exploration Itd. GEOLOGY · GEOPHYSICS MINING ENGINEERING

Suite 614-850 WEST HASTINGS STREET, VANCOUVER, B.C. TELEPHONE (604) 681-0191 V6C 1E1

1985 ASSESSMENT REPORT

on the

KITIMAT RIVER PROPERTY

(MAT 1 and MAT 2 CLAIMS)

Skeena Mining Division - British Columbia

Lat. 54⁰ 08' N.

Long. 128° 12' W.

N.T.S 103 I/1E

for ABO OIL CORPORATION

e Z C E

by

G. M. Allen, P. Eng. (Ontario)

July 25, 1985

Vancouver, B. C.

TABLE OF CONTENTS

SUMMARY	1
CONCLUSION	1
INTRODUCTION	2
CLAIM DATA	2
LOCATION, ACCESS, PHYSIOGRAPHY	3
HISTORY	3
GEOLOGY	4
Regional Geology	4
Property Geology	4
Structure	5
Mineralization	6
Alteration	6
GEOCHEMISTRY AND THE 1985 WORK PROGRAM	7
REFERENCES	
CERTIFICATE	

FIGURES

Figure l	Location Map	1:250,000	After p. 3
Figure 2	Claim Map	1:50,000	After p. 3
Figure 4	Summary Map	1:10,000	In pocket
Figure 5	Geochemical Map	1:5,000	In pocket

APPENDICIES

Appendix I Analytical Results

Appendix II Affidavit of Expenses

SUMMARY

Abo Oil Corporation owns 40 claim units, MAT 1 and 2 covering a porphyry molybdenum-copper prospect fifty kilometres southeast of Terrace, British Columbia in the Kitimat River area. Access at present is by helicopter from Terrace. The property lies on the east side of the Coast Plutonic Complex, a geologically favourable setting for large tonnage, low-grade copper-molybdenum deposits.

Previous assessment reports have outlined the geological setting and AMAX Exploration (now Canamax) has verified the existence of low-grade copper-molybdenum mineralization.

In 1985, geochemical sampling was carried out to confirm past results of sampling and fill-in sampling in the southeast area of the claim block.

CONCLUSION

The MAT claim group has potential in that it has identifiable geological characteristics associated with major porphyry copper-molybdenum deposits. Its geological setting and surface grades suggest that deep seated higher grade zone may exist.

A diamond drill program is therefore suggested as the next phase of work.

INTRODUCTION

Abo Oil Corporation holds two twenty unit claims,

MAT 1 and 2 (Record Numbers 3098 and 3099 - expiry date

June 22, 1986) in the Kitimat River area. The claims cover

a porphyry molybdenite prospect that lies in a belt of

important molybdenite deposits on the east flank of the

Coast Plutonic Complex of west central British Columbia.

The most important deposit in the belt is the Kitsault Mine

(about 100 million tons grading 0.2% MoS₂) 160 kilometres

to the northwest.

This report summarizes results of sampling carried out on June 16 and 17, 1985 by G.M. Allen and D. Sorenson. A total of 145 soil and rock samples were taken to fill-in geochemical sampling in the southeast corner of the claim group.

CLAIM DATA

The Kitimat River Property comprises two twenty claim units as follows (Figure 2):

Claim Name	Record No.	No. of Units	Expiry Date*
MAT 1	3098	20	June 22, 1986
MAT 2	3099	20	June 22, 1986

The claims are registered in the name of Abo Oil Corporation.

^{*}Assuming this report is accepted for assessment purposes.

