

HAROLD M. JONES, P.ENG.

CONSULTING GEOLOGIST
605 - 602 WEST HASTINGS STREET
VANCOUVER, B.C.
V6B 1P2

TELEPHONE: (604) 689-5533

10/88

LOG NO: 1112	RD
ACTION: 22 pp	
FILE NO: 87-732-16457	

ASSESSMENT REPORT

FILMED

REPORT ON THE RECONNAISSANCE GEOLOGICAL SURVEY

EMMA CLAIM

BRALORNE AREA, B.C.
LILLOOET MINING DIVISION

92J 15W

LOG NO: 0125	RD.
ACTION: Date received report back from amendments	
FILE NO: 87-732-16457	

^{45' 36"} CO-ORDINATES:
50° 48' North Latitude / 122° 49' ^{30"} West Longitude

OWNER OF CLAIM:
NAPA RESOURCES INC.
410 - 1770 West 7th Avenue
Vancouver, B.C.
V6J 4Z4

OPERATOR:
NAPA RESOURCES INC.
CONSULTANT:
HAROLD M. JONES, P.ENG.

AUTHORS:
ALAN R. HILL, B.SC.
HAROLD M. JONES, P.ENG.

DATE:
October 14, 1987

16,457

GEOLOGICAL BRANCH
ASSESSMENT REPORT

SUB-RECORDER RECEIVED	
OCT 29 1987	
M.R. #	\$
VANCOUVER, B.C.	

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SUMMARY

The Emma claim is located in the Lillooet Mining Division at Bralorne, approximately 180 km north of Vancouver, B.C. It is adjacent to the Cadwallader Fault system which encompasses a large lense of Bralorne intrusives which hosts the old Bralorne - Pioneer gold mines.

The Emma claim is underlain by sediments and volcanics of the Noel and/or Hurley Formations. No Bralorne intrusives were located on the claims, nor were any significant veins, alteration zones or indicators of either.

It is concluded that the geology on the Emma claim is not favourable for hosting economic gold mineralization. No further work is recommended at the present time.

INTRODUCTION

Napa Resources Inc. commissioned Harold M. Jones & Associates Inc. to conduct a reconnaissance geological survey on the Emma claim, located near Bralorne, B.C. The purpose of this survey was to assess the geological setting and its potential for hosting an economic gold deposit.

The program was conducted from September 15 to September 23, 1987 by A.R. Hill and W.D. Harris, geologists under the supervision of Harold M. Jones, P.Eng. This report describes the results of the survey.

Location and Access

50° 46' North Latitude)	at approximate centre
122° 49' West Longitude)	of claim

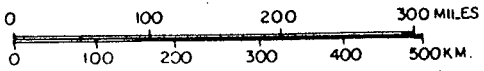
The Emma claim is located in the Lillooet Mining Division of southwestern British Columbia immediately south of the small town of Bralorne and 180 km north of Vancouver. The property is on the south side of Cadwallader Creek covering the toe of the ridge lying between Noel and Carl Creeks (Figure 1 and 2).

The property is very accessible by 136 km of good paved and gravel roads from Lytton, a small town on the TransCanada Highway 250 road kms east from Vancouver. The area is also accessible via the Hurley River forest access road from Pemberton. This latter route is for truck use only and is closed in the winter months.

