

83-#715 -#11329

COMINCO LTD.

EXPLORATION
NTS 92B/13W

WESTERN DISTRICT

(ASSESSMENT REPORT)

GEOLOGICAL AND GEOCHEMICAL REPORT
FOR NUGGET 1 and NUGGET 2 MINERAL CLAIMS
AND NONESUCH AND MILDRED REVERTED CROWN GRANTS

VICTORIA MINING DIVISION
CHEMAINUS RIVER AREA, B.C.

Latitude 48° 53' N
Longitude 123° 49' W

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

11,329

J. Paul Sorbara

December 1, 1983

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WESTERN DISTRICT
1 December 1983

ASSESSMENT REPORT

Geological and Geochemical Report
for NUGGET 1 and NUGGET 2 Mineral Claims
and NONESUCH and MILDRED Reverted Crown Grants

VICTORIA MINING DIVISION

Chemainus River Area, B.C.

INTRODUCTION

The Nugget 1 and 2 mineral claims and the NONESUCH and MILDRED Reverted Crown Grants (100% owned by Cominco Ltd.) are located west of the Chemainus River on the southeast side of Mount Brenton. Access to the property is by the Chemainus hauling road leading to Hwy. No. 1 north of Duncan, B.C.

During the period of June 15, 1983 to July 31, 1983, a total of 76 man days were spent on the property conducting line cutting, geologic mapping and a soil geochemical survey. The work was conducted by the author and A.C. Freeze, both Cominco geologists.

GEOCHEMICAL SURVEY

The geochemical survey conducted on the property consisted of soil sampling with a 25 metre spacing along 5 north-south lines spaced 200 m apart (see plates 3, 4, 5) that were cut and chained by the author and A.C. Freeze. The samples were taken from the "A" soil horizon and were ashed before analysing for Cu, Pb, Zn, Au and Ag. The ashing was done in Toronto and the process involved the following steps:

1. Samples were homogenized in a blender.
2. Samples sieved to -80 mesh.
3. Samples were weighed.
4. Samples were ashed in a furnace at 475°C.
5. After several hours the temperature was increased to 550°C.
6. Samples were cooled and weighed to calculate ash %.

The actual analyses were done in the Cominco Exploration Laboratory in Vancouver. The analytical method involved decomposition with 20% HNO₃ (except for Au which was decomposed using Aqua Regia) followed by atomic absorption spectrophotometry. A total of 270 samples were collected and analysed.

The threshold values for Cu, Pb and Zn were calculated using the Cominco STAT PAK program. Analytical results for Ag and Au were too low and uniform (0 ppm Ag, 0, 1, 2 ppb for Au) to calculate anomaly thresholds. The sample numbers with Au and Ag contents are listed in table 1, instead of being plotted on a base map. The threshold values for Cu, Pb and Zn in PPM are given below.

	<u>Background</u>	<u>Possibly Anomolous</u>	<u>Anomolous</u>
Cu	< 50	50 → 150	> 150
Pb	< 80	80 → 120	> 120
Zn	< 100	100 → 140	> 140

TABLE 1

Ag

- All values are 0 except line 2E, 0 + 255 (1 ppm) and L 2E, 0 + 505 (2 ppm).

Au

- All values are 0, 1 or 2 ppb except:

<u>Line</u>	<u>Station No.</u>	<u>Au (ppb)</u>
4 + 00E	8 + 25S	44
8 + 00E	9 + 25S	10
8 + 00E	9 + 50S	7
8 + 00E	12 + 50S	4
8 + 00E	16 + 75S	36
8 + 00E	17 + 25S	7
10 + 00E	12 + 00S	59
10 + 00E	16 + 00S	6
10 + 00E	16 + 75S	6

GEOLOGICAL SURVEY

The geological mapping conducted on the property was done using the chain and compass method. In addition to outcrops, gravel roads on and around the property were surveyed for control purposes.

The geology of the property was found to comprise green to white cherts, sericite/chlorite schist and andesitic tuffs and flows. A small amount of pyrite mineralization was found in all of these units but is not ubiquitous. The schistose rocks strike northwest with steep dips and in two locations contain minor amounts of disseminated chalcopryrite.

