

BRENDA MINES LTD.
EXPLORATION GROUP

80-#183-# 7986
DIAMOND DRILL REPORT

on the

JACKPINE MOLYBDENUM PROPERTY
CHAPLIN II CLAIM GROUP

Osoyoos and Vernon Mining Districts

N.T.S. 82E/13

Lat. 49° 55' Long. 119° 47'

Prepared by

Paul C. Bankes

January 1980

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT

7986
part 2
of 2

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I INTRODUCTION

The Jackpine molybdenite property was staked by Maurice R. Chaplin following the discovery of molybdenite in a series of easterly trending quartz veins. A consortium of local business people formed Jackpine Mines Limited and did extensive trenching and drilling on the main mineral showing. This partnership was later dissolved and the ground restaked by Mr. Chaplin as the Maurice No. 1 to No. 4 mineral claims.

In June, 1978, Brenda Mines Ltd. optioned the four claims from Mr. Chaplin and staked an additional 80 units. Geochemical and geological surveys preceded a four hole drill program which was completed in November, 1978.

II PROPERTY DESCRIPTION

a) Location and Access

The Maurice No. 1 to 4 claims are located to the northwest of Jackpine Lake. The Jackpine 1 and 2 claims consist of two, twenty unit blocks which surround Jackpine Lake and the original Maurice claims.

The Jackpine property is located 17 kilometres northwest of the town of Westbank and 23 kilometres west of the city of Kelowna (Figure 1).

Access to the property is via the road to Last Mountain Ski Resort, which leaves Highway 97 at Westbank.



Location Map

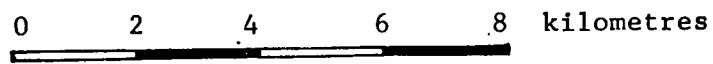


Figure 1

One kilometre before the resort's entrance, a gravel road leads north to Jackpine Fishing Camp. From this point, four-wheel drive roads provide access to Banana Lake, Gallatly Lake and the main mineral showings (Figure 2).

b) CLAIM INVENTORY

Chaplin II Claim Group

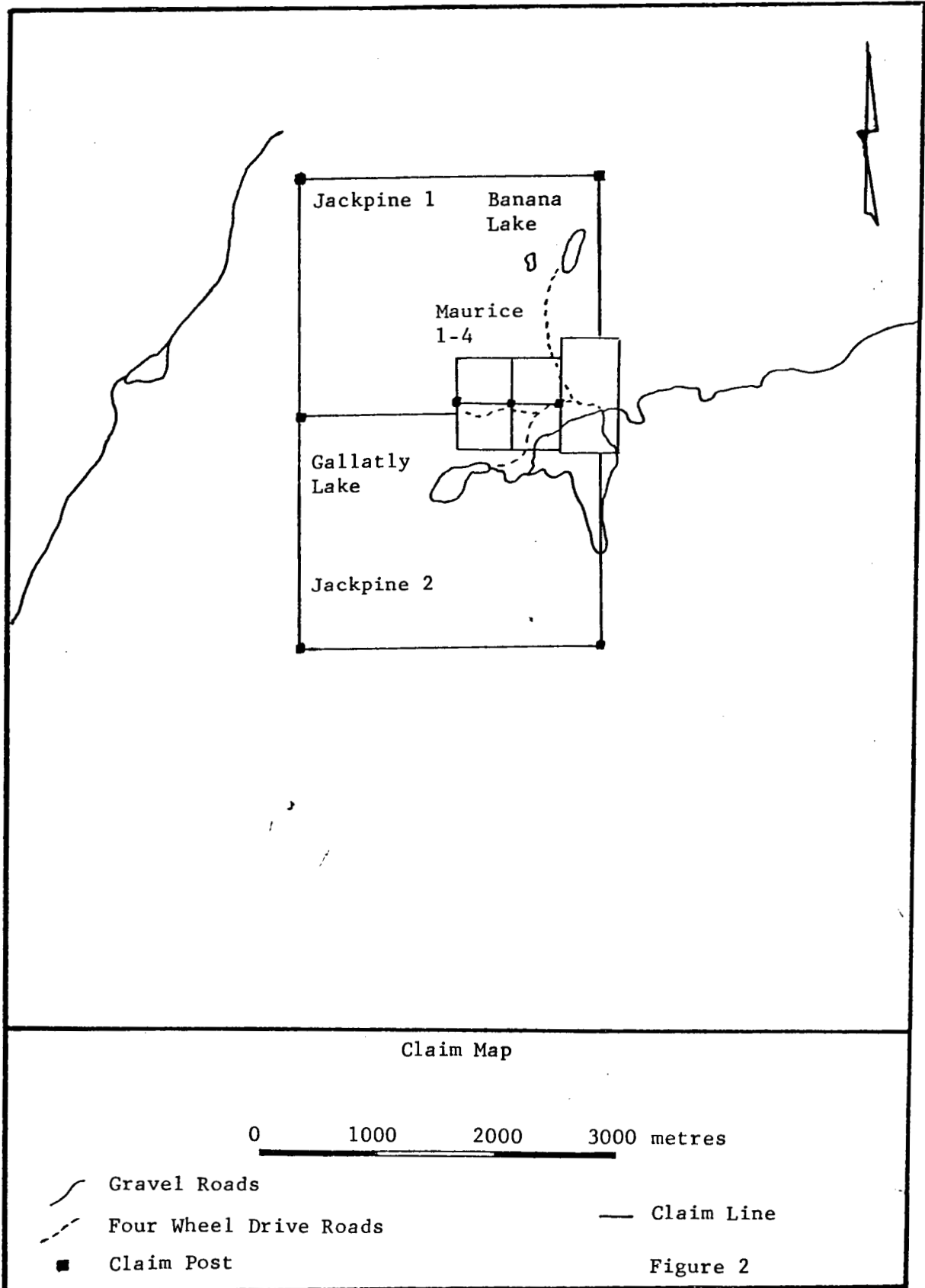
<u>Claim Name</u>	<u>Record No.</u>	<u>Units</u>	<u>Record Date</u>	<u>Mining District</u>
Maurice 2	17823	1	Aug. 13/74	Vernon
Maurice 4	17825	1	Aug. 13/74	Vernon
Jackpine 2	471	20	July 5/78	Osoyoos

