

LOG NO: 1110

RD.

ACTION:

20pp.

TO: 87-725-16536

GEOLOGICAL AND GEOCHEMICAL ASSESSMENT REPORT

ON THE

BEARCUB FELDSPAR PROPERTY

BEARCUB 1, 2 and BODI 1, 2 MINING CLAIMS
(Record Numbers 2181, 82, 1912, 13)

REISWIG, LUMBY AREA

VERNON MINING DIVISION, B.C.

50°^{14'42"}15', 118°48'24"

N.T.S. 82L/2W, 82L/7W

FOR BRENDA MINES LTD.

Operator: Brenda Mines Ltd.

Owners : Brenda Mines Ltd., R. Bechtel

Work Performed from August 13th. to August 20, 1987

Author : R.U. Bruaset, Ragnar U. Bruaset & Associates Ltd.

October 23, 1987

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

16,536

TABLE OF CONTENTS

	<u>PAGE</u>
1. INTRODUCTION	1
2. GEOLOGY	2
3. ROCK GEOCHEMISTRY - TABLE 1	3
4. CONCLUSIONS	5
5. REFERENCES	6
6. STATEMENT OF COST	7
7. STATEMENT OF QUALIFICATIONS	8

PLATES

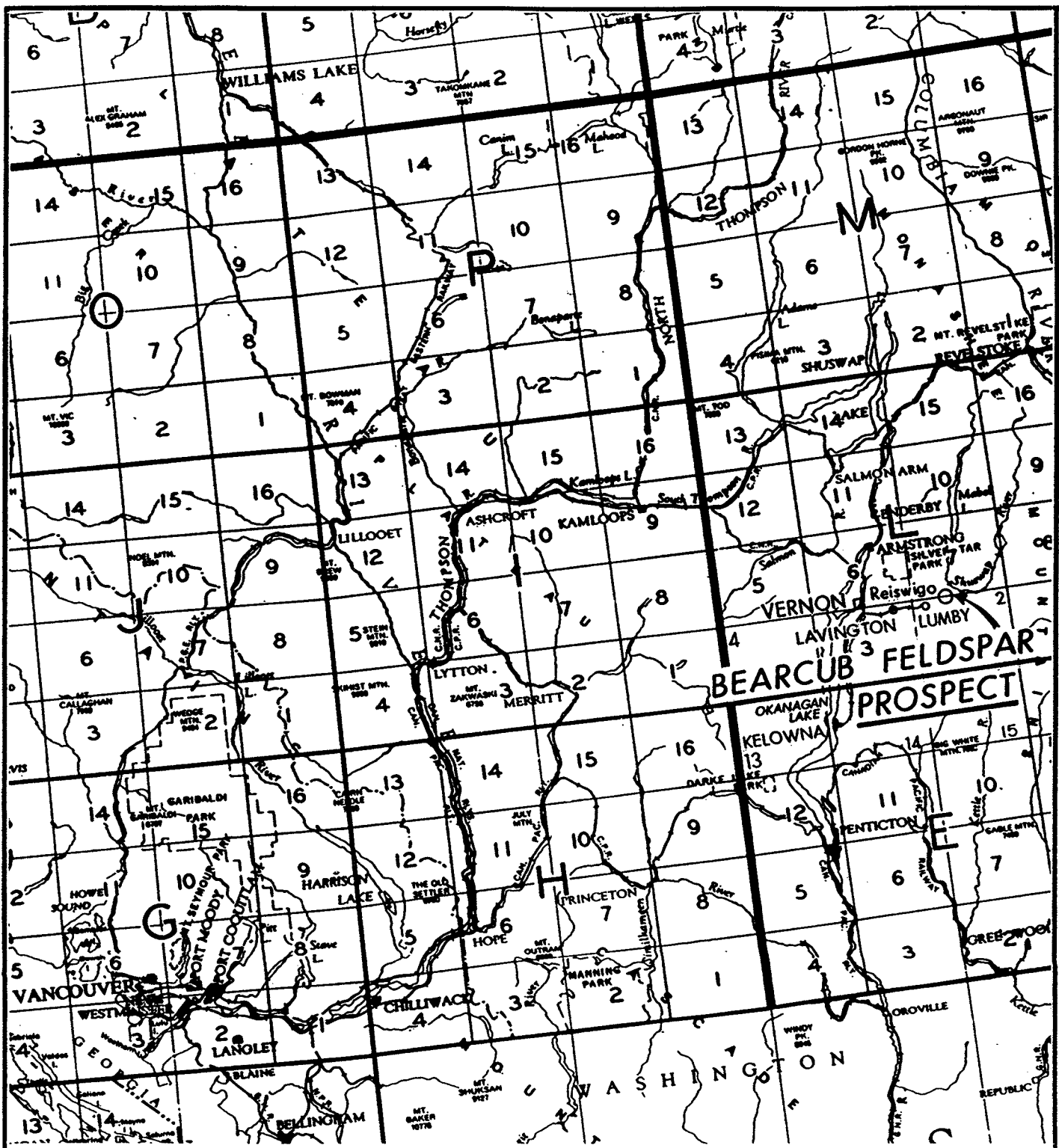
1. LOCATION MAP	1:2,000,000
2. CLAIM MAP	1:50,000
3. REGIONAL GEOLOGIC MAP	1:250,000
4. GEOLOGY	1:2,500
5. CROSS SECTION A - B	1:2,500
6. ROCK GEOCHEMICAL PLAN	1:2,500

APPENDICES

Appendix 1a: Certificate of Analysis for ICP Geochem.
Chemex A8721299 (Whole-Rock)

Appendix 1b: Certificate of Analysis for Assay
Chemex A8721298 (Na, K, Silica Assays)