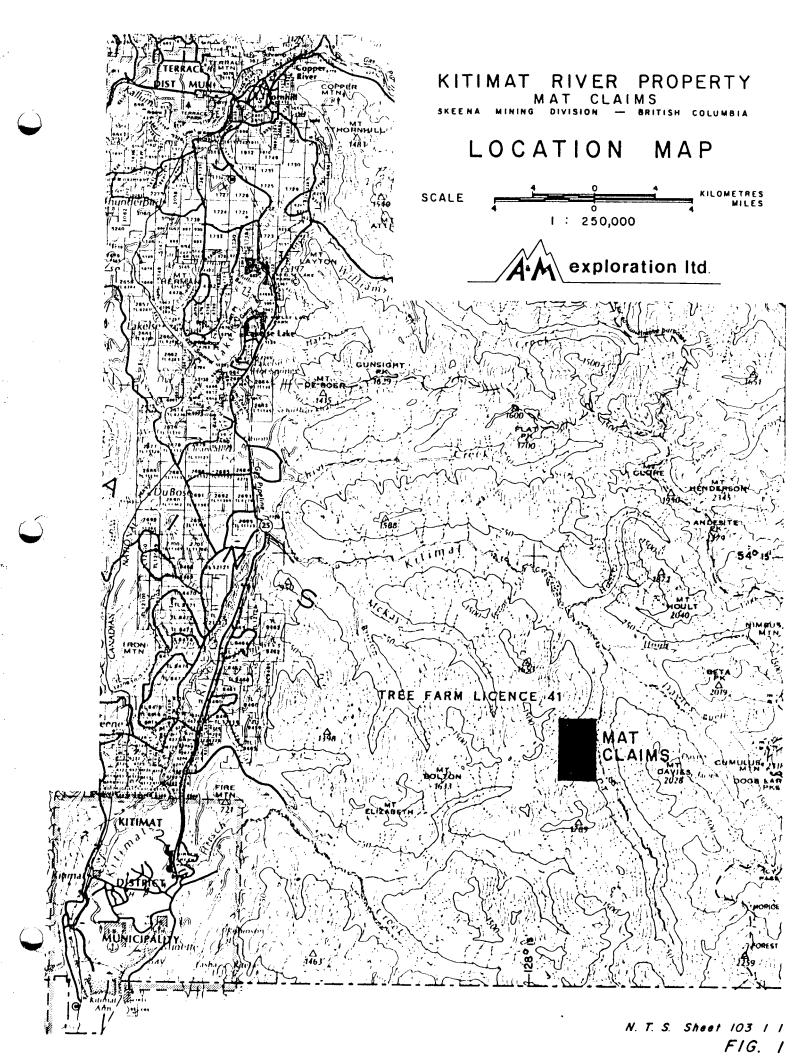
LOCATION, ACCESS, PHYSIOGRAPHY

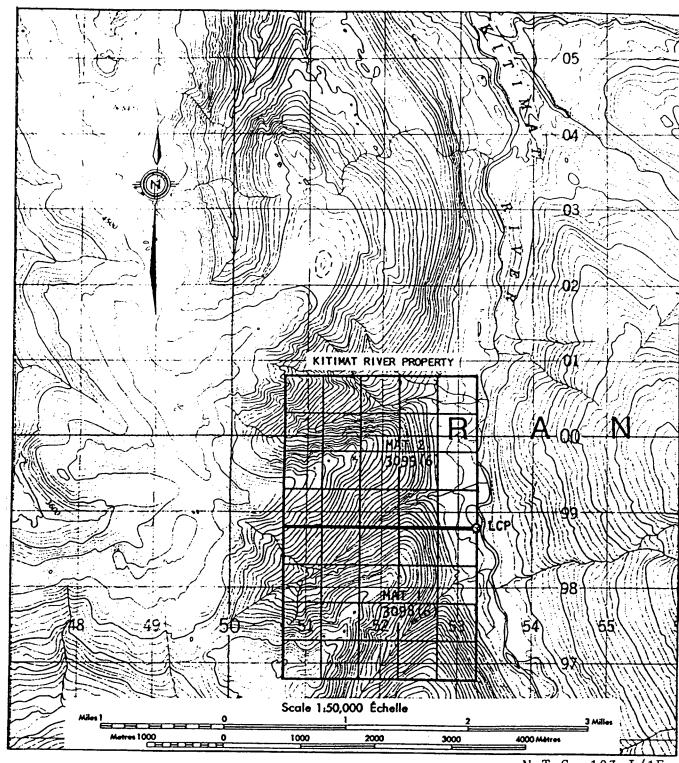
The Kitimat River property is situated fifty kilometres southeast of Terrace and thirty kilometres east-northeast of Kitimat (Figure 1). The property lies on the west side of the upper reaches of Kitimat River about thirty kilometres upstream from the intersection of Kitimat River and Highway 25. At the present time, access is by helicopter, based in Terrace. Logging roads will provide access to the area in the future.

