

1930

A GEOCHEMICAL REPORT

on the

M. J. CLAIM GROUP

at

PRINCETON, SIMILKAMEEN MINING DIVISION

PRINCETON, B. C.

Lat. $49^{\circ} 17' N$

Long. $120^{\circ} 50' W$

46.3

By

R. B. STOKES, P. ENG.

and

D. G. LEIGHTON
Geophysicist/Geologist

STOKES EXPLORATION MANAGEMENT CO. LTD.

209 - 678 HOWE STREET,

VANCOUVER 1, B. C.

for

MICHAEL E. JORGENSEN

on work completed during the period

June 19, 1969 - July 1, 1969.

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Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 1930 MAP

ACCOMPANYING MAPS

1. **Geochemical Plan, in pocket** **1"=400'**

2. **Claims Plan, in pocket** **1"=400'**

3. **Photogeology Compilation, follows**
 page No. 7

INTRODUCTION

Between June 23rd and June 30th, 1969, Stokes Exploration Management Co. Ltd. (SEMCO) completed a preliminary geochemical survey of the M. J. Claim Group, Whipsaw Creek, B. C.

This report describes and discusses the results of the survey.

PROPERTY

CLAIMS AND OWNERSHIP: The claims comprising the 'M. J.' Group are owned by Michael E. Jorgensen, of 3091 West 35th Avenue, Vancouver, B. C.

See Appendix IV for a list of the claims.

PHYSIOGRAPHY

LOCATION AND ACCESS: The M. J. property is located approximately 18 miles southwest of Princeton, B. C. The 21 claims, comprising the 'M. J.' Group, lie between the elevations of 4,200 and 5,500 feet on the easterly slopes of ^KStaist Mountain. The geographical position of the claims is 49° 17' North, latitude, 120° 50' _{46.3} West, longitude.

Access to the area is by a road running up Whipsaw Creek for a distance of 12 miles from the Hope-Princeton Highway. A 4-wheel drive vehicle is required to reach the claims, except under ideal weather conditions.

GEOLOGY

The area southwest of Princeton is underlain by Nicola volcanics and sediments that have been intruded by Coast Range and younger igneous rocks. In the vicinity of the 'M. J.' property, Nicola rocks are contacted by a phase of igneous rock known as the Eagle granodiorite. Both the Coast Range and the Nicola Group are foliated parallel to the contact which runs in a northwesterly direction. A large mass of quartz porphyry, reported to be a sill, is located along the western boundary of the property. Sulphide mineralization in the area is associated with fracture systems adjacent to the quartz porphyry intrusive contact.

The intrusive Nicola contact is not well defined, but rather consists of a transition zone up to 2,500 feet in width. This contact runs down the eastern side of the 'M. J.' property and swings west across the southern end.

(Cont'd)

GEOLOGY (Cont'd)

The property is cut by a number of fault and fracture structures. Many of these are clearly identifiable on the aerial photograph of the region. Most of the fracturing in the Whipsaw Creek area is of a low level or thrust nature. Attitudes for some of these structures as determined, for photogrammetric measurements, give dips as low as 4°. Other faults have been identified with dips up to 70°. Most of the mineralization in the Whipsaw Creek area is closely related to fault and shear zones.

