BALSOM (166)
BIG RED
104F002
-05

PROPERTY FILE

GREAT PLAINS DEVELOPMENT
COMPANY OF CANADA, LTD.

BALSOM (1kk)
BIG RED
104F002 -05

PROPERTY FILE

GREAT PLAINS DEVELOPMENT
COMPANY OF CANADA, LTD.

ASSESSMENT REPORT
ROCK TRENCHING AND SAMPLING
ON THE
BIG RED CLAIM (4 UNITS)

LIARD MINING DIVISION
N.T.S. 104F/16

019562

GREAT PLAINS DEVELOPMENT
COMPANY OF CANADA, LTD.

ASSESSMENT REPORT
ROCK TRENCHING AND SAMPLING
ON THE
BIG RED CLAIM (4 UNITS)

LIARD MINING DIVISION
N.T.S. 104F/16

019562

Longitude: 132 degrees, 02 minutes West
Latitude: 58 degrees, 54 minutes North

G. L. Garratt
T. Bojczyszyn

September, 1977

TABLE OF CONTENTS

A. SUMMARY

A review of previous exploration work on the Big Red molybdenum prospect led to the conclusion that a potential exists on the property for a large tonnage, low grade deposit. The prospect was subsequently optioned early in 1977 and a field program was devised to test this potential in a preliminary manner.

The basis for the 1977 program of trenching and sampling was to test the structurally related extension of the South Zone as defined by Spartan in 1968. The primary goal in this program was to establish the grade and extent of molybdenum mineralization, the extent of leaching and oxidation and to define logistical problems as they would relate to future exploration programs.

Six trenches were put in and sampled and descriptions of these are located in the appendix. A revised version of Spartan's geology map is enclosed and shows the trench locations.

Molybdenum assays from trench samples ranged from 0.01 to 0.06 percent, representing both primary and oxide mineralization. Leaching and oxidation levels were observed to be severe amd fresh bedrock was not reached, although some primary mineralization was observed. It is concluded that the grades indicated are likely less than would be encountered in unoxidized material, but the oxidation levels are so deep that testing could only be achieved by diamond drilling.

Logistical problems, especially with respect to drilling, are severe. The steep terrain and poor water access and supply make a drilling program quite undesirable in terms of costs and feasability.

104F002/16E

B. INTRODUCTION

1. History

1957:	Conwest - staked as the Balsom group.
1958:	American Metal Climax - mapping, trenching and sampling (see BCMM Annual Report 1958).
1959:	Kennco (see BCMM Annual Report 1959).
1967-8:	Ground allowed to lapse.
1968:	(Spartan Exploration) Staked as the LLC group. Mapping and 2 D.D.H.
1969:	Spartan: 3 D.D.H.
1975:	Staked as the Big Red claim.
1976:	Great Plains Development - property examination.

2. Ownership

The Big Red claim (4 units) was staked on September 14, 1976 and recorded on September 22, 1976 by Arnold Racicot. The claims are held by the Racicot Syndicate comprising Canex Placer Ltd. and El Paso Mining and Milling Company. The property was optioned from this syndicate in the spring of 1977 by Great Plains Development Company of Canada, Ltd. Two years of assessment credit are being applied for.

3. Location and Access

The property is located at 58 degrees 54 minutes north and 132 degrees 02 minutes west, on the south side of Penny Creek about 3 miles bearing 300 degrees from its junction with the Barrington River. The property is in N.T.S. 104F/16 in the Liard Mining Division and is about 28 miles west of Telegraph Creek.

Access to the property is by fixed wing aircraft to Little Talhtan Lake, 14.5 miles east of the property, and then by helicopter. During the 1977 field season a Beaver on floats was maintained at Eddontenajon Lake by Trans Provincial Airways and Okanagan Helicopters had a Belle 206 at Tatogga Lake.

C. EXPLORATION

1. Trenching

From July 9 to July 16, five men, including one blaster, were engaged in trenching at about the 4,800 foot elevation of the South Zone. Severe logistical problems including equipment breakdown caused this program to be abandoned temporarily after completing Trench 1 and preparing Trench 2 for drilling. A Cobra back-pack percussion drill was utilized for this work. From August 2 to August 16 trenching was resumed utilizing two Great Plains personnel and two men contracted from Bema Industries Ltd. A Pionjar pack drill was used to drill the blast holes. Trench 2 was completed and Trenches 3 through 6 were added during this period.

