

Aerial Photography and Topographic Map
Preparation and Water Quality Monitoring
on D1 (6 units) Mineral Claim (Uranium)
situated within the Greenwood Mining
Division; NTS 82E/11E; 49° 45' N. Lat.,
119° 06' W. Long.

Claim owned and operated by PNC Exploration
(Canada) Co. Ltd. of Vancouver, B.C.

Assessment report by Larry Nicoll, M.Sc.,
Project Geologist for PNC Exploration
(Canada) Co. Ltd.

February 12, 1980

MINERAL CLAIM	MINERALS BRANCH
ASSESSMENT REPORT	
7865	
NO	

TABLE OF CONTENTS

	Page
Introduction	1
Summary of Work	1
Itemized Cost Statement	4
Statement of Qualifications	6

List of Tables

I	List of Mineral Claims	1
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List of Figures

1	Locality Map	3
2 - 4	Kallis Creek (D-1) Mineral Claim Topography Maps	In Pocket

Appendix

I	Water Quality Sampling Locations and Results	7
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INTRODUCTION

The D1 Mineral Claim is located in the Greenwood Mining Division and is approximately 25 Kilometres southeast of Kelowna. Access to the area is by Highway 33 and then by the McCulloch Road. Figure 1 is the locality map of the claim. The claim is in the Okanagan Highlands with an elevation of about 1200 metres. The topography is typical of plateau basalts, having a moderately undulating basaltic cup rock overlying poorly consolidated claystone, arkosic sandstone and conglomerate. The basement rock is a gneiss belonging to the Monashee Group (Pre Cambrian) which is intruded by Valhalla plutonic rocks.

Previous work by PNC Exploration in the area consists of diamond drilling programs on the Kallis Creek Mineral Claim Group adjacent to the northern boundary of the D1 Claim (Assessment Reports 4629, 5570 and 5982.)

Summary of the Work

Work done on the mineral claim shown in Table 1 is described as follows:

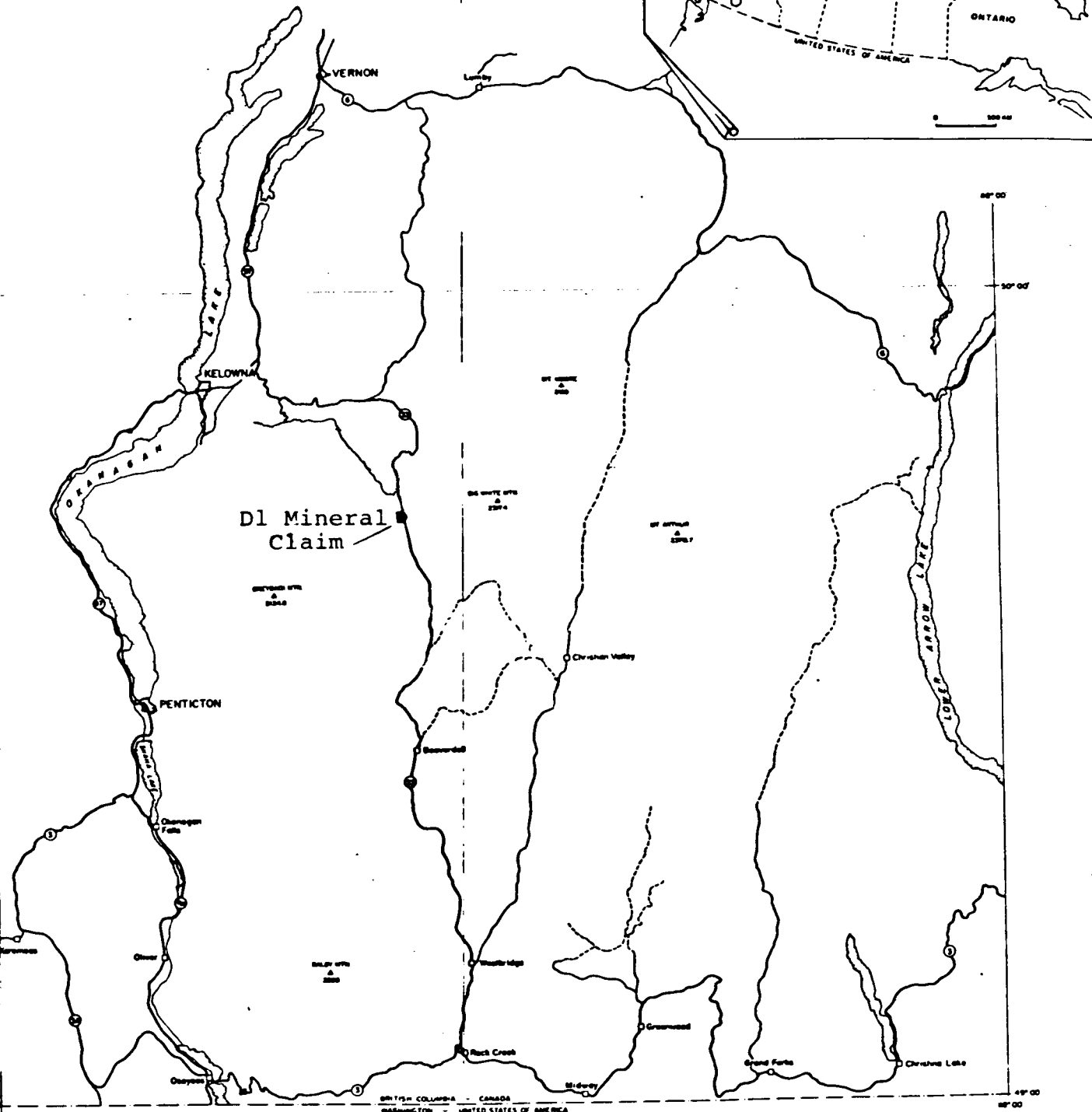
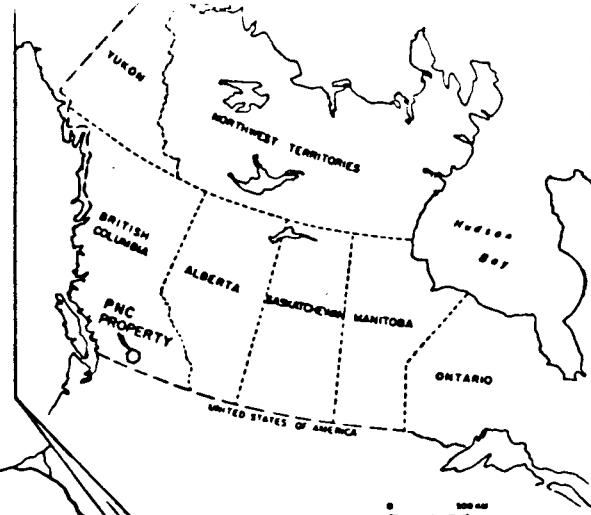
TABLE I

Mineral Claim	Record No.	Recorded	Expires
D1 (6 units)	953	Feb.13/78	Feb. 13/80

Aerial photography on a scale of 2,400 feet per inch was flown, ground control surveyed and aerotriangulation

completed on the D1 Mineral Claim plus the rest of the Kallis Creek Mineral Group (total 4138 acres or 1675.9 hectares). Topographic maps on a 1:5,000 scale and 5 metre contour intervals were then prepared by McElhanney Surveying and Engineering Ltd., 1200 W. Pender Street, Vancouver, B.C. These maps are shown in Figures 2 - 4 along with the claim boundaries.

PNC Exploration's concern for the environment and health resulted in the contracting of Envirocon Ltd., 1400 - 777 Hornby Street, Vancouver, B.C. to undertake an air and surface water quality monitoring program in the area. The locality map of the sampling stations and the results of the water sampling program are given in Appendix I. The air sampling program was not completed as of December, 1979.