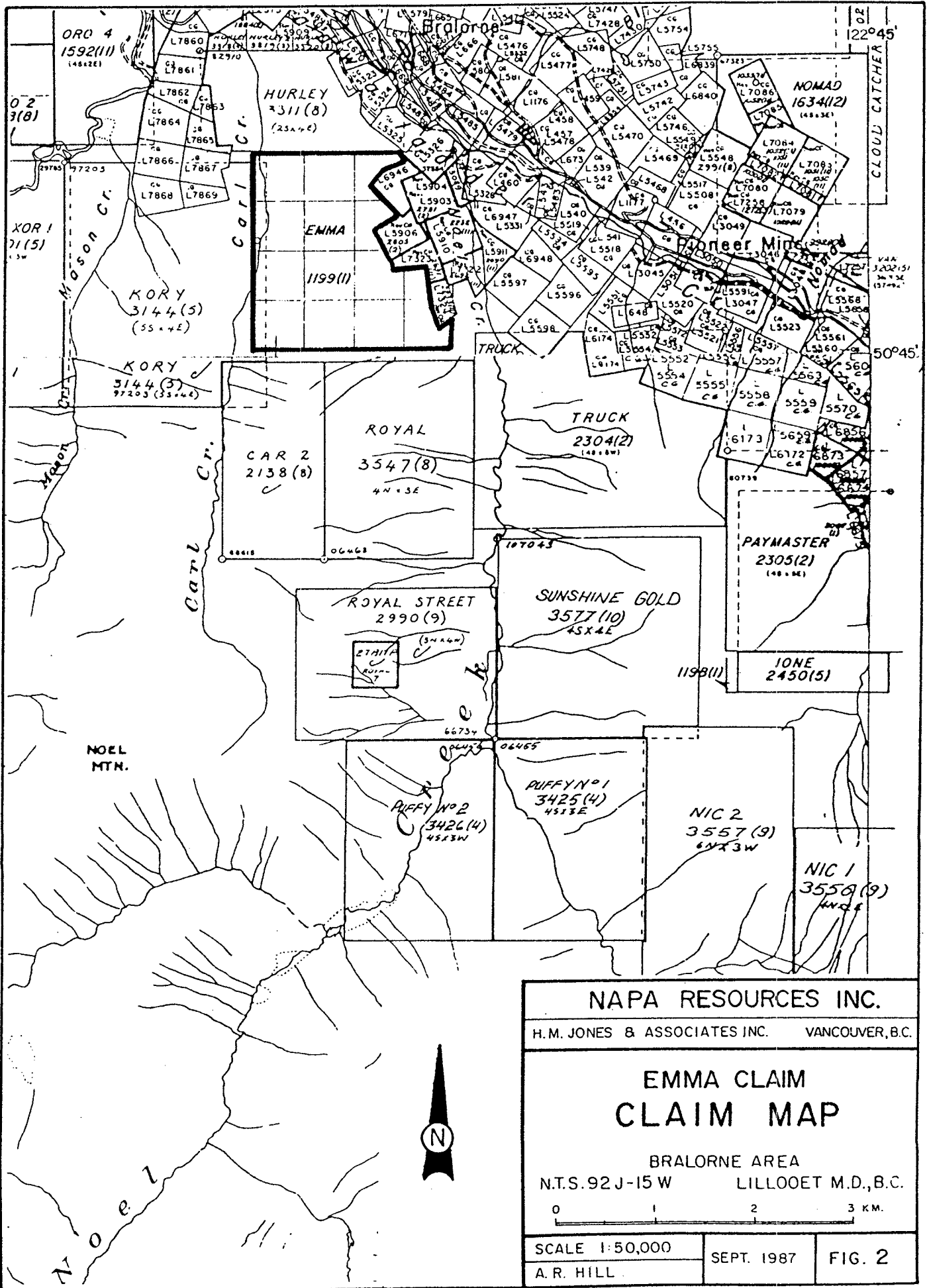
Local access to the claim is by an overgrown road which lead from the old Bralorne ski hill to the Native Son prospect, located near the north property boundary (Figure 2). A horse packing trail, originating from the Hurley River road, traverses the west side of the claim, following the east side of Carl Creek up to the alpine area at the ridge's summit.