PHOTO GEOLOGY

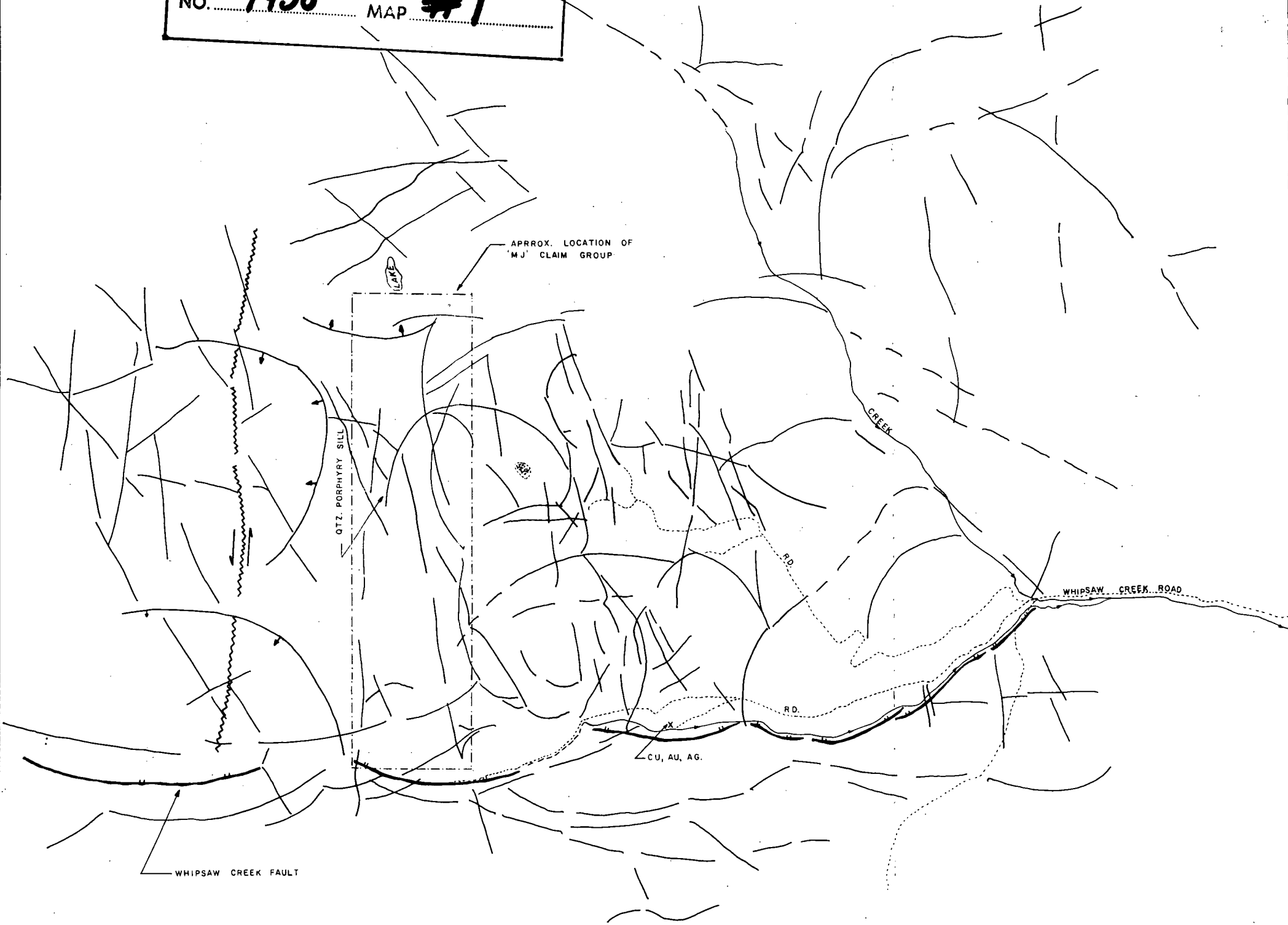
At the request of Michael E. Jorgensen, SEMCO carried out a Photogeological Survey of the 'M. J.' Claim Group and surrounding area. The study compared fracture densities and delineated primary structural features. The work should be considered as a preliminary survey.

Generally, the Whipsaw Creek area contains a consistent pattern of fracturing and the relative density of fractures is uniform over a broad area. There are many structural features, especially low angle faults, in the Whipsaw Creek area.

The results of the photogeologic work are presented on an accompanying 1" to 3290' plan. This map shows some of the photo lineaments in relation to the 'M. J.' Claim Group and to the surrounding creeks and roads. Fracture and fault traces are shown, and in some cases, dip directions are indicated.

The photogrammetric work was done by D. G. Leighton, using a Hilger and Watts SB180 mirror stereoscope.

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **1930** MAP **#1**



LEGEND

- FRACTURE TRACES
- THRUST FAULT
- ROAD
- CREEK
- MARSH
- FRACTURE - DIP INDICATED
- FAULT

D. M. Leighton

M.J. CLAIM GROUP
PHOTO GEOLOGICAL
COMPILATION.
PRINCETON B.C.

GROUND CONTROL

A base line was established along the eastern side of the M. J. property by means of a chain and transit survey. This line runs between stations 4 and 00 North, and 72 and 00 South, on a bearing of 340° . The base line intersects the Whipsaw Creek road at station 6972 South.