BRITISH COLUMBIA - CANADA
WASHINGTON - UNITED STATES OF AMERICA
49° 00'

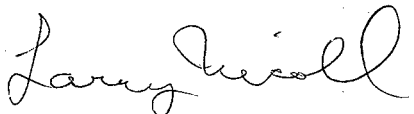
PNC EXPLORATION (CANADA) CO LTD	
PROPERTY LOCATION MAP	
PROJECT KELOWNA B.C. N75 B2L B2E	
DATE AUG 1979 FIGURE	

Itemized Cost Statement

I, Larry Nicoll, M.Sc., Project Geologist, hereby certify that the expenses for the work described in this report are as follows:

Mineral Claim	Aerial Photography & Map Preparation	Environmental Study	Total
D1 (6 units)	\$9,291.41	4,485.05	\$13,776.46

The detailed breakdown is on the following pages.


Larry Nicoll, M.Sc.

Vancouver, B.C.,
February 12, 1980

Aerial Photography and Map Preparation

Aerial Photography	\$881.76
Orthophotomapping (1:5000 scale and 5 metre contour interval) Plus material	3,451.33
Aerotriangulation	442.88
Surveying ground control	4,001.93
Relocation of aerial targets and related control work	513.51
	<hr/>
	\$9,291.41

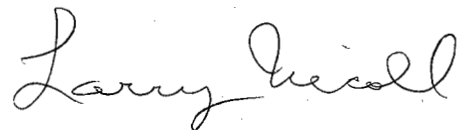
Environmental Study Cost Breakdown

Professional Services (for baseline air and water quality monitoring including secretarial services and laboratory analyses)	\$2,580.41
Helicopter rental, travel, subsistence, printing, dustfall stands, etc.	1,517.98
Attendance of Envirocon Ltd. representative at Bates Commission uranium hearings	386.66
	<hr/>
	\$4,485.05

STATEMENT OF QUALIFICATIONS

I, Larry Nicoll, of Vancouver, B.C., hereby certify that:

1. I am a graduate of the University of Calgary, Calgary, Alberta (B.Sc., Geology, 1972; M.Sc., Geology, 1974).
2. I have been practising my profession since 1974 in Canada and the United States.
3. I have no direct or indirect interest in the property nor do I anticipate receiving any such interest.
4. The information in this report is original data and is applicable to the property described within this report.



Larry Nicoll

Vancouver, B.C.
February 12, 1980

APPENDIX I

Water Quality Sampling
Locations and Results

LOCATION MAP

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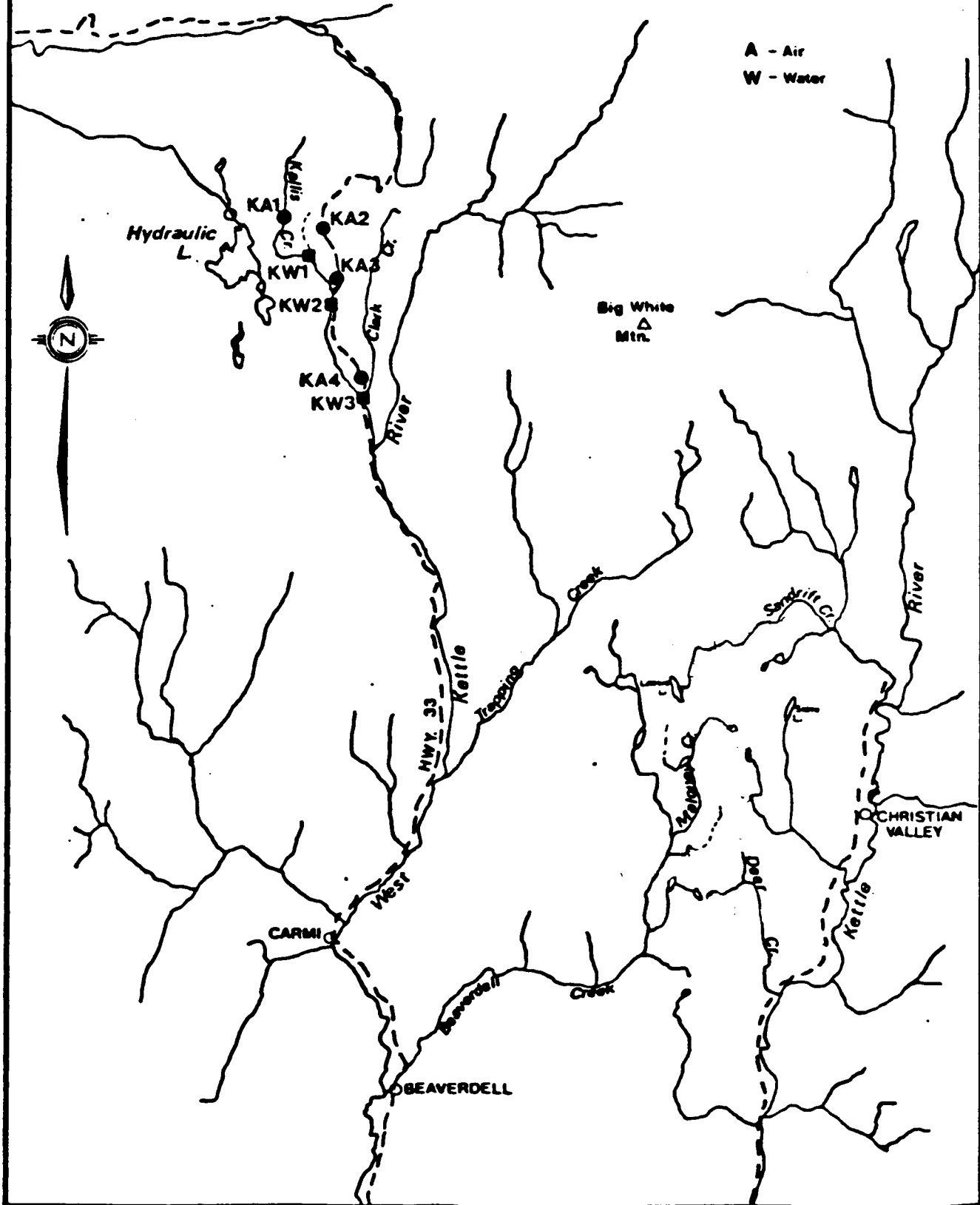
1 : 250000