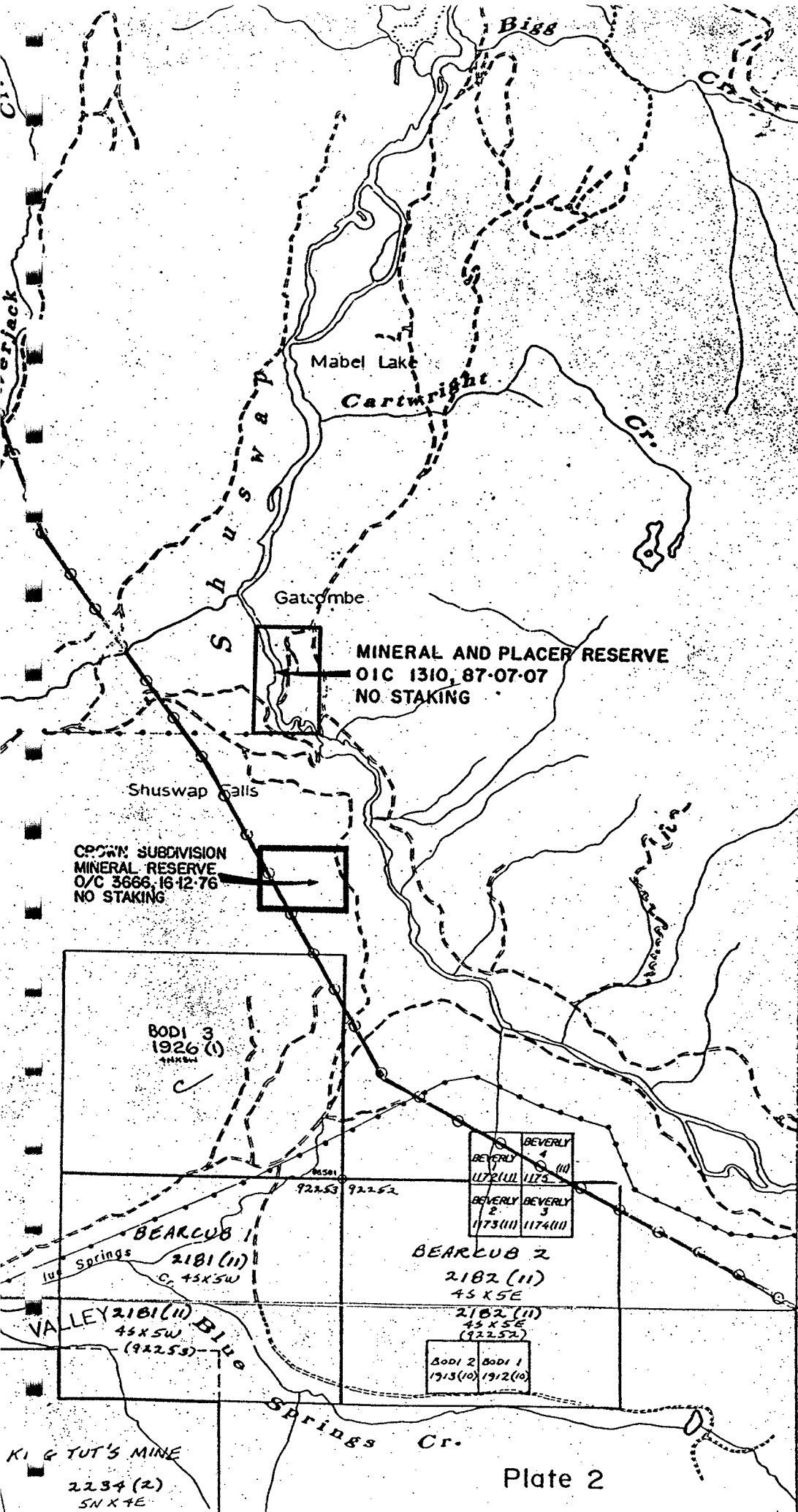
Appendix 2 : Sample Description



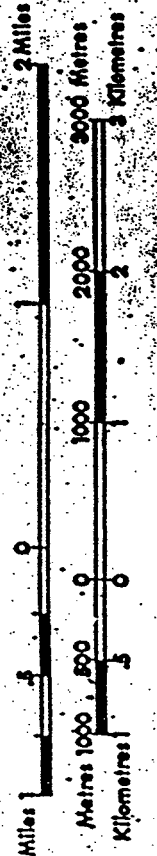
1:2,000,000



REVISED	BRENDA MINES LTD.	
	BEARCUB FELDSPAR PROSPECT	
	LOCATION MAP	
PROJ.No. _____	SURVEY BY: _____	DATE: <u>SEPT./1987</u>
N.T.S. _____	DRAWN BY: <u>J. Serwin</u>	SCALE: <u>1:2,000,000</u>
DWG.No. <u>1</u>	NORANDA EXPLORATION	
	OFFICE: <u>VANCOUVER</u>	



UNLESS VERIFIED OR SURVEYED, THE LEGAL CORNER POST IS BASED ON THE LOCATIONS OF THEIR INFORMATION, APPLY TO THE OFFICE OF CONCERNED. DATE OF MICROFILM: 87-09



Province of British Columbia
Ministry of Energy, Mines and Petroleum Resources

MAP M82L/7W

- LEGEND
- CROWN-GRANTED MINERAL CLAIM
 - REVERTED C.O. MINERAL CLAIM
 - FORFEITED MINERAL CLAIM
 - VERIFIED LEGAL CORNER POST
 - LEGAL SURVEY
 - LEGAL CORNER POST - TAG NUMBER

118° 45' 50° 15'

1. INTRODUCTION

The Bearcub feldspar property is situated adjacent to Highway 6 at Reiswig. Reiswig is located 10 km east of the town of Lumby in the Okanagan region of southern British Columbia. The property is situated in the southern parts of the Shuswap Highlands (G.S.C. Map 1701A).

The property is reached by Highway 6 and Blue Spring Valley Road. The latter is an all-weather road crossing the centre of the property then extending eastward in the vicinity of the southern property boundary.

The property is comprised of 42 units in four claims, with Bearcub being the principal group.

The property was prospected in the past for industrial minerals such as feldspar and quartz. There is no known production. The claims are owned by Brenda Mines Ltd. and Mr. R. Bechtel.

A large area of the property is underlain by pegmatite. The principal valuable constituents are the feldspar and the quartz which may be utilized in ceramics and glass manufacture. Feldspar is also used as filler in plastics. The economics of pegmatites are closely related to availability of markets and cost of transportation, among others. Product specifications for feldspar may be given in terms of the major element components K_2O , Na_2O , SiO_2 , Al_2O_3 , Fe_2O_3 , CaO and loss on ignition. Other specifications stipulate particle size and fusion cone control, the latter, relative to a master standard. The accompanying Table #1 gives some indication of one set of component specifications, that of Steelhead Resources, Calspar Operations, California. The Bearcub prospect is well located with respect to infrastructures such as roads, railway and power. Lumby is the current railhead for CN Rail. A high tension power line is located on the northern property boundary.

Geological mapping @ 1:2,500 of an area of three square kms has been done and 33 pegmatite samples collected and analyzed for major elements.

Ground control for mapping and sampling was established through a series of slope corrected traverses run along roads and claim lines with stations marked with flagging. Tie lines were run as time permitted to check the general accuracy of the control. Topographic contours were later added by enlarging the applicable 1:50,000 scale N.T.S. coverage. No systematic sampling and mapping of the pegmatite had previously been done to the author's knowledge.

The author carried out field work on the property while Gary V. White of the Province of British Columbia Ministry of Energy, Mines and Petroleum Resources conducted the first systematic public evaluation of pegmatites in the area. Mr. White's mapping at a scale of 1:5,000 and rock geochemical results are scheduled to be released this fall.

For the convenience of interested parties, the locations of many of the sample stations of Mr. White are shown on the attached plates, having been tied in by the current survey. This will permit incorporation on the present plans of the rock geochemical results to be published by Mr. White.