**PROPERTY
LOCATION**



NAPA RESOURCES INC.	
H. M. JONES & ASSOCIATES INC.	VANCOUVER, B.C.
EMMA CLAIM LOCATION MAP BRALORE AREA	
N.T.S. 92J-15W	LILLOOET M.D., B.C.
SCALE AS SHOWN	SEPT. 1987
A. R. HILL	FIG. 1



NAPA RESOURCES INC.		
H.M. JONES & ASSOCIATES INC.		VANCOUVER, B.C.
EMMA CLAIM CLAIM MAP		
BRALORNE AREA		LILLOOET M.D., B.C.
N.T.S. 92 J-15 W		0 1 2 3 KM.
SCALE 1:50,000		SEPT. 1987
A. R. HILL		FIG. 2

Topography and Vegetation

The property covers the toe of a north trending ridge which is bounded to the east and west by respectively Noel and Carl Creeks, both of which flow northward into Cadwallader Creek. Topography on the claim is typical of that found in the Coast Range Mountains - steep, heavily forested slopes leading up to alpine or glacier capped peaks and ridges. The slopes are covered by thick strands of fir and pine, the latter now ravaged by the pine beetle. Moderately dense undergrowth of willow, alder and devils club is common.

Elevations range from 1,035 m at Cadwallader Creek to 1,950 m on the ridge at the south end of the claim.

Property

The property consists of one claim (Figure 2). It is:

<u>Claim name</u>	<u>No. of units</u>	<u>Expiry Date</u>
Emma	16	January 24, 1988

The claim overlaps, but does not include, several crown grants. This effectively reduces the size of the claim.

The claim is owned by Napa Resources Inc., 410 - 1770 West 7th Avenue, Vancouver, B.C. V6J 4Z4.

Any legal aspects pertaining to the claim is beyond the scope of this report.

GEOLOGY

Regional Geology

The Bridge River gold quartz mining district, which includes the Bralorne-Cadwallader Creek area, lies within a northwesterly trending belt of regionally faulted and locally intensely folded sedimentary and volcanic rocks that lie between the main Coast Range intrusive complex to the west and a series of outlying granodiorite intrusive bodies to the east.

The Cadwallader Creek area is underlain by late Paleozoic and/or Mesozoic rocks of the Bridge River (Fergusson) Group, consisting of volcanic and sedimentary units and, in places, their metamorphosed equivalents, as well as by younger (Upper Triassic) volcanics and sediments of the Noel, Pioneer, and Hurley Formations (Figure 3). All of these rocks have been invaded and locally metamorphosed by a variety of small intrusive bodies, the Bralorne intrusives, which include augite-diorite, soda granite, quartz diorite, gabbro as well as ultra-basic rocks. Many of the intrusives are late differentiates of the Bralorne magma.

The regional fault, - Cadwallader Fault zone - which for many kilometers south of the Bridge River area strikes generally northwesterly, turns sharply to a north strike in the Bralorne area. The wallrocks of the east side at this bend are cut by a complex system of faults, shears and fractures within a lense-shaped piece of ground that measures about 5 km in length and 1 km in width and is bounded to the northeast by the Fergusson thrust. This thrust fault branches off the main Cadwallader Fault system at the south end of the Pioneer Mine and rejoins it at the north end of the Bralorne Mine.

The lense-shaped area of faulted rocks is termed the Bralorne-Pioneer fault lense.

The only economic gold quartz veins mined to date in the Bridge River district were contained within the Bralorne-Pioneer fault lense. These fissure veins occupied tension fractures that cross the lense at various angles. None occupied shear zones parallel to the main Cadwallader faults.

Cairnes (1937) has summarized the main geological features and structural conditions which have been observed to be favourable for the formation of ore shoots as follows:

- "1. The most favourable formation in which to find important orebodies are those Bralorne intrusives that show differentiation.
2. From the point of view of structural competency the most favourable formations in which to discover persistent and substantial deposits are the Bralorne intrusives. The more massive greenstone bodies are about equally favourable, but the greenstone, where not massive, is apt to shear rather than break cleanly and such a feature leads to discontinuity in the fissures, irregularity in the walls, and dissipation in the vein matter. To a large extent the sedimentary formations have proved unfavourable, structurally, for fissure vein deposits. Serpentine, or other highly sheared and schistose rock bodies are distinctly unfavourable.
3. Within the Pioneer-Bralorne area the principal vein bearing fissures have a general west to west-northwest strike and occur mainly within a long, relatively narrow, stocklike mass of Bralorne intrusive striking northwest.
4. Orebodies occur in fractured and deformed parts of a vein. Well ribboned quartz almost always contains better values than adjoining or tributary bodies of more massive quartz; quartz breccias, in the same way, are relatively rich . . .
5. It has been noted that alternate expansions and pinching of vein matter may occur along curved or irregular parts of a vein fissure.
6. There seems little doubt that the intersection or junctions of vein bearing fissures have been an important factor in the formation of ore shoots though such features have not always provided increased values. Three factors are significant to enrichment at these points;

- (a) the origin of respective fissures;
- (b) the mineral history of these fissures;
- (c) the relative position of the fissures with respect to rising metaliferous solutions."

Property Geology

Geology was mapped on the Emma claim on a scale of 1:10,000. Traverses were run, using hip chain, compass and altimeter for control on lines spaced at approximately 200 meter intervals. All data was plotted on field sheets, then transferred to a base map which was blown up from a portion of the 1:50,000 scale 92J 10W topographic map.

Outcrop is sparse except for cliff areas in the southern part of the claim and along the ridge separating Carl and Noel Creeks. Rocks in these areas consist mainly of black argillaceous sediments with lesser cherty argillite, volcanoclastic wacke, sandstone and conglomerate of the Noel and/or Hurley Fms. Coarser grained clastic rocks - polymictic conglomerate - occur, with some exceptions, at the higher elevations. They consist of clasts, up to 5 cm in diameter, grading in and out of one meter wide beds of volcanoclastic wackes and sandstones. Argillite grades from massive to finely laminated beds and may be interbedded with the coarser clastic members.

Quartz was seen at scattered locations, both in outcrop and in float. In most cases, the veins are less than 10 cm in width and barren of sulphides. The exception to this is in the vicinity of adit No. 2, located about 160 m southwest of the old Native Son adit (Figure 3). A 4 meter wide irregular quartz vein stockwork in argillite is exposed in adit No. 2. The veins are white, crystalline quartz commonly about 5 cm wide but with an occasional "blow-out" up to 1 meter wide. Pyrite occurs in trace amounts along vein margins and within fault gouge. Calcite occurs as a minor constituent in some veins. The stockwork system appears to terminate or is displaced near the end of the adit by a steeply dipping N30W trending fault.

The Native Son adit, located just north of the Emma claim, was examined. The adit is in good shape for the first 45 meters, then becomes unsafe to enter due to bad ground. This working exposes quartz carbonate veins occurring intermittently over a 10 meter width within cherty argillite and volcanoclastic wacke. The veins trend northerly, vary from 5 cm to 30 cm in width, and consist of crystalline quartz with abundant carbonate (up to 70% carbonate). The veins appear to be unmineralized, while the enclosing sediments contain up to 5% pyrite. Cleavage in the rocks at the portal dip moderately west, but flatten to a very shallow dip 45 meters into the working.

The vein system, although irregular and branching, clearly strikes southerly toward the Emma claim. Prospecting in this area located only one flat quartz boulder lying under an uprooted tree in thick overburden.

The vein systems in the Native Son and No. 2 adits may be related but there is no evidence to suggest that they are. Numerous old trenches were located between the two adits. They are now stuffed but did not appear to reach bedrock.

SAMPLES AND ASSAYS

Rock Samples

A number of samples were collected from quartz occurring as veins or in float. They are summarized in the following table (see Figure 3 for their locations).