A complete table of trench descriptions including dimensions and geologic descriptions are enclosed in the appendix of this report. Trench locations are shown on the attached geology map. A total of approximately 60 square meters of ground was trenched.

2. Sampling

Continuous channel chip samples along each trench were obtained and sent to Chemex Labs in Vancouver for assay. The analytic procedures are enclosed in the appendix. The samples were assayed for total percent molybdenum and seven samples were tested for percent molybdenum tied up in oxides using an oxide leaching process. Twenty-three rock chip samples were taken and the results are listed in the following section.

3. Results

It is apparent from the assays and trench descriptions that molybdenum concentrations increase weakly with depth and that this increase is due to the extensive influence of leaching and oxidation processes from surface, which affect assay values to a considerable depth. It is difficult to predict the values for mineralization at depth. As approximately 15 percent of the molybdenum in the trench samples are related to oxide material, it might be assumed that a greater amount of primary molybdenite has been leached out and possibly concentrated elsewhere. It is extremely difficult to predict

what amount of molybdenite may have originally existed.

The following samples and assays are recorded from the above stated work:

TRENCH	AZIMUTH	LENGTH	WIDTH	DEPTH	ASSAY INTERVAL (m)	ASSAY VALUE (% Mo)	% oxide Mo
1	122 degrees	4.0m	0.9m	1.5m	0.4m	0.011	
2A	307 degrees	6.7m	0.9m	1.2-1.5m	0.0-1.2m	0.046	0.006
					1.2-2.4m	0.028	0.002
					2.4-3.6m	0.023	0.002
					3.6-4.8m	0.017	
					4.8-6.7m	0.021	
3	88 degrees	3.7m	1.2m	1.5m	0.0-1.2m	0.004	
					1.2-2.4m	0.001	
					2.4-3.7m	0.003	
4	118 degrees	5.5m	up to 4.3m	1.5m	0.0-1.2m	0.002	
					1.2-1.8m	0.024	0.003
					1.8-3.0m	0.005	
					3.0-4.2m	0.003	
					4.2-5.5	0.002	
5	135 degrees	4.9m	open	3m	0.0-1.2m	0.014	
					1.2-2.4m	0.029	0.001
					2.4-3.6m	0.010	
					3.6-4.9m	0.011	
6	122 degrees	5.5m	1.2m	up to 1.8m	0.0-1.2m	0.066	
					1.2-2.4m	0.012	0.011
					2.4-3.6m	0.019	
					3.6-4.8m	0.013	
					4.8-5.5m	0.027	0.003

D. EXPENDITURES

1) Salaries

Geologists		
D. Good	9 days @$65/day	$ 585.00
* T. Bojczyszyn	27 days @$65/day	$1,430.00
* G. Garratt	13 days @$65/day	$ 845.00
D. A. Sawyer - Supervision	3 days @$125/day	$ 375.00
Assistants - D. Shear	16 days @$65/day	$1,040.00
Blasters - C. Larson, R. Barclay), R. Edwards) Bema	9 days @$65/day, 6 days	$ 585.00, $1,628.00
Expediting J. Fleming		$ 212.00
		$6,700.50

2. Exploration

Contractors and Consultants	
- Conex-Dynamite	$ 220.30
Accommodations	
- Tatogga Lake	$ 98.55
Air Transportation	
- Commercial-Whiteside	$ 554.20
- Charter - Okanagon Helicopters includes Transprovincial Airways	$4,281.85
Expense Accounts - Travel and Meals	$ 159.65
Camp Costs	
- Food - Tatogga	$ 758.97
- Supplies - Deakins, Tatogga	$ 236.27
Vehicle Rentals and Maintenance	
- Tatogga	$ 67.80
Equipment Rentals	
- Radio - Traeger	$ 263.78
Freight and Shipping	
- Mobilization and demobilization - TPA	$ 79.94
Assays	
- Chemex	$ 244.50
TOTAL	$6,965.81

EXPENDITURES - continued

TOTALS:	Salaries		$ 6,700.50
	Exploration		$ 6,965.81
	Sub Total	-	$13,666.31
	10% Overhead	-	$ 1,366.68
	TOTAL	-	$15,032.94

E. APPENDICES

APPENDIX 1

Rock Assays

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 985-0648
AREA CODE: 604
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

CERTIFICATE NO. 32710

INVOICE NO. 21054

RECEIVED July 22, 1977

ANALYSED July 28, 1977

TO: Norcen Energy Resources
Mineral Exploration
715 - 5th Ave., S.W.
Calgary, Alberta