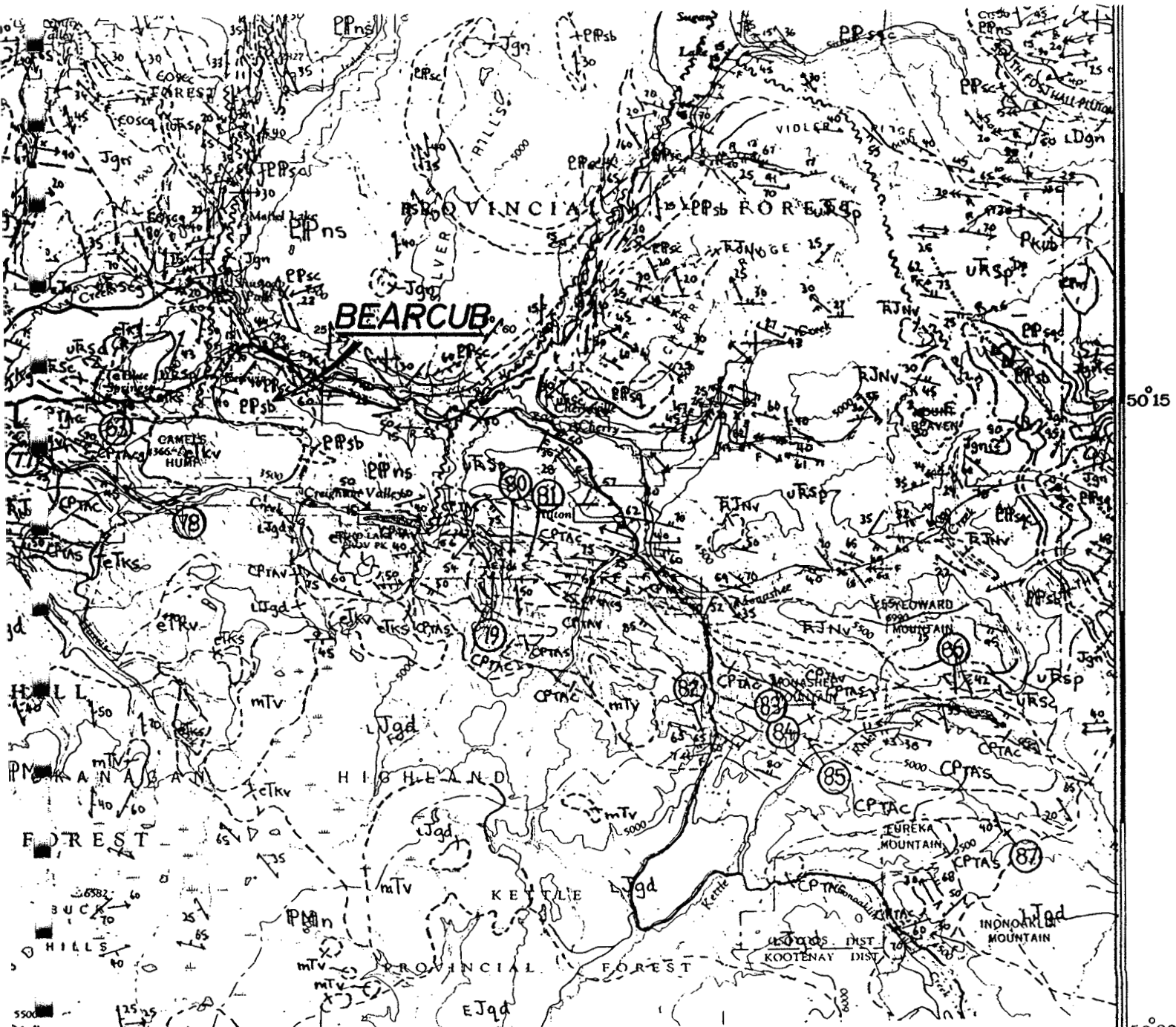
2. GEOLOGY (Ref. Plates 3, 4, 5)

The purpose of the geological mapping was to determine the gross field relationships of the pegmatite.

Regional geological references include GSC Map 1059A Geology Vernon, Memoir 296, 1959 and GSC Open File 637, 1978. The latter describes the rocks of the Bearcub as Proterozoic and Paleozoic quartz mica schist, commonly garnet and sillimanite bearing, of the Shuswap Metamorphic Complex.

The oldest rocks exposed on the Bearcub are the Proterozoic (?) and (?) Paleozoic quartz mica schists, commonly garnet and sillimanite bearing and recrystallized limestones of the Shuswap metamorphic complex. (O.F.637). The principal exposures of these rocks in the Bearcub are in the pegmatite area where they frequently form recessive exposures relative to pegmatite. Pegmatite typically cap sediments. Inclusions of schist occasionally occur in the pegmatite.

Generally fine grained quartz diorite with principal mineral grains 0.5 to 0.9 mm, intrudes the metamorphic rocks as dykes, sills and stocks. The principal intrusion of this kind outcrops in the north central property area in the form of a weakly zoned stock at least 1.5 km in length and 0.8 km in width. In the northern part of this intrusion at station R.8772 a large number of schist inclusions are partly assimilated and a hybrid phase has developed. The modal composition of the quartz diorite was determined by feldspar etching and staining of slabbed specimen collected at most diorite exposures on the claims. Typically the quartz diorite, which is designated as Unit 18 on the accompanying map, contains about 13% quartz, <1% K-spar and 4% mafics with the balance plagioclase of undetermined composition. The quartz diorite is xenomorphic and usually weakly foliated. The classification used is the IUGS classification (Geotimes October, 1973). Inclusions of quartz diorite occur in the pegmatite. In the quartz diorite stock in the northern area, pegmatite dykelets cut the quartz diorite. The latter pegmatite also contain disseminated garnet of the red variety common in the principal pegmatite masses on the property. Large angular blocks of quartz diorite occur in the pegmatite at station R.87143. These appear to be xenolith; blocks of roof rocks that have fallen, in this case, into the pegmatite melt.



PROTEROZOIC AND PALAEOZOIC (MAY INCLUDE ARCHAEN)

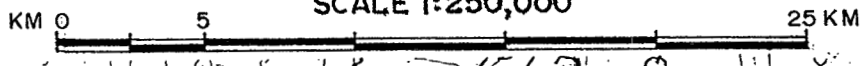
SHUSWAP METAMORPHIC COMPLEX

PIPns	UNDIVIDED; GRANITOID GNEISS, PARAGNEISS, SCHIST; MINOR QUARTZITE, MARBLE, AMPHIBOLITE.
PIPsb	QUARTZ MICA SCHIST, COMMONLY GARNET-AND SILLIMANITE-BEARING.
PIPsq	QUARTZITE; MINOR PELITIC SCHIST.
PIPsc	MARBLE, DIOPSIDIC MARBLE; MINOR CALCIUM SILICATE GNEISS AND AMPHIBOLITE.
PIpm	AMPHIBOLITE, AMPHIBOLITIC GNEISS, MINOR HORNBLende BIOTITE SCHIST.
PIPsqc	SILICEOUS MARBLE, CALCAREOUS QUARTZITE, CALCIUM SILICATE GNEISS; MINOR PELITIC SCHIST.
PIPgdn	GRANDIORITE, DIORITE AND TONALITE GNEISS; AUGEN GNEISS.

PLATE 3 - REGIONAL GEOLOGICAL MAP

AFTER G.S.C. OF 637

SCALE 1:250,000



118°45'

118°30'

118°15'

50°15'

50°00'

49°50'

The principal pegmatite of the property outcrops in an area of 1.5 km by 0.75 km in the prominent hill on the south side of the property. The pegmatite is white and is medium coarse grained. It consists typically of about 70% total feldspar; plagioclase and microcline as well as an intergrowth of the two which is referred to as perthite, 25% quartz and a total of 5% miscellaneous minerals chiefly biotite and/or muscovite. Pegmatite is frequently in contact with quartz diorite. There is no indications of thermal effects such as hornfelsing, chilling or skarnification at contacts. This lack of thermal effect leads one to suspect that at the time of pegmatite emplacement quartz diorite was also hot. At the temperatures of sillimanite grade the quartz diorite would most likely have remained unmetamorphosed in view of its composition.

In the pegmatite exposed on the south side of the pegmatite ridge occur three panels of Shuswap metasediments. Included in these panels occur variable amounts of quartz diorite, Unit #18. This intrusive appear to be concordant with the sediments in most cases. Further mapping is needed to delineate this waste.

There is considerable speculation about the overall form of the structure that controls the pegmatite. The attached cross section is intended as a first approximation. Any theory proposed must explain the overwhelming concordancy of the pegmatite related to the enclosing panels of metasediments; the lack of visible thermal effects of the pegmatite on the sediments and the uniform grainsize of the pegmatite. A metamorphic event on the scale and intensity of the Shuswap is a logical agent to be called on to provide the large volume of pegmatitic constituents indicated and the heat needed to maintain the country rock of the pegmatite at a sufficiently high temperature so that slow cooling could produce the observed grainsize of the pegmatite. Insofar as the actual controlling structure of the pegmatite is concerned it appears that isoclinal folds with east northeasterly dipping fold axial planes may be important. Minor isoclinal folds occur in limestone along the main road at the north end of the map area. These are taken as possible clues to the major structures in the area. Additional mapping in critical areas has been recommended to the owners.

