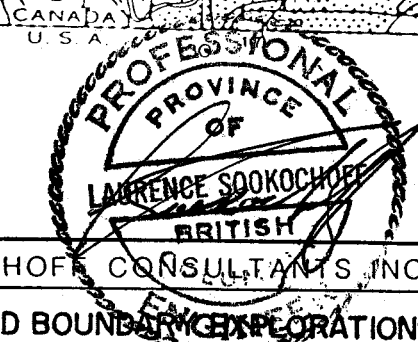


FIGURE 3

SOOKOCHOFF CONSULTANTS INC.
 CONSOLIDATED BOUNDARY EXPLORATIONS LTD.
 & GRAND FORKS MINES LTD.
 HEK PROPERTY
 N.T.S. 82E-1W GREENWOOD M.D., B.C.

REGIONAL GEOLOGY

0 5 10 15 KM.

SCALE: AS SHOWN	DATE: JAN. 1985	N.T.S. 82 E-1W	DRAWN BY: GEO-COMP	FIGURE: 3
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7

Feldspar porphyry "dykes" are also common. The rock is described as a "pale pink to flesh colored, fine grained rock with granitic texture. Quartz is fairly common and feldspar, shreds of biotite, hornblende, small individuals of apatite and some iron ore make up the balance of the rock."

The Coryell Intrusives are reddish to buff syenite that grade locally into granite or shonkenite. Some of the smaller bodies are composed of augite monzonite or olivine syenite.

On the Pathfinder workings within one km east of the HEK group there are reportedly four distinct veins "running parallel and from eight to 21 feet in width. There are good showings on all the veins".

PROPERTY GEOLOGY

From a detailed geological program carried out by Hecla in 1976 the geology of the HEK claim is described by Ostensoe and Kruckowski as follows:

"The geology of the HEK claims is dominated by a co-magmatic assemblage of alkalic rocks intrusive into and bordered by granite and by siliceous volcanic and sedimentary rocks. The latter rocks are generally weakly pyritized and in an area just east of Glover Creek contain zones of abundant to massive iron sulphides and traces of chalcopyrite and gold."

"There is little doubt that assimilation has occurred. Most structural and textural details have been erased by metamorphism but an overall east-west trend is evident both in distribution of sedimentary rock units and in their remnant internal structures. Heavy sulphide mineral concentrations are attributed to contact metamorphism of favourable metal rich beds by the intrusive events. At the Simpson-Zucco Mine a small quantity of gold-base metal ore was formed in a structural trap in a dyke-riddled bedded sequence."

In a geological mapping program performed in 1983, D. Runkle



reports that:

"Geological mapping on the property has recognized three major rock units: Permian(?) Anarchist Group metasedimentary and metavolcanic rocks; Paleocene(?) Coryell Intrusions, primarily syenite, grading to other phases; and Phoenix Volcanics, consisting of andesite, trachyte, and related rocks. Mineralization is limited to occurrences of Anarchist Group rocks, and appears to be consistent with the model for volcanogenic gold porphyrite type of mineralization. In this model, mineralization occurs at the tops of volcanic flows, specifically the altered (skarn/silica) tips and edges. Mapping is in progress to delineate the Anarchist flows, and locate the tops. It appears that rocks previously mapped as Nelson diorite, are actually coarser portions of the Anarchist flows, and that they may be more extensive than previously thought."

"A trench adjacent to DDH 75-1,2 & 4, cuts across syenite, fine grained porphyritic andesite, fragmental andesite, gray tuff, and green felsite tuff containing sulfide mineralization. Initial sampling of the trench yielded disappointing results, but did show up the correlation between gold and copper mineralization in this location. An additional twenty-eight samples were taken to test the mineralization in the trench, and are plotted on the accompanying figure. The most concentrated mineralization in the trench occurs in the upper portion of a resistant felsite unit. The rock is a medium to light gray, hard, brittle, extremely fine-grained felsite tuff with 1% fine disseminated pyrite and little evidence of mafic minerals in the lower section. The upper, mineralized section, contains secondary biotite, garnet and small clots of pyrite, pyrrhotite and minor chalcopyrite. The entire unit has a greenish cast to it, indicating silicification and/or skarn alteration. It has an average thickness of at least 40cm (the upper portion is partially eroded), and the mineralization is 15 to 20cm thick. The lower contact is a shear that trends 025/53S. The remainder of the rock in the trench is primarily medium gray, very fine grained porphyritic andesite. Phenocrysts are feldspar, and the groundmass contains 1% disseminated pyrite. This rock is cut by numerous joint surfaces and shears, many of which are coated with limonite and perhaps ankerite. Some fractures are filled with calcite. Local areas contain thin veinlets of pyrite and very minor pyrrhotite. Immediately below the felsite, the andesite has been strongly sheared, and is very crumbly. Limonite coatings on fracture surfaces trace rounded areas that were perhaps originally fragments



in a clastic volcanic flow. A minor portion of the trench is intruded by medium grained syenite of the Coryell Intrusions. The rock is predominantly potassium-feldspar with some quartz and very few mafic minerals.

Outcrops local to this trench indicate the possibility of several similar parallel zones."

Mineralization on the HEK Claim occurs as "veins" of massive pyrrhotite with accompanying pyrite and chalcopyrite in varying degrees and variable to no quartz.

The Simpson mine zone is "a quartz filled shear zone in the Anarchist greenstone skarn area which has been mineralized with pyrite, pyrrhotite and chalcopyrite across a width of 100 feet or more". Former production from this area returned an average of 0.71 oz Au/ton and 0.25 Ag/ton.

A second mineralized area is in part indicated by a gossan zone with "disseminated pyrite, pyrrhotite and chalcopyrite within quartz diorite over an area of 500 feet by 1,000 feet".