The volcanic rocks described above are intruded by both dioritic and gabbroic bodies. These are coarse-grained units of a younger age and the gabbro contains magnetite in several locations. Other than traces of pyrite and a minor fracture-related malachite stain in one location, no mineralization occurs in the intrusives.

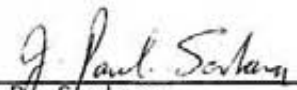
The detailed geological map resulting from this survey is shown in plate 2.

INTERPRETATION

The geological survey showed that the NUGGET 1 and 2 mineral claims as well as the NONESUCH and MILDRED reverted Crown Grants are underlain by andesitic tuffs and flows, sericite/chlorite schists and cherts of the Sicker Group. These rocks tend to strike northwest and have variable dips. The Sicker rocks are intruded by diorite and gabbro bodies of a younger age. The relative proportions of the two intrusives are roughly equal and combined they cover roughly one third of the property.

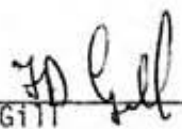
The geochemical survey had variable results. Gold and silver values are extremely low over the entire property. Copper, lead and zinc results all indicated small irregular zones, averaging 200 m in length, of both possibly anomalous and definitely anomalous values. In all three cases, the highest values tended to be in the vicinity of small intrusive bodies of gabbro and diorite and are therefore deemed to be genetically related to these intrusives. Values in the "possibly anomalous" range are scattered across the property and occur over all rock types. It is therefore difficult to ascertain whether or not these areas reflect truly anomalous concentrations of Cu, Pb and Zn in the A soil horizon.

Report By:




J.P. Sorbara
Geologist

Endorsed By:



F.D. Gill
Assistant Manager
Exploration, Western District

Approved for
Release By:



G. Harden
Manager
Exploration, Western District

Distribution: Mining Recorder (2)
W.D. Files (1)

APPENDIX I

STATEMENT OF EXPENDITURES

Salaries:

J.P. Sorbara	38 days @ \$155.76/day	\$ 5,918.88
A.C. Freeze	38 days @ \$182.16/day	6,922.08

Geochemistry:

210 samples @ 17.30/sample	4,671.00
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Truck Rental:

38 days @ \$ 32.50/day	1,235.00
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Food and Lodging:

38 days @ \$ 45.55/day	<u>1,740.86</u>
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TOTAL EXPENDITURES	<u>\$ 20,487.82</u>
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SIGNED: _____