Crosslines were cut at 400 foot intervals at base line 4N. These lines run 3,000 feet to the west and effectively cover the M. J. property. Crossline stations are marked at 200 foot intervals.

GEOCHEMICAL SURVEY

(1) FIELD PROCEDURE: A total of 301 soil samples were collected at 200 foot intervals along the M. J. grid lines, 400 feet apart. Samples were obtained with mattocks which were satisfactory for the soil conditions encountered. Sample material, taken from the B soil horizon, was placed in 3" x 5" water resistant kraft paper envelopes. Specially designed sample books were used to record field data. Information recorded included: location, soil type, vegetation, slope, sampler, and date. Sample locations were marked with blue flagging.

(2) SOIL CONDITIONS: The Princeton area is characterized by light rainfall. Brown zoned aridic soils have developed over most of the M. J. property except in a few marshy areas. In many places the soil has a distinct reddish coloration due to an unusually high iron content in the mantle rock.

(Cont'd)

GEOCHEMICAL SURVEY (Cont'd)

(3) RESULTS: Geochemical results are presented on a 1 inch to 400 feet plan. Threshold values were determined from a statistical evaluation of sample assay results. The threshold value for the area was found to be 300 p.p.m. for copper, (mean plus twice the standard deviation). High erratic values were excluded. See Appendix III for a description of the trace element analysis procedure used. Barringer Research Co. Ltd., of Vancouver, B. C., prepared and processed all samples.

No significant geochemical anomalies were found on the M. J. property. There is a minor anomaly located between station 24 West and 30 West on line 52 South.

CONCLUSIONS AND RECOMMENDATIONS

No strong anomalies were indicated from the Geochemical Survey of the 'M. J.' Claim Group. There were, however, two areas from which above threshold sample results were obtained. These should be considered as weak or secondary anomalies.

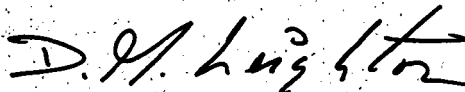
At the western end of line 52+00 South, between stations 26+00 and 30+00 West, high soil sample values were obtained.

High soil sample values were also obtained in the southeastern part of the M. J. property. Only two stations, 56+00S 6+00W and 60+00S 2+00W, exceeded threshold values. Therefore, this area cannot be considered strongly anomalous.

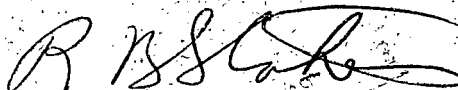
Further work is not recommended on the M. J. property at the present time.

Respectfully submitted,

STOKES EXPLORATION
MANAGEMENT CO. LTD.



D. G. Leighton,
Geophysicist/Geologist.



R. B. Stokes, P. Eng.

July 14, 1969.

CERTIFICATION

I, RONALD B. STOKES, do hereby certify that:

1. I am a practicing Professional Mining Engineer with Offices at Suite 209 - 678 Howe Street, Vancouver 1, British Columbia and resident of Vancouver.
2. I am a graduate of the Camborne School of Mines, Cornwall, England, 1952.
3. I have practised Mining Engineering and Mining Exploration for sixteen years, thirteen of which were based in British Columbia.
4. I am a Member, in good standing, of the Association of Professional Engineers of the Province of British Columbia.
5. I am a Member of the Canadian Institute of Mining and Metallurgy and Associate Member of the Institution of Mining and Metallurgy, England, and the Australasian Institute of Mining and Metallurgy.
6. I am President of Stokes Exploration Management Co. Ltd. which carried out the program of exploration.

This report is based on study and interpretation of data assembled by personal examination on the property and work carried out under my supervision.

7. I have no direct, indirect or anticipated interest in the M. J. property.



R. B. Stokes, P. Eng.

July 11, 1969.