1984 DIAMOND DRILL PROGRAM

During May 1984, two diamond drill holes were completed for a total of 130 meters (427 feet). The purpose of the drilling was to test for the vertical and horizontal extensions of a mineralized zone exposed on surface (Glover zone) and intersected in diamond drill holes completed in 1965 and 1975.

The drilling was carried out by Consolidated Boundary Exploration Ltd. The core was logged by L. Sookochoff, P.Eng. and J. Robins, geologist working under the supervision of L. Sookochoff, P.Eng.

Core sections were split by J. Robins. The split sections were placed in a plastic sample bag with a duplicate numbered tag for reference and sent for assay.

Local sections of unsplit core were also sent for assay to check for gold values in lightly mineralized (pyrite) or altered

zones. These core pieces were referenced as to hole number and footage. ie 84-2-81.

All samples were assayed for gold, silver and zinc. The local pieces of core were assayed as rock geochem for gold, silver, copper and zinc.

The assaying was performed by Acme Analytical Laboratories of Vancouver by the following procedure:

The drill core samples were crushed and pulverized to -100 mesh. A .50 gm sample is digested with 3 ml of 3:1:3 HCL:HN03:H20 at 90 deg. C. for 1 hour. The sample is diluted to 10 mls with water. Elements analysed by AA:Cu, Ag, Au*.

* - 10 gm, ignited, hot aquaregia leached, MIBK extraction, AA analysis.

Particulars of the drill holes are as follows:

Drill hole no:	CBG 84-1
Location:	0+75N 3+80E
Bearing:	310 ⁰
Elevation:	650m
Dip:	-50 ⁰
Length:	(65.2m) 214feet
Results:	Volcanic breccia was predominant with dykes of granodiorite and sections of metavolcanics. A 2.5 foot unit of porphyritic volcanics is fine grained, dark green, dacitic and contains minor disseminated pyrite. Core sections assayed disclosed a maximum of .028 oz. Au/ton within a dark purplish gray (skarny) meta volcanic with minor to moderate disseminated pyrite.

Drill hole no:	CBG 84-2
Location:	0+74N 5+14E
Bearing:	120 ⁰
Elevation:	617m
Dip:	-50 ⁰
Length:	(65m) 213feet
Results:	Total length of the hole was almost totally in an andesitic unit with occasional light to moderate disseminations of



pyrite. Core sections assayed disclosed a maximum of .027 oz. Au/ton and 0.19 oz. Ag/ton.

CONCLUSIONS

From the results of the diamond drill hole CBG 85-1, discontinuity to the mineralization within the main (Glover) zone is indicated. The mineralized number 2 zone exposed on surface which drill hole CBG 84-2 was projected to intersect was not continuous to that depth.

The results of the 1983 geochemical survey for gold and silver indicated a potential southwesterly trend to the Simpson Mine zone at a cross line 300 meters west of the Simpson Mine. The Glover zone, 900 meters southwest of the Simpson Mine could be located along the same general volcanic unit. The general bedding of the volcanics as exposed on an escapement near the Simpson Mine indicates a shallow westerly dip to the Glover zone.




RECOMMENDATIONS

Additional diamond drilling on the Glover zone is recommended based on the drill results to date. A significant gold bearing zone is indicated and could be proven to be extensive once the trend to the zone is established.

At the Simpson Mine, underground drilling is recommended to test the extensions and trend of the mineralized zone which was previously explored and developed.

The area between the soil geochem gold anomalous area along line 1400E and the Simpson Mine, should be explored for an indicated gold bearing zone.

Respectfully submitted,

A circular professional seal for the Province of British Columbia. The outer ring contains the text "PROFESSIONAL ENGINEER". The inner ring contains "PROVINCE OF BRITISH COLUMBIA". The center of the seal contains the name "LAURENCE SOOKOCHOFF" and "CONSULTING GEOLOGIST". A signature is written across the seal.

LAURENCE SOOKOCHOFF, P.Eng.
CONSULTING GEOLOGIST

JANUARY 25, 1985
VANCOUVER, B.C.



BIBLIOGRAPHY

- COCKFIELD, W.E. Lode Gold Deposits of Fairview Camp, Camp McKinney and Vindette Lake Area and the Divident-Lakeview Property near Osoyoos, B.C., Memoir 179, 1935.
- KLOBUSICKY, T. Bryell Minerals Ltd. Grand Forks, B.C. Property, Geological Report January 1972.
- McNAUGHTON Greenwood - Phoenix Area, British Columbia, G.S.C. Paper 45-20 Canada Department of Mines, Ottawa 1945.
- SOOKOCHOFF, L Geological Report on the Pathfinder Group for Aries Resources Ltd., February 22, 1980.
- Geological Report on the HEK and HEL claims for Aries Resources Ltd., February 25, 1980.
- 1983 Assessment Report on the HON claim group, January 12, 1984.



CERTIFICATE

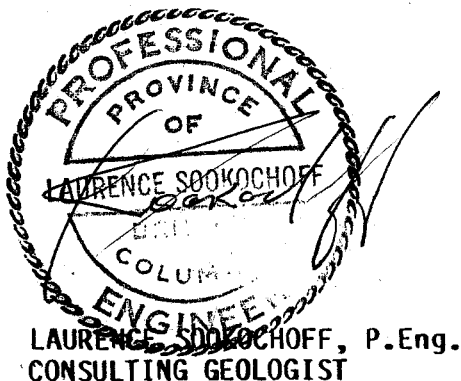
I, LAURENCE SOOKOCHOFF, of the City of Vancouver, in the Province of British Columbia, do hereby certify;

That I am a Consulting Geologist and principal of Sookochoff Consultants Inc. with offices at 311 - 409 Granville Street, Vancouver, B.C. V6C 1T2.