The property lies in the Coast Range Mountains. Topography is rugged with steep slopes rising from the Kitimat River floor at 425 metres (1,400 feet) to elevations of 1500 metres (5,000 feet) on nearby ridges. Three westerly-flowing tributaries of Kitimat River (unofficially named Gossan, Lamp and Mantle Creeks) deeply dissect the valley walls covered by the claims. The molbdenite showings lie between elevations of 600 meetres (2,000 feet) and 1100 metres (3,500 feet) in Gossan and Mantle Creeks.

HISTORY

The property was staked originally by AMAX Exploration Inc. (now Canamax) in 1965. Work was carried out by AMAX and included prospecting, line cutting, geological mapping,





N.T.S. 103 I/1E

ABO OIL CORPORATION

CLAIM MAP

KITIMAT RIVER PROPERTY

Skeena Mining Division - British Columbia



soil and rock chip sampling and induced polarization surveys (Gambardella and Richardson, 1967; Bell and Sutherland, 1965; Allen, 1979).

In 1984 and 1985, field work was carried out to confirm results of previous work, to investigate the precious metal and base metal potential, and to fill-in previous unsampled areas.

GEOLOGY

Regional Geology

The property lies on the eastern margin of the Coast Plutonic Complex, eight kilometres inside the contact with Jurassic Hazelton Group volcanic rocks. A roof pendant of Hazelton volcanics underlies part of the claim group and a roof pendant of Triassic limestone and volcanic rocks lie to the west of the property. Several phases of Coast Plutonic rocks have been mapped in the area including gabbro, hornblende biotite diorite, biotite grandodiorite, soda granite and muscovite granite. Northwest trending dikes ranging in composition from diorite to quartz monzonite, suggest a tectonic weakness of regional extent.

Property Geology

Generalized geology is illustrated in Figure 3.

Outcrops occur mainly on the steep valley walls, some of which are inaccessible. Ridges and gentle slopes are

covered with dense vegetation, so contacts locally may be somewhat conjectural.

Oldest rocks in the claim area are massive, medium to dark green andesite of the Hazelton Group which forms a roof pendant in Coast Plutonic rocks.

A variety of intrusive rocks occurs in the area. The most abundant intrusive rock is light pink to grey soda granite. A plug of quartz feldspar porphyry about 1050 by 450 metres in dimension outcrops on the steep cliff on the south side of Gossan Creek. Biotite and muscovite-bearing phases have been recognized. Intrusive breccias occur in the same areas as the porphyries but, because of difficult terrain, their outcrop distribution is unknown. One breccia type consists of tightly packed fragments of a variety of volcanic and plutonic rocks in a comminuted rock matrix. Another type consists of quartz feldspar porphyry fragments in a quartz matrix. Dike rocks include foliated feldspar porphyry, aplite, diorite, quartz monzonite and andesite.

Structure

Structure of the area is complex. Three main fault trends are north, northeast and northwest. Faults range in width from one centimetre to five metres. Quartz-molybdenite stockworks occur locally in granite and quartz feldspar porphyry in Gossan and Mantle Creeks. Intrusive breccias, as described above, further complicate the structural picture.

Mineralization

Pyrite, molybdenite and chalcopyrite occur in narrow quartz veinlets and to a lesser extent as fracture coatings and as fine disseminations. The mineralized zones occur in two separate areas 2500 metres apart. In Mantle Creek, quartz-molybdenite stockworks occur discontinuously over a horizontal distance of 600 metres and, in Gossan Creek, three weakly mineralized stockworks 15 to 50 metres wide occur over a distance of 1000 metres.

Surface sampling (119 samples - 330 linear metres) was carried out by AMAX in 1966 in the more accessible parts of the mineralized zones. Weighted average of all samples in Mantle Creek area is 0.025% MoS_2 and 0.026% Cu. Weighted average from mineralized zones in Gossan Creek is 0.019% MoS_2 over three metres. Best interval overall is fifty metres of 0.03% MoS_2 .

Alteration

A variety of alteration types have been mapped. Silicification, feldspathization and to a lesser extent sericitization are the types most consistently associated with molybdenite. The alteration is mainly structurally controlled and is very intense along shear zones, faults and fractures.

GEOCHEMISTRY AND THE 1985 WORK PROGRAM

Previous soil sampling results by AMAX on the Kitimat River Project are summarized in previous assessment reports. The 1985 work program entailed the collection of 138 geochemical soil samples and seven rock samples. The purpose of this work was to fill-in areas which had not been sampled in any detail. In particular, the southeast corner of the claim group was covered.