APPENDIX I - COSTSWHIPSAW CREEK PROJECT

Charter Truck & Trailer - vehicle rental		\$ 143.53
Camp Expenses: Gas	\$ 26.85	
Groceries and Meals	<u>140.83</u>	\$ 167.68
Miscellaneous - telephone, photocopying, air photos, etc.		\$ 27.30
Wages: Bilquist & Brisco	\$250.00	
Drafting	<u>112.50</u>	
	\$362.50	
WCB, CPP, UIC and fringe benefits - 15%	\$ 54.37	
	<u>\$416.87</u>	
Engineering fees, including office costs and insurance - 30%	<u>\$125.06</u>	\$ 541.93
D. G. Leighton - Geophysicist/Geologist		\$ 782.00
R. B. Stokes, P. Eng.		<u>\$ 10.00</u>
		\$1,672.44
Sample Preparation and Analysis (estimated)		<u>\$1,019.10</u>
		\$2,691.54
Mining Recorder - Certificate of Work		<u>\$ 106.00</u>
		<u>\$2,797.54</u>

STOKES EXPLORATION MANAGEMENT CO. LTD.

June 14, 1969.

D. G. Leighton

Declared before me at the City
of Vancouver, in the
Province of British Columbia, this 18
day of July 1969, A.D.

D. M. King

Jean Turner SUB-MINING RECORDER
A Commissioner for taking Affidavits within British Columbia and
A Notary Public in and for the Province of British Columbia.



PAY ROLL JOB CLASSIFICATION

Pay Period **June 16-30, 1969** Project **WHIPSAW CREEK** Client **M. E. Jorgensen** Code **112**

Name/Job	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total	Rate	Amount
R. B. Stokes																					1											1 Hour	10.00	10.00
																					17													
D. G. Leighton																					1	x	x	x	x	x	x	x	x	x		9 Days	70.00	630.00
																					18	19	19	18	16	6	6	6	6	28		1 Hour	12.00	12.00
R. Bilquist																									x	x	x	x	x			5 Days	25.00	125.00
																								2	2	2	6	6						
C. Brisco																								x	x	x	x	x				5 Days	25.00	125.00
																								2	2	2	6	6						

JOB CLASSIFICATION

- | | |
|--------------------------------|-------------------------|
| 01 Claim Surveys | 16 Travelling |
| 02 Line Cutting | 17 Preliminary |
| 03 Access Roads/Trails | 18 Exploration Planning |
| 04 Prospecting | 19 Property Examination |
| 05 Geological Surveys | 20 Claim Staking |
| 06 Geochemical Surveys | 21 General Supervision |
| 07 Geophysical Surveys | 22 Drafting |
| 08 Sampling/Sample Preparation | 23 Specialized Drafting |
| 09 Plugger Drilling | 24 Photo Grammetry |
| 10 Hand Trenching | 25 Secretarial |
| 11 Diamond Drilling | 26 Accounting |
| 12 Core Logging | 27 Non Chargeable—Semco |
| 13 Bulldozer Trenching | 28 |
| 14 Cooking | 29 |
| 15 Expediting | 30 |

REMARKS:

- R. B. Stokes Mining Engineer, P. Eng.**
- *D. G. Leighton Geophysicist/Geologist**
- R. Bilquist Line Cutter/Soil Sampler**
- C. Brisco Line Cutter/Soil Sampler**

- * B. Sc. University of British Columbia**
6 years experience Mining Exploration, B.C.

APPROVED:

D. G. Leighton

APPROVED:

Declared before me at the *city*
of *Vancouver*, in the
Province of British Columbia, this *18*
day of *July* 19*69*, A.D.

D. H. Light

Joan Turner
A Commissioner for taking Affidavits within British Columbia
A Notary Public in and for the Province of British Columbia
SUB-MINING RECORDER



PAY ROLL JOB CLASSIFICATION

Pay Period **July, 1969** Project **WHIPSAW CREEK** Client **M. E. Jorgensen** Code **112**

Name/Job	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total	Rate	Amount	
R. B. Stokes											x																						1 Day	100.00	100.00
D. G. Leighton		x																															1 Day	70.00	70.00
M. Myers		x	x	x																													3 Days	20.00	60.00
D. G. Leighton							x																										1 Day	70.00	70.00

JOB CLASSIFICATION

- | | |
|--------------------------------|-----------------------------|
| 01 Claim Surveys | 16 Travelling |
| 02 Line Cutting | 17 Preliminary |
| 03 Access Roads/Trails | 18 Exploration Planning |
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| 11 Diamond Drilling | 26 Accounting |
| 12 Core Logging | 27 Non Chargeable—Semco |
| 13 Bulldozer Trenching | 28 Compilation |
| 14 Cooking | 29 |
| 15 Expediting | 30 |

REMARKS:

R. B. Stokes Mining Engineer, P. Eng.
***D. G. Leighton** Geophysicist/Geologist
M. Myers Draftsman

*** B. Sc. University of British Columbia**
6 years experience Mining Exploration, B.C.

APPROVED: *D. G. Leighton*

APPROVED: _____

Declared before me at the

City

of

Vancouver

, in the

Province of British Columbia, this

18

day of

July 1969

, A.D.