III GEOLOGY

The Jackpine property is largely underlain by coarse grained quartz monzonite which is believed to be part of the Pennask Batholith.

In the side notes of G.S.C., Map 15-1961, Kettle River (west half), H.W. Little describes the Pennask Batholith as a composite intrusive ranging in composition from quartz diorite to quartz monzonite.

Near the northeast corner of the property, outcrops of greenstone and argillite were found and appear to be part of the Cache Creek Group, which occurs more extensively to the north. To the southeast, outcrops of Tertiary basalt and andesite were found and these extend southward covering much of Last Mountain.



IV DIAMOND DRILLING

a) Introduction

Interior Diamond Drilling Limited was contracted to drill 305 metres (1,000 feet) of NQ core (4.7 cm, 1⁷/₈ inch), during October and November, 1979.

Diamond drill hole JP-4 was extended from a depth of 93.3 metres (306 feet) to 236 metres (775 feet). In order to determine whether veining continued east and/or at depth, two exploration holes were drilled at 50 + 00N and 150 + 00N on line 600 + 00W (Figure 7). A total of 362.8 metres (1,190 feet) were drilled.

b) Diamond Drill Hole Descriptions

1) D.D.H. JP-4

Location - 860 + 00W, 10 + 00N

Bearing - North, Angle - 45°

Depth of Overburden - 4.6 metres (15 feet)

Depth 1978 - 0 to 144 metres (472 feet)

1979 - 144 metres (472 feet) to 236 metres (775 feet)

Lithology

Quartz monzonite was the only rock type encountered.

Alteration

The quartz monzonite in diamond drill hole JP-4 is fresh, with narrow (1 cm) zones of minor kaolinite and propylitic alteration along fractures and quartz veins. Several 10 to 40 centimetre gouge zones between 0 and 95 metres (311 feet), exhibit intense kaolinite and chlorite alteration.

Mineralization

Zones of very finely disseminated molybdenite ranging from 1 to 8 metres (3.3 to 26.3 feet) in width are intersected in the upper 93 metres (305 feet) of drill hole JP-4. Assays taken over these zones averaged 29 ppm molybdenum. Disseminated blebs of molybdenite also occur between 134.5 to 135 metres (441 to 442.8 feet) and 147.08 to 147.28 metres (482.4 to 483.1 feet). These zones of disseminated mineralization are interpreted as hydrothermal flooding.

Hole JP-4 intersected ten, 1 to 8 centimetre quartz veins in the upper 91.5 metres (300 feet) of the hole. These veins dip at 30° to 45° to the axis of the core and host small 1 to 5 millimetre molybdenite rosettes. Disseminated pyrite occurs throughout the hole, decreasing in concentration downward.

The lower 144 metres (472 feet) of the hole were not assayed due to only very minor molybdenite mineralization.