J. Paul Sorbara
J.P. Sorbara
Geologist

APPENDIX II

STATEMENT OF QUALIFICATIONS

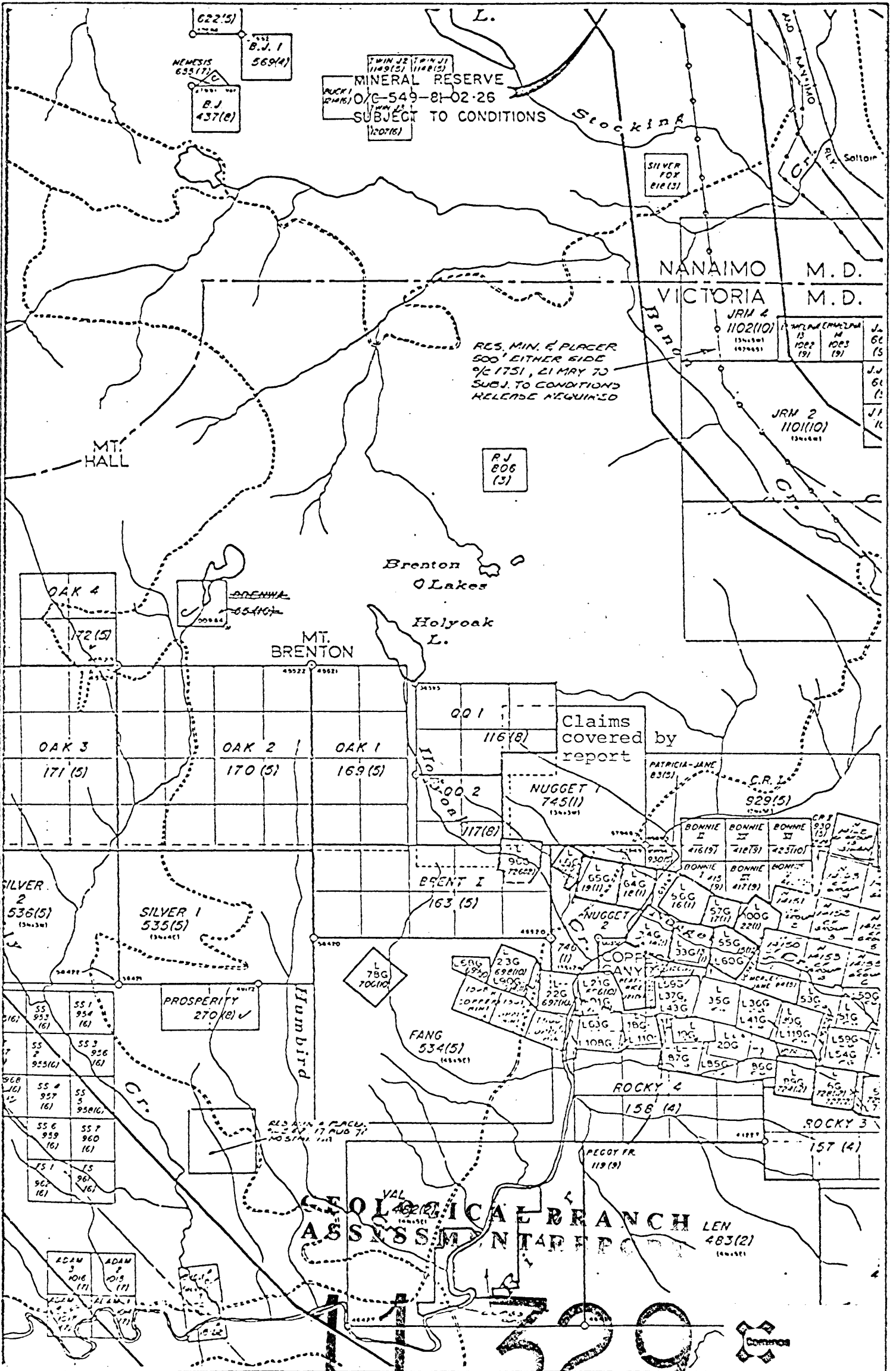
I, J. PAUL SORBARA, OF THE CITY OF NORTH VANCOUVER, IN THE PROVINCE OF BRITISH COLUMBIA, HEREBY CERTIFY:-

1. THAT I am a geologist residing at 1209 - 2012 Fullerton Avenue, North Vancouver, British Columbia, with a business address at 409 Granville Street, Vancouver, British Columbia;
2. THAT I graduated with a B. Sc. in geology from the University of Toronto, Toronto, Ontario in 1976, and with a M.Sc. in geology from the University of Toronto in 1979.
3. THAT I have practised geology with Cominco Ltd. from 1979 to 1983.

