

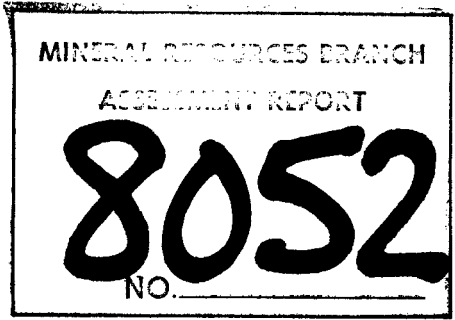
ASSESSMENT GEOLOGICAL AND GEOCHEMICAL REPORT
ON
JON CLAIM
CHILLIWACK LAKE AREA
NEW WESTMINSTER MINING DIVISION, B.C.
92H/3W

Long. 121°25'E

Lat. 49°02'N

June 12, 1980

OWNER: MIDNAPORE OIL COMPANY LTD.
OPERATOR: MIDNAPORE OIL COMPANY LTD.



Grant Crooker, B.Sc.
Geologist
Westridge Enterprises Ltd.

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CERTIFICATES OF ANALYSIS

ILLUSTRATIONS

Figure 1 - Location Map,	1:50,000.....	[Frontispiece]
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Figure 3 - Soil and Silt Geochemistry, Cu,	1:5,000.....	[In Pocket]
Figure 4 - Soil and Silt Geochemistry, Mo,	1:5,000.....	[In Pocket]