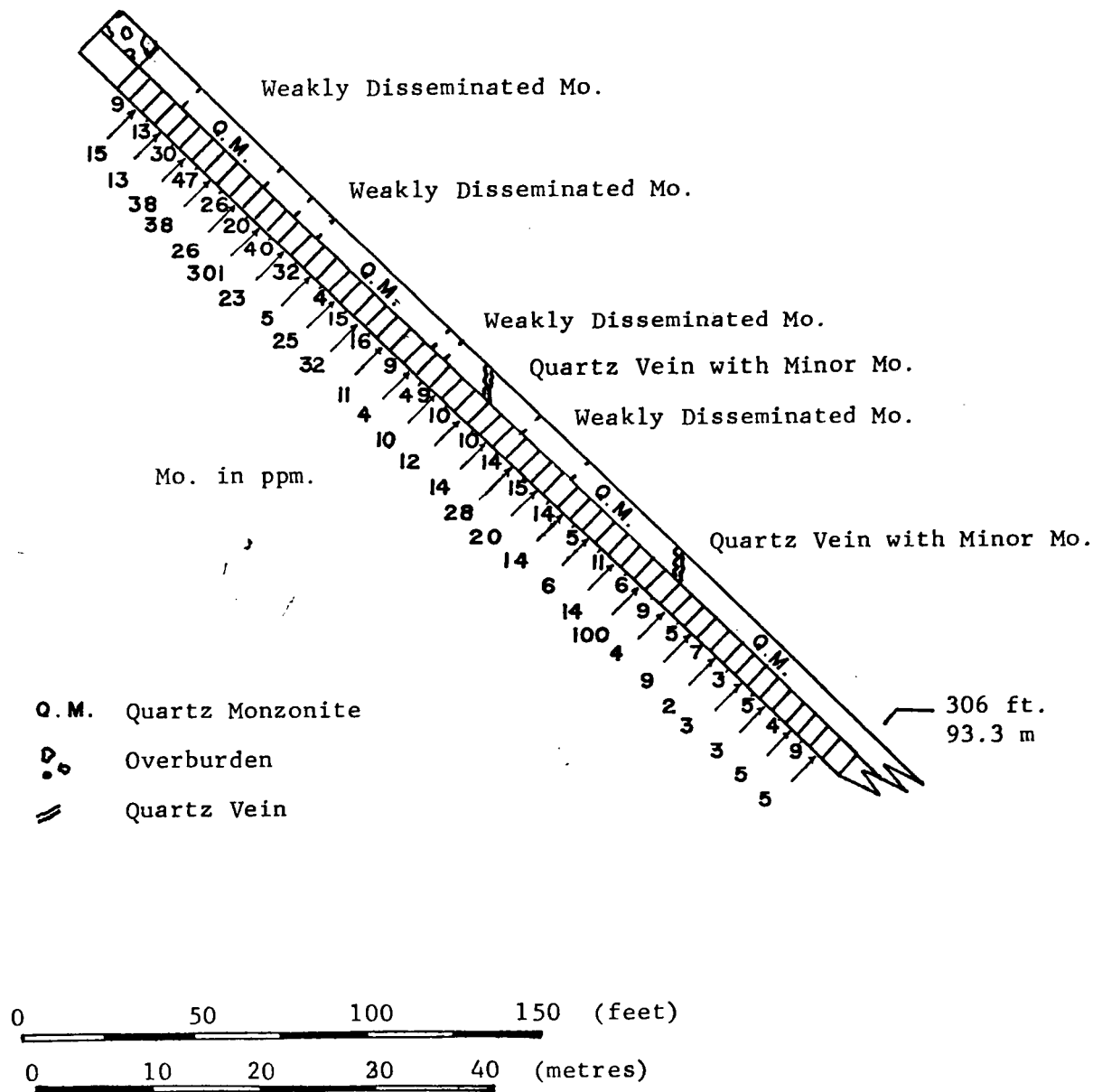


Figure 3

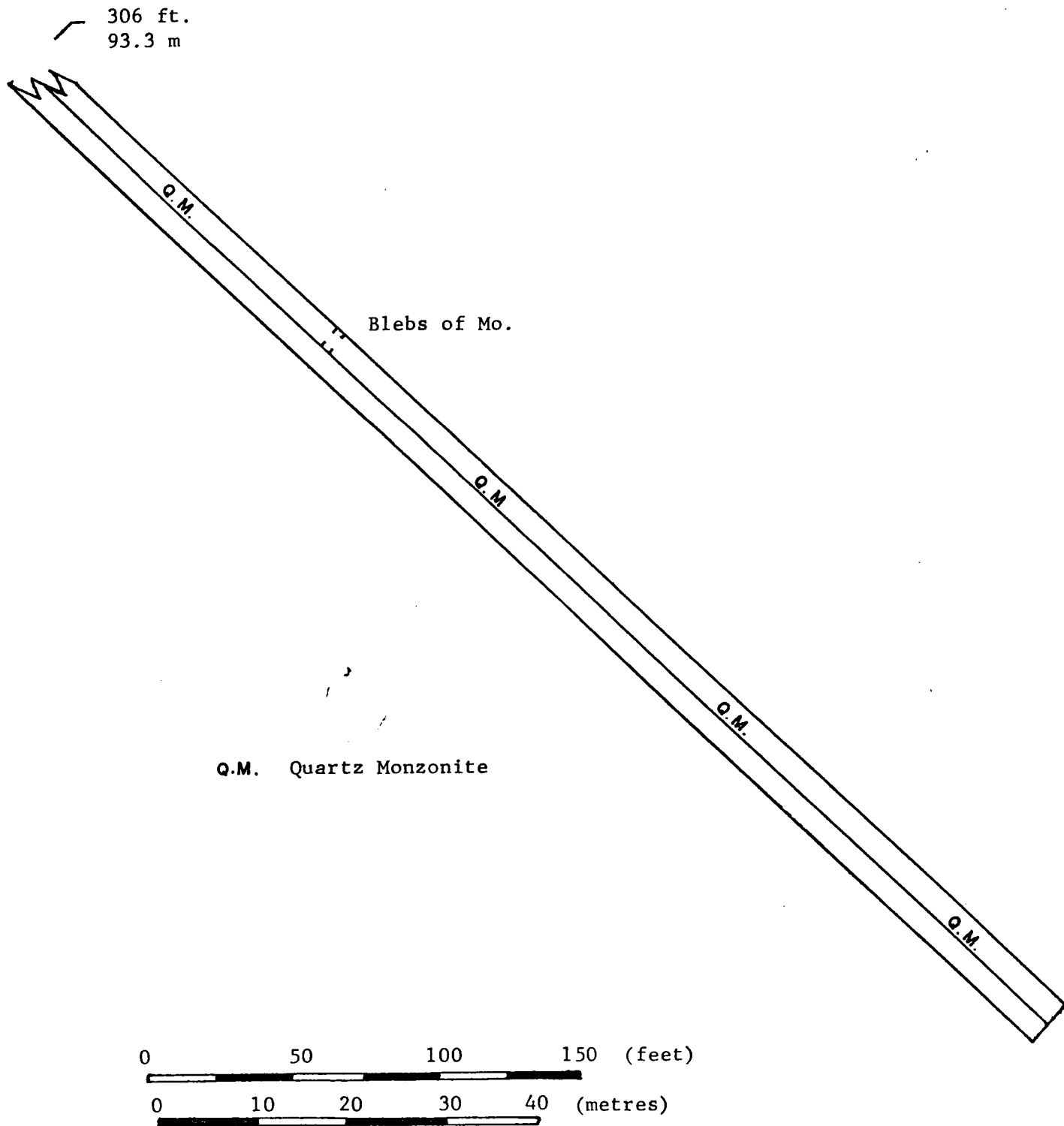


Figure 4

c) Discussion of Results

Decreasing molybdenite and pyrite in the lower portion of D.D.H. JP-4 would indicate that the grade of the mineralized zone does not improve at depth.

Diamond drill hole JP-5 was the most encouraging hole drilled in 1979. Veining intersected in D.D.H. JP-5 appears to indicate an easterly continuation of the quartz molybdenite vein system. Mineralization however, is not improved in D.D.H. JP-5 and remains well below economic levels.

The absence of veining in diamond drill hole JP-6 suggests that the vein system does not extend northward and is very narrow at this point.

V CONCLUSIONS

Mineralization on the Jackpine molybdenum property consists of a series of parallel quartz-molybdenite veins, exposed along a 1,000 metre strike and 200 metre width. Geochemical, geological and diamond drill programs completed in 1978 were unsuccessful in expanding the mineralized zone.

Results obtained from the 1979 drill program suggests that quartz-molybdenite veins extend east and are separated by large zones of barren rock. Mineralization however, does not appear to improve along the system's strike or at depth.

Though the lack of outcrop has made geological interpretation difficult, the mineralized zone is possibly related to converging faults centered in Jackpine Lake. Geological surveys and diamond drill results offer little evidence for a deposit of economic potential.

VI RECOMMENDATIONS

No further work is recommended on this property.

APPENDIX I

Personnel and time allotment work was performed on the property during October and November, 1979.