D. H. Light

Joan Sumner

SUB-MINING RECORDER

A Commissioner for taking Affidavits within British Columbia
A Notary Public in and for the Province of British Columbia

APPENDIX III

SAMPLE PREPARATION AND ANALYSIS

Water is removed from the samples by means of specially designed drying ovens. Following this, the sample material is sieved on a -80 mesh nylon screen to remove larger fragments and render the sample more homogenous.

Samples to be tested for copper are decomposed by the usual Perchloric Acid Digest Technique. Copper and content is then determined by an Atomic Absorption Analysis.

Samples to be tested for molybdenum are done so by the usual Colorimetric Method.

All sample preparation and analysis was done by Barringer Research Ltd. of Vancouver, B. C.

APPENDIX IVM. J. CLAIMS LIST

<u>Claim No.</u>	<u>Tag No.</u>	<u>Record No.</u>	<u>Date Staked</u>	<u>Date Recorded</u>
HONDA 4	905696	23308	July 27, 1968	Aug. 12, 1968
5	905693	23309	July 27, 1968	Aug. 12, 1968
6	905694	23310	July 27, 1968	Aug. 12, 1968
7	905692	23311	July 27, 1968	Aug. 12, 1968
8	905691	23312	July 27, 1968	Aug. 12, 1968
L.M.R. 1	905684	23116	July 20, 1968	Aug. 5, 1968
2	905686	23117	July 20, 1968	Aug. 5, 1968
M. J. 8	889247	22724	June 17, 1968	July 3, 1968
9	889248	22725	June 17, 1968	July 3, 1968
10	889245	22726	June 19, 1968	July 3, 1968
11	889246	22727	June 19, 1968	July 3, 1968
12	889244	22728	June 19, 1968	July 3, 1968
13	889245	22729	June 19, 1968	July 3, 1968
14	889241	22730	June 17, 1968	July 3, 1968
16	889239	22732	June 17, 1968	July 3, 1968
17	889238	22733	June 17, 1968	July 3, 1968
18	889237	22734	June 17, 1968	July 3, 1968
19	889236	22735	June 17, 1968	July 3, 1968
20	889235	22736	June 17, 1968	July 3, 1968
21	889234	22737	June 17, 1968	July 3, 1968
23	889232	22739	June 17, 1968	July 3, 1968