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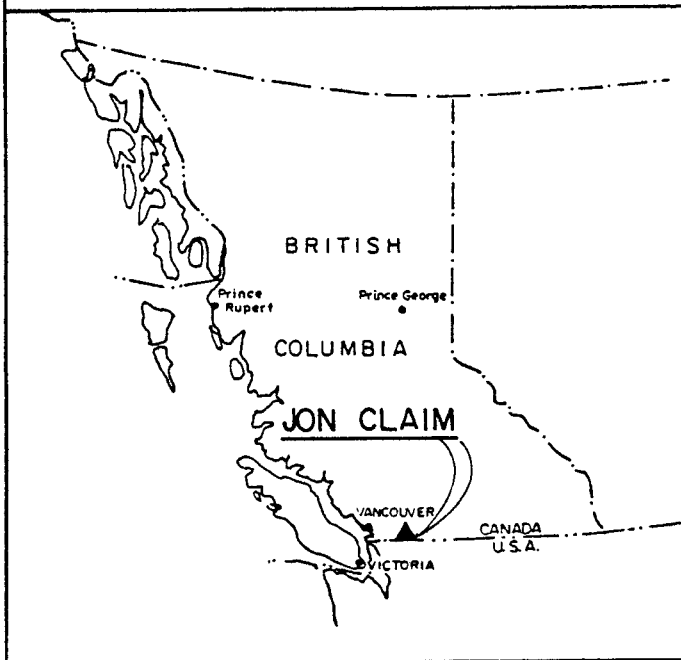
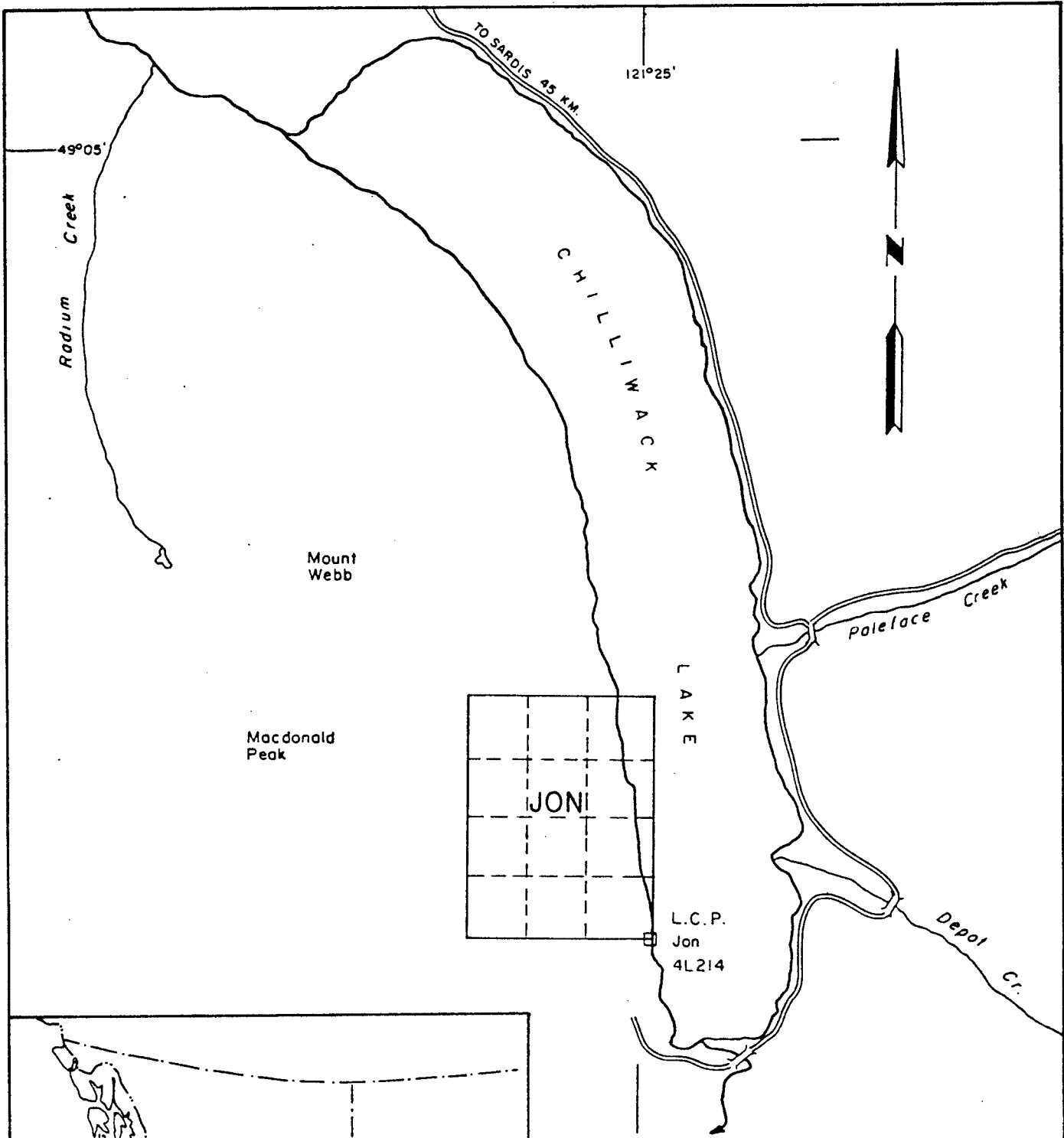
S U M M A R Y

The JON Claim covers twelve units in the New Westminster Mining Division. The property is owned by the Midnapore Oil Company Ltd.

The claims are underlain by plutonic rocks of the Chilliwack batholith. Mineralization consists of porphyry type copper-molybdenum.

A reconnaissance program of soil geochemical sampling was carried out in the area by Gunnex Ltd. in 1968. This survey outlined several copper and molybdenum anomalies.

The present survey was carried out as a follow-up to the Gunnex Survey and to confirm their geochemical results. This survey has outlined a number of copper-molybdenum geochemical anomalies, and located a number of sulphide showings that should be followed up with more detailed prospecting, geological mapping, geochemical sampling and trenching.



MIDNAPORE OIL COMPANY LTD. VANCOUVER, B.C.	
WESTRIDGE ENTERPRISES LTD.	
LOCATION MAP JON CLAIM SCALE 1:5000 0 100 200 250 METRES	
DRAWN BY: G. CROCKER	N.T.S.: 92H / 3W
DATE: JUNE 1980	FIGURE N ^o . 1

INTRODUCTION

General

Field work was carried out by the author and one assistant during the latter part of May, 1980.

Geological mapping, prospecting and soil and silt sampling were carried out in the vicinity of the 1968 Gunnex survey.