Crew members were:

		<u>Man Days</u>
A.R. Pollmer	Chief Geologist	8
P.C. Bankes	Exploration Geologist	5
D.W. Ferguson	Exploration Geologist	6
R. Allen	Field Assistant	3

APPENDIX II

STATEMENT of COSTS

CHAPLIN II CLAIM BLOCK

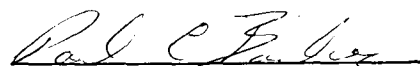
1)	<u>Transportation</u> Fuel Costs, October 13 to October 24, 1979; 12 days @ \$3.56/day	42.72
2)	<u>Diamond Drilling</u> October 13 to Oct. 24, 1979; 12 days; 144 metres of NQ core @ \$73.64/metre	10,604.16
3)	<u>Salaries and Wages</u> October 13 to October 24, 1979; 12 days @ \$89.35/day	1,072.25
4)	<u>Report Preparation</u> a) Writing and Drafting, January 10 to January 16, 1980; 5 days @ \$80/day	400.00
	b) Typing, February 12, 1980; one day @ \$50.00/day	<u>50.00</u>
	Total	\$12,169.13

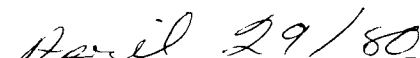
APPENDIX III

STATEMENT of QUALIFICATIONS

I, Paul Bankes, of the town of Peachland, Province of British Columbia, do hereby certify that:

- 1) I am a geologist residing in Peachland with Post Office Box 9 as my address.
- 2) I am a graduate of the University of Western Ontario, with a BSc in geology (1978).
- 3) I have been employed as an exploration geologist by Brenda Mines Ltd. since April 1978.

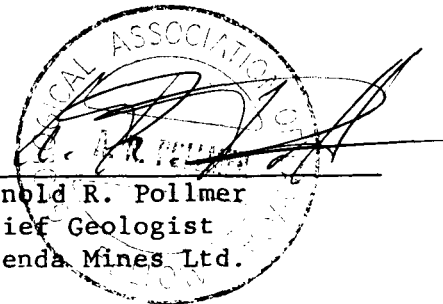

P.C. Bankes, BSc
Exploration Geologist
Brenda Mines Ltd.


Date

STATEMENT of QUALIFICATIONS

I, Arnold R. Pollmer of Peachland, Province of British Columbia,
do certify that:

- 1) I have been employed as a geologist by Noranda Mines Limited
from December 1973 to June 1977; I am presently employed as
the chief geologist by Brenda Mines Ltd.
- 2) I am a graduate of the University of Wisconsin with a
Bachelor of Science Degree in Geology (1972).
- 3) I am a member of the Canadian Institute of Mining and
Metallurgy.
- 4) I am a fellow of the Geological Association of Canada.



Arnold R. Pollmer
Chief Geologist
Brenda Mines Ltd.