3. ROCK GEOCHEMISTRY (Ref. Plate #6)

Specifications of feldspar products are given partly in terms of major element components. We have plotted on Plate #6 the K_2O and Na_2O factors with an insert showing these factors along with % silica.

A total of 33 rock chip and grab samples were collected from pegmatite outcrops with the aid of a three pound hammer. The least weathered material only was accepted for sample. Samples are described in Appendix #2. All samples were assayed for K_2O , Na_2O and SiO_2 according to the specifications

TABLE 1 MAJOR ELEMENT VARIATIONS IN BEARCUB PEGMATITE
BY ANALYTICAL METHOD WITH COMPARISON TO STEELHEAD RESOURCES
COMPOSITIONAL SPECIFICATIONS

NOTE: Sample RUB 8753 shown separately due to anomalous K₂O and CaO contents

CONSTITUENT	CHEMEX ANALYSES FOR BEARCUB PROPERTY								STEELHEAD RESOURCES, INC*	
	Assay (%) (A8721298)				ICP (%) (A8721299)				Specifications	
	Range (%)		Average (%)		Range (%)		Average (%)		Grade	
	RUB 8753	Without 8753	With 8753	Without 8753	RUB 8753	Without 8753	With 8753	Without 8753	CALSPAR-N	CALSPAR-K
K ₂ O	0.35	2.74 to 11.20	7.47	7.69	0.4	3.1 to 11.7	7.76	7.99	0 - 0.50%	5.0 - 7.0%
Na ₂ O	2.59	1.87 to 4.74	2.90	2.91	2.71	1.89 to 4.84	2.90	2.91	6.50-8.0%	3 - 5.0%
SiO ₂	76.50	67.40 to 76.80	72.01	71.87	76.80	67.87 to 77.13	72.87	72.74	75 - 80%	67 - 72%
Al ₂ O ₃	No Data	No Data	No Data	No Data	14.77	11.76 - 17.83	15.30	15.32	13 - 14.5%	16.5 - 18%
Fe ₂ O ₃	" "	" "	" "	" "	0.39	0.06 - 1.23	0.40	0.40	0.40% max	0.30% max
MgO	" "	" "	" "	" "	0.13	0.02 - 0.48	0.09	0.09	0.20% max	0.8% max
CaO	" "	" "	" "	" "	5.45	0.12 - 2.04	0.95	0.81	0 - 1.0%	1.0 - 2.5%
TiO ₂	" "	" "	" "	" "	0.07	<0.01 - 0.09	<0.037	<0.036	No Data	No Data
P ₂ O ₅	" "	" "	" "	" "	0.18	0.15 - 0.24	0.18	0.18	No Data	No Data
MnO	" "	" "	" "	" "	0.01	<0.01 - 0.10	<0.026	<0.027	No Data	No Data
BaO	" "	" "	" "	" "	<0.01	<0.01 - 0.07	<0.023	<0.023	No Data	No Data
LOI	" "	" "	" "	" "	0.53	0.19 - 0.96	0.41	0.40	0.70% max	0.70% max
TOTAL	" "	" "	" "	" "	101.45	97.49-101.90	100.96	100.94	No Data	No Data

* CALSPAR OPERATIONS, CALIFORNIA

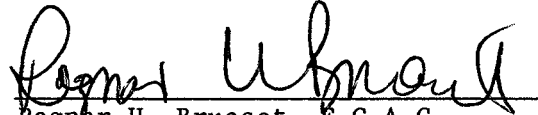
of the attached Analytical Procedures for Certificate of Analysis A.8721298. It is noted that the sample preparation involved Zr ring grinding in order to reduce iron contamination.

Samples were also analyzed for major elements by Chemex Labs using ICP (Appendix #1a). The analytical results are summarized in Table #1. Reference is made in Table #1 to the feldspar specifications of Steelhead Resources Calspar Operations in California. The principal compositional differences between Calspar-K and the Bearcub material lies in the Na_2O , Fe_2O_3 and Al_2O_3 contents. The difference in iron is slight and may in part reflect hematite from the oxidized zone and iron occurring in biotite. In both cases, the effects of iron could be minimized, in one case by sampling unoxidized material and in the other case by separating feldspar and biotite during beneficiation. Plate #6 shows the distribution of K_2O and Na_2O in these samples.

Sodium, potassium and silica analyses of this material as carried out by assay and ICP are in close agreement, so much so, that future analysis of this type of material may adequately be done by ICP. For the constituents considered in these analyses, both assay and geochemical, K_2O , Na_2O and SiO_2 , are the constituents most likely to vary significantly between assay and ICP (H. Bickler, Chemex, pers.comm).

4. CONCLUSION

1. Brenda Mines Ltd. holds under option and/or controls a total of 42 mineral claim units in the Bearcub property.
2. Infrastructures such as roads, railway, and power are in place or located nearby.
3. Chip sampling in an area 1.5 km by 0.75 km indicates widespread pegmatite mineralization of interesting grade.
4. The pegmatite is likely of metamorphic origin and probably emplaced during Shuswap metamorphism.
5. Field relations of the pegmatite are inconsistent with its emplacement as a large vertical and/or laterally zoned body.
6. The preliminary indication of controlling structure is that the pegmatite was likely emplaced in a series of isoclinal folds.
7. Further geological mapping and rock geochemical sampling is justified by the results to date.



Ragnar U. Bruaset, F.G.A.C.
Ragnar U. Bruaset & Associates Ltd.

5. REFERENCES

Jones, A.G., 1958

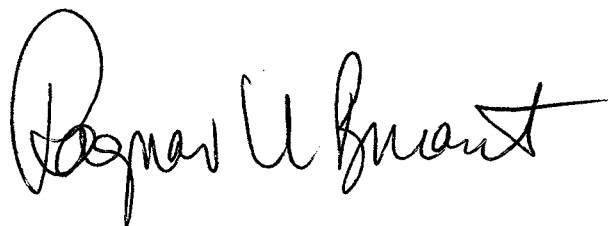
Vernon Map Area B.C. Memoir 296

Okulitch, A.V., 1979

Thompson-Shuswap-Okanagan G.S.C. Open File 637

6. STATEMENT OF COST

Analytical Costs Chemex Labs	\$1,765.00
Salaries R.U. Bruaset 8 days @ \$259.09/day	\$2,072.72
Field expendables: Flagging, Bags, Hipchain thread	\$ 55.00
Domicile	\$ 441.00
Transportation	\$ 598.00
Drafting, Reproductions, Reporting	\$2,191.28
	<u>-----</u>
TOTAL:	\$7,123.00
	<u>=====</u>



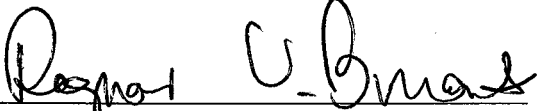
7. STATEMENT OF QUALIFICATIONS

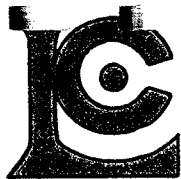
I, Ragnar U. Bruaset, resident of 5851 Halifax Street, Burnaby, B.C. do hereby certify that I am a principal in the firm Ragnar U. Bruaset & Associates Ltd. and that as an employee of that firm I conducted the foregoing exploration project on behalf of our clients Brenda Mines Ltd. and Noranda Exploration Company, Limited (no personal liability).

I also certify that:

1. I am a 1967 graduate of the University of British Columbia with a degree B.Sc. in geology, and that I am a Fellow of the Geological Association of Canada; and
2. that I have been involved in exploration geology, including mapping, in diverse Cordilleran terrains since my graduation; and
3. that I conducted the sampling and mapping herein described.