Soil samples were collected from the "B" horizon at depths of twenty centimetres or more. Rock samples consisted of two to five kilograms of rock from outcrop or float. All material was processed by standard techniques and analysed by atomic absorption methods by Rossbacher Laboratories Ltd. Samples were analysed for copper and molybdenum. Sample sites are plotted along with results on Figure 4 and the results presented in Appendix I.

Molybdenum and copper results ranged up to 580 ppm and 260 ppm respectively. This data confirms results obtained from previous sampling and has outlined an anomalous zone south east of Mantle Creek. Copper is considered anomalous in the range of greater than 80 ppm and molybdenite greater than 50 ppm.

REFERENCES

- Allen, D. G. (1984). 1984 Assessment Report, Kitimat River Property. B.C. Minister of Mines and Petroleum Resources.
- Allen, D. G. (1979). 1979 Assessment Report, Kitimat River Property. B.C. Minister of Mines and Petroleum Resources.
- Bell, R. A. and Sutherland, D. B. (1965). Report on the Induced Polarization Survey on the Kitimat River Group. B.C. Dept. Mines Assessment Report #775.
- Gambardella, A. C. and Richardson, P. W. (1967). 1966 Final Report, Kitimat River Property. B.C. Dept. Mines Assessment Report #1000.

CERTIFICATE

- I, Gary M. Allen, certify that:
 - 1. I am a Mining Engineer, of A & M Exploration Ltd. with offices at #614 - 850 West Hastings Street, Vancouver, B.C. V6C 1E1.
 - 2. I am a graduate of the South Dakota School of Mines and Technology with degrees in Mining Engineering (B.Sc. 1968, M.Sc. 1970).
 - 3. I have practiced my profession in mining and geology since 1970 in Canada and the United States.
 - 4. I am a member in good standing of the Association of Professional Engineers of Ontario.

5. This report is based on field work carried out by D. Sorensen and myself and on information listed under references.

G. M. ALLEN

Gary M. Allen P. Eng. (Ont.)

APPENDIX I
Analytical Results

DSSBACHER LABORATORY LTD.

CERTIFICATE OF ANALYSIS

2225 S. SPRINGER AVENUE BURNABY, B.C. V5B 3N1 TEL: (604) 299 - 6910

TO : A&M EXPLORATION LTD.

614-850 W.HASTINGS ST.

VANCOUVER.B.C.

PROJECT: 278 / Sturne P

TYPE OF ANALYSIS: GEOCHEMICAL

CERTIFICATE#: 85157
INVOICE#: 5307

DATE ENTERED: JULY 10,1985
FILE NAME: A&M85157.C

PAGE # : 1 C

PRE	,			PPM	PPM	
FIX	S	AMPLE	NAME	Mo	Cu	
S	L278	GS	1	22	32	
s		L	2	148	48	
S			3	50	60	
S			4	44	82	
\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		S	5 .	40	18	
S			6	10	8	
S			7	8	12	
S			8	7	10	
S			9	12	18	
<u>S</u>	L278	GS	10	<u>26</u>	16	
S			. 11	38	24	
Į.S·			12	10	18	
73			13	3	8	
S			14	4	4	
S		S	15	5	16	
L		L	16	22	16	
L			17	8	14	
S		S	18A	5	16	
S		•	18B	9	6	
L	L278	GL	19	10	16	
S		S	20	27	16	
L		L	21	11	16	
S		` S :	22	7	24	
S	•		. 23	14	34	
<u>L</u>		<u> L </u>	• 24	13	26	
T		T	25	580	4	
S		S	26	9	34	•
S			27	10	32	
S			28	11	16	
S	L278	GS	29	5	14	
S			30	23	18	•
S			31	6	8	
\$ \$ \$ \$ \$ \$ \$ \$ \$	•		32	6 28	18	
		L	33	7	10 4	
 ១១ ១១		L S	34 35	1	4	
S			35	5 4	8	
S			36	4	4	
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S	•		39	4	8	

CERTIFIED BY :

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YUSSBACHER LABORATORY LTD.