I further certify that:

1. I am a graduate of the University of British Columbia (1966) and hold a B. Sc., degree in Geology.
2. I have been practising my profession for the past eighteen years.
3. I am registered with the Association of Professional Engineers of British Columbia.
4. The information for this report was obtained from sources as cited under bibliography and from the supervision of the drilling program reported on herein.
5. I have no direct or indirect interest whatsoever in the property described herein, nor in the securities of Consolidated Boundary Explorations Ltd. and Grand Forks Mines Ltd. and do not expect to receive any interest therein.

Dated at Vancouver, British Columbia this 25th day of January, 1985.



HEK CLAIM GROUP

1984 ASSESSMENT REPORT

DIAMOND DRILLING PROGRAM

AFFIDAVIT OF EXPENSES

The diamond drilling of the two holes on the HEK claim group was carried out from May 10, 1984 to May 16, 1984 to the value of the following:

427 feet ^{130 m} (65m) BQ @ \$20.00	\$ 8,940.00
Supervision	500.00
Field Expenses including Caterpillar rental	1,200.00
Assays	160.00
Report	<u>1,000.00</u>
TOTAL EXPENSES	\$ 11,800.00



APPENDIX I

**Diamond Drill Logs
CBG 84-1 to CBG 84-2**



PROPERTY HEK

HOLE NO. CBG 84-1

LATITUDE 0 + 75N

Page 1

COMPANY CONSOLIDATED BOUNDARY EXPLORATIONS

BEARING 310°

DEPARTURE 3 + 80E

LOGGED BY J. Robins

DIP 50°

ELEVATION 650m

LENGTH 214'

STARTED May 10, 1984

FINISHED May 13, 1984

From	To	Recovery %	Description	Mineralization	Sample			Assays			
					Number	From	To	Width	Au	Ag	Zn
6'	- 15.3'	85%	<p><u>Volcanic Breccia:</u> Rock is comprised of a buff-lt.brown fine grained matrix with large 1-5 cm greenish sub rounded clasts.</p> <p>Rock is rich in carbonates and has a skarned appearance in places (brown carbonatious material) between clasts.</p> <p>The brown material may be sphalerite. The matrix seems to be fairly high in Qtz + of a felsic nature.</p> <p>NOTE: First 3' heavily oxidized</p>	<p>Pyrite Moderate 1-2%</p> <p>Possible Mod. Sphalerite 1-2° (very fine grained)</p> <p>Minor Chalco</p>	94301	9'	- 15.3		.001	.01	.01
15-3'	- 15.6'	100%	<p>4" Section of <u>Granodiorite</u> only trace mineralization</p> <p>Rock is coarse grained with phenocryst of feldspar up to 1 cm.</p> <p>Colour: white-buff. Mafic - 5% - Fine grained x stals hb. Contact and wall r x @ - 60°</p>								
15.6'	- 21.5'	80-95%	<p><u>Volcanic Breccia:</u></p> <p>Rock is the same as 6'-15.3" EXCEPT the % of skarn type mineralization is much greater and as you approach. 21.5' (contact - granodiorite) the rock is greener in colour with less distinct clasts probably due to melting along contact.</p> <p>18' small Qtz vein heavily pyrite mineralization in white Qtz. NOTE Sphalerite (brown skarn mineral) is located interstitially between green clasts.</p>	<p>Mod py 1% sphalerite up to 10% increasing towards 21.5</p> <p>100% (massive pods)</p>	94302	15.6	- 21.6		.001	.01	.01
21.5	- 56.5		<p>Medium Grained <u>Granodiorite</u>, buff-grey same phenocryst of plag up to 1/2cm, Mafics - 10% - hb?</p> <p>Contact with Breccia - 60° to core axis</p> <p>NOTE: Rock is slightly magnetic.</p> <p>Rock becomes more mafic towards 56.5 gradually becoming a diorite @ contact.</p> <p>mineralization also increasing towards contact up to 1% py @ contact zone. (1 cm band of pyrrhotite @56')</p>	<p>sparsely mineralize, minor py, pyrrhotite</p>	94303	21.5	-31.5		.001	.01	.01

HEK
 COMPANY CONSOLIDATED BOUNDARY EXPLORATIONS
 LOGGED BY J. Robins

HOLE NO. CBG 84-1
 BEARING 310°
 DIP 50°
 LENGTH 214'

LATITUDE _____
 DEPARTURE _____
 ELEVATION _____

From	To	Recovery %	Description	Mineralization	Sample			Assays				
					Number	From	To	Width	Au	Ag	Zn	
56.5	-	66.5	<u>Micaceous Meta Volcanic:</u> Drk purplish grey, mildly carbonaceous, foliated medium to fine grained micaeous meta volcanic rock. Rock has a granular texture abundant purplish mica which define the foliation. Foliation is sub parallel to core axis. Ground mass is predominantly feldspathic with only minor Qtz. This may be a contact metamorphized volcanic or sediment. Its appearance now is metamorphic.	Minor-Mod Dissem pyrite	94304	56.5	-	61.5		.006		.01
					94305	61.5	-	66.5		.028		.01
66.5	-	69.5	<u>Granodiorite</u> Clasts of partially diffused greenish wall rock (10cm). <u>Granodiorite</u> is similar to that previously mentioned except composition varies in places in both (mafics) and grain size. Rock is sparsely mineralized with py occurring occasionally in the clasts.	trace - minor py								
69.5	-	77.0	<u>Interlayered sequence of Granodiorite + Purplish Micaceous Meta Volcanic:</u> 69.5 - 71.0 Purplish Micaceous Meter Volcanic 71.0 - 74.0 Intermixed meta volc + Granodiorite (Contacts are gradational. and often accompanied by bands of massive py pyrrhotite) 74.0 - 77.0 Dioriotie- Granodioritic Rock with Mafic and felsic rich sections - gradational contacts. 70° to C. Axis	Zones of moderate heavy mineraliza-tion mainly py, Pyrrhotite	94306	69.5	-	71.0	.015	.01		.01
										.002	.01	
					Minor-Mod py - pyrrhotite	94307	71.0	-	77.0	.002	.01	