Dated this 21 day of October, 1987


Ragnar U. Bruaset
Ragnar U. Bruaset & Associates Ltd.



Cnemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

REM M L I M D

P.O. BOX 420
PEACHLAND, B.C.
V0H 1X0

A8721299

Comments :

APPENDIX 1a 1 of 2

CERTIFICATE A8721299

BRENDA MINES LIMITED

PROJECT :

P.O.# : NONE

Samples submitted to our lab in Vancouver, BC.

This report was printed on 9-SEP-87.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
299	33	Sample split from other certif
232	33	Total ICP digestion

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
592	33	SiO ₂ %: Whole rock	ICP-AES	0.01	99.00
594	33	Al ₂ O ₃ %: Whole rock	ICP-AES	0.01	99.00
586	33	Fe ₂ O ₃ (total) %: Whole rock	ICP-AES	0.01	99.00
593	33	MgO %: Whole rock	ICP-AES	0.01	99.00
588	33	CaO %: Whole rock	ICP-AES	0.01	99.00
599	33	Na ₂ O %: Whole rock	ICP-AES	0.01	99.00
821	33	K ₂ O %: Whole rock	ICP-AES	0.1	99.0
595	33	TiO ₂ %: Whole rock	ICP-AES	0.01	99.00
597	33	P ₂ O ₅ %: Whole rock	ICP-AES	0.01	99.00
596	33	MnO %: Whole rock	ICP-AES	0.01	99.00
542	33	BaO %: Whole rock	ICP-AES	0.01	99.00
475	33	L.O.I. %: Loss on ignition	FURNACE	0.01	99.00
540	33	Total %	CALCULATION	0.01	N/A



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

To: BRENDA MINES LIMITED

P.O. BOX 420
PEACHLAND, B.C.
VOH 1X0

Project :

Comments :

Page No. : 1
Tot. Pages: 1
Date : 09-SEP-87
Invoice # : I-8721299
P.O. # : NONE

APPENDIX 1a 2 of 2

CERTIFICATE OF ANALYSIS A8721299

SAMPLE DESCRIPTION	PREP CODE	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	BaO %	LOI %	TOTAL %
BC RUB 8701	299 232	71.72	15.38	0.31	0.07	0.38	2.23	10.0	0.02	0.18	0.01	0.03	0.39	100.75
BC RUB 8703	299 232	73.43	15.60	0.50	0.12	1.33	3.54	6.1	0.06	0.17	0.03	0.03	0.48	101.40
BC RUB 8708	299 232	74.36	14.99	0.54	0.12	1.94	4.74	3.6	0.05	0.18	0.02	0.01	0.25	100.80
BC RUB 8710	299 232	72.30	15.40	0.28	0.06	0.33	2.12	10.4	0.02	0.18	0.02	0.03	0.28	101.45
BC RUB 8712	299 232	72.11	15.63	1.12	0.20	1.25	3.53	7.1	0.09	0.20	0.09	0.03	0.33	101.70
BC RUB 8714	299 232	73.65	13.46	0.70	0.19	1.68	3.48	3.5	0.09	0.19	< 0.03	< 0.01	0.50	97.49
BC RUB 8716	299 232	72.44	13.89	0.36	0.11	1.51	2.60	6.8	0.05	0.17	< 0.01	0.02	0.38	98.35
BC RUB 8725	299 232	71.87	15.75	0.34	0.08	0.66	2.66	9.4	0.03	0.17	< 0.01	0.06	0.28	101.30
BC RUB 8730	299 232	71.25	16.01	0.45	0.11	0.99	2.79	9.2	0.06	0.21	0.01	0.03	0.27	101.40
BC RUB 8733	299 232	75.77	14.38	0.44	0.08	2.04	4.40	3.1	0.02	0.17	0.06	< 0.01	0.35	100.85
BC RUB 8734	299 232	67.87	17.83	0.22	0.05	0.36	3.02	11.7	0.01	0.24	< 0.01	< 0.01	0.42	101.75
BC RUB 8736	299 232	72.25	15.15	0.26	0.05	0.19	2.07	10.4	0.02	0.17	< 0.01	< 0.01	0.36	100.95
BC RUB 8737	299 232	70.92	15.85	0.21	0.04	0.12	1.92	11.4	0.01	0.18	0.01	< 0.02	0.57	101.25
BC RUB 8738	299 232	74.95	14.95	0.91	0.16	1.82	4.47	3.1	0.09	0.16	0.05	< 0.01	0.40	101.10
BC RUB 8740	299 232	74.10	15.71	0.42	0.10	1.24	3.85	5.8	0.08	0.18	0.02	< 0.01	0.37	101.90
BC RUB 8753	299 232	76.80	14.77	0.39	0.13	5.45	2.71	0.4	0.07	0.18	0.01	< 0.01	0.53	101.45
BC RUB 8757	299 232	72.30	15.45	0.12	0.03	0.27	2.13	10.8	0.01	0.16	0.01	< 0.04	0.19	101.50
BC RUB 8759	299 232	73.97	14.80	0.24	0.05	0.36	2.10	9.6	0.02	0.18	0.01	< 0.01	0.55	101.90
BC RUB 8782	299 232	73.11	15.66	0.46	0.10	1.19	3.22	6.7	0.06	0.17	< 0.01	0.02	0.49	101.20
BC RUB 8785	299 232	74.51	14.64	0.76	0.11	1.17	3.23	6.5	0.01	0.20	0.10	0.07	0.47	101.80
BC RUB 8791	299 232	72.76	15.51	0.33	0.08	0.56	2.92	8.8	0.03	0.16	< 0.01	0.06	0.32	101.55
BC RUB 8793	299 232	71.33	15.52	0.12	0.04	0.34	2.28	9.9	0.01	0.15	< 0.01	0.04	0.53	100.30
BC RUB 8796	299 232	70.32	16.03	0.08	0.02	0.16	1.89	11.5	0.01	0.16	< 0.01	0.03	0.24	100.45
BC RUB 87101	299 232	72.04	15.40	0.11	0.03	0.25	1.94	10.7	0.01	0.15	< 0.01	0.04	0.24	100.95
BC RUB 87104	299 232	72.45	15.44	0.24	0.04	0.14	1.96	10.9	0.02	0.16	< 0.01	0.02	0.34	101.75
BC RUB 87105	299 232	72.51	16.49	0.47	0.10	1.07	3.86	6.2	0.05	0.19	0.05	< 0.01	0.44	101.45
BC RUB 87110	299 232	75.76	14.81	0.45	0.10	0.94	3.91	4.4	0.03	0.16	0.04	< 0.01	0.72	101.35
BC RUB 87114	299 232	71.84	16.08	0.30	0.08	0.27	2.06	10.1	0.03	0.19	0.01	< 0.01	0.38	101.35
BC RUB 87115	299 232	74.84	15.40	0.40	0.06	1.58	4.84	2.7	0.03	0.17	0.07	< 0.01	0.52	100.65
BC RUB 87117	299 232	71.58	15.63	0.33	0.04	0.35	2.29	9.9	0.01	0.16	0.06	0.01	0.30	100.65
BC RUB 87129	299 232	71.76	15.61	0.06	0.02	0.22	2.32	10.3	< 0.01	0.18	< 0.01	0.02	0.26	100.80
BC RUB 87133	299 232	70.59	15.98	0.11	0.02	0.14	2.12	11.3	< 0.01	0.18	0.01	0.01	0.32	100.80
BC RUB 87143	299 232	77.13	11.76	1.23	0.48	1.07	2.51	3.8	0.09	0.16	0.04	0.02	0.96	99.26

CERTIFICATION :