APPENDIX IV

Core Size : NQDate : Nov. 5/79

Elevation : _____

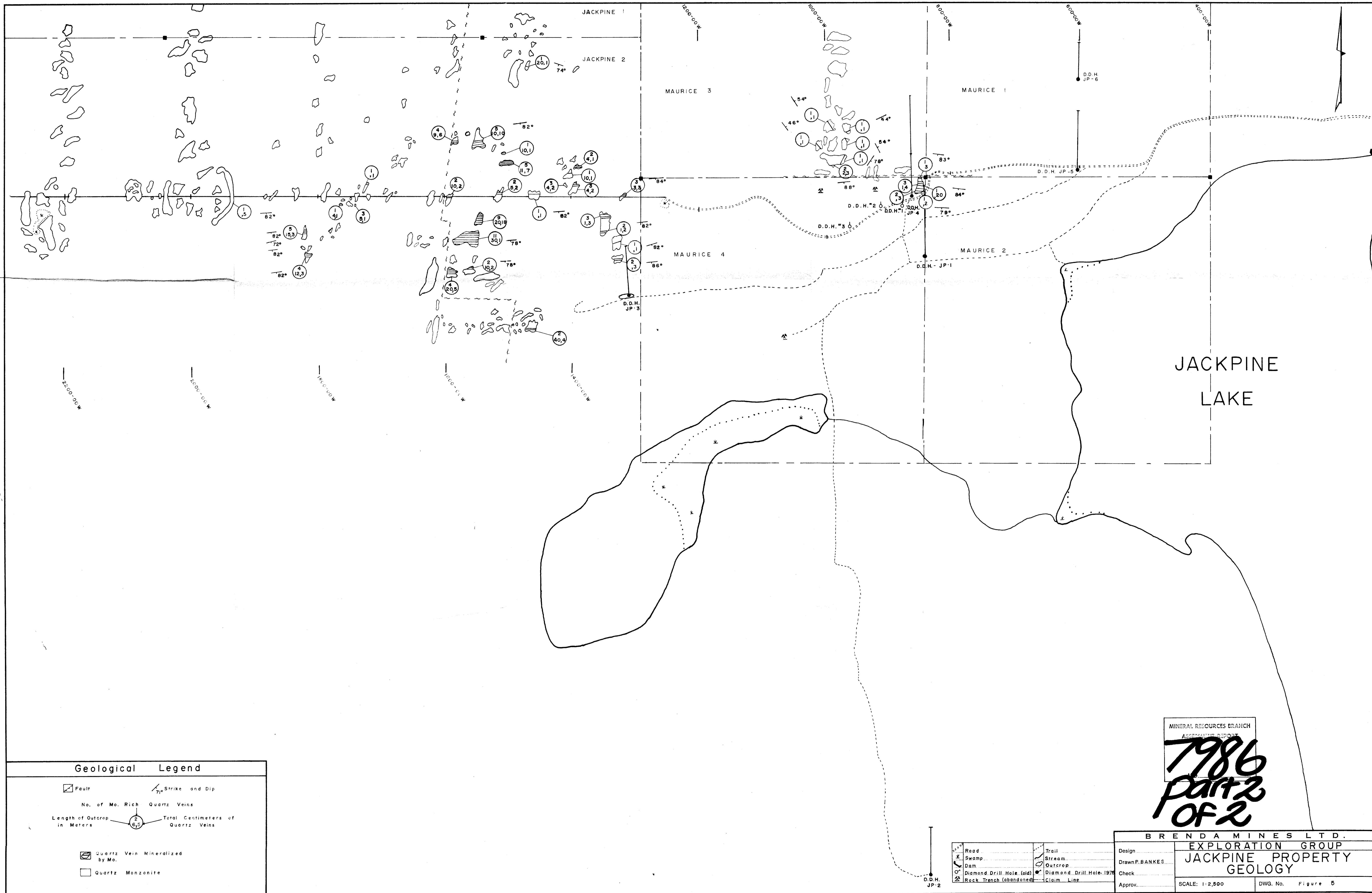
Logged by : A.R. Pollmer & D. FergusonAngle : 45°Bearing : NorthD.D.H. JP-4-78 drilled to 306'/93m in 1978.
During 1979 program, hole was extended to
a depth of 774'/236m.Depth : 774'/236m

FROM/TO		DESCRIPTION
FEET	METERS	
306 - 308	93 - 94	Quartz monzonite. High chl, prop alt. 93m gouge zone.
308 - 312	94 - 95	Q.M. Gouge zone. High alt. 50% rec in gouge zone.
311 - 315	95 - 96	Q.M. Mod alt w/ diss py.
315 - 318	96 - 97	Q.M.
318 - 321	97 - 98	Q.M.
321 - 325	98 - 99	Q.M. Only slight alt. Kaol alt. Minor diss py.
325 - 328	99 - 100	Q.M.
328 - 331	100 - 101	Q.M.
331 - 335	101 - 102	Q.M. Kaol alt on fr and weakly diss py.
335 - 338	102 - 103	Q.M.
338 - 341	103 - 104	Q.M.
341 - 344	104 - 105	Q.M.
344 - 348	105 - 106	Q.M.
348 - 351	106 - 107	Q.M.
351 - 354	107 - 108	Q.M.
354 - 357.5	108 - 109	Q.M.
357.5 - 361	109 - 110	Q.M.
361 - 364	110 - 111	Q.M. Weak py and only minor kaol on fr.
364 - 367	111 - 112	Q.M.
367 - 371	112 - 113	Q.M.
371 - 374	113 - 114	Q.M. Weak diss py, kaol on fr.
374 - 377	114 - 115	Q.M.
377 - 380.5	115 - 116	Q.M.
380.5 - 384	116 - 117	Q.M.
384 - 387	117 - 118	Q.M.
387 - 390	118 - 119	Q.M.
390 - 394	119 - 120	Q.M.
394 - 397	120 - 121	Q.M.
397 - 400	121 - 122	Q.M.
400 - 403	122 - 123	Q.M.
403 - 407	123 - 124	Q.M.
407 - 410	124 - 125	Q.M.
410 - 413	125 - 126	Q.M.
413 - 417	126 - 127	Q.M.
417 - 420	127 - 128	Q.M.
420 - 423	128 - 129	Q.M.
423 - 426	129 - 130	Q.M.
426 - 430	130 - 131	Q.M.
430 - 433	131 - 132	Q.M. Light green silic zone. Weak diss py.
433 - 436	132 - 133	Q.M. Weak diss py, kaol on fr.
436 - 439.5	133 - 134	Q.M. Weak diss py.