CERTIFICATE OF ANALYSIS

2225 S. SPRINGER AVENUE BURNABY, B.C. V5B 3N1

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PAGE # : 2 C

PRE				PPM	PPM	
FIX	Si	AMPLE	NAME	Mo	Cu	
S	L278	GS	40	3	5	
S			41	4	12	
L		Ĺ	42	10	12	
T		Т	43	1	8	
. s s L s		S	44	22	10	
S			45	15	16	
S			46	36	22	
Ļ		L	47	13	20	•
S	L278	GS	48	10	22	
S S		L	49	4	24	
S		S	50	8	22	
ၟႜၟ			51	27	18	
			52	4	14	
5 1. S S S		L	53	14	20	
<u>s</u>		S	54	12	18	
٦.		L	55	10	20	
S		S	56	11	26	
S			57	3	6	
S.	L278	GS	58	8	10	
S S S			59	1	2	
S			60	2	2 2	
S			61	4	2	
S			62	6	6	
L		L	63	28	22	•
S		5	64	11	4	
S			65	160	16	
S S			66	126	130	
S			6 7	32	14	
S	L278	GS	68	22	10	
. <u>S</u> S			69	9	22	
S			70	17	4	
S			71	64	18	
S			72	26	36	
S			73	64	12	
5			74 75	86	44	
S S S S S S S S S S S S S S S S S S S			75	28	94	
S			76	34	24	
, C			77	29	50	
			77 78 79	12	16	
Š			79	18	16	· /I

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O.OSSBACHER LABORATORY LTD.

CERTIFICATE OF ANALYSIS

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PAGE # : 3 C

===		====:	=====			
PRE FIX		SAMPLE NAME		PPM Mo	PPM Cu	
	ات 		NHME	no 		
S	L278	GS	80	60	166	
S			81	38	226	
S			82	37	52	
S S			83	68	62	
S			84	32	66	
S			85	26	126	
S			86	42	40	
S S A			87	54	260	
Α		Τ	88	40	56	
S		S	89	12	94	
<u>s</u> s	L278	GS	90	19	18	
S			91A	3	12	
(')			91B	18	18	
ا د لب			93	14	44	
S			94	12	18	
<u> </u>			95	6	16	
S			96	7	14	
S	L278	GS	97	16	20	
			98	4	6	
T		T	99	44	4	
. L	L278	SL	1	58	30	
· L			2	42	5 0°	
S		S	3	62	20	•-
L		L	4	120	34	•
`S		S	, 5	174	320	
\$ \$ \$ \$			6	68	36	
S			7	76	92	
S	L278	SS	8	68	48	
			9	82	22	
S S			10	82	42	
S			1 1	56	86	
- S			12	128	68	
S			13	21	136	
S			14	21	64	
S			15	32	20	
_ <u>S</u> _S T		·	16	82	56	
T		Т	17	1	8	
		Ĺ	18	68	192	
()		S	19	44	54	
		Ť	20	20	48	/
-	•				• -	

CERTIFIED BY :

.088BACHER LABORATORY LTD.

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DATE ENTERED: JULY 10,1985

FILE NAME:

A&M85157.C

			GEOCHEM			E # :	4 C	
PRE FIX		SAMPLE	NAME	PPM Mo	PPM Cu			
	L278	SL	20	54	64			
S		S	21	70	46			
			22	24	86			
S			23	20	120			
S S S			24	10	54			
S			25	12	26			
S	L278	SS	26A	9	66			
S			26B	14	120			
S			28	27	44			
. Т		T	29	5	66			
S		S	30	8	18			
. S			31	27	24			
1			32 .	5	66			
ے کے			33	ブ	12			
s			34	8	22			
, S			35	4	20			
S	L278	SS	36	5	12			
S			37	15	14			
S			38	38	20			
S			39	8	18			
S			40	25	30			
S			41	. 4	8			
S			42	6	10			
ស			43	35	14			•
S	L278	SS	. 44	8	16			

ANALYSIS

CERTIFIED BY :