B. Caughlin



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: BRENDA MINES LIMITED

P.O. BOX 420
PEACHLAND, B.C.
V0H 1X0

A8721298

Comments:

APPENDIX 1b 1 of 2

CERTIFICATE A8721298

BRENDA MINES LIMITED

PROJECT :
P.O.# : NONE

Samples submitted to our lab in Vancouver, BC.
This report was printed on 9-SEP-87.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
248	33	Rock or core prep using Zr rings

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
358	33	K2O %: HClO4-HNO3-HF digestion	AAS	0.01	100.0
360	33	Na2O %: HClO4-HNO3-HF digestion	AAS	0.01	100.0
378	33	SiO2 %: Carbonate fusion	GRAVIMETRIC	0.01	100.00



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

To : BRENDA MINES LIMITED

P.O. BOX 420
PEACHLAND, B.C.
VOH 1X0

Project :

Comments :

Page No. : 1

Tot. Pages : 1

Date : 17-SEP-87

Invoice # : I-8721298

P.O. # : NONE

APPENDIX 1b 2 of 2

CERTIFICATE OF ANALYSIS A8721298

SAMPLE DESCRIPTION	PREP CODE	K2O %	Na2O %	SiO2 % fusion								
BC RUB 8701	248 ---	9.81	2.19	70.70								
BC RUB 8703	248 ---	6.14	3.54	71.10								
BC RUB 8708	248 ---	3.03	4.75	72.50								
BC RUB 8710	248 ---	10.00	2.19	71.20								
BC RUB 8712	248 ---	6.53	3.49	71.10								
BC RUB 8714	248 ---	3.12	3.54	76.50								
BC RUB 8716	248 ---	6.55	2.84	73.50								
BC RUB 8725	248 ---	8.92	2.79	70.70								
BC RUB 8730	248 ---	8.72	2.87	70.70								
BC RUB 8733	248 ---	2.77	4.43	76.00								
BC RUB 8734	248 ---	11.10	3.04	67.40								
BC RUB 8736	248 ---	9.95	2.17	71.10								
BC RUB 8737	248 ---	10.70	1.95	69.80								
BC RUB 8738	248 ---	3.11	4.30	74.80								
BC RUB 8740	248 ---	5.61	3.65	72.60								
BC RUB 8753	248 ---	0.35	2.59	76.50								
BC RUB 8757	248 ---	10.30	2.15	71.70								
BC RUB 8759	248 ---	9.02	2.06	72.40								
BC RUB 8782	248 ---	6.37	3.19	72.00								
BC RUB 8785	248 ---	6.18	3.25	72.70								
BC RUB 8791	248 ---	8.47	2.82	70.60								
BC RUB 8793	248 ---	9.85	2.30	70.60								
BC RUB 8796	248 ---	11.20	1.87	69.90								
BC RUB 87101	248 ---	10.50	1.89	71.90								
BC RUB 87104	248 ---	10.40	1.97	71.80								
BC RUB 87105	248 ---	5.97	3.70	71.80								
BC RUB 87110	248 ---	4.09	3.82	74.40								
BC RUB 87114	248 ---	10.30	2.07	70.20								
BC RUB 87115	248 ---	2.74	4.74	73.70								
BC RUB 87117	248 ---	9.72	2.32	70.10								
BC RUB 87129	248 ---	9.91	2.39	69.80								
BC RUB 87133	248 ---	11.20	2.14	69.60								
BC RUB 87143	248 ---	3.71	2.59	76.80								

PL Swales

APPENDIX 2

SAMPLE DESCRIPTION BEARCUB FELDSPAR PROPERTY

Pegmatite Sample	Inclusion Content	Sample Type and Extent
B.C. RUB 8701	N.I.= no inclusions	C=chip: 10 x 10 m area
8703	Minor quartz dio.	C: across 8 m
8708	N.I.	C: across 2 m
8710	N.I.	C: across 1.5 m
8712	20% schist	C: 8 x 10 m area
8714	N.I.	C: across 23 m
8716	N.I.	C: 5 x 10 m area
8725	N.I.	C: across 6 m
8730	N.I.	C: across 10 m
8733	No Data	C: across 14 m
8734	5% qtz. di + schist	C: 10 x 10 m area
8736	N.I.	C: 2 x 2 m area
8737	N.I.	C: 7 x 7 m area
8738	N.I.	C: across 8 m
8740	N.I.	C: 8 x 8 m area
8753	Minor Inclusions	C: 10 x 10 m area
8757	N.I.	No Data
8759	N.I.	C: 10 x 10 m area
8782	N.I.	G=grab
8785	N.I.	G
8791	N.I.	C: 1.5 x 3 m area
8793	N.I.	C: 10 x 10 m area
8796	N.I.	G
87101	N.I.	C: 5 x 5 m area
87104	N.I.	G
87105	N.I.	G
87110	N.I.	G
87114	N.I.	G
87115	N.I.	G
87117	N.I.	G
87129	N.I.	G
87133	N.I.	G
87143	N.I.	G

Note: Chip and grab samples are all substantial samples weighing minimum 1 to 1.5 kg. Most samples contain slight iron oxide surface weathering, a material difficult to avoid in hand tool sampling of these typically massive, ice smoothed, outcrops. A 3 lb. hammer was used.

Chemex Labs Ltd.
 CERTIFICATE OF ANALYSIS A8721298

SAMPLE DESCRIPTION	PREP CODE	K ₂ O %	Na ₂ O %	SiO ₂ % Fusion
MC RUIR 8701	248	9.81	3.10	70.70
MC RUIR 8703	248	6.14	3.44	71.20
MC RUIR 8708	248	10.00	3.49	71.20
MC RUIR 8710	248	10.00	3.10	71.20
MC RUIR 8712	248	5.33	3.49	71.10
MC RUIR 8714	248	3.12	3.54	76.50
MC RUIR 8716	248	6.55	2.84	73.50
MC RUIR 8720	248	6.02	3.70	70.70
MC RUIR 8730	248	6.72	4.87	70.70
MC RUIR 8733	248	2.77	4.41	76.00
MC RUIR 8734	248	11.10	3.04	67.40
MC RUIR 8736	248	6.95	3.17	71.10
MC RUIR 8738	248	10.10	3.19	69.80
MC RUIR 8740	248	3.11	3.30	72.80
MC RUIR 8742	248	6.61	3.65	72.60
MC RUIR 8753	248	6.35	2.90	76.50
MC RUIR 8757	248	10.30	3.15	71.70
MC RUIR 8759	248	6.02	3.16	71.40
MC RUIR 8761	248	10.50	1.89	71.90
MC RUIR 8765	248	6.18	3.25	72.90
MC RUIR 8791	248	8.47	1.82	70.60
MC RUIR 8793	248	9.85	1.10	70.60
MC RUIR 8796	248	11.20	1.87	69.90
MC RUIR 8798	248	10.50	1.89	71.90
MC RUIR 87104	248	10.40	1.97	71.80
MC RUIR 87105	248	5.97	3.70	71.80
MC RUIR 87110	248	3.09	3.82	74.40
MC RUIR 87115	248	10.30	4.07	70.20
MC RUIR 87116	248	2.74	4.74	73.70
MC RUIR 87117	248	9.72	2.32	70.10
MC RUIR 87119	248	6.91	1.14	69.80
MC RUIR 87123	248	11.20	1.14	69.80
MC RUIR 87143	248	3.71	2.59	76.80