HEK
 COMPANY CONSOLIDATED BOUNDARY EXPLORATIONS
 LOGGED BY J. Robins

HOLE NO. CBG 84-1
 BEARING 310°
 DIP 50°
 LENGTH 214'

LATITUDE _____
 DEPARTURE _____
 ELEVATION _____

From	To	Recovery %	Description	Mineralization	Sample			Assays			
					Number	From	To	Width	Au	Ag	Zn
77.0 - 97.5			<p><u>Volcanic Breccia:</u> H. brownish grey, fine grained, very hard felsic matrix with large sub angular - sub rounded clasts (greenstone). Rock is generally the same in appearance to that described @6' x 15.3' and @15.6' - 21.0' on this same hole. Interstitial felsic areas are moderately mineralized with mod. pyrite, pyrrhotite, minor Chalco skarned areas may contain sphalerite</p> <p>93.0' Small Granodiorite body 5cm thick Contact @ 40° to core axis. 97.5' Contact porphyritic Volcanic @60°</p>	<p>Mod py, pyrrhot. minor chalco possible sphaler. Minor Dissem.py.</p>	94308	77.0	- 82.0		.002	.01	.01
					94309	82.0	- 87.0		.05	.01	.01
					94310	87.0	- 92.0		.002	.01	.01
					94311	92.0	- 97.5'		.002	.02	.01
97.5 - 106.0			<p><u>Porphyrite Volcanic:</u> Rock is a dark green, generally fine grained rock Phenocrysts (0.5cm) of white feldspar. The ground mass is dacitic in appearance and in its properties.</p> <p>97.5' Chill Zone. V. fine grained after which the rock texture becomes coarser. It then gets fine again @ 106' contact.</p>	<p>Minor dissem, py</p>							
106.0 - 127.0			<p><u>Volc. Breccia:</u> Same as described earlier</p>	<p>Mod py pyrrti. (finely dissem in blebs) possible sphal</p>					.003		
127.0 - 134.0			<p><u>Granodiorite:</u> Coarse grained 212' small 6" band andestic fine grained rock</p>	<p>Minor py pyrrh.</p>							
134.0 - 214.0			<p><u>Volc. Breccia:</u> Same as Described earlier</p>	<p>Minor-Mod pyrite Pyrrhotite possible sphal.</p>	94312	212.0'	- 214.0		.005	.02	.01

DIAMOND DRILL RECORD

CLAIM NO.

PROPERTY HEK

HOLE NO. CBG 84-2

LATITUDE 0 + 74N

ELEVATION 617m

BEARING 120°

DEPTH 213ft(65m)

STARTED May 13, 1984

COMPLETED May 16, 1984

DEPARTURE 5 + 14E

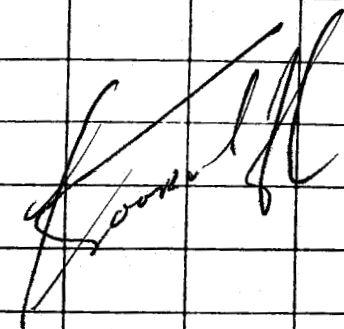
SECTION

DIP -50°

DRILLED BY Consolidated Boundary

LOGGED BY L.Sookochoff, P.Eng.

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAYS		
						Zn%	Ag	Au
0 m- 4 m	Casing				ft.		oz/ton	oz/ton
4 m-15.5m	Andesite - Volcanic Breccia: Green f.g. matrix w/ sub rounded clasts up to 5cm. Feldspar veins @ 45° @ 21' - 2" and 35' - 1". Moderate ox'd to 20 ft. 40-45.5, stained w/ pinkish (garnet) patchy cast & f.g. texture. 45.5 Granodiorite - coarse grained locally porphyritic, limonite on fr. @ 64°. Local rare blebs py.	94260	41.5	45.5	4.0	.01	.01	.001
15.5m-24.4m	Meta Andesite: Green f.g. texture with local sections w/ garnet and biotite. Blebs and splashes py on fr. planes @ 070° + 010°. Veinlets carbonate w/ assoc. breccia. 70-71: f. grained syenite, peppery textr. 71-74: diss & pods py. cpy. heavily ox'd	94261	71	73.5	2.5	.02	.10	.019



CLAIM NO.