Location and Access

The property is located on the west side of Chilliwack Lake, 2 kilometers from its south end [Figure 1] in the New Westminster Mining Division [92H/3W.]

Access is via the Chilliwack Lake road from Sardis for a distance of 50 kilometers. This is an all-weather gravel road which terminates at the south end of the lake, and a boat must be taken 2 kilometers across the lake to reach the claim.

Physiography

The property is located on a steep, rugged mountainside. Elevations rise from 2,050 feet at the lake to 5,000 feet along the west boundary of the claim. The higher elevations have extensive vertical cliffs, while many smaller cliffs are found at lower elevations.

One major creek cuts across the property and this provides the best access route to the higher elevations.

Mature fir and cedar cover the lower elevations,

although thick underbrush and deadfall cover some of the property.

Property and Claim Status

The property consists of one mineral claim of twelve units. The claim was staked September 21, 1979.

<u>Claim</u>	<u>Record No.</u>	<u>Expiry Date</u>
JON	606 [9]	September 25, 1980

The property is owned by the Midnapore Oil Company Ltd.

History and Previous Work

The earliest staking in the vicinity of the JON Claim appears to have been by John McAndrew during 1966.

In 1968 Gunnex Ltd. carried out a reconnaissance silt geochemical sampling program around Chilliwack Lake. Several anomalous samples were taken in the area of the JON Claim, so a more detailed soil sampling survey was carried out. Several probable copper-molybdenum anomalies were outlined, but further investigations were not carried out.

The area was restaked during 1979 and subsequently the claim was sold to Midnapore Oil Company Ltd.

Exploration Procedure

The field program consisted of geological mapping, prospecting and soil and silt geochemical sampling.

Contour geochemical sampling was carried out in

the area as a follow-up to previously outlined geochemical anomalies by the 1968 Gunnex Ltd. survey. The lines were put in at 200 foot contour intervals from 2,400 to 3,800 feet [asl]. Stations were placed every 50 meters along the lines and soil samples taken. Silt samples were also taken on creeks crossed. At the same time the soil sampling was done, the area was geologically mapped at a scale of 1 to 5,000.

Soil samples were generally taken in the brown 'B' horizon at a depth of 15 to 25 centimeters. Large accumulations of 'A' horizon organic material cover the 'B' horizon. The samples were placed in brown kraft paper bags, dried and sent for analysis. One hundred and twenty-nine soil samples and twenty-three silt samples were taken.

The samples were analyzed for copper and molybdenum by Rossbacher Laboratories in Burnaby, B.C. The samples were dried, screened to minus 80 mesh and digested by a perchloric, nitric bath. Concentrations of copper and molybdenum were determined by atomic absorption. Results were plotted at a scale of 1:5,000.

A limited amount of prospecting was carried out over the area in conjunction with the mapping.

GEOLOGY

Regional Geology

The claim area is underlain by the Chilliwack batholith. This is a composite batholith with at least nine different phases [Monger, 1969] ranging from hyperthene tonalite to albite granite. Hornblende-biotite quartz diorite and hornblende - biotite granodiorite are the predominant phases.

The pluton extends from the Skagit River in Washington to Yale in British Columbia, and age of emplacement is late Eocene to Miocene.

Claim Geology [Figure 2]

The JON Claim is underlain by a medium to coarse grained biotite granodiorite and fine to medium grained aplite. The granodiorite contains varying amounts of biotite with minor hornblende and appears to have little alteration. The aplite is usually fine grained with a light orange tinge, and occasional minor biotite flakes.

In many places the biotite granodiorite shows a well developed northwest trending joint system. These joints are associated with a quartz stockwork in several places. The quartz stringers are usually $\frac{1}{2}$ to 2 centimeters in width.

The aplite appears to form a northeast trending zone approximately 250 meters wide within the biotite granodiorite. However, more mapping is needed to determine the extent of the aplite.

Mineralization

Mineralization observed consists of chalcopyrite and molybdenite occurring as disseminations or on fractures within the aplite. Blebs of molybdenite up to 1 centimeter in width were also observed in small gossanous areas associated with pyrite. At three different locations [Figure 2] molybdenite and chalcopyrite mineralization was observed. Samples gave results as follows:

<u>Sample No.</u>	<u>Cu %</u>	<u>Mo %</u>
51	0.01	< 0.001
52	0.06	< 0.001
53	0.02	0.007

No mineralization was found within the biotite granodiorite.

GEOCHEMICAL SAMPLING

Silt Geochemistry

Molybdenum - Samples returning 14 ppm or greater molybdenum were considered anomalous. Two silt samples, J-16 and 22 [Figure 4] were anomalous.

Silt samples returning 200 ppm or greater copper were considered anomalous. Samples J-7, 8, 16 and 24 [Figure 3] were anomalous. Sample J-24 is south of the main creek. Samples J-7, 8 and 16 form part of a large copper anomaly associated with some soil sample results.

Soil Geochemistry

The soil geochemical survey confirmed the 1968 Gunnex results.

Molybdenum - Values of 14 ppm or greater were considered anomalous. Four probable anomalies [Figure 4] were outlined. The anomaly around L26 - 10N is probably caused by the molybdenite and chalcopyrite in the aplite. Three other anomalies at L.24 - 55N, L.32 - 15N and from L.28 - 60N to 37 - 35N were found. These anomalies occur in the biotite granodiorite, and no mineralization was observed in the areas. However, quartz stockworks were found in several locations.

Copper - Values of 200 ppm and greater copper was considered anomalous. Two probable copper anomalies were isolated. The first is at L.28 - 15N, while the second extends from L.32 - 40N to L.38 - 45N. The second

anomaly is coincident with a molybdenum anomaly.

These anomalies are in areas of biotite granodiorite, but no mineralization was observed.

CONCLUSIONS AND RECOMMENDATIONS

A number of copper and molybdenum geochemical anomalies were outlined, confirming the 1968 Gunnex geochemical results.

One molybdenum anomaly can be attributed to disseminated molybdenum in an aplite. However, the other anomalies were outlined in areas underlain by biotite granodiorite. Limited prospecting has not discovered the cause of the anomalies. Several quartz stockworks were located, but no mineralization was found in them.

The area has favourable geology for the occurrence of "porphyry type" mineralization, and disseminated molybdenite and chalcopyrite was found.

Recommendations are as follows:

- 1] The soil geochemical survey should be continued to higher elevations to locate possible extensions of the anomalies. The survey should also be extended south of the main creek. The lines should be run along contours, at 200 foot elevation spacing, with samples taken every 50 meters.
- 2] Geological mapping should be completed over the JON Claim.

- 3] Prospecting should be carried out over the entire claim, and areas should be intensively prospected where geochemical anomalies were outlined.
- 4] All mineralized areas should be sampled and trenching should be carried out on highly weathered rock outcrops to obtain fresh rock samples.
- 5] Further exploration will depend on the results obtained from prospecting, mapping, trenching and sampling.

Respectfully submitted,



Grant Crooker, B.Sc.,
Geologist

June 1980

REFERENCES

Elwell, J.P. - Report on the JON Claim, October 4, 1979

Monger, J.W.H. - Geological Survey of Canada, Paper 69-47,
Hope Map-Area, West Half British Columbia

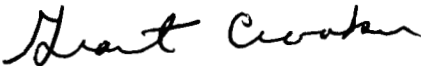
Rose, K.C. - A Report on a Geochemical Survey of the JON
Claim, Chilliwack Lake, B.C., July 17, 1968

CERTIFICATE OF QUALIFICATIONS

I, GRANT F. CROOKER, B.Sc., Geology, of Box 234, Keremeos, British Columbia, state as follows:

- 1] That I graduated from the University of British Columbia in 1972 with a Bachelor of Science degree in Geology.
- 2] That I have prospected and actively pursued geology prior to my graduation and have practiced my profession since 1972.
- 3] That I am a member of the Canadian Institute of Mining and Metallurgy.
- 4] That I am employed by Westridge Enterprises Ltd., 2000 Arbury Avenue, Coquitlam, B.C.
- 5] That I have no direct or indirect interest in the property, or the securities of Midnapore Oil Company Ltd., nor do I intend to receive any such interest.

DATED at Vancouver, British Columbia this 4th day of June, 1980.



Grant Crooker, B.Sc.,
Geologist

COST STATEMENT

1. Salaries:		
Geologist - May 16-26, 1980		
11 days @ \$200/day		\$2,200.00
Prospector - May 16-23, 1980		
8 days @ \$120/day		960.00
2. Accommodation and Meals, May 16-23, 1980		292.64
3. Transportation - May 16-23, 1980:		
4x4 Truck Rental & Fuel	220.20	
Boat rental - May 16-23, 1980	<u>210.00</u>	430.20
4. Geochemical Analyses and Assays:		358.65
150 geochemical soil and silt		
samples analyzed for Cu, Mo		
@ \$2.20/sample		
3 rock samples for assaying Mo,		
Cu, @ \$9.55/sample		
5. Supplies, Equipment Rental, Freight		
May 16-23, 1980		111.80
6. Engineering report, maps, drafting,		
secretarial, reproduction, sta-		
tionery, supplies, research		1,335.25
		<hr/>
	Total	<u>\$5,688.54</u>

Rossbacher Laboratory

GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
BURNABY, B. C.
CANADA
TELEPHONE: 299-6910

CERTIFICATE OF ANALYSIS

TO: WESTRIDGE ENTERPRISES LTD.
COQUITLAM, B.C.

CERTIFICATE NO. *80123-1*
INVOICE NO. *0151*
DATE ANALYSED *MAY 28, 1980*

PROJECT

No.	Sample	pH	Mo	Cu								No.
01	<i>J-1</i>		<i>6</i>	<i>138</i>								01
02	<i>2</i>		<i>5</i>	<i>118</i>								02
03	<i>3</i>		<i>4</i>	<i>138</i>								03
04	<i>4</i>		<i>3</i>	<i>100</i>								04
05	<i>5</i>		<i>5</i>	<i>142</i>								05
06	<i>6</i>		<i>4</i>	<i>86</i>								06
07	<i>7</i>		<i>8</i>	<i>264</i>								07
08	<i>8</i>		<i>13</i>	<i>304</i>								08
09	<i>9</i>		<i>2</i>	<i>44</i>								09
10	<i>10</i>		<i>7</i>	<i>148</i>								10
11	<i>11</i>		<i>5</i>	<i>128</i>								11
12	<i>12</i>		<i>8</i>	<i>58</i>								12
13	<i>13</i>		<i>7</i>	<i>64</i>								13
14	<i>14</i>		<i>4</i>	<i>136</i>								14
15	<i>15</i>		<i>4</i>	<i>108</i>								15
16	<i>16</i>		<i>21</i>	<i>364</i>								16
17	<i>17</i>		<i>7</i>	<i>100</i>								17
18	<i>18</i>		<i>5</i>	<i>108</i>								18
19	<i>21</i>		<i>1</i>	<i>86</i>								19
20	<i>22</i>		<i>15</i>	<i>16</i>								20
21	<i>23</i>		<i>3</i>	<i>26</i>								21
22	<i>24</i>		<i>6</i>	<i>382</i>								22
23	<i>25</i>		<i>2</i>	<i>36</i>								23
24	<i>24-10N</i>		<i>34</i>	<i>1450</i>								24
25	<i>15N</i>		<i>2</i>	<i>26</i>								25
26	<i>20N</i>		<i>2</i>	<i>10</i>								26
27	<i>25N</i>		<i>5</i>	<i>84</i>								27
28	<i>30N</i>		<i>4</i>	<i>196</i>								28
29	<i>35N</i>		<i>3</i>	<i>136</i>								29
30	<i>40N</i>		<i>13</i>	<i>370</i>								30
31	<i>55N</i>		<i>23</i>	<i>36</i>								31
32	<i>60N</i>		<i>16</i>	<i>16</i>								32
33	<i>65N</i>		<i>12</i>	<i>34</i>								33
34	<i>70N</i>		<i>16</i>	<i>118</i>								34
35	<i>75N</i>		<i>11</i>	<i>48</i>								35
36	<i>80N</i>		<i>8</i>	<i>46</i>								36
37	<i>85N</i>		<i>18</i>	<i>28</i>								37
38	<i>90N</i>		<i>6</i>	<i>68</i>								38
39	<i>95N</i>		<i>5</i>	<i>30</i>								39
40	<i>STD C</i>		<i>17</i>	<i>174</i>								40

Certified by *[Signature]*

Rossbacher Laboratory

GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
BURNABY, B. C.
CANADA
TELEPHONE: 299-6910

CERTIFICATE OF ANALYSIS

TO: WESTRIDGE ENTERPRISES LTD.
COQUITLAM, B.C.

CERTIFICATE NO. 80123-2
INVOICE NO. 0151
DATE ANALYSED MAY 25, 1980
PROJECT

No.	Sample	pH	Mo	Cu									No.
01	24-100N		7	86									01
02	105N		6	58									02
03	110N		4	14									03
04	26-00N		17	138									04
05	5N		21	16									05
06	10N		15	144									06
07	15N		3	38									07
08	20N		1	10									08
09	25N		10	112									09
10	30N		16	84									10
11	35N		4	54									11
12	40N		2	36									12
13	45N		8	120									13
14	50N		18	38									14
15	55N		7	40									15
16	60N		3	36									16
17	65N		5	24									17
18	70N		5	72									18
19	75N		3	38									19
20	80N		2	24									20
21	85N		10	96									21
22	90N		6	88									22
23	95N		3	12									23
24	100N		6	32									24
25	105N		12	34									25
26	110N		7	50									26
27	28-00N		8	234									27
28	5N		14	98									28
29	10N		13	338									29
30	15N		6	222									30
31	20N		9	36									31
32	25N		31	328									32
33	30N		30	70									33
34	35N		6	64									34
35	40N		33	34									35
36	45N		15	100									36
37	50N		2	10									37
38	55N		2	36									38
39	60N		3	78									39
40	STD. G1		6	38									40

Certified by J. Rossbacher

Rossbacher Laboratory

GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
BURNABY, B. C.
CANADA
TELEPHONE: 299-6910

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 80123-3

INVOICE NO. 0151

DATE ANALYSED MAY 28, 1980

TO: WESTRIDGE ENTERPRISES LTD.
COQUITLAM, B.C.

PROJECT

No.	Sample	pH	Mo	Cu							No.
01	28-65N		3	28							01
02	70N		19	68							02
03	75N		8	32							03
04	80N		12	80							04
05	30-0N		9	98							05
06	5N		7	18							06
07	10N		34	378							07
08	15N		5	44							08
09	20N		7	30							09
10	25N		26	304							10
11	30N		2	28							11
12	35N		4	46							12
13	40N		4	152							13
14	45N		26	60							14
15	50N		5	50							15
16	55N		4	176							16
17	60N		44	94							17
18	65N		17	80							18
19	70N		12	146							19
20	32-A		3	88							20
21	B		9	286							21
22	0N		14	96							22
23	5N		5	74							23
24	10N		16	102							24
25	15N		17	82							25
26	20N		21	146							26
27	25N		13	170							27
28	30N		7	6							28
29	35N		9	98							29
30	40N		22	224							30
31	45N		15	94							31
32	50N		19	62							32
33	55N		N/D	-	sample L E						33
34	60N		66	124							34
35	34-0N		17	156							35
36	5N		4	178							36
37	10N		3	54							37
38	15N		2	44							38
39	20N		9	92							39
40	STD 910		13	520							40

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Rossbacher Laboratory

GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
BURNABY, B. C.
CANADA
TELEPHONE: 299-6910

CERTIFICATE OF ANALYSIS

WESTRIDGE ENTERPRISES LTD.

TO: 2000 Arbury Ave.
Coquitlam, B.C.

CERTIFICATE NO. 30123-4

INVOICE NO. 2151

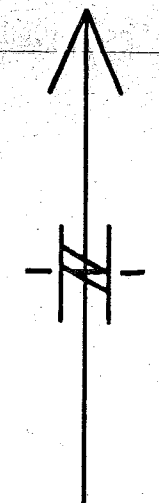