<u>Sample No.</u>	<u>Type</u>	<u>Width</u>	<u>Location</u>	<u>Description</u>	<u>Au ppb</u>	<u>Ag ppm</u>	<u>Cu ppm</u>	<u>Zn ppm</u>	<u>As ppm</u>	<u>Sb ppm</u>
Emma 1	Float	-	SE part of claim	Coarse, white quartz vein material, 15% calcite	1	.1	8	13	6	3
Emma 2	Chip	25 cm	Native Son adit, 5 m from portal	Sinuuous qtz minor carb.	1	.4	11	47	2	2
Emma 3	Chip	30 cm	Native Son adit 10.2 - 10.5 m from portal	qtz - carb vein 70% carb	1	.4	24	10	3	4
Emma 4	Intermittant Chip	2.5 m	Native Son adit 12.4 - 14.9 m from portal	qtz stockwork system, selected sample	23	.2	4	12	3	4
Emma 5	Grab	-	Native Son adit 20.2 m from portal	rusty sediments with 5% pyrite	1	.1	137	42	2	2
Emma 6	Float	-	South of Native Son adit	30 cm x 30 cm boulder	1	.1	5	13	9	2
Emma 7	Chip	1.0 m	Adit No. 2	nearly flat lying qtz blow-out at Portal	1	.1	7	7	3	2
Emma 8	Grab	-	Adit No. 2, 4.3 m from portal	fault gouge in rusty, sheared sediments	1	.1	55	55	16	2
Emma 9	Specimen	-	Adit No. 2	from qtz stockwork	10	.1	14	23	2	2
Emma 10	Grab	-	SW part of Emma claim	10 cm wide qtz pod in coarse clastics	1	.1	4	9	2	1
Emma 11	Grab	-	Carl Creek	10 cm vein in argillite	1	.1	13	18	10	2

All rock samples were assayed geochemically by Acme Analytical Laboratories, 852 East Hastings Street, Vancouver, B.C., using the I.C.P. technique.

Silt Samples

A total of nine silt samples were collected from the property; three from the creek above Adit No. 2, and six from Carl Creek. The following table lists the assay results of these samples. Their locations are shown on Figure 3.

Sample No.	Assays					
	Au ppb	Ag ppm	Cu ppm	Zn ppm	As ppm	Sb ppm
1	1	.1	49	77	63	2
2	1	.2	25	57	23	2
3	27	.1	32	56	35	2
4	1	.1	40	87	16	2
5	1	.1	41	88	16	2
6	1	.1	40	88	14	2
7	1	.1	37	86	13	2
8	1	.1	44	90	16	2
9	47	.2	47	99	16	2

All silt samples were analyzed by Acme Analytical Laboratories using the I.C.P. technique.

DISCUSSION

Bralorne intrusive rocks, which host the old Bralorne and Pioneer Mines and most other significant gold deposits in the district, were not observed on the Emma claim. Hurley and/or Noel formations, which in places host short, discontinuous, non-productive veins, appears to underly the entire property. Since no mineralized veins, alteration zones or favourable intrusive rocks were located, no further work is recommended on the Emma claims.

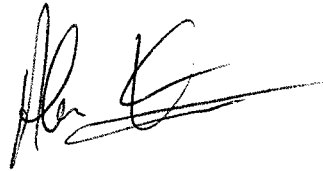
CONCLUSION

It is concluded that the Emma claim is located in geology not favourable for hosting economic gold deposits.

RECOMMENDATIONS

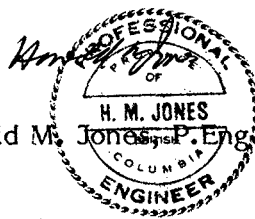
Since the Emma claim is located within a very active area of exploration, the field work recently completed should be filed as assessment work. No further work is recommended at this time.

Respectfully submitted,



Alan R. Hill, B.Sc.

Harold M. Jones, P. Eng.



The seal is circular with a double-line border. The outer ring contains the text 'PROFESSIONAL ENGINEER' at the top and 'COLUMBIA S. C.' at the bottom. The inner circle contains the text 'H. M. JONES' and 'P. Eng.' in the center. A handwritten signature is written across the seal.