LEGEND

K - KALLIS CREEK GROUP

A - Air

W - Water



Water Quality Sampling Site Descriptions

Kallis Creek Group Water Quality Stations

- KW1, located on Kallis Creek, directly at the confluence of this creek and small tributary. The tributary was dry on July 26, 1979. The sample was obtained from a marshy area where the creek was sufficiently deep. The water was not flowing.
- KW2, located on Kallis Creek, directly upstream from culvert under Highway 33. The sample was obtained just downstream from a small tributary.
- KW3, located on Kallis Creek, approximately 150 M downstream from the dirt road. The stream was almost dry but a sample was obtained in an open, marshy area.

Air Quality Sampling Site Descriptions

Kallis Creek Group Air Quality Station

- KA1, located 0.9 km north-east along dirt road from where it joins McCulloch Road slightly east of the fishing resort on Hydraulic Lake. Dustfall cannisters are 10 m north of the dirt road in an inside corner.
- KA2, located 4.7 km along side road which joins Highway 33 on the west side 750 m south of the turn-off to Big White Mountain. Dustfall cannisters are east of the road above rock embankment.
- KA3, located 0.9 km northeast along wide, well developed logging road from the point where it joins McCulloch Road 1 km northwest from Highway 33. Dustfall cannisters are 30 m southeast from road in clearing above embankment.
- KA4, located 0.4 km northwest along narrow dirt track from point where it joins Highway 33, near Herman Creek and Clark Creek junction. Dustfall cannister are 5 m northeast of the road in tiny clearing.

P.N.C.

Water Quality Analysis

Station No.: KW 1
Description: Sampling Date
26/07/79

pH	7.07
Susp. Solids (mg/l)	9
Diss. Solids (mg/l)	160
Total Solids (mg/l)	164
Acidity (mg/l CaCO ₃)	6.0
Alkalinity (mg/l CaCO ₃)	109
Diss. SO ₄ (mg/l)	< 2
Diss Cl (mg/l)	0.4
Total PO ₄ (mg/l P)	0.04
Diss. NO ₃ +NO ₂ (mg/l N)	0.18
NH ₃ -N (mg/l N)	0.09
TKN (mg/l N)	0.80
Total Ca (ppm)	18.0
Total Mg (ppm)	15.0
Total Na (ppm)	5.1
Total K (ppm)	1.2
Total Fe (ppm)	1.6
Total Mn (ppm)	0.26
Total U (ppb)	

P.N.C.