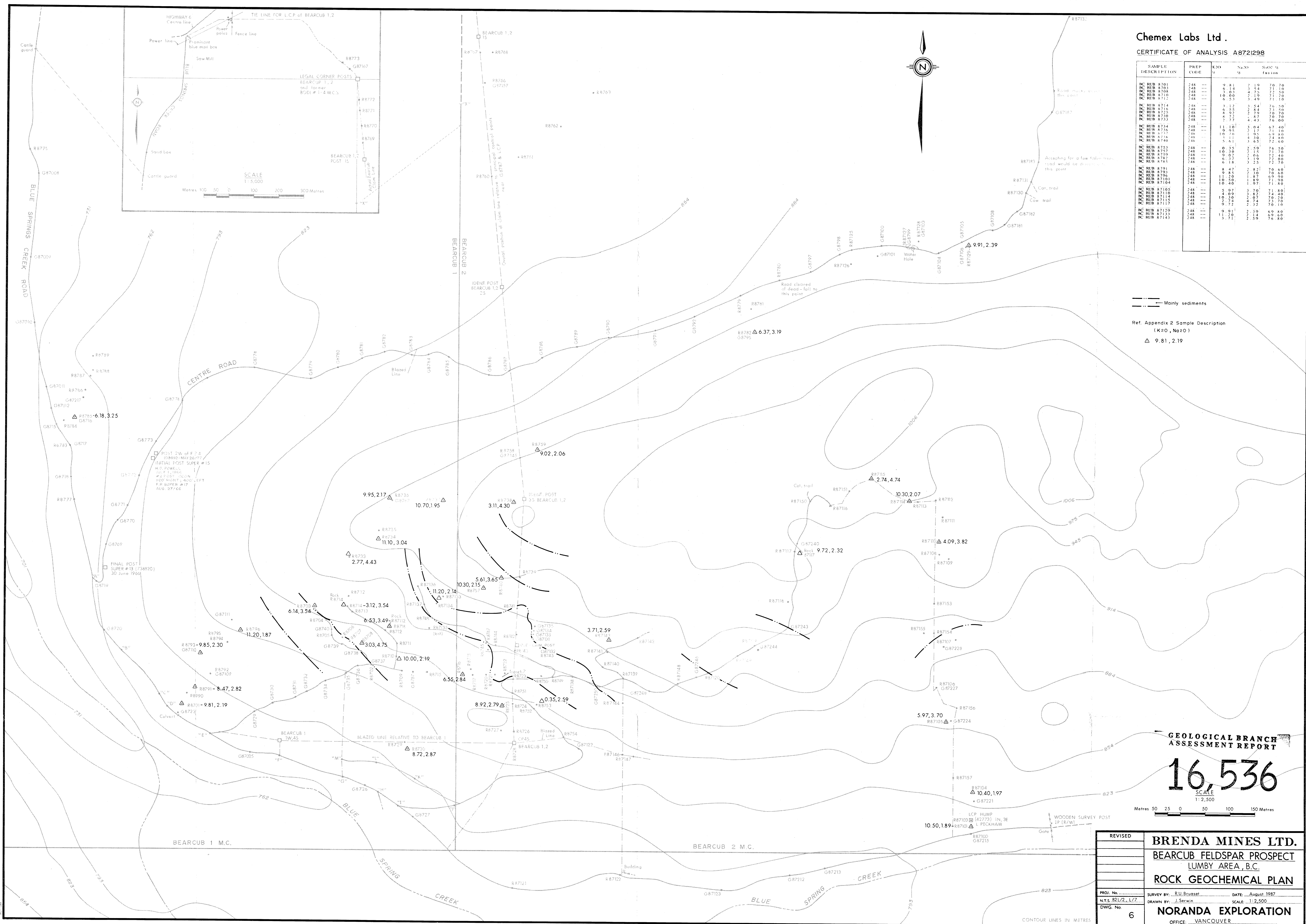
--- Mainly sediments
 Ref. Appendix 2 Sample Description (K₂O, Na₂O)
 Δ 9.81, 2.19

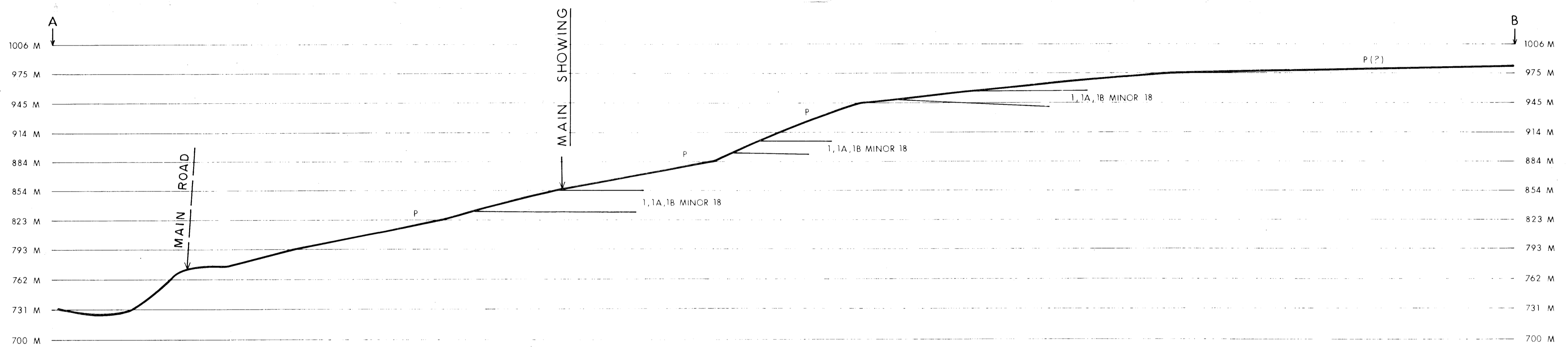
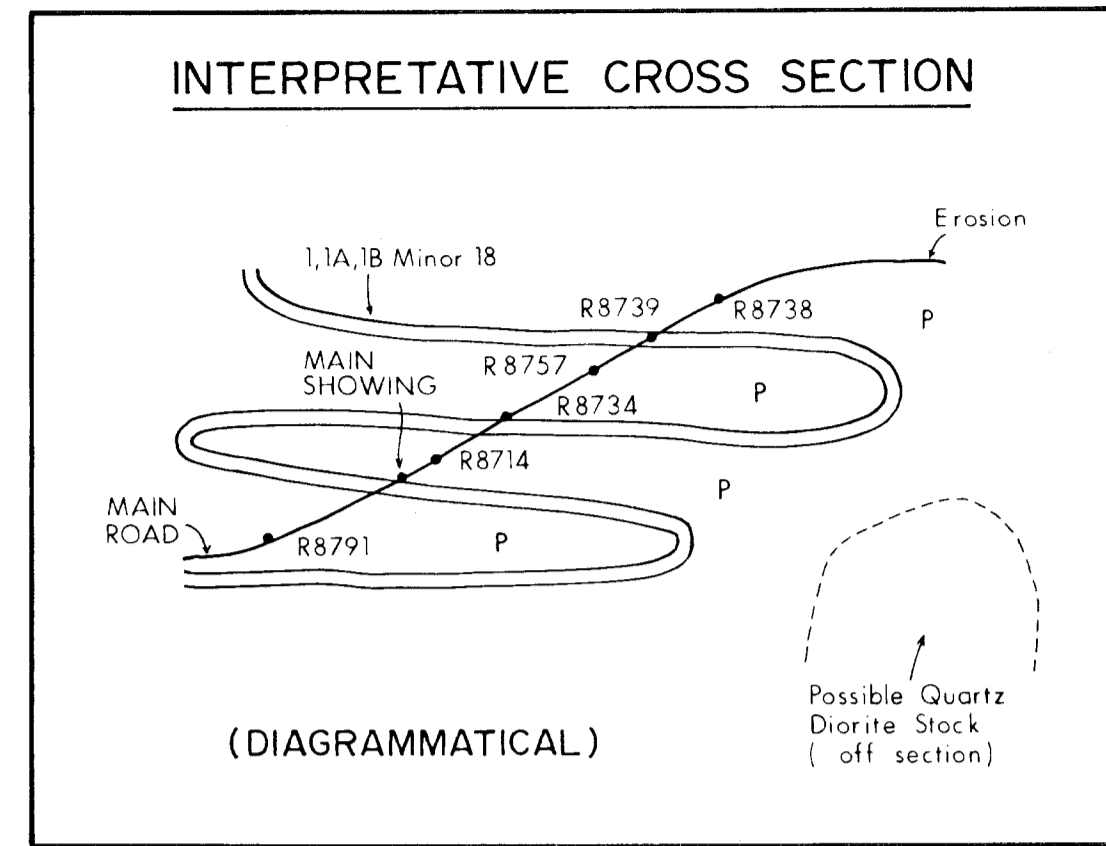
GEOLOGICAL BRANCH ASSESSMENT REPORT