REFERENCES

- Cairnes, C.E. (1937): Geology & Mineral Deposits of Bridge River Mining Camp, B.C.; Geol. Surv. Can. Mem. 213, with Map 431A.
- Crandall, J.T. (1981): Report on Reconnaissance Soil Geochemical Survey Emma, Emma 1, 2, 3, 4 claims, private report for Golden Slipper Resources Inc.
- Jones, H.M. (1981): Report on the Emma claim, private report for Golden Slipper Resources Inc.
- Leitch, C. and Godwin, C.I. (1986): Geology of the Bralorne-Pioneer Gold Camp; in B.C.M.E.P.R. Paper 1986 - 1, pp. 311-316.
- Ostler, J. (1980): Soil Geochemical Survey of part of the Emma claim, private report for Hillside Energy Corporation.
- Woodsworth, G.J. (1977): Geology of Pemberton Map Area (92J); Geol. Surv. Can. O.F. 482.
- Tipper, H.W. (1981): Offset of an Upper Pliensbachian Geographic Zonation in the North American Cordillera; Cdn. Jour. Earth Sci., Vol. 18, No. 12, pp. 1788-1792.

STATEMENT OF QUALIFICATIONS

I, ALAN R. HILL of 1401 - 1601 Barclay Street, Vancouver, B.C. V6G 1J9 do hereby state that:

1. I am a graduate of the University of Western Ontario, in London, Ontario and received a B.Sc. - Geology degree in the spring of 1984.
2. I have been employed in the field of geology and mining exploration since 1979, in Ontario, Quebec, Northwest Territories, Yukon, and British Columbia.
3. I personally conducted reconnaissance geological mapping on the Emma claim between September 15-23, 1987.
4. I have no direct or indirect interest in the Emma claim or securities of Napa Resources Inc., nor do I expect to receive any such interest in the future.

Dated at Vancouver, B.C., this 9th day of October, 1987.

A handwritten signature in black ink, appearing to read 'Alan R. Hill', with a long horizontal line extending to the right.

Alan R. Hill, B.Sc.

CERTIFICATE

I, Harold M. Jones, of the City of Vancouver, British Columbia, do hereby certify that:

1. I am a Consulting Geological Engineer with offices at 605 - 602 West Hastings Street, Vancouver, British Columbia.
2. I am a graduate of the University of British Columbia in Geological Engineering, 1956.
3. I have practised my profession as a Geological Engineer for over 25 years.
4. I am a member of the Association of Professional Engineers of British Columbia, Registration No. 4681.
5. I examined the Emma claim on November 10, 1980 and prepared a report on the property. I re-examined it on August 6, 1986. The recently completed field program described in the attached report was conducted under my supervision.
6. I have no interest, nor do I expect to receive any interest, direct or indirect, in the Emma claim or in the securities of Napa Resources Inc.
7. Napa Resources Inc. are hereby given permission to reproduce this report, or any part of it, in a Prospectus, Statement of Material Facts or other documents as required by the regulating authorities, provided, however, that no portion may be used out of context in such a manner as to convey a meaning differing from that set out in the whole.

Dated at Vancouver, B.C., this 14th day of October, 1987.

A circular professional seal for Harold M. Jones, a Professional Engineer in the Province of British Columbia. The seal contains the text "PROFESSIONAL ENGINEER" around the perimeter, "PROVINCE OF BRITISH COLUMBIA" in the center, and "H. M. JONES" above a signature. The signature is written in cursive over the seal.
Harold M. Jones, P. Eng.

APPENDIX I

ASSAY CERTIFICATES

ACME ANALYTICAL LABORATORIES

DATE RECEIVED: SEPT 24 1987

852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6

PHONE 253-3158

DATA LINE 251-1011 DATE REPORT MAILED:

Oct 6/87

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE CA P LA CR NB BA TI B W AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPM. - SAMPLE TYPE: P1-ROCK P2-SILT AU** ANALYSIS BY FA+AA FROM 10 GM SAMPLE.