APPENDIX V
REFERENCES AND BIBLIOGRAPHY

APPENDIX IV

M. J. CLAIMS LIST

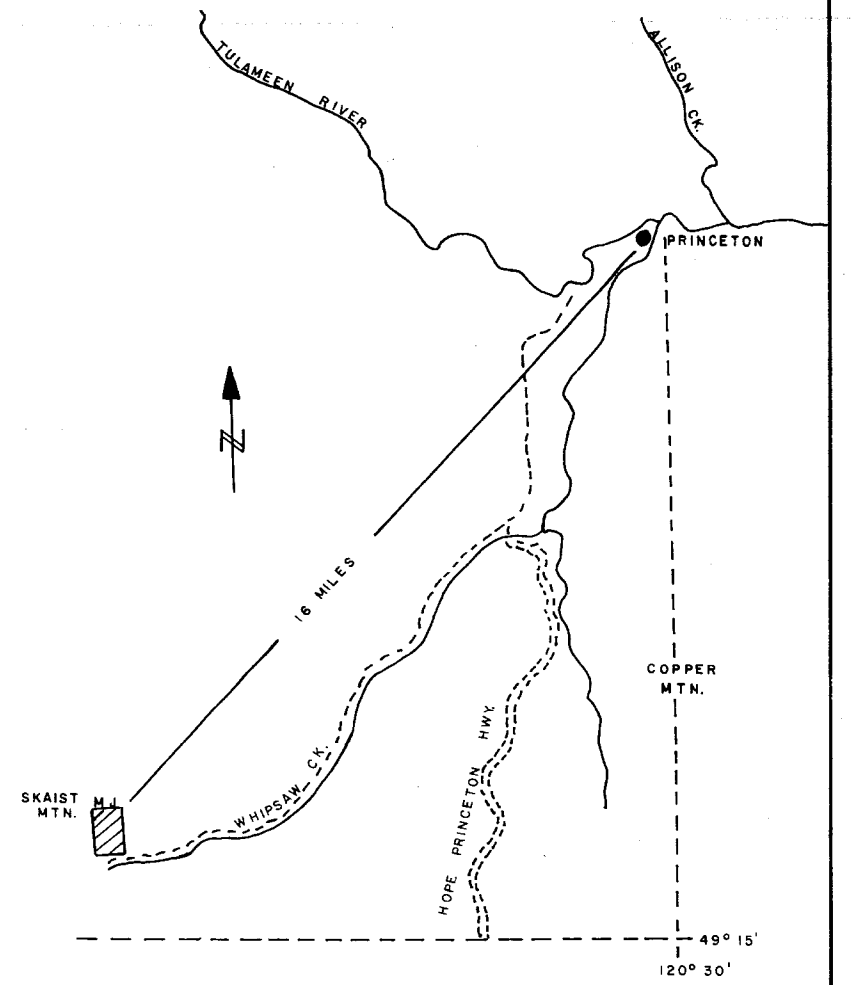
APPENDIX III

SAMPLE PREPARATION AND ANALYSIS

APPENDIX II
PERSONNEL TIME SHEETS

APPENDIX I

COSTS



KEY PLAN