APPENDIX II

AFFIDAVIT OF EXPENSES

AFFIDAVIT OF EXPENSES

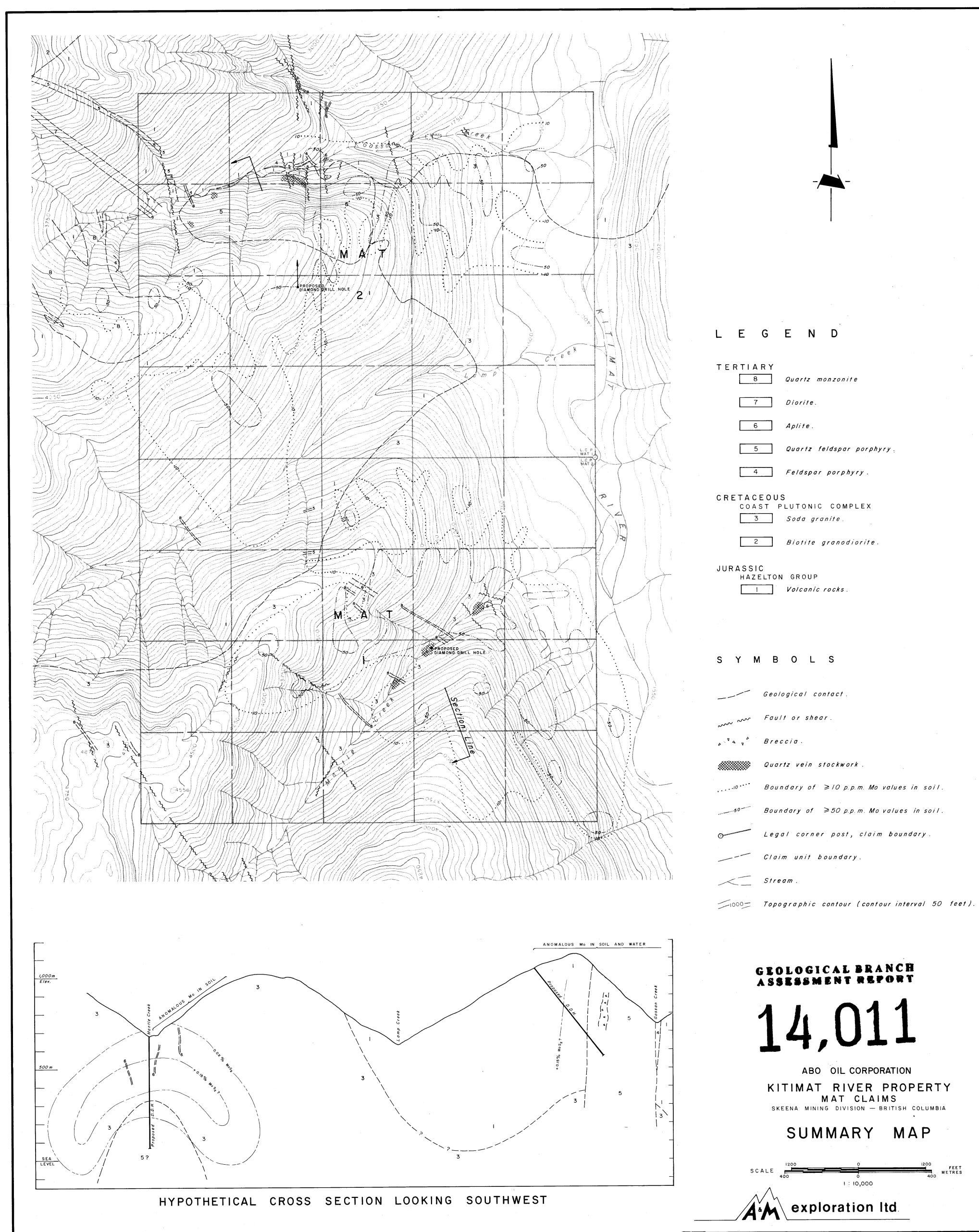
This will certify that the work program covered by this report was carried out during the period June 16 and 17, 1985, on the MAT 1 and 2 mineral claims, in the Kitimat River area, Skeena Mining Division, British Columbia, to the value of the following:

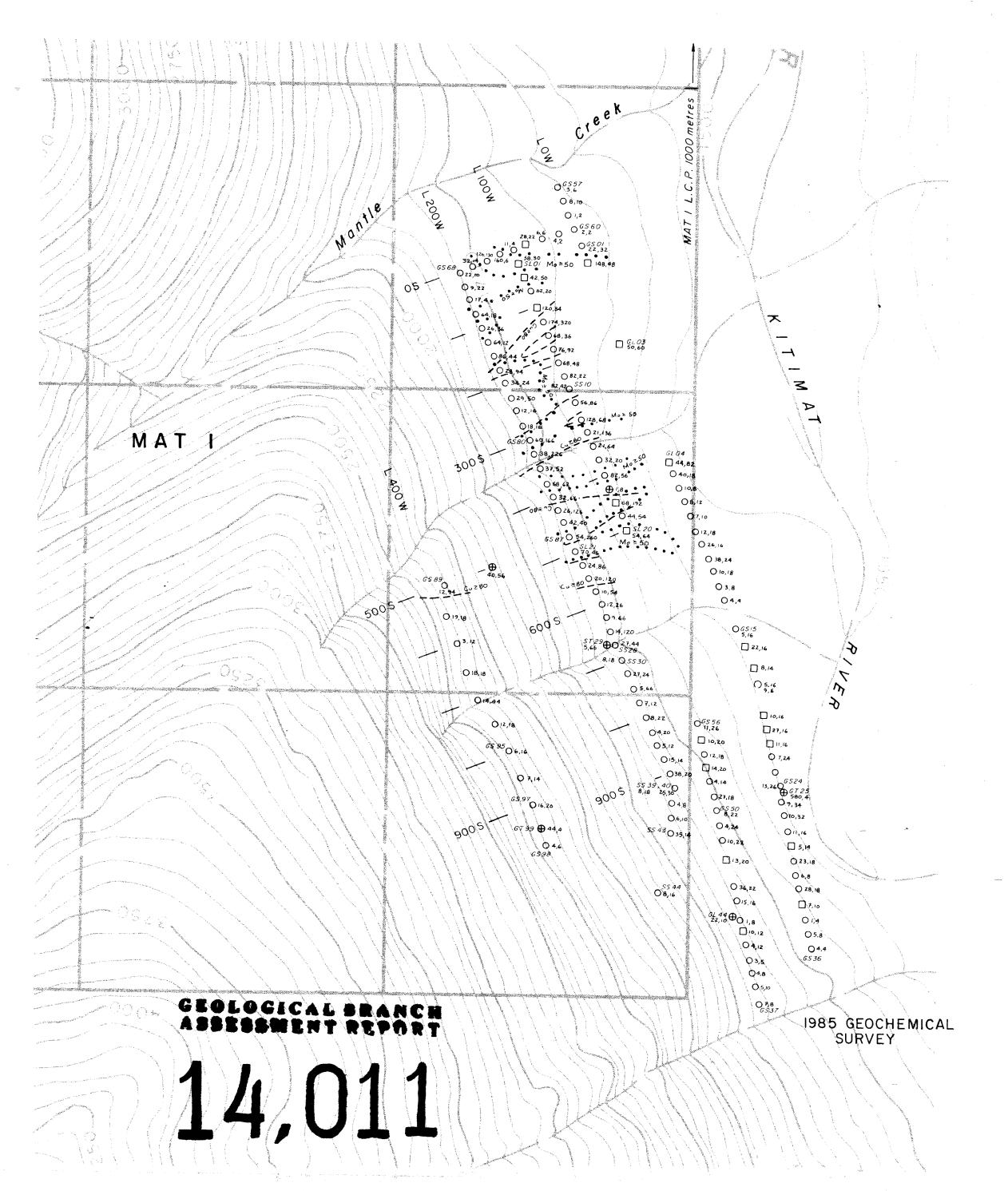
Mobilization and Fieldwork

Salaries

G.M. Allen D. Sorenson	\$	900.00 450.00
Helicopter support		746.48
Vehicle rental, mileage, gas & oil		532.84
Geochemical analyses		560.74
Room and board		240.00
Telephone		6.75
Report Preparation and Draughting		
G.M. Allen		300.00
Draughting, typing, compilation		333.00
Maps, photocopying		55.64
	\$4	,124.46

Donald G. Allen, P. Eng. (B. C.)





N.T.S. 103 I / 1

LEGEND

Rock sample site, sample number; ppm Mo/Cu.

Silt sample site, sample number; "/".

Soil sample site, sample number; " / " ...

Legal corner post, claim boundary; claim unit boundary.

Topographic contour (contour interval 50 feet.).

Creek.

Boundary of anomalous Mo, Cu in soil.

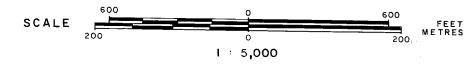
ABO OIL CORPORATION

KITIMAT RIVER PROPERTY
MAT CLAIMS

SKEENA MINING DIVISION — BRITISH COLUMBIA

GEOCHEMICAL MAP

Mo/Cu





July 12,1985

Figure 4