ATTN: cc: Mr. T. Bojczyszyn

SAMPLE NO. :	% Molybdenum
7TBR T-1	0.011
7TBR T-2	0.018

CTA MEMBER CANADIAN TESTING ASSOCIATION

REGISTERED ASSAYER, PROVINCE OF BRITISH COLUMBIA

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 985-0648
AREA CODE: 604
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

CERTIFICATE NO. 32838

INVOICE NO. 21423

RECEIVED August 12, 1977

ANALYSED August 18, 1977

TO: Norcen Energy Resources
Mineral Exploration
715 - 5th Ave., S.W.
ATTN: Calgary, Alta.

SAMPLE NO. :		% Molybdenum
Trench 2A	0-4	0.046
	4-8	0.028
	8-12	0.023
	12-16	0.017
	16-20	0.021
Trench 2A	20-22	0.019
Trench 3	0-4	0.004
	4-8	0.001
Trench 3	8-12	0.003
Trench 4	NS Line	0.003
	0-4	0.002
	4-6	0.024
	6-10	0.005
	10-14	0.003
Trench 4	14-18	0.002
Trench 5	0-4	0.014
	4-8	0.029
	8-12	0.010
Trench 5	12-16	0.011
Trench 6	0-4	0.066
	4-8	0.012
	8-12	0.019
	12-16	0.013
Trench 6	16-18	0.027

CTA MEMBER CANADIAN TESTING ASSOCIATION

REGISTERED ASSAYER, PROVINCE OF BRITISH COLUMBIA

26e

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 985-0648
AREA CODE: 604
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

CERTIFICATE NO. 32963

INVOICE NO. 21732

RECEIVED September 1, 1977

ANALYSED September 6, 1977

TO: Norcen Energy Resources
Mineral Exploration
715 -5th Ave., S.W.
ATTN Calgary, Alta
Tom

SAMPLE NO. :	% Mo (Oxide Leach)
Trench 2A-04	0.006
4-8	0.002
8-12	0.002
2A20-22	0.002
4-4-6	0.003
5-4-8	0.001
6-0-4	0.011
Trench 6-16-18	0.003

CTA MEMBER CANADIAN TESTING ASSOCIATION

B. Swaita
REGISTERED ASSAYER, PROVINCE OF BRITISH COLUMBIA

APPENDIX 2

Trench Descriptions

E. APPENDIX 2

Trench Descriptions

TRENCH 1:

Azimuth	122 degrees
Length	4.0 meters
Width	0.9 meters
Depth	1.5 meters

NOTES:

West side of trench covered by 0.5 meter of overburden.

Preferred fracture orientation 125 degrees 75 S in hornfels. May be remnant bedding?

east to west

SAMPLE INTERVAL (Sample #)	LITHOLOGY
(0.0-1.5m)	- fine grained green hornfels. - fractures have weathered sulphides. - minor fine quartz veinlets 0.5 cm apart. 2 mm wide. - rusty weathered limonite due to considerable ancient initial pyrite on fracture surfaces and in quartz veins near 2 meter mark small zone of fault gauge.
(1.5 - 3.2m)	- honey yellow quartz veinlets 1 mm wide and 1 cm apart. - highly siliceous light grey fine grained syenite?
3.2 - 4.0m	- similar to last rock siliceous, well fractured, honey yellow quartz veinlets in other places mixed with black yellow residue with fine black specks of sulphides - fractures contain fine grained pyrite.

0.0-4.0m	- veinlets becoming coarser (0.5 cm wide). - sulphides weathered to limonite. - rock is siliceous, bleached, coarser grained, and has scattered unoriented 2 mm subeuhedral white ghosty feldspar with fine disseminated black sulphide specks. - some of these specks are specularite by streak, others are too fine grained, however, some have bluish tinge.

Remarks

The trench has exposed a syenite and contact altered volcanics (hornfels). Quartz veins are not as prominent in the hornfels as in the intrusive. Fault gauge runs through the middle of the trench. Both types of rocks are highly oxidized.

TRENCH 2

Azimuth	307 degrees
Length	6.7 meters
Width	0.9 meters
Depth	1.2-1.5 meters

Remarks

The trench consists of fine grained white syenite (bleached in places) with a pod of coarse grained quartz eye biotite monzonite at the 3.6 m mark. Good stockwork consists of 0.6 cm quartz veins trending 015/70W with minor veins approximately the same size trending 125 50. These two major trends are supplemented by random hairlike veins. Specular hematite is associated with molybdenite along with abundant yellow moly staining.