Water Quality Analysis

Station No.: KW 2

Sampling Date

Description:

26/07/79

pH	7.57
Susp. Solids (mg/l)	6
Diss. Solids (mg/l)	137
Total Solids (mg/l)	145
Acidity (mg/l CaCO ₃)	1.5
Alkalinity (mg/l CaCO ₃)	95
Diss. SO ₄ (mg/l)	< 2
Diss Cl (mg/l)	2.4
Total PO ₄ (mg/l P)	< 0.01
Diss. NO ₃ +NO ₂ (mg/l N)	0.19
NH ₃ -N (mg/l N)	0.02
TKN (mg/l N)	0.31
Total Ca (ppm)	18.0
Total Mg (ppm)	10.5
Total Na (ppm)	7.5
Total K (ppm)	1.3
Total Fe (ppm)	1.0
Total Mn (ppm)	0.06
Total U (ppb)	

P.N.C.

Water Quality Analysis

Station No.: KW 3

Sampling Date

Description:

26/07/79

pH	6.83
Susp. Solids (mg/l)	15
Diss. Solids (mg/l)	99
Total Solids (mg/l)	107
Acidity (mg/l CaCO ₃)	4.9
Alkalinity (mg/l CaCO ₃)	52
Diss. SO ₄ (mg/l)	2
Diss Cl (mg/l)	2.4
Total PO ₄ (mg/l P)	0.02
Diss. NO ₃ +NO ₂ (mg/l N)	0.15
NH ₃ -N (mg/l N)	< 0.01
TKN (mg/l N)	0.52
Total Ca (ppm)	17.0
Total Mg (ppm)	3.2
Total Na (ppm)	4.0
Total K (ppm)	1.0
Total Fe (ppm)	1.3
Total Mn (ppm)	0.10
Total U (ppb)	