DIAMOND DRILL RECORD

PROPERTY HEK

HOLE NO. 84-2

LATITUDE

ELEVATION

BEARING

DEPTH

STARTED

COMPLETED

DEPARTURE

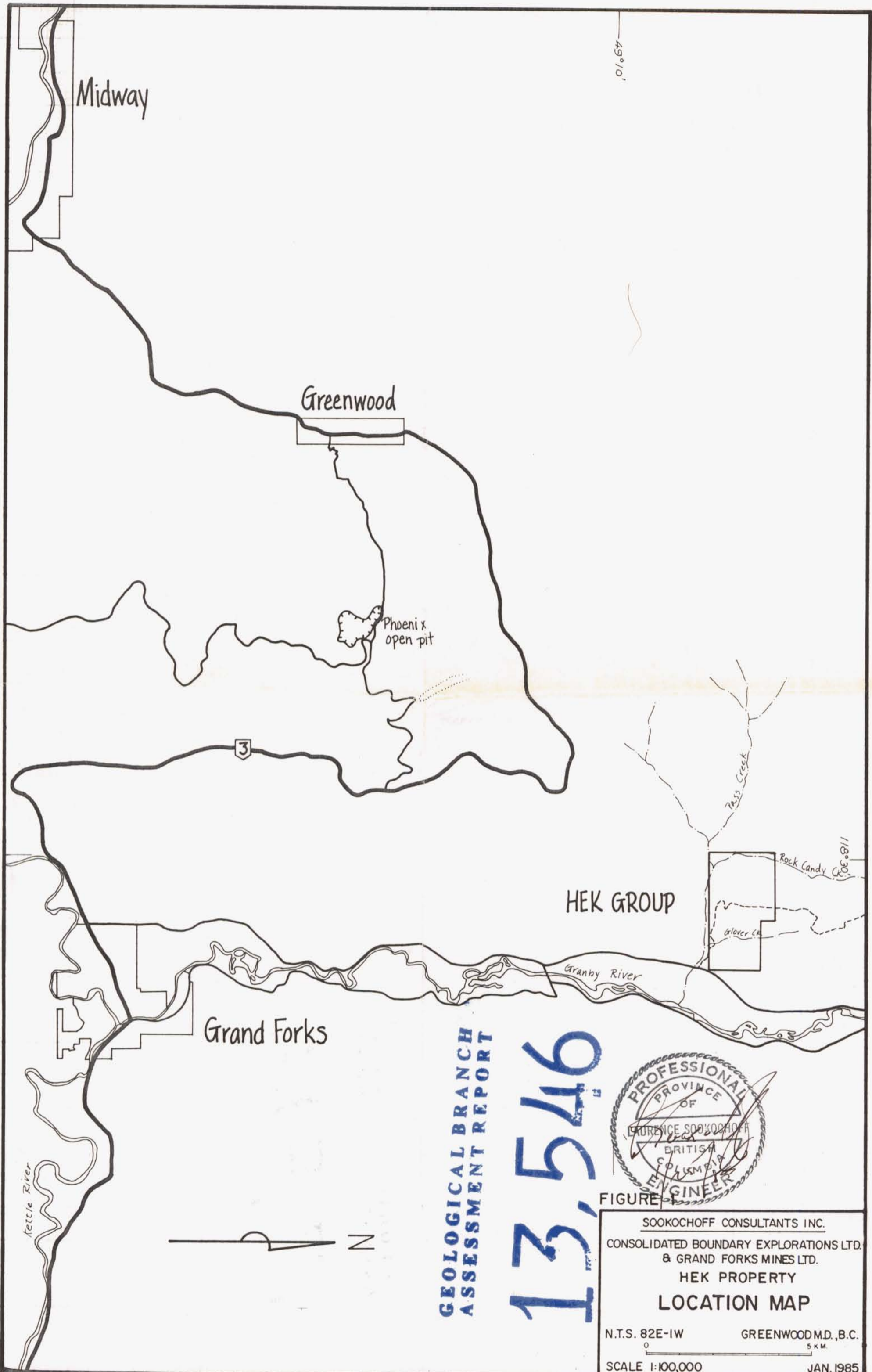
SECTION

DIP

DRILLED BY

LOGGED BY

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAYS			
						Zn%	Ag	Au	Cu%
24.4m-44.5m	<u>Skarn</u> : Fine grained to silicified aphanitic texture patchy pink & purplish - mod. to H. sulfides: veinlets and stringers	84-2-81			ft.	.02	11.5ppm	725ppb	.13
	syenite - random. 80 lt diss py, cpy. 117. 1.0' syenite	94262	79.5	83.5	4.0	.02	.19	.027	
	118 - 121 syenite @ 45°. 121 - skarned volcanic breccia w/ f. diss sulfides.	94263	83.5	85.	1.5	.03	.11	.019	
44.5m-46 m	<u>Lamprophyre</u> : Blackish f.g. w/ occ x/s fels euhedral.	84-2-110				.005	.5ppm	17ppb	.004
		84-2-162				.005	.5ppm	36ppb	.007
46 m-47 m	<u>Skarned Volcanic Breccia</u> :	84-2-204				.001	.2ppm	6ppb	.002
47 m-51.2m	<u>Pulaskite Dyke</u> : Brownish f.g. tuffaceous								
51.2m-54 m	<u>Skarned Volcanic Breccia</u> : dominant greenish f.g. w/ sections pinkish; diss py & cpy; vl syenite @ 50°.								
54 m-65 m	<u>Andesite</u> : Green f.g.; local meta & stained sections: Syenite 1.0' @ 204 & 207								
	213 EOH								



49°10'

Midway

Greenwood

Phoenix open pit

3

HEK GROUP

Grand Forks

Kettle River

Granby River

Pass Creek

Rock Candy Creek

Glover Cr.