APPENDIX 2 - continued

TRENCH 3

Azimuth: 088 degrees
Length: 3.7 meters
Width: 1.2 meters
Depth: 1.5 meters

Location: 40' east of BL 18W

east to west SAMPLE INTERVAL (Sample #)	LITHOLOGY
7 TBR Tr 3-1	- fine grained grey syenite with 7 sparse veinlets. - most fractures have yellow and red coating. - small amount of fresh pyrite most weathered. - pyrite in veinlets and fractures up to 5%.
7 TBR Tr 3-2 7 TBR Tr 3-3	- rock is generally massive except for 085 degrees trending fracture and a few other random orientated fractures. - few specks of black sulphide probably specularite. - all moly, probably oxidized. - small patches of chlorite and epidote. - few specks chalcopyrite and malachite. - where rock is massive and not fractured with very little pyrite rocks appear quite fresh.

APPENDIX 2 - continued

TRENCH 4

Azimuth: 118 degrees
Length: 5.5 meters
Width: up to 4.3 meters
Depth: 1.5 meters

Notes:

One 2.2. cm thick quartz vein trending 050 55 degrees S has molybdenite on edges of vein. In places core of molybdenite surrounded by a brillant yellow moly oxide. Yet in other places, veins are vuggy and completely weathered out.

Moly in another vein trending 075 80W.

SAMPLE INTERVAL (Sample #)		LITHOLOGY
(0.0-1.2m) 1.2-2.4 m	-	fault gauge trending 045 degrees near vertical large 1.3 cm quartz veins with visible fresh molybenite on margins of the veins with minor specks interspersed throughout centre. Sample 7 TBR Tr 4-4 shows fresh molybdenite weathered ochre around edges.
2.4-4.3m	-	0.3 cm quartz veins crosscutting with some unoxidized pyrite.
	-	all moly oxidized, cavities in quartz veins.
	-	adjacent is a 7.6 cm by 0.6 meter long zone completely weathered forming a yellow silty textured soil.
4.3-4.9m	-	quartz veins 1.3 cm trending 060 70N.

Remarks:

Trench consists entirely of a relatively fresh blue coarse grained syenite with sparse patchy green epidote and chlorite alteration. The rock is generally massive but what few fractures there are have abundant pyrite. Adjacent to trench is a small pod of quartz eye biotite monzonite. The vein and stockwork development is sparse.

APPENDIX 2 - continued

TRENCH 5

Azimuth: 135 degrees
Length: 4.9 meters
Width: Open
Depth: 3 meters

Description

The trench was blasted out sideways across the ridge allowing easier mucking and an exposure to 3 meters deep. The rock consisted entirely of a light blue grey syenite, medium grained, with excellent stockwork. At the bottom of the trench the rock was becoming fresher with visible molybdenite, however fracture surfaces and quartz veins showed extensive moly staining throughout. The rock was extremely fractured and broken with hard size fragments at the surface becoming massive at depth.

Near the top of the trench colouring is a strong red. Approximately half way down, towards fresher rock, the yellow moly oxide staining becomes prevalent, coating fracture surfaces.

Orientation of quartz veins follow:

a) Major 0.3 cm quartz veins; 040 80W and
120 horizontal.

b) Minor hairlike veins and fractures: 020 85W
075 40W

The surfaces have good moly oxide development:

140 55N
025 80W
020 85E
020 45W
000 75W

Some 2.5 cm fractures probably go down to considerable depth.

APPENDIX 2 - continued

TRENCH 6

Azimuth: 122 degrees
Length: 5.5 meters
Width: 1.2 meters
Depth: east end 1.2 meters
west end 1.8 meters.

SAMLE INTERVAL (Sample #)		LITHOLOGY
0.0-1.2m	-	syenite with good stockwork and fresh molybendite.
1.2-3.7m	-	good molybdenite but extensively oxidized and leached.
3.74.9m	-	more moly oxide stain than molybdenite.
4.9-5.5m	-	good molybdenite but extensively oxidized and leached.

Remarks:

Stockwork consists of 0.3 cm quartz veins trending 130 degrees near horizontal with minor hairlike quartz veinlets crossing at random. Excellent stockwork in general but difficult to obtain orientations because of dusty and weathered surfaces. Fresh molybdenite found along 130 degree vein.