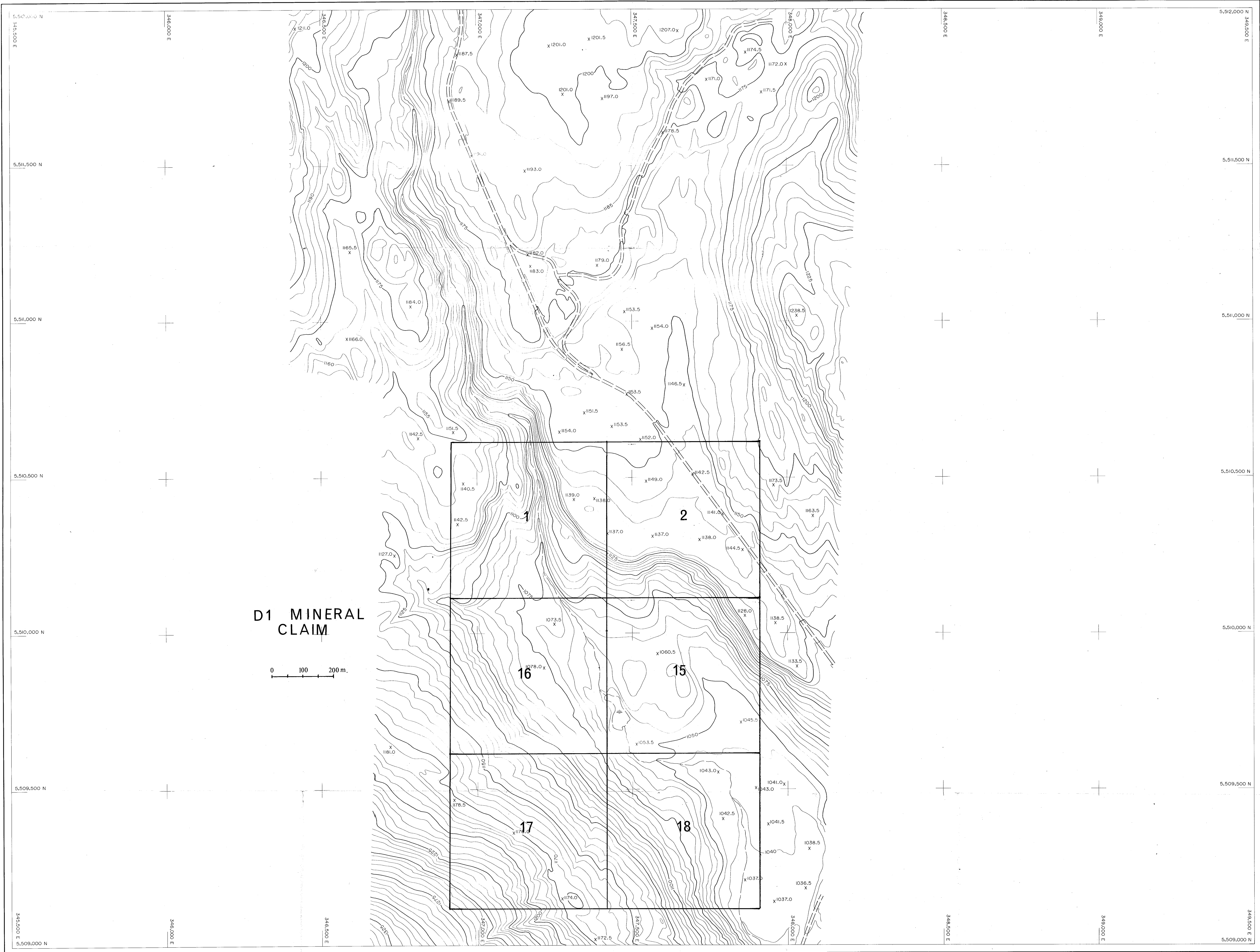
ATTACHMENT 1

Project EA 1839

PNC Exploration (Canada) Ltd.

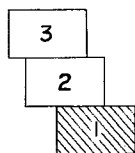
SUPPLEMENTAL ANALYTICAL RESULTS FOR URANIUM AND RADIONUCLIDES JULY, 1979

<u>Parameter</u>	<u>STATION NO</u>		
	<u>KW 1</u>	<u>KW 2</u>	<u>KW 3</u>
Diss. U. (ppb)	0.80	0.50	0.60
Gross Alpha (pCi/l)	1 [±] ₁	< 1	1 [±] ₁
Gross Beta (pCi/l)	5 [±] ₃	3 [±] ₃	6 [±] ₃
Total Ra 226 (pCi/l)	0.2	< 0.2	0.2 [±] 0.2
Diss. Ra 226 (pCi/l)	0.2	< 0.2	< 0.2



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7865



Scale and elevation datum based on limited ground control resulting in good relative, but uncertain absolute map accuracy.
Compiled from aerial photography at an approximate scale of 1:28,000 flown in 1979



McElhannay Surveying & Engineering Ltd.
1200 West Pender Street, Vancouver B.C., Canada

Scale - 1:5000
Contour Interval - 5 Metres
Date - November 1979
Job No. - 06613-0
Sheet No. - 1 of 3

P.N.C. EXPLORATION (CANADA) CO. LTD.

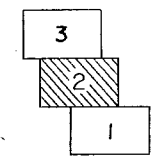
KALLIS CREEK CLAIMS

Figure 2.



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT

7865



Scale and elevation datum based on limited ground control resulting in good relative, but uncertain absolute, map accuracy.
Compiled from aerial photography at an approximate scale of 1/28,000 flown in 1979