Signed: _____

J. Paul Sorbara
J. Paul Sorbara, M.Sc.
Geologist, Cominco Ltd.

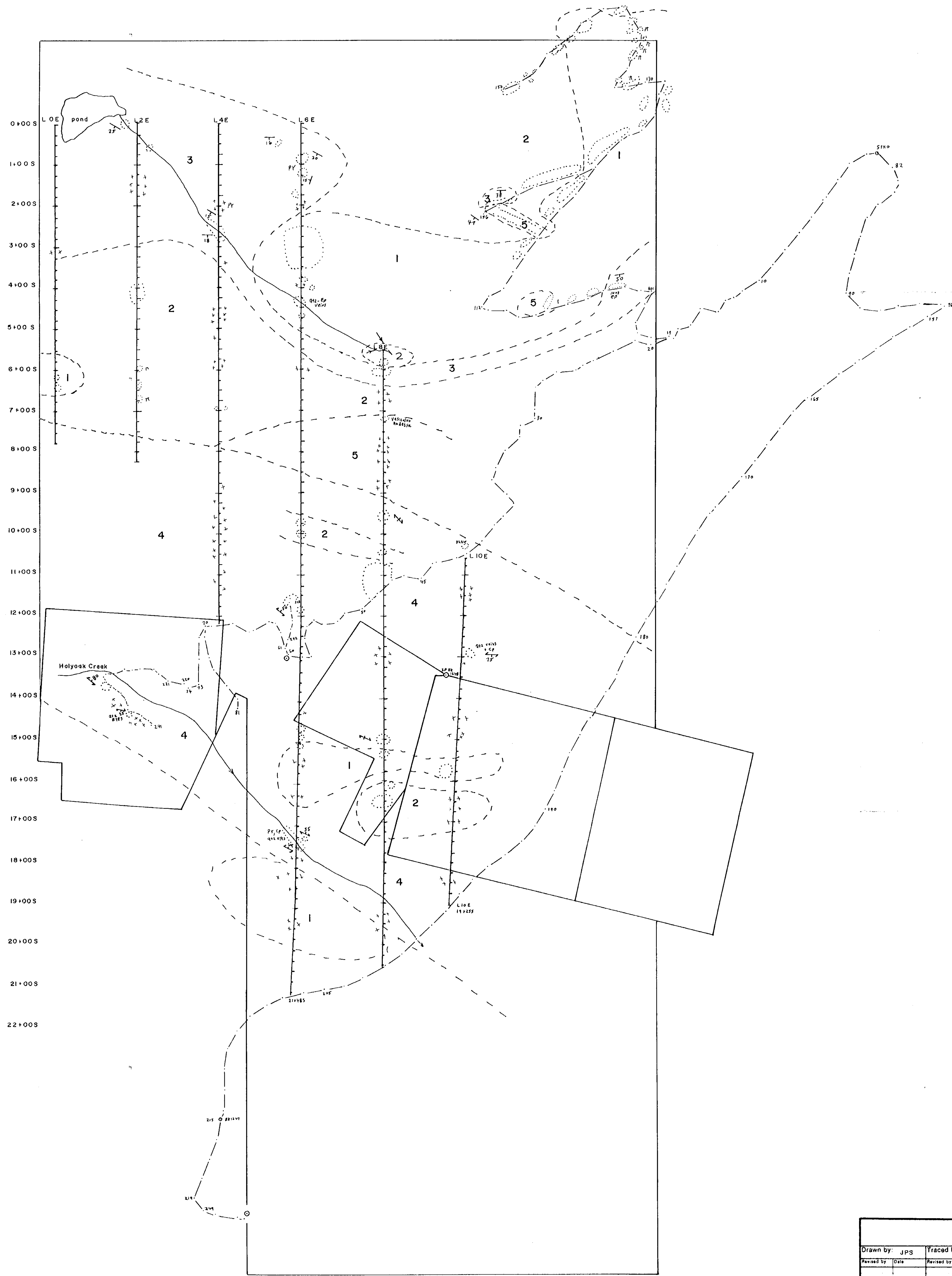
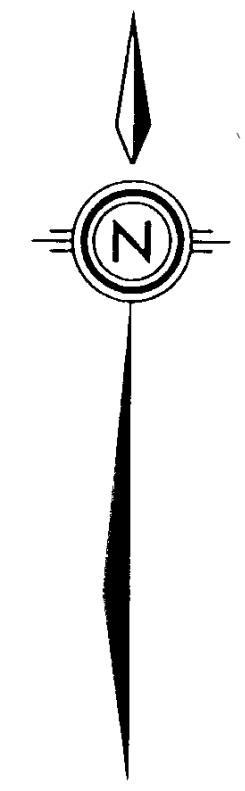
1 December 1983



11329

Drawn by:	Traced by:
Revised by:	Revised by:
Date:	Date:

INDEX AND CLAIM LOCATION



- LEGEND**
- 1 GABBRO (youngest)
 - 2 DIORITE
 - 3 CHERT
 - 4 SERICITE/CHLORITE SCHIST
 - 5 ANDESITE Flows & Tuffs (oldest)

- SYMBOLS**
- ROAD WITH STATION POINTS
 - + x FLOAT
 - OUTCROP BOUNDARY
 - INFERRED CONTACT
 - PORPHYRY

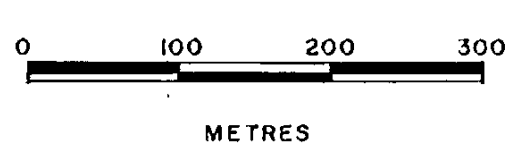
**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