APPENDIX 3

Analytical Procedures

MOLYBDENUM ASSAY (Total)

A 2 gm sample of pulp is digested for 2 hours in a mixture of $HClO_4$ and HNO_3 acids. The beakers are then cooled and the acid solution is diluted with de-ionized water. This solution is heated, then transferred into a 250 ml volumetric flask containing 10 ml of $AlCl_3.7H_2O$ which is used as an ionization suppressent.

After cooling, the solution is mixed and analyzed on an A.A.5 spectrophotometer at 3133Å using a nitrous oxide-acetylene flame.

MOLYBDENUM ASSAY (MoO_3 Leach)

2 gms. of prepared sample pulp is leached by mixing for 1 min. in 25 ml of hot 25% HCl acid. After dilution with 25 ml of de-ionized water, this solution is filtered into a 250 ml volumetric flask containing 25 ml of 70 % $HClO_4$ acid and 10 ml of $AlCl_3.7H_2O$ solution. The mixed solution is then analyzed as above by atomic absorption procedures.

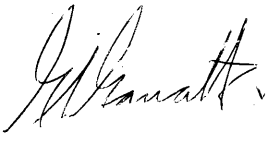
APPENDIX 4

Statements of Qualifications

G. L. Garratt
T. Bojczyszyn

STATEMENT OF QUALIFICATIONS

I, Glen L. Garratt, am a qualified Geologist having graduated from the University of British Columbia in 1972 with a Bachelor of Science degree majoring in Geology. I have worked in the mineral exploration industry in British Columbia since 1969 and am presently employed by Great Plains Development Company of Canada, Ltd., as as geologist.