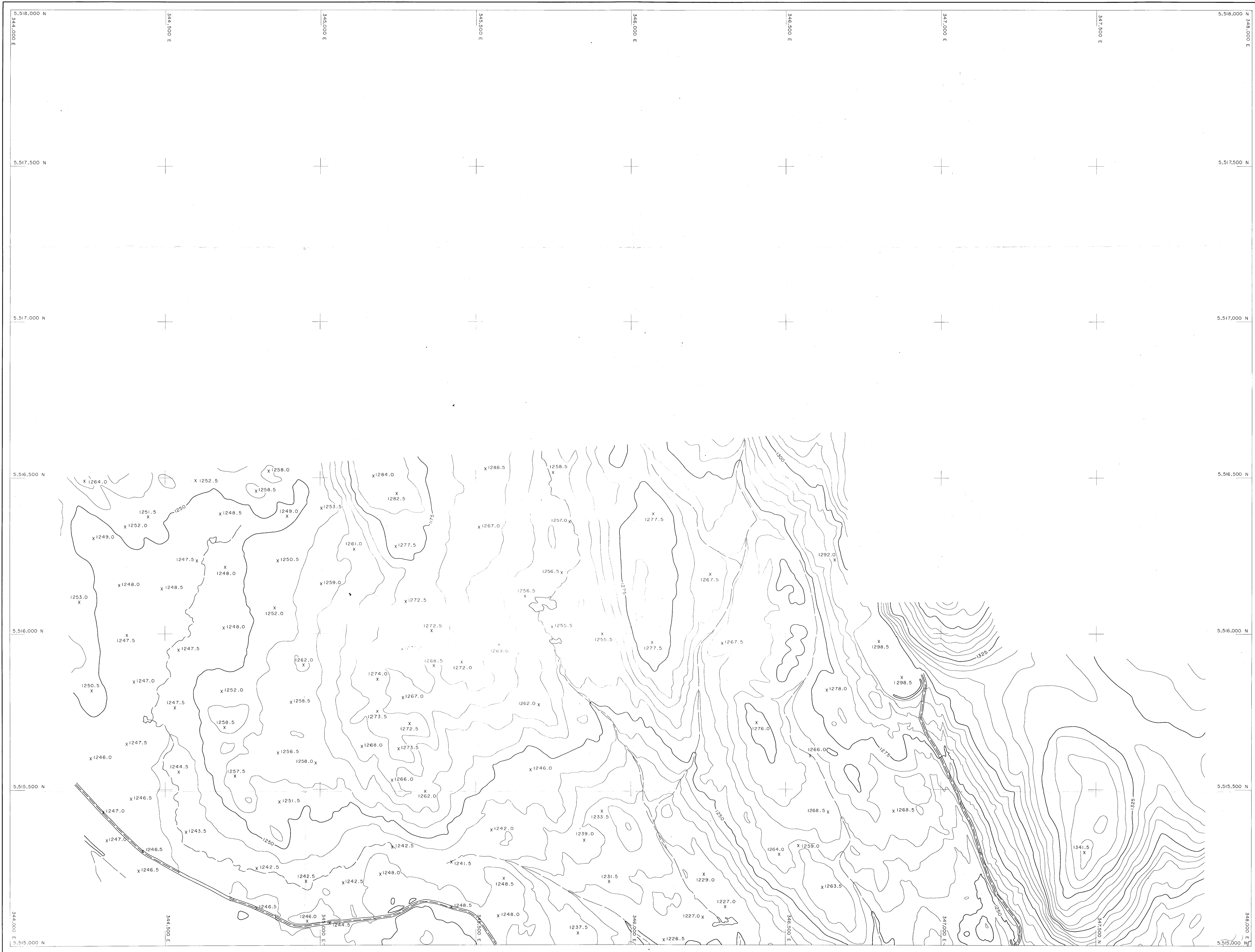
McElhanney
McElhanney Surveying & Engineering Ltd.
1200 West Pender Street, Vancouver B.C., Canada

Scale - 1:5000
Contour Interval - 5 Metres
Date - November 1979
Job No. - 06613-0
Sheet No. - 2 of 3

P.N.C. EXPLORATION (CANADA) CO. LTD.

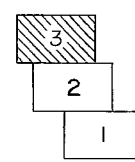
KALLIS CREEK CLAIMS

Figure 3



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT

7865



Scale and elevation datum based on limited ground control resulting in good relative, but uncertain absolute map accuracy.
Compiled from aerial photography at an approximate scale of 1/26,000 flown in 1979

McElhanney
McElhanney Surveying & Engineering Ltd.
1200 West Pender Street, Vancouver, B.C., Canada

Scale - 1:5000	0 50 100 150m
Contour Interval - 5 Metres	
Date - November 1979	
Job No. - 06613-0	
Sheet No. - 3 of 3	

P.N.C. EXPLORATION (CANADA) CO. LTD.

KALLIS CREEK CLAIMS

Figure 4