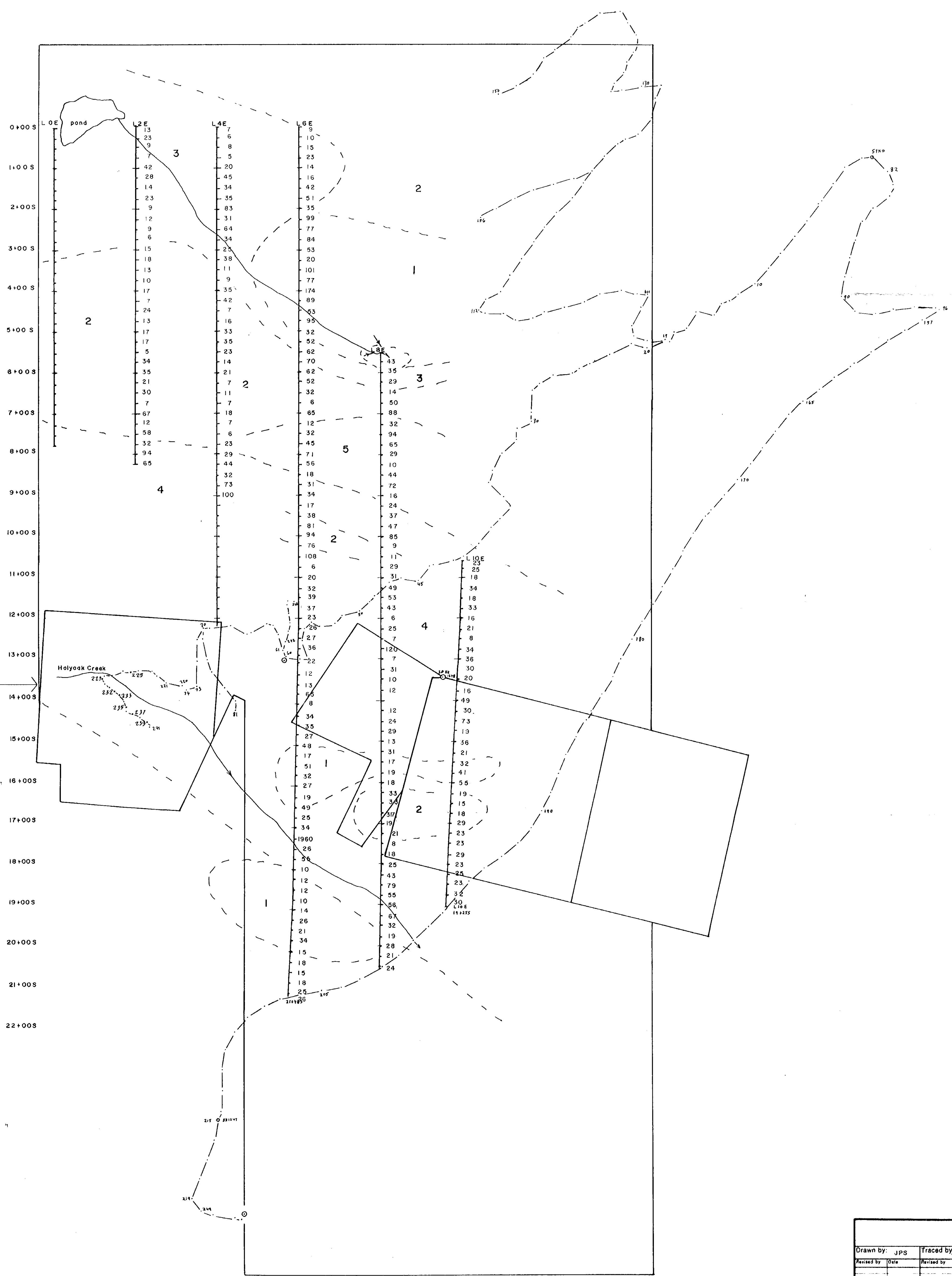
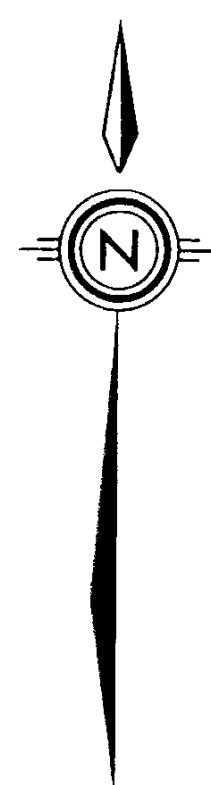
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NUGGET CLAIMS