1/4 MILES

LEGEND

- CROWN GRANT BOUNDARY
- CREEK
- MARSH
- ROAD

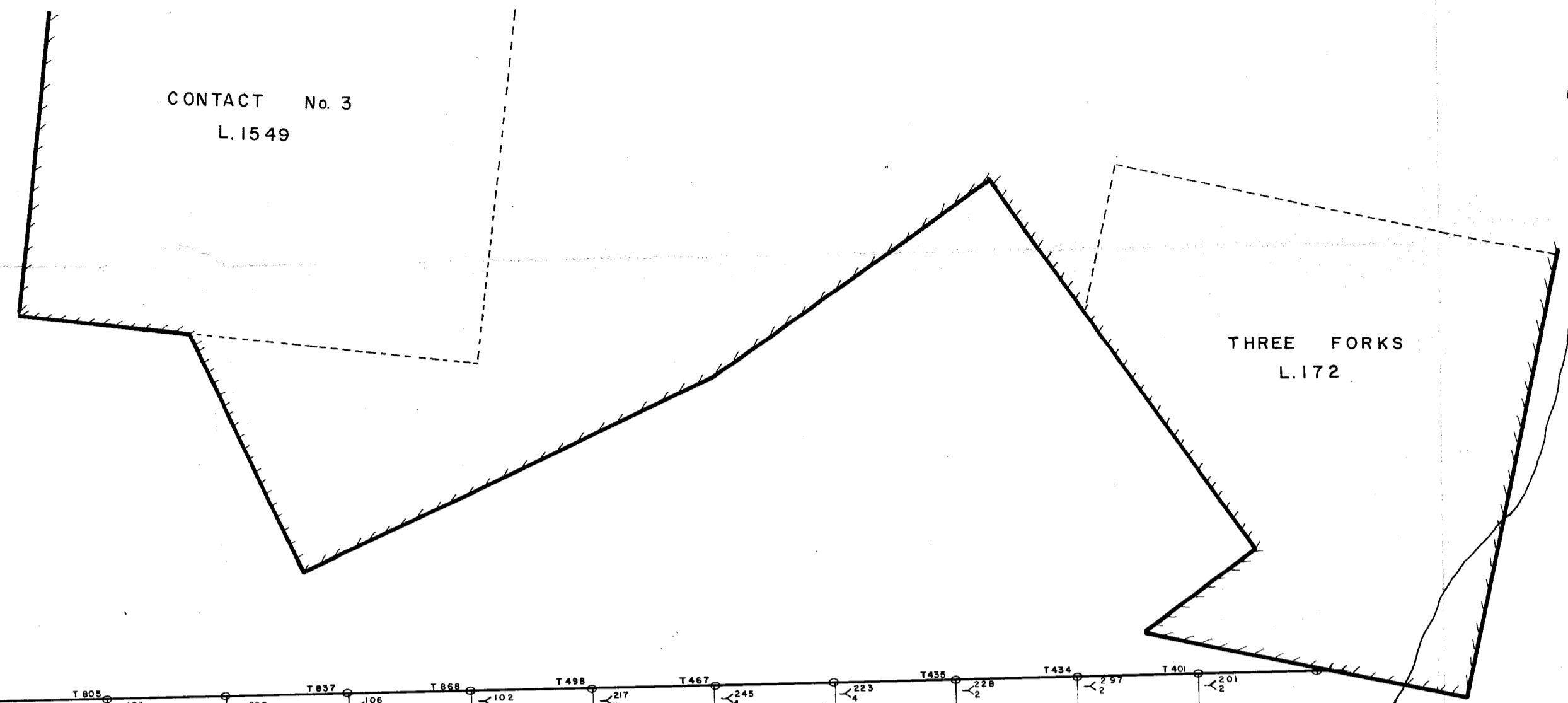
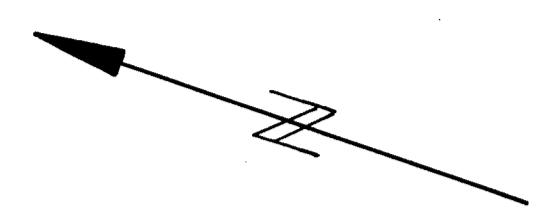
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **1930** MAP **#2**