G. L. Garratt
May, 1977

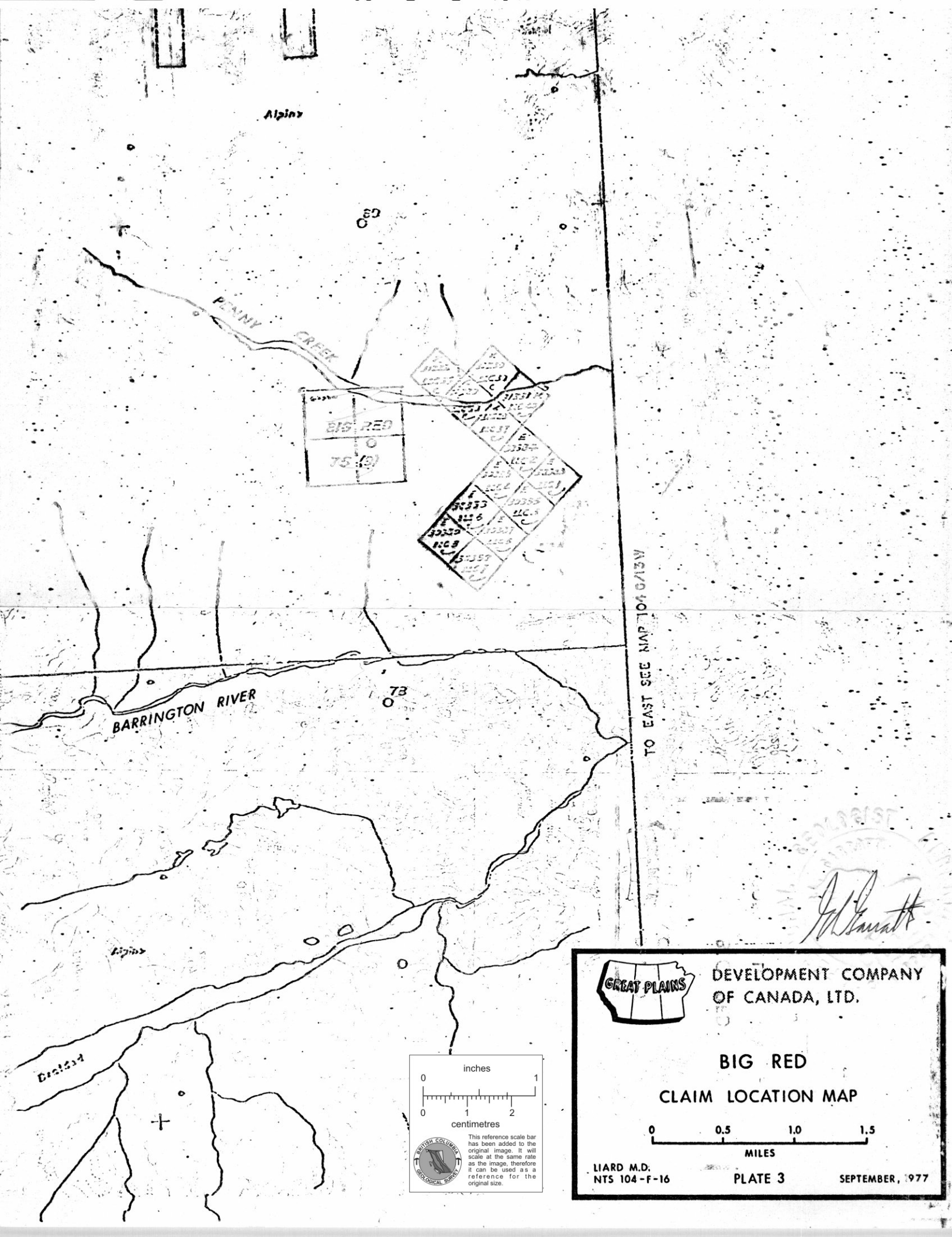
STATEMENT OF QUALIFICATIONS

I, Tom B. Bojczyszyn declare that:

1. I graduated from the University of Alberta (Edmonton), in 1976 with a B. Sc. in Geology.

2. From May until September, 1975 I was employed by Texasgulf Inc. as a junior geologist in the Northwest Territories.

3. I was employed during the summer of 1976 as a field geologist for Great Plains Development Company of Canada, Ltd.



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BRITISH COLUMBIA GEOLOGICAL SURVEY

GREAT PLAINS DEVELOPMENT COMPANY OF CANADA, LTD.