GEOLOGY

Drawn by: jpg	Traced by:	GEOLOGY
Revised by: Date	Revised by: Date	
Scale: 1:5000	Date: OCTOBER 1983	Plate: 2





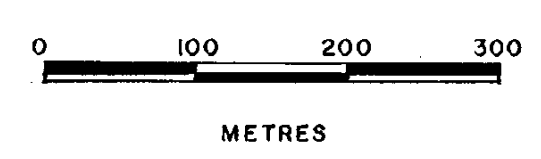
HOLYOAK CREEK ZONE	
CO-ORD	ZnCu
225	48
229	55
232	29
233	14
235	16
237	99
239	17
241	106

- LEGEND**
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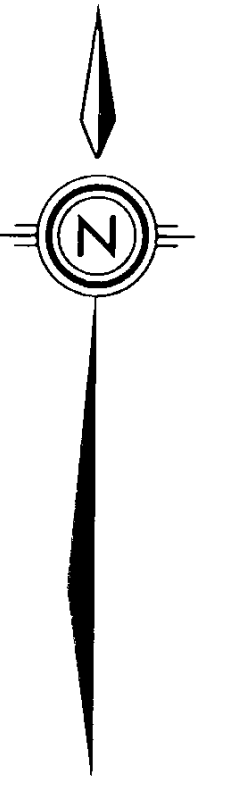
- SYMBOLS**
- ROAD WITH STATION POINTS
 - + x FLOAT
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 - INFERRED CONTACT

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NUGGET CLAIMS			
Drawn by: JPS	Traced by: JPS		
Revised by: []	Revised by: []		
		COPPER (ppm) IN 'A' SOIL HORIZON	
Scale: 1:5000	Date: OCTOBER 1983	Plate: 3	



HOLYOAK CREEK ZONE	
CO-ORD	Pb
225	21
229	101
232	64
233	39
235	60
237	30
239	32
241	30

- LEGEND**
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 - 5 ANDESITE Flows & Tuffs (oldest)