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,546



FIGURE 1

SOOKOCHOFF CONSULTANTS INC.
CONSOLIDATED BOUNDARY EXPLORATIONS LTD.
& GRAND FORKS MINES LTD.
HEK PROPERTY
LOCATION MAP

N.T.S. 82E-1W GREENWOOD M.D., B.C.
SCALE 1:100,000 5 KM. JAN. 1985

S 452 000 N

S 451 500 N

S 451 000 N

S 450 500 N

S 450 000 N

S 449 500 N

S 449 000 N

390 000 E

391 000 E

392 000 E

393 000 E

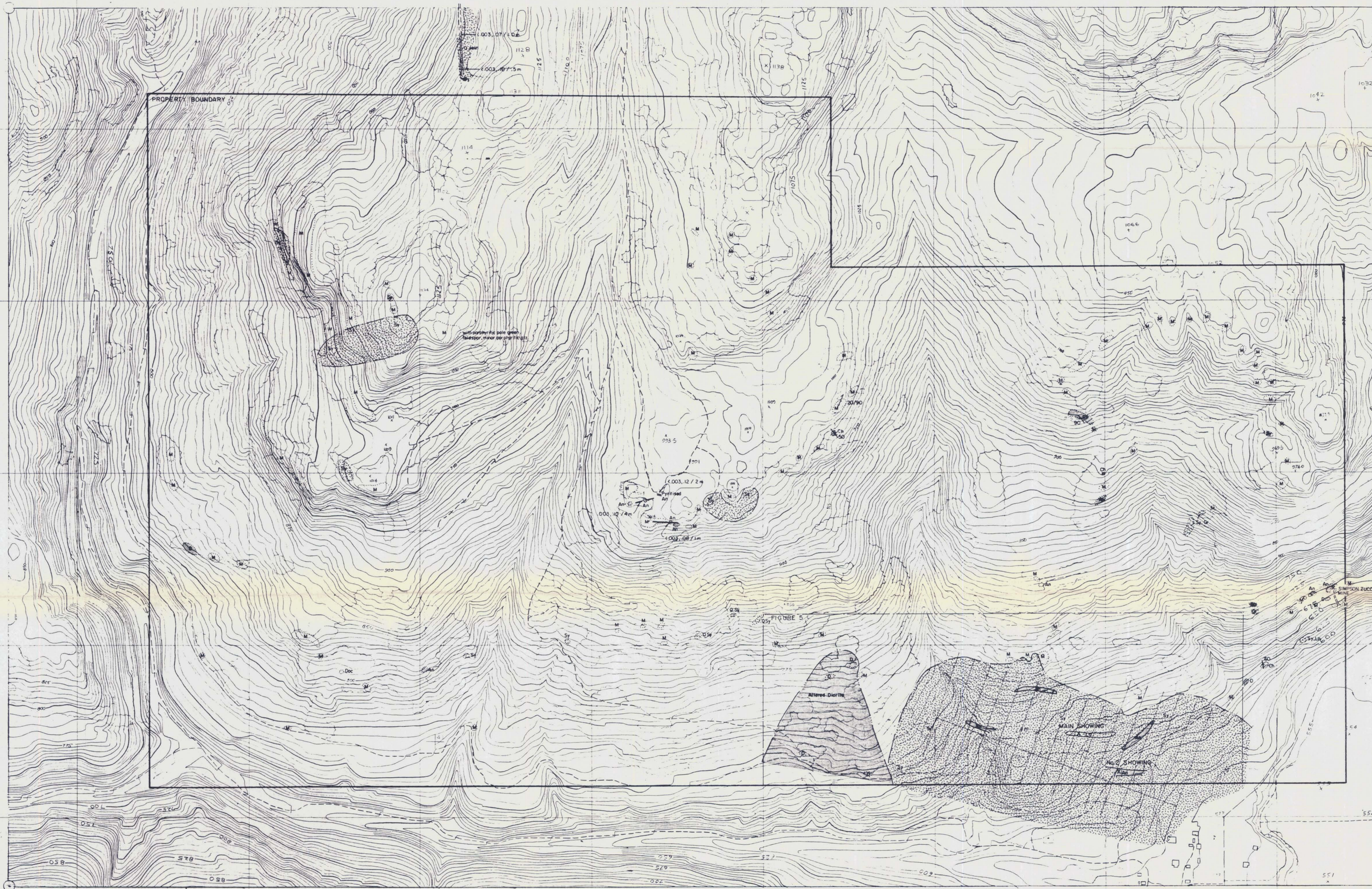
394 000 E

395 000 E

396 000 E

397 000 E

BASE MAP AFTER DOLMAGE CAMPBELL, 1960



LEGEND

- UNIT 1 : An Andesite
 - D Diorite
 - Ch Chert
 - UNIT 2 : M Monzonite
 - Sy Syenite
 - UNIT 3 : QSy Quartz Syenite
 - A Alaskite
 - Gr Granite
 - La Lamprophyre
-
- Adit
 - Outcrop
 - Geological contact
 - Jointing attitude
 - Bedding
 - Magnetic anomalies
 - X Mineral showing
 - .003, .08 / m Au (oz / ton), Ag (oz / ton) / Length in metres
 - Grid line