Map to accompany GEOCHEMICAL
REPORT on the 'M. J. CLAIM
GROUP' at Princeton, B. C. by
R. B. STOKES, P. ENG. for
MICHAEL E. JORGENSEN

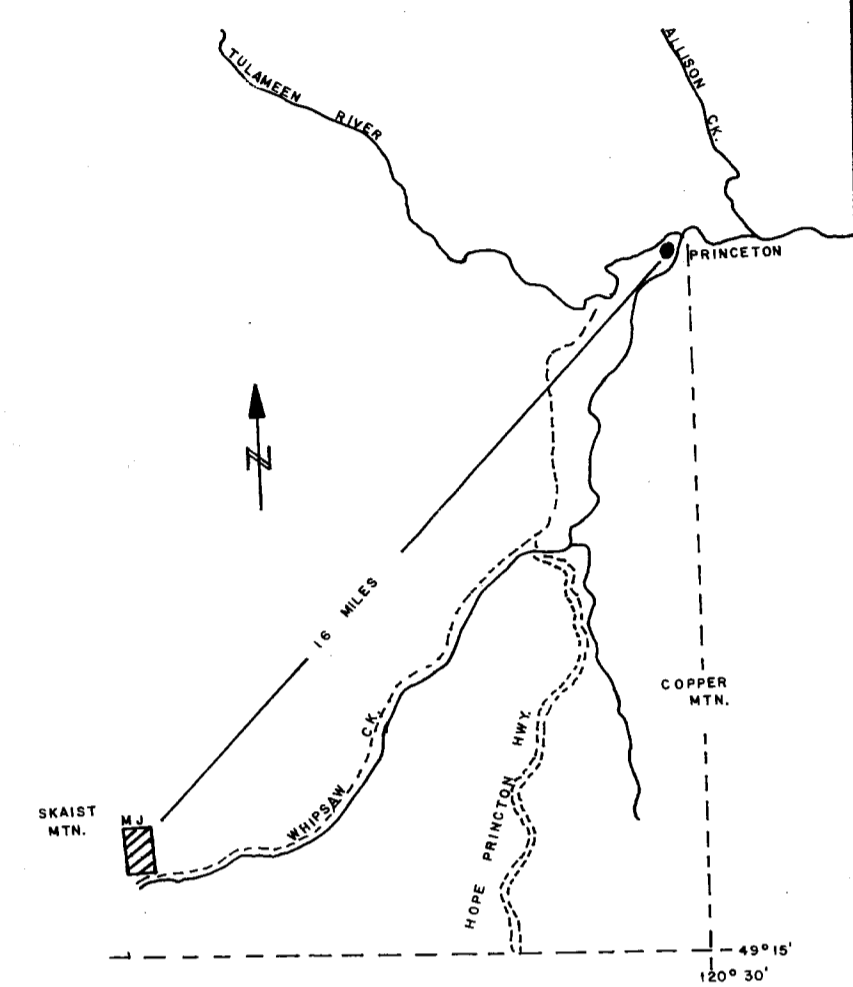
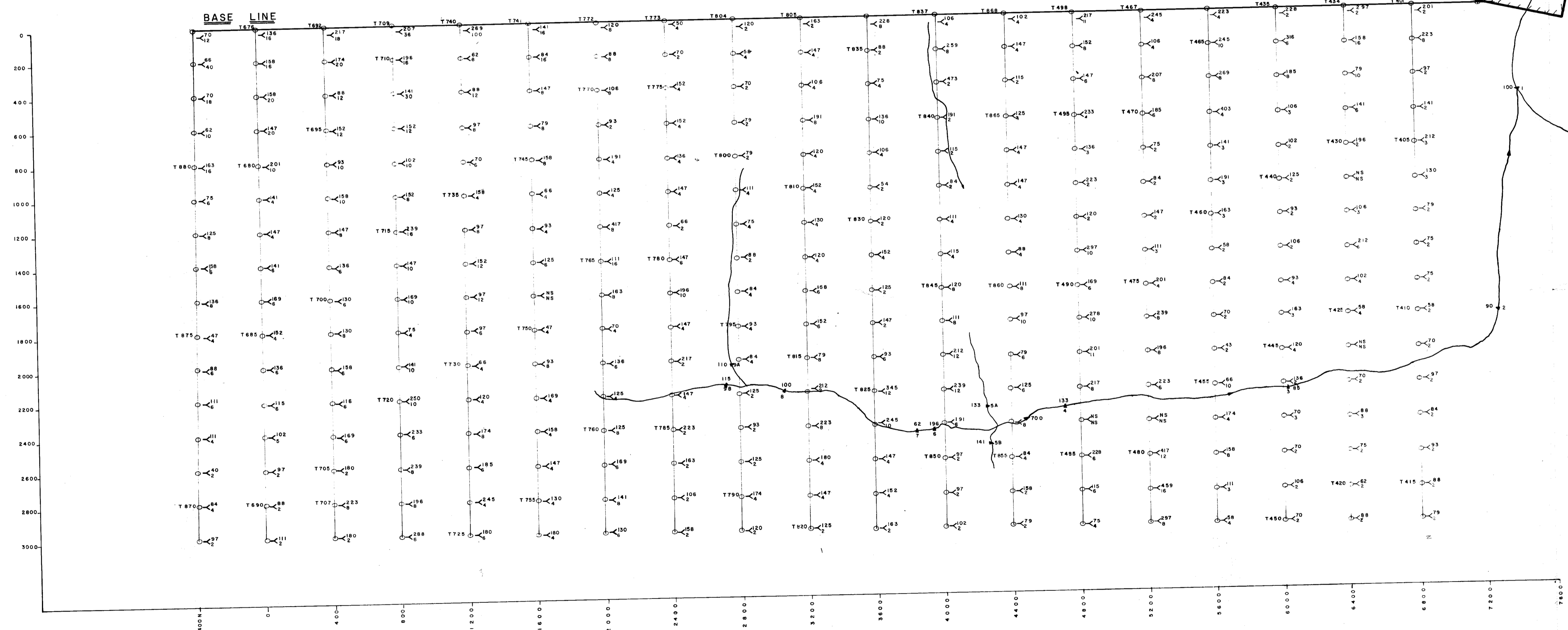
R.B. Stokes

1930

M.J. CLAIM GROUP
CLAIMS PLAN
WHIPSHAW CREEK PROJECT
PRINCETON B.C.



APPROX. WESTERN BOUNDARY OF TEXAS GULF BLOCK



KEY PLAN 1"= 4 MILES

LEGEND

- CROWN GRANT BOUNDARY
- CREEK
- Cu p.p.m.
- Mo p.p.m.
- SILTY SAMPLE

Map to accompany GEOCHEMICAL
 REPORT on the 'M. J. CLAIM
 GROUP' at Princeton, B. C.
 by R. B. STOKES, P. ENG. for
 MICHAEL E. JORGENSEN

Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 1930 MAP #3

1930 *R B Stokes*

M. J. CLAIM GROUP
 GEO-CHEM RESULTS
 WHIPSAW CREEK PROJECT
 PRINCETON B.C.