- SYMBOLS**
- ROAD WITH STATION POINTS
 - * * * * * FLOAT
 - OUTCROP BOUNDARY
 - - - - - INFERRED CONTACT

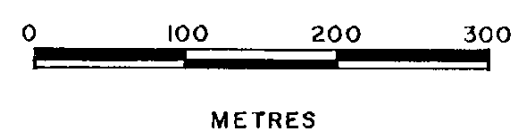
**GEOLOGICAL BRANCH
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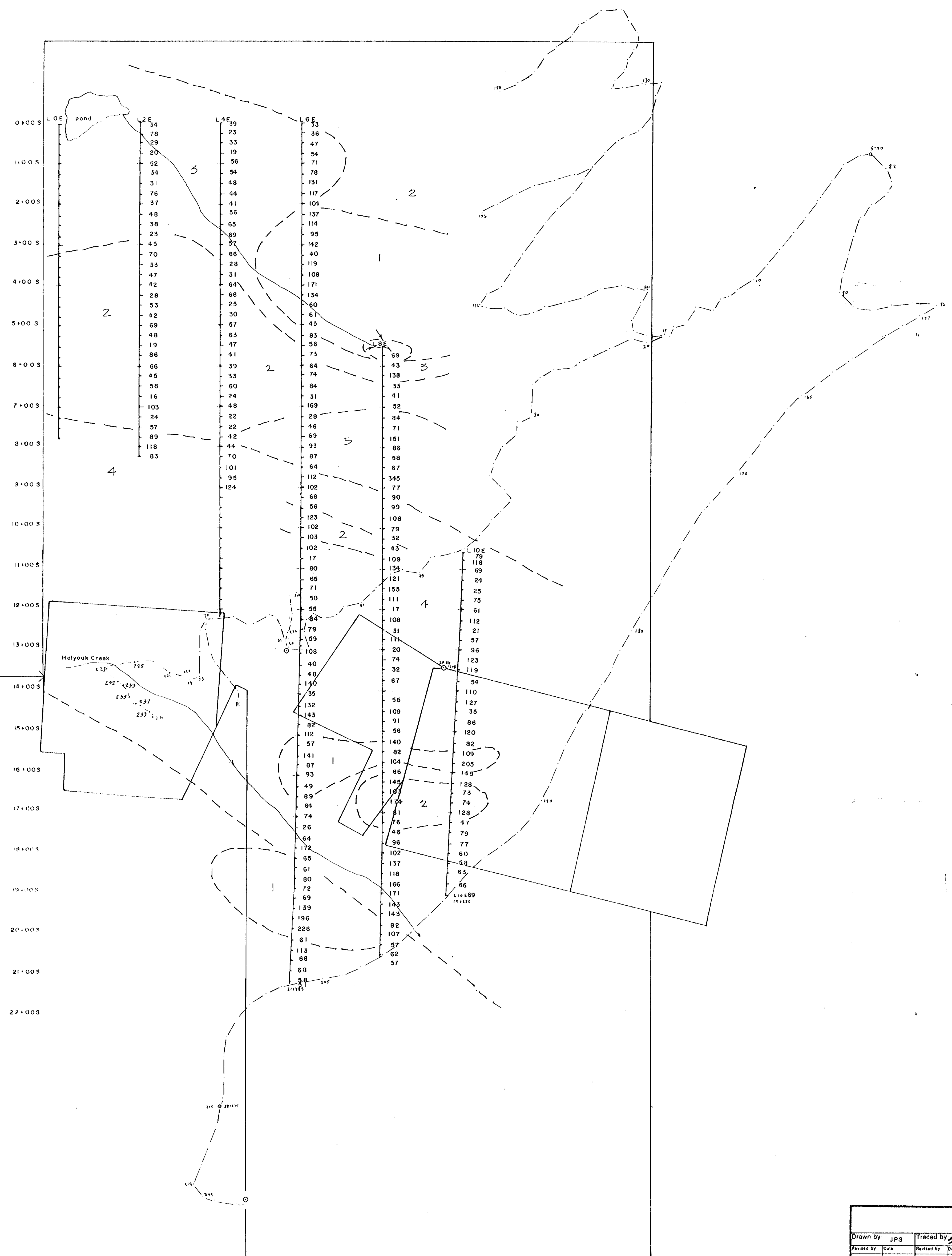
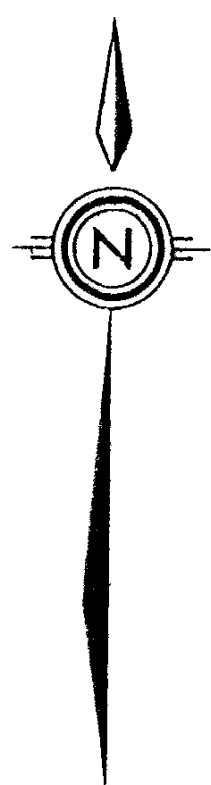
11,329
NUGGET CLAIMS

Drawn by: JPS	Traced by: JPS
Revised by: []	Revised by: []
Date: []	Date: []

LEAD (ppm) IN
'A' SOIL HORIZON

Scale: 1:5000 Date: OCTOBER 1983 Plate: 4





HOLYOAK CREEK ZONE

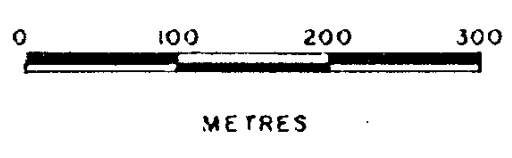
CO-ORD	Zn
225	69
229	131
232	39
233	28
235	31
237	41
239	19
241	40

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 - - - INFERRED CONTACT
 - π PORPHYRY



NUGGET CLAIMS			
Drawn by: JPS	Traced by: JWP		
Revised by: Date	Revised by: Date		
ZINC (ppm) IN 'A' SOIL HORIZON			
Scale: 1:5000	Date: OCTOBER 1983	Plate: 5	