BIG RED

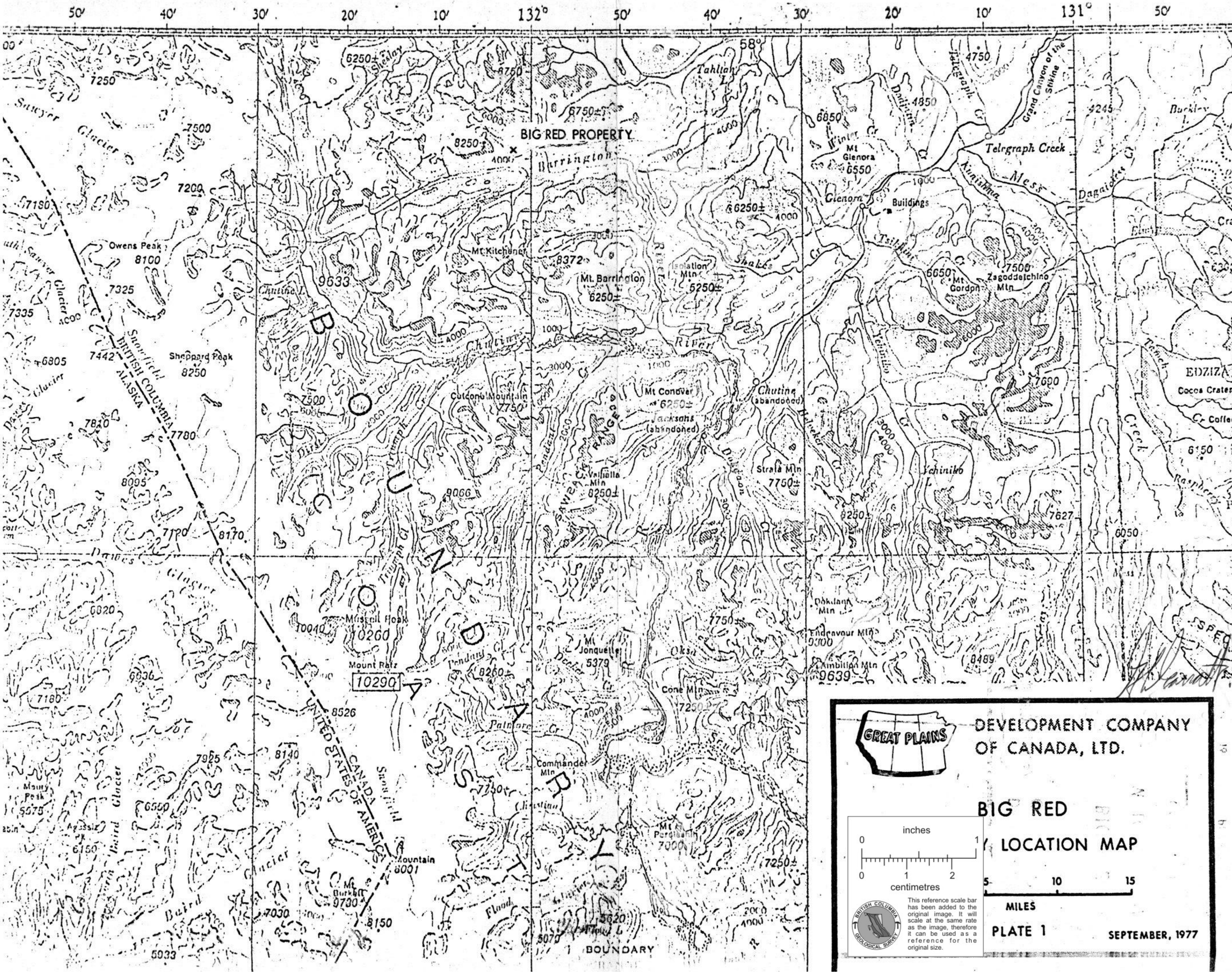
CLAIM LOCATION MAP

0 0.5 1.0 1.5
MILES

LIARD M.D.
NTS 104-F-16

PLATE 3

SEPTEMBER, 1977


GREAT PLAINS
DEVELOPMENT COMPANY OF CANADA, LTD.
BIG RED
LOCATION MAP
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MILES
PLATE 1
SEPTEMBER, 1977
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centimetres
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BRITISH COLUMBIA GEOLOGICAL SURVEY
BIG RED PROPERTY
BOUNDARY COUNTRY
BOUNDARY
BRITISH COLUMBIA
ALASKA
CANADA
UNITED STATES OF AMERICA
132°
131°
58°
Telegraph Creek
Grand Canyon of the Stikine
Glenora
Mt Glenora 6550
Buildings
Tahltan L
Barrington
Mt. Kitchener
Mt. Barrington 6250±
Isolation Mtn 6250±
Chutine L.
Chutine River
Chutine (abandoned)
Mt Conover 6250±
Jacksons (abandoned)
Cutcomb Mountain 7750
Valhalla Mtn 8250±
Strata Mtn 7750±
Mt. Gordon
Zagoddetchino Mtn
EDZIZA
Cocos Crater
Coffee
Owens Peak 8100
Sheppard Peak 8250
Sawyer Glacier
Dawes Glacier
Mussell Peak 10260
Mount Ratz 10290
Mt Jonquette 5379
Cone Mtn 7250
Commander Mtn
Mt Pereleshin 7000
Endeavour Mtn
Ambition Mtn 9639
Dokdaon Mtn
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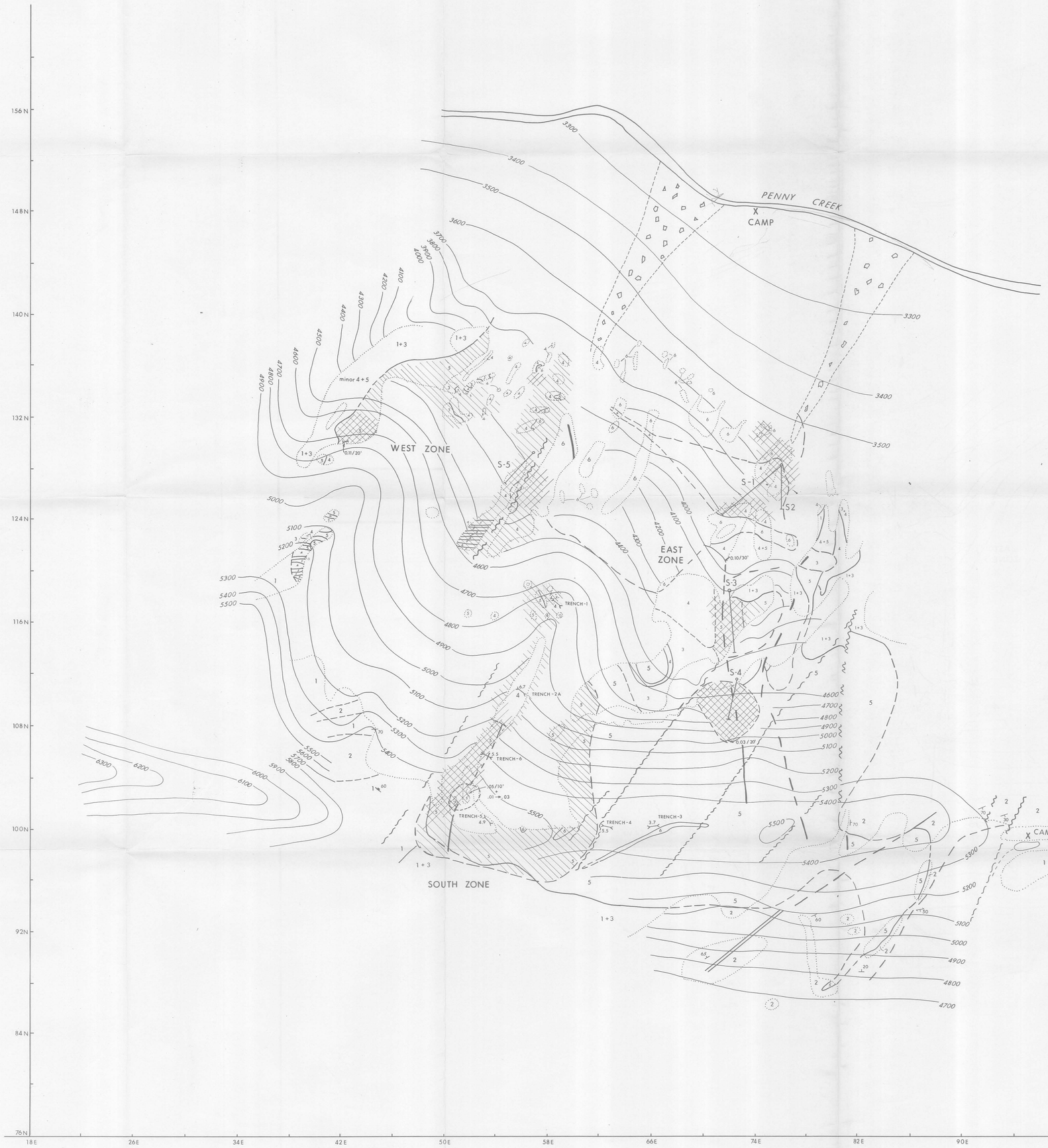
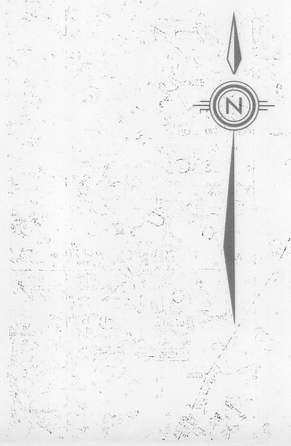
Mount Peak 5575