ASSAYER: *D. Jones* DEAN TOYE, CERTIFIED B.C. ASSAYER

HAROLD M. JONES PROJECT-EMMA File # 87-4503 Page 1

SAMPLE#	CU PPM	ZN PPM	AG PPM	AS PPM	SB PPM	AU** PPB
EMMA-1	8	13	.1	6	3	1
EMMA-2	11	47	.4	2	2	1
EMMA-3	24	10	.4	3	4	1
EMMA-4	4	12	.2	3	4	23
EMMA-5	137	42	.1	2	2	1
EMMA-6	5	13	.1	9	2	1
EMMA-7	7	7	.1	3	2	1
EMMA-8	55	55	.1	16	2	1
EMMA-9	14	23	.1	2	2	10
EMMA-10	4	9	.1	2	2	1
EMMA-11	13	18	.1	10	2	1
STD C/AU-R	63	133	7.5	37	17	485

SAMPLE#	CU PPM	ZN PPM	AG PPM	AS PPM	SB PPM	AU** PPB
SILT-1	49	77	.1	63	2	1
SILT-2	25	57	.2	23	2	1
SILT-3	32	56	.1	35	2	27
SILT-4	40	87	.1	16	2	1
SILT-5	41	88	.1	16	2	1
SILT-6	40	88	.1	14	2	1
SILT-7	37	86	.1	13	2	1
SILT-8	44	90	.1	16	2	1
SILT-9	47	99	.2	16	2	47
STD C/AU-S	60	130	7.1	38	18	51

APPENDIX II

STATEMENT OF EXPENDITURES

HAROLD M. JONES & ASSOCIATES INC.

STATEMENT OF EXPENDITURES

Wages:

Alan R. Hill, geologist - Sept. 15-23, 1987 9 days at \$275/day	\$2,475.00	
Wade Harris, geologist - Sept. 15-24, 1987 9.5 days at \$250/day	2,375.00	
H.M. Jones, P.Eng. - supervision, Sept. 15-23, 1987	<u>800.00</u>	\$ 5,650.00

Room and Board:

Gold Bridge Hotel and meals when travelling	712.40
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Field Supplies:

Flagging tape, thread, mylar, etc.	67.42
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Vehicle Rental:

Budget Rent-A-Truck	634.25	
Fuel	151.22	785.47

Assays:

11 rock, 9 silt samples	239.75
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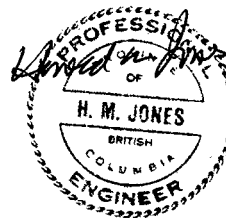
Helicopter:

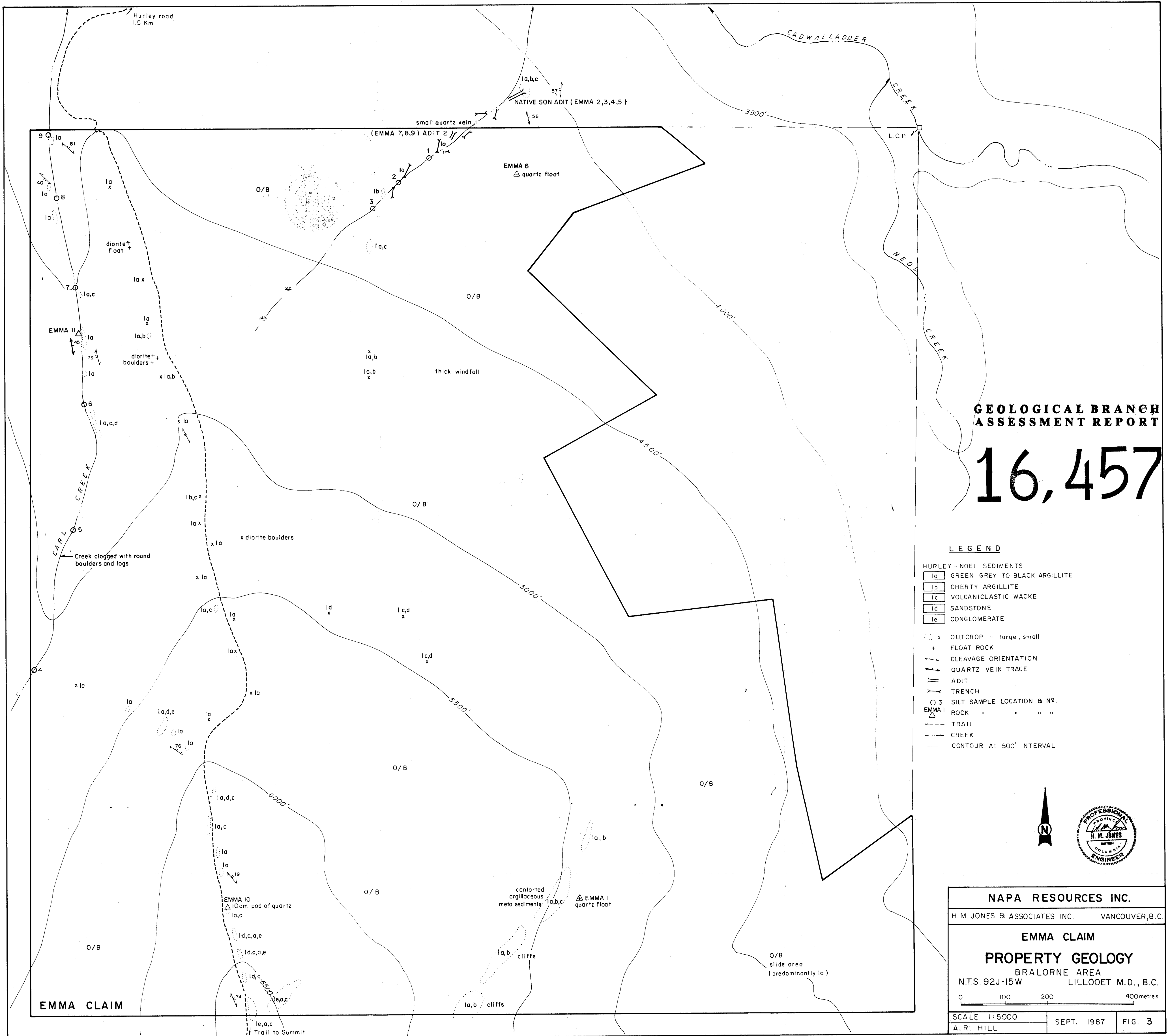
Cariboo-Chilcotin Helicopters Ltd.	179.10
------------------------------------	--------

Report and Map Preparation:

Report map preparation	1,000.00	
Drafting, F. Chong	136.00	
Map reduction, prints	40.23	
Secretarial	<u>75.00</u>	<u>1,251.23</u>

\$ 8,885.37



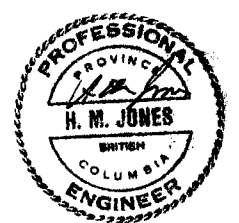


**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

16,457

LEGEND

- HURLEY - NOEL SEDIMENTS**
- la GREEN GREY TO BLACK ARGILLITE
 - lb CHERTY ARGILLITE
 - lc VOLCANICLASTIC WACKE
 - ld SANDSTONE
 - le CONGLOMERATE
- x OUTCROP - large, small
 - + FLOAT ROCK
 - CLEAVAGE ORIENTATION
 - QUARTZ VEIN TRACE
 - ADIT
 - TRENCH
 - 3 SILT SAMPLE LOCATION & NO.
 - △ EMMA 1 ROCK " " " "
 - TRAIL
 - CREEK
 - CONTOUR AT 500' INTERVAL



NAPA RESOURCES INC.
H. M. JONES & ASSOCIATES INC. VANCOUVER, B.C.

EMMA CLAIM
PROPERTY GEOLOGY
BRALORNE AREA
N.T.S. 92J-15W LILLOOET M.D., B.C.

0 100 200 400 metres

SCALE 1:5000 SEPT. 1987 FIG. 3
A. R. HILL