GEOLOGICAL BRANCH ASSESSMENT REPORT

13,546

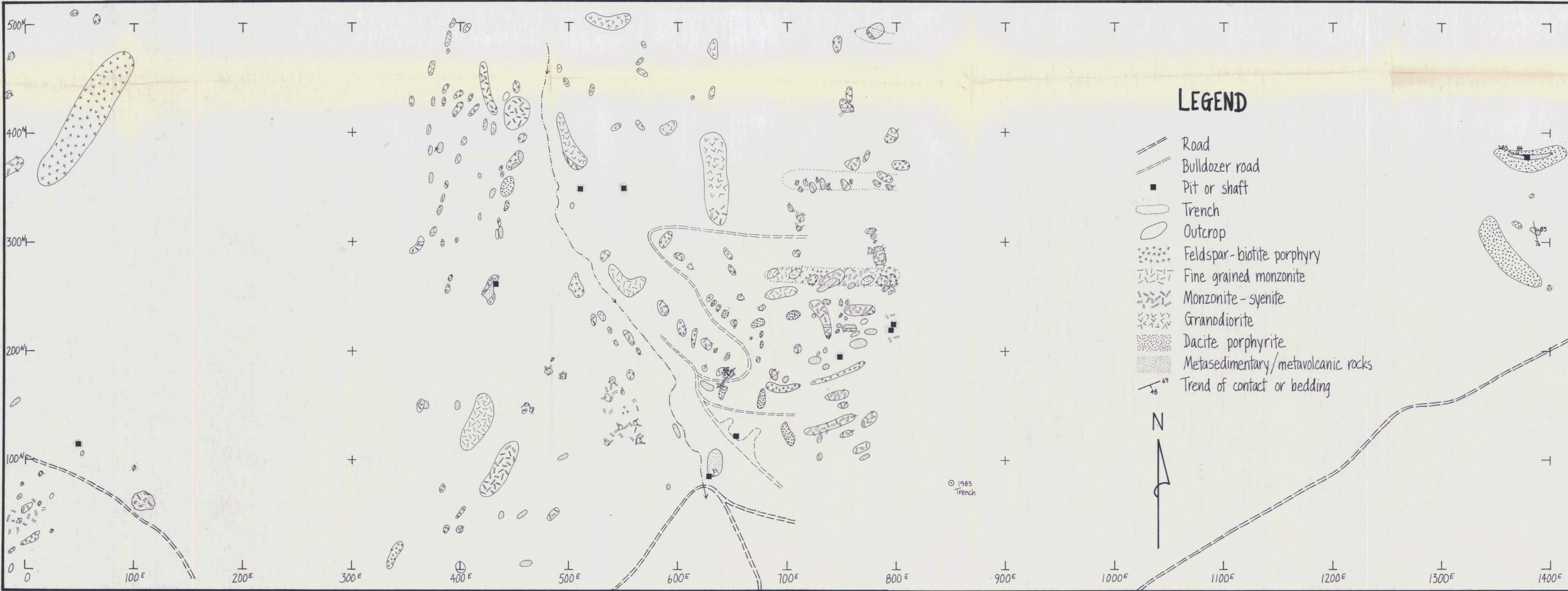


Scale and elevation datum based on limited ground control resulting in good relative, but uncertain absolute map accuracy. Contour from aerial photography at an approximate scale of 1:50,000. Drawn in 1979.

FIGURE 4

SOOKOCHOFF CONSULTANTS INC.
 CONSOLIDATED BOUNDARY EXPLORATIONS LTD.
 & GRAND FORKS MINES LTD.
 HEK PROPERTY
PROPERTY GEOLOGY

N.T.S. 82E-1W GREENWOOD M.D., B.C.
 0 100 200 400 metres
 SCALE 1:5000 JAN. 1985



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

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FIGURE 5

SOOKOCHOFF CONSULTANTS INC.
CONSOLIDATED BOUNDARY EXPLORATIONS LTD.
& GRAND FORKS MINES LTD.
HEK PROPERTY
DETAIL GEOLOGY
N.T.S. 82E-1W GREENWOOD M.D., B.C.
SCALE 1:2000 JAN. 1985



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

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PROPERTY BOUNDARY

LEGEND

- | | |
|--|--|
| <p>UNIT 1</p> <ul style="list-style-type: none"> An Andesite Rh Rhyolite Tr Trachyte <p>UNIT 2</p> <ul style="list-style-type: none"> M Monzonite <p>UNIT 3</p> <ul style="list-style-type: none"> Sy Syenite Gr Granite A Alaskite L Lamprophyre | <p>CUT, ROAD</p> <p>PIT</p> <p>DIAMOND DRILL HOLE</p> <p>OUTCROP</p> <p>GEOLOGICAL CONTACT</p> <p>MINERALIZED ZONE</p> <p>005.33/2 Au (oz/ton), Ag (oz/ton) / length in metres</p> <p>75-8 DRILL HOLE N^o. CB 75-8</p> |
|--|--|



FIGURE 4

SOOKOCHOFF CONSULTANTS INC.