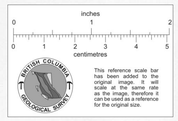


LEGEND

- Dike Fine grain grey or green. Andesitic or lamprophyric.
- Area with significant MoS_2 in quartz vein systems.
- Area with many 0.5 to 4 mm. Quartz veins containing pyrite, magnetite, specularite, and MoS_2.
- 6 — Quartz porphyry in 2 to 4 mm. euhedral quartz, biotite phenocrysts in a fine to medium grain, light grey groundmass
- 5 — Syenite – Coarse, medium, and fine grain 90 to 100% sub to euhedral unoriented, white K-spar.
- 4 — White, fine grain syenite, silicified ? Syenite, and bleached hornfels.
- 3 — Hornfels (tactite) – medium and light green fine grain.
- 2 — Metasediment – thin bedded to laminated meta siltstone. Some grading and soft sediment deformation.
- 1 — Metavolcanic – schistose, chloritized augite porphyry and fine grained andesite.

SYMBOLS

- Outcrop
- Talus
- Geological Contact: definite, assumed
- Fault: definite, assumed
- Bedding
- Foliation
- S-1 — Diamond Drill Hole Location
- 4 — Trench Location and Length (meters)



GREAT PLAINS DEVELOPMENT COMPANY OF CANADA, LTD.

BIG RED

GEOLOGY AND LOCATION MAP

after Spartan, 1968

0 100 200 300 METERS
0 400 800 1000 FEET

LIARD M.D.
N.T.S. 104 - F - 16

PLATE 2

SEPTEMBER, 1977