FROM/TO		DESCRIPTION
FEET	METERS	
439.5-442.8	134-135	Quartz monzonite. Weak diss py - silicified zone from 134.5 to 135 (Mo blebs 134.9-to 135).
442.8-446.1	135-136	Q.M. Weak diss py. (5 to 8 cm wide mafic xenolith cuts monzonite at 135.40 m)
446.1-449.4	136-137	Q.M. Weak diss py.
449.4-452.6	137-138	Q.M. Weak diss py. Strong kaol at 137.40 to 137.60. Mod chl.
452.6-456.0	138-139	Q.M. Weak diss py. Mod chl.
456.0-459.2	139-140	Q.M. (same as 452.6-456.0)
459.2-462.5	140-141	Q.M. Weak diss py. Slight chl.
462.5-465.8	141-142	Q.M. Weak diss py. Slight chl. Barren 2 cm wide quartz vein at 141.2 m.
465.8-469.0	142-143	Q.M. Weak diss py. Kaol on fr. Barren 1 cm wide quartz vein at 142.4 m.
469.0-472.3	143-144	Q.M. Weak diss py. Slight chl. and kaol.
472.3-475.6	144-145	Q.M. Weak diss py. Slight chl.
475.6-478.9	145-146	Q.M. Weak diss py. Mod chl. Smokey 1 cm wide quartz veinlet at 145.5.
478.9-482.2	146-147	Q.M. Weak diss py.
482.2-485.4	147-148	Q.M. Weak diss py. Large diss of Mo from 147.08 to 147.28.
485.4-488.7	148-149	Q.M. Weak diss py. Thin </cm qtz veinlet at 148.73.
488.7-492.0	149-150	Q.M. Weak diss py. Calcite on fr.
492.0-495.3	150-151	Q.M. Weak diss py. Cal and kaol on fr.
495.3-498.6	151-152	Q.M. Weak diss py. Kaol on fr.
498.6-501.8	152-153	Q.M. (same as 495.3-498.6.
501.8-505.1	153-154	Q.M. Weak diss py.
505.1-508.4	154-155	Q.M. Weak diss py. Cal on fr.
508.4-511.7	155-156	Q.M. (same as 505.1-508.4)
511.7-515.0	156-157	Q.M. (same as 505.1-508.4)
515.0-518.2	157-158	Q.M. (same as 505.1-508.4)
518.2-521.5	158-159	Q.M. (same as 505.1-508.4)
521.5-524.8	159-160	Q.M. (same as 505.1-508.4)
524.8-528.1	160-161	Q.M. (same as 505.1-508.4)
528.1-531.3	161-162	Q.M. Weak diss py. Silic. zone 161.0 to 161.3 m. Cal on fr.
531.3-534.6	162-163	Q.M. (same as 528.1-531.3)
534.6-537.9	163-164	Q.M. (same as 528.1-531.3)
537.9-541.2	164-165	Q.M. (same as 528.1-531.3)
541.2-544.5	165-166	Q.M. (same as 528.1-531.3) Kaol on fr.
544.5-547.8	166-167	Q.M. Weak diss py. (Silic zone 166.0-166.2)
547.8-551.0	167-168	Q.M. Weak diss py.
551.0-554.3	168-169	Q.M. Weak diss py.
554.3-557.6	169-170	Q.M. Weak diss py.
557.6-560.9	170-171	Q.M. Weak diss py.
560.9-564.2	171-172	Q.M. Weak diss py.
564.2-567.4	172-173	Q.M. Weak diss py.
567.4-570.7	173-174	Q.M. Weak diss py. Kaol on fr.
570.7-574.0	174-175	Q.M. Weak diss py. Silic zone 174.1-174.5 m.
574.0-577.3	175-176	Q.M. Weak diss py. Slight silic. Cal on fr.
577.3-580.6	176-177	Q.M. Weak diss py. Slight silic to 176.5. High silic 176.5 to 177 m.
580.6-583.8	177-178	Q.M. Mod. diss & stringer py. Fr of cal, chl & talc. Highly silic.
583.8-587.1	178-179	Q.M. Mod. diss & stringer py. Highly silic. Silic ends at 178.45 then gets high chl.
587.1-590.4	179-180	Q.M. Weak diss py. Chl on fr.