16,536

SCALE 1:2,500
 Metres 50 25 0 50 100 150 Metres

REVISED	BRENDA MINES LTD.	
	BEARCUB FELDSPAR PROSPECT	
	LUMBY AREA, B.C.	
	ROCK GEOCHEMICAL PLAN	
PROJ. No. N.S. 821/2, L/7	SURVEY BY: R.M. Bruwiler	DATE: August 1987
DWG. No. 6	DRAWN BY: J. Serwin	SCALE: 1:2,500
	NORANDA EXPLORATION	
	OFFICE: VANCOUVER	





ASSESSMENT REPORT

16,536

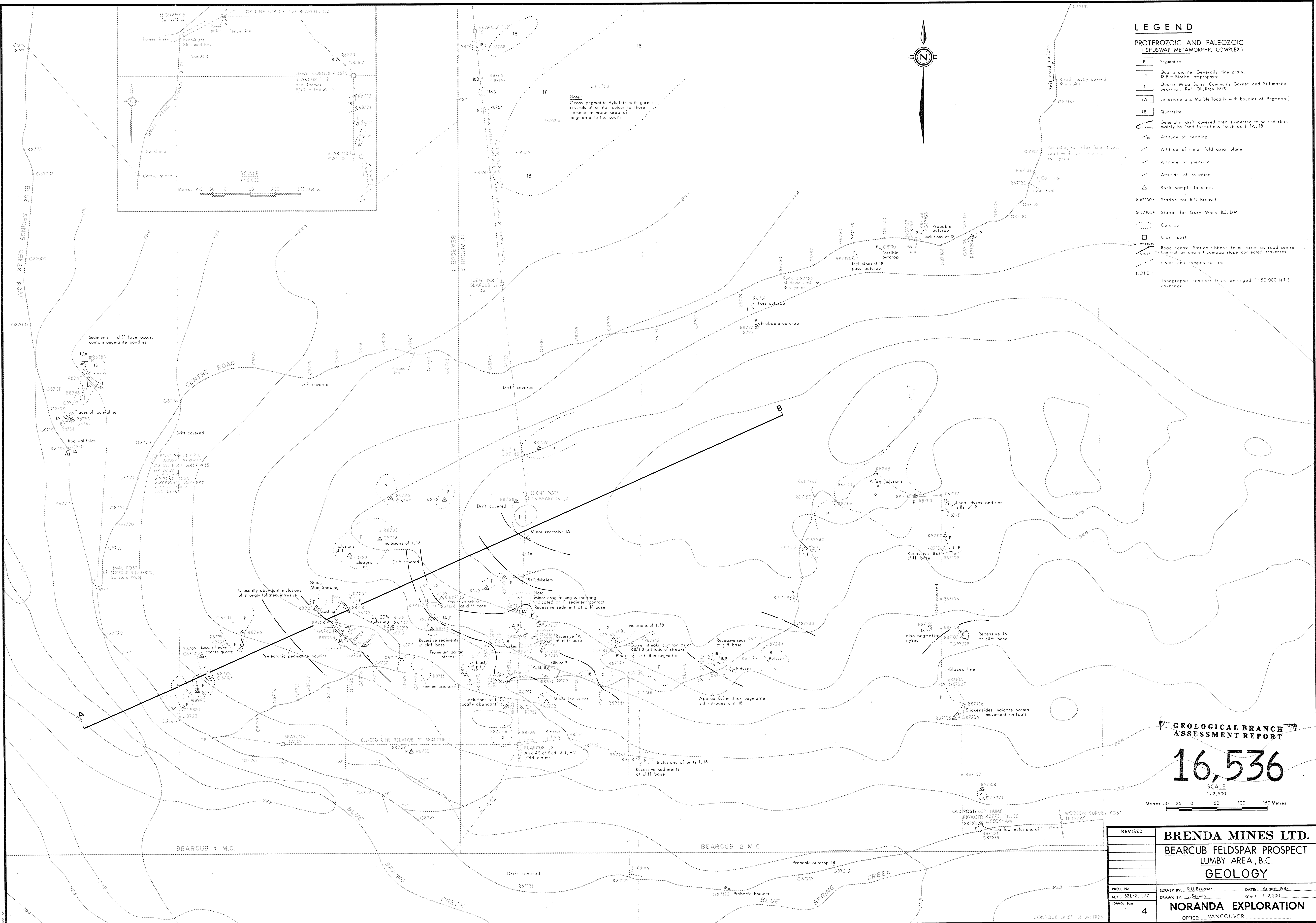
SCALE
1:2,500



LEGEND

- P PEGMATITE
- 18 QUARTZ DIORITE
- 1, 1A, 1B METASEDIMENTS

REVISED	BRENDA MINES LTD.	
	BEARCUB FELDSPAR PROSPECT	
	LUMBY AREA, B.C.	
	CROSS SECTION A-B	
	LOOKING NN WESTERLY	
PROJ. No.	SURVEY BY: R.U. Bruaset	DATE: September 1987
N.T.S.	DRAWN BY: J. Serwin	SCALE: 1:2,500
DWG. No.	NORANDA EXPLORATION	
5	OFFICE: VANCOUVER	



LEGEND

PROTEROZOIC AND PALEOZOIC (SHUSWAP METAMORPHIC COMPLEX)

- P Pegmatite
- 18 Quartz diorite. Generally fine grain. 18-B = Basite lamprophyre
- 1 Quartz Mica Schist Commonly Garnet and Sillimanite bearing. Ref. Okulitch 1979
- 1A Limestone and Marble (locally with boudins of Pegmatite)
- 1B Quartzite

Generally drift covered area suspected to be underlain mainly by "soft formations" such as 1, 1A, 18

- Attitude of bedding
- Attitude of minor fold axial plane
- Attitude of shearing
- Attitude of foliation
- Rock sample location

R 87130 • Station for R.U. Brusset
 G 87105 • Station for Gary White B.C.D.M.

- Outcrop
- Claim post
- Road centre. Station ribbons to be taken as road centre. Control by chain + compass slope corrected traverses
- Chain and compass traverse

NOTE
 Topographic contours from enlarged 1:50,000 N.T.S. coverage

GEOLOGICAL BRANCH ASSESSMENT REPORT

16,536

SCALE 1:2,500
 Metres 50 25 0 50 100 150 Metres

REVISED	BRENDA MINES LTD.	
	BEARCUB FELDSPAR PROSPECT	
	LUMBY AREA, B.C.	
	GEOLOGY	
PROJ. No.	SURVEY BY: R.U. Brusset	DATE: August 1987
N.T.S. 821/2, L/7	DRAWN BY: J. Serwin	SCALE: 1:2,500
DWG. No.	NORANDA EXPLORATION	
4	OFFICE: VANCOUVER	