CONSOLIDATED BOUNDARY EXPLORATIONS LTD
& GRAND FORKS MINES LTD

HEK PROPERTY

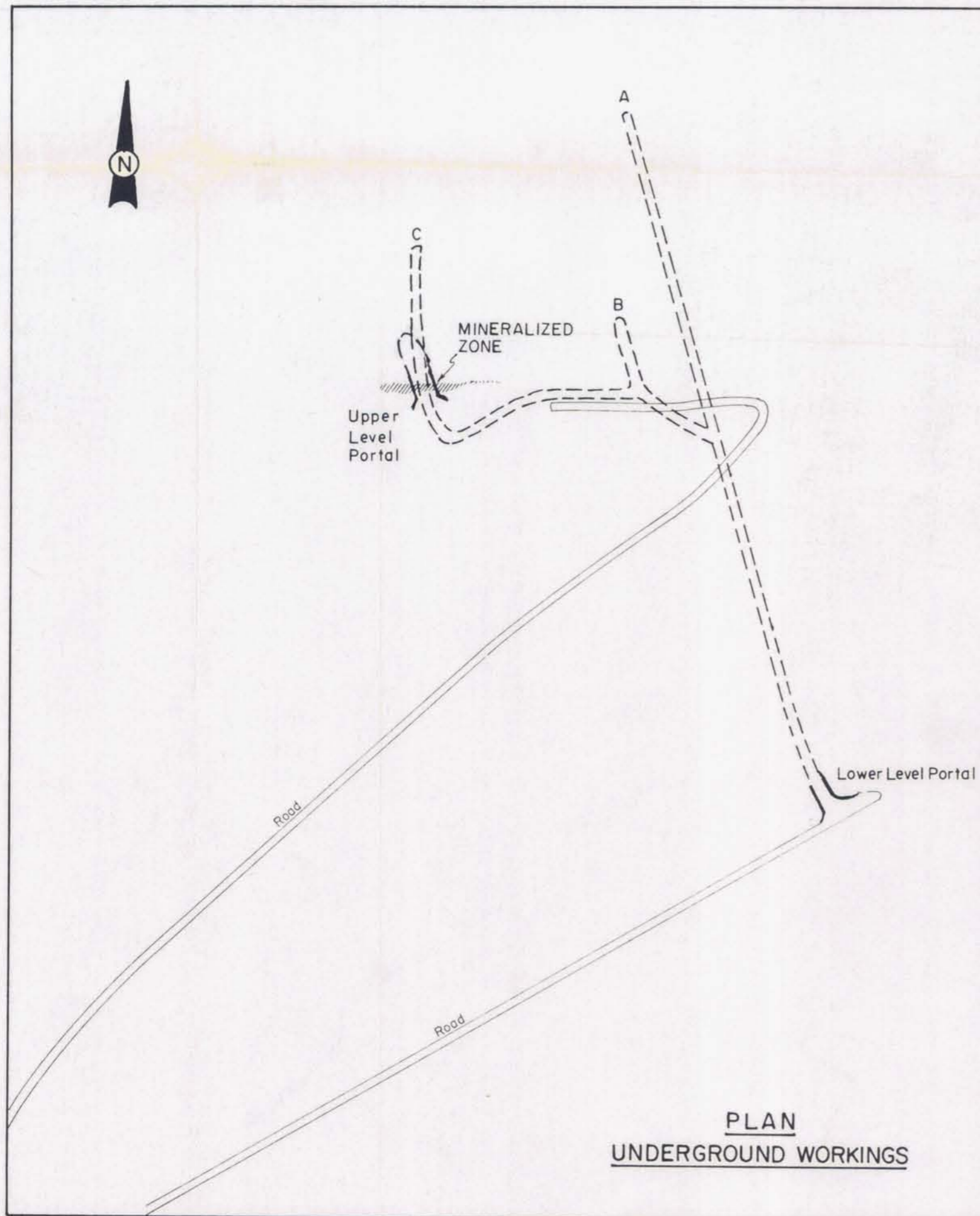
**DIAMOND DRILL HOLE
LOCATIONS**

NT.S. 82E-1W GREENWOOD M.D., B.C.

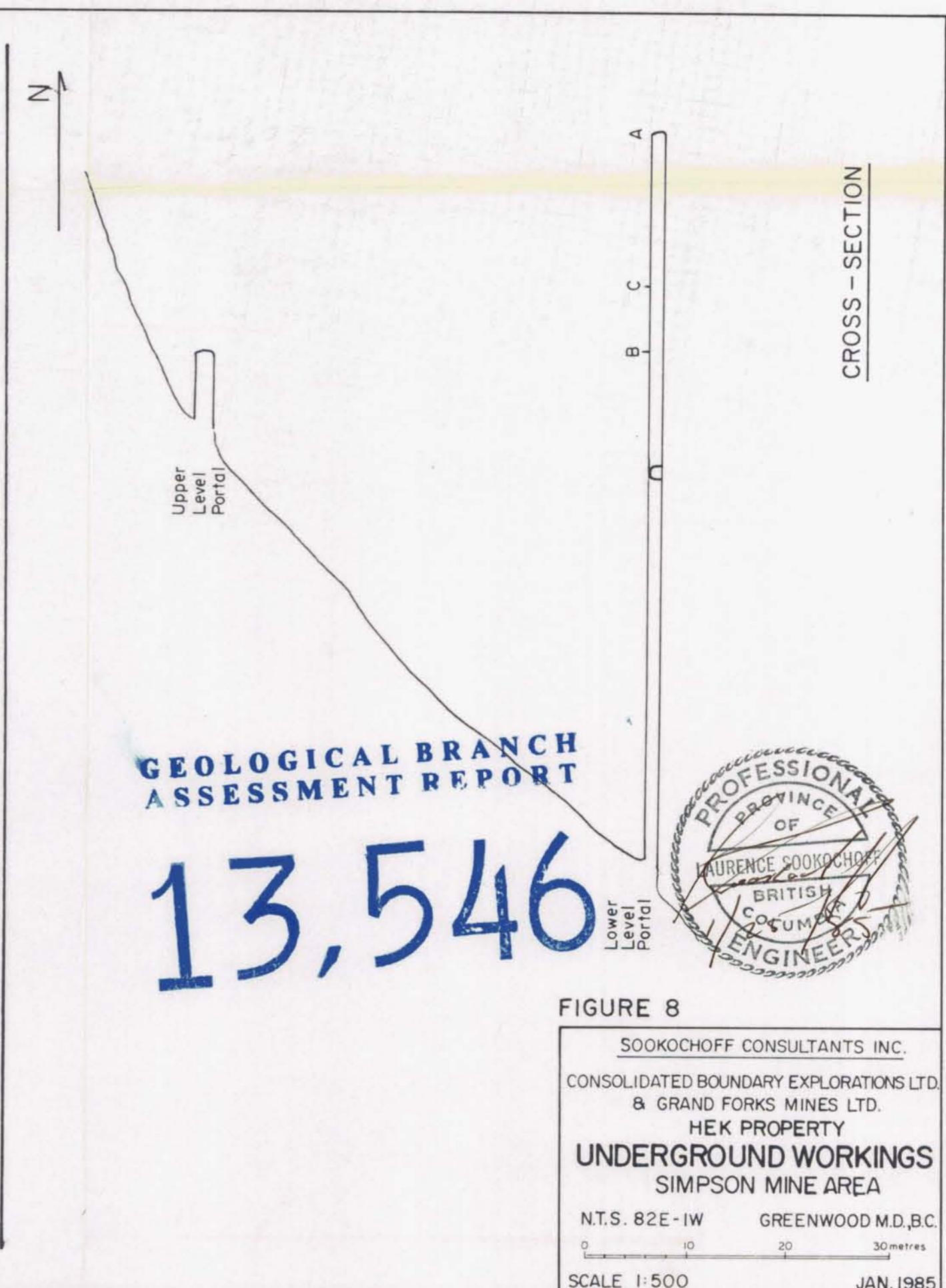
0 20 40 80 metres

SCALE 1:1000 JAN. 1985

BASE MAP AFTER DOLMAGE CAMPBELL 1980
MASTER GRID LOCATION ON FIGURE 4



PLAN
UNDERGROUND WORKINGS



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

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FIGURE 8

SOOKOCHOFF CONSULTANTS INC.
 CONSOLIDATED BOUNDARY EXPLORATIONS LTD.
 & GRAND FORKS MINES LTD.
 HEK PROPERTY
UNDERGROUND WORKINGS
 SIMPSON MINE AREA
 N.T.S. 82E-1W GREENWOOD M.D., B.C.
 0 10 20 30 metres
 SCALE 1:500 JAN. 1985