FROM/TO		DESCRIPTION
FEET	METERS	
590.4-593.7	180-181	Q.M. Weak diss py.
593.7-597.0	181-182	Q.M.
597.0-600.2	182-183	Q.M.
600.2-603.5	183-184	Q.M.
603.5-606.8	184-185	Q.M.
606.8-610.1	185-186	Q.M.
610.1-613.4	186-187	Q.M.
613.4-616.6	187-188	Q.M.
616.6-620.0	188-189	Q.M.
620.0-623.2	189-190	Q.M.
623.2-626.5	190-191	Q.M. Kaol on fr.
626.5-629.7	191-192	Q.M. Kaol on fr.
629.7-633.0	192-193	Q.M. Kaol on fr.
633.0-636.3	193-194	Q.M. Kaol & cal on fr.
636.3-639.6	194-195	Q.M. Kaol & cal on fr.
639.6-642.9	195-196	Q.M. Kaol & cal on fr. Mod diss py at 195.2 to 195.3.
642.9-646.2	196-197	Q.M. Kaol & cal on fr.
646.2-649.4	197-198	Q.M. Kaol & cal on fr.
649.4-652.7	198-199	Q.M. Kaol & cal on fr.
652.7-656.0	199-200	Q.M. Kaol & cal on fr.
656.0-659.3	200-201	Q.M. Kaol & cal on fr.
659.3-662.6	201-202	Q.M. Kaol & cal on fr.
662.6-665.8	202-203	Q.M. Kaol & cal on fr.
665.8-669.1	203-204	Q.M. Kaol & cal on fr.
669.1-672.4	204-205	Q.M. Kaol & cal on fr.
672.4-675.7	205-206	Q.M. Felsic veinlets containing py.
675.7-679.0	206-207	Q.M. (same as 672.4-675.7)
679.0-682.2	207-208	Q.M. (same as 672.4-675.7)
682.2-685.5	208-209	Q.M. Silic zone. Py on fr of talc & chl. Py also weakly diss.
685.5-688.8	209-210	Q.M. (same as 682.2-685.5)
688.8-692.1	210-211	Q.M. Same silic zone as above to 210.52. 210.52 to 211 unaltered quartz monzonite.
692.1-695.3	211-212	Q.M. Py in fr & veinlets.
695.3-698.6	212-213	Q.M. Py in fr & veinlets.
698.6-701.9	213-214	Q.M. Py in fr & veinlets.
701.9-705.2	214-215	Q.M. Silic zone with py. from 214.2-214.6. Weak diss py in monzonite from 214.6-215.
705.2-708.4	215-216	Q.M. Weak diss py. Talc & chl on slip fr.
708.4-711.7	216-217	Q.M. (same as 708.4-711.7)
711.7-715.0	217-218	Q.M. (same as 708.4-711.7)
715.0-718.3	218-219	Q.M. (same as 708.4-711.7)
718.3-721.6	219-220	Q.M. (same as 708.4-711.7)
721.6-724.8	220-221	Q.M. (same as 708.4-711.7)
724.8-728.2	221-222	Q.M. (same as 708.4-711.7)
728.2-731.4	222-223	Q.M. (same as 708.4-711.7)
731.4-734.7	223-224	Q.M. Weak diss py.
734.7-738.0	224-225	Q.M. Weak diss py.
738.0-741.3	225-226	Q.M. Weak diss py.
741.3-744.5	226-227	Q.M. Weak diss py.
744.5-747.8	227-228	Q.M. Weak diss py.
747.8-751.1	228-229	Q.M. Weak diss py.
751.1-754.4	229-230	Q.M. Silic zone. Weak diss py.
754.4-757.7	230-231	Q.M. Silic zone. Weak diss py to 230.8. 230.8-231.0 qtz monzonite - unaltered.
757.7-760.9	231-232	Q.M. Weak py in felsic-silic veinlets.

FROM/TO		DESCRIPTION
FEET	METERS	
760.9-764.2	232-233	Q.M. Weak py in felsic-silic veinlets.
764.2-767.5	233-234	Q.M. Silic veinlets to 233.5. 233.5-234.0 - silic zone - talc chl & py on fr.
767.5-770.8	234-235	Q.M. Silic veinlets.
770.8-774.1	235-236	Q.M. Silic veinlets. Chl & talc on slip surfaces.
		<u>END of HOLE</u>



Geological Legend

- Fault
- Strike and Dip
- No. of Mo. Rich Quartz Veins
- Length of Outcrop in Meters
- Total Centimeters of Quartz Veins
- Quartz Vein Mineralized by Mo.
- Quartz Monzonite

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
1986
Part 2
OF 2

BRENDA MINES LTD.		EXPLORATION GROUP	
JACKPINE PROPERTY		GEOLOGY	
Design	Trail	Drawn	P. BANKES
Check	Stream	Checked	
Approved	Outcrop	Scale	1:2,500
	Diamond Drill Hole (old)	DWG. No.	Figure 5
	Diamond Drill Hole (1975)		
	Rock Trench (abandoned)		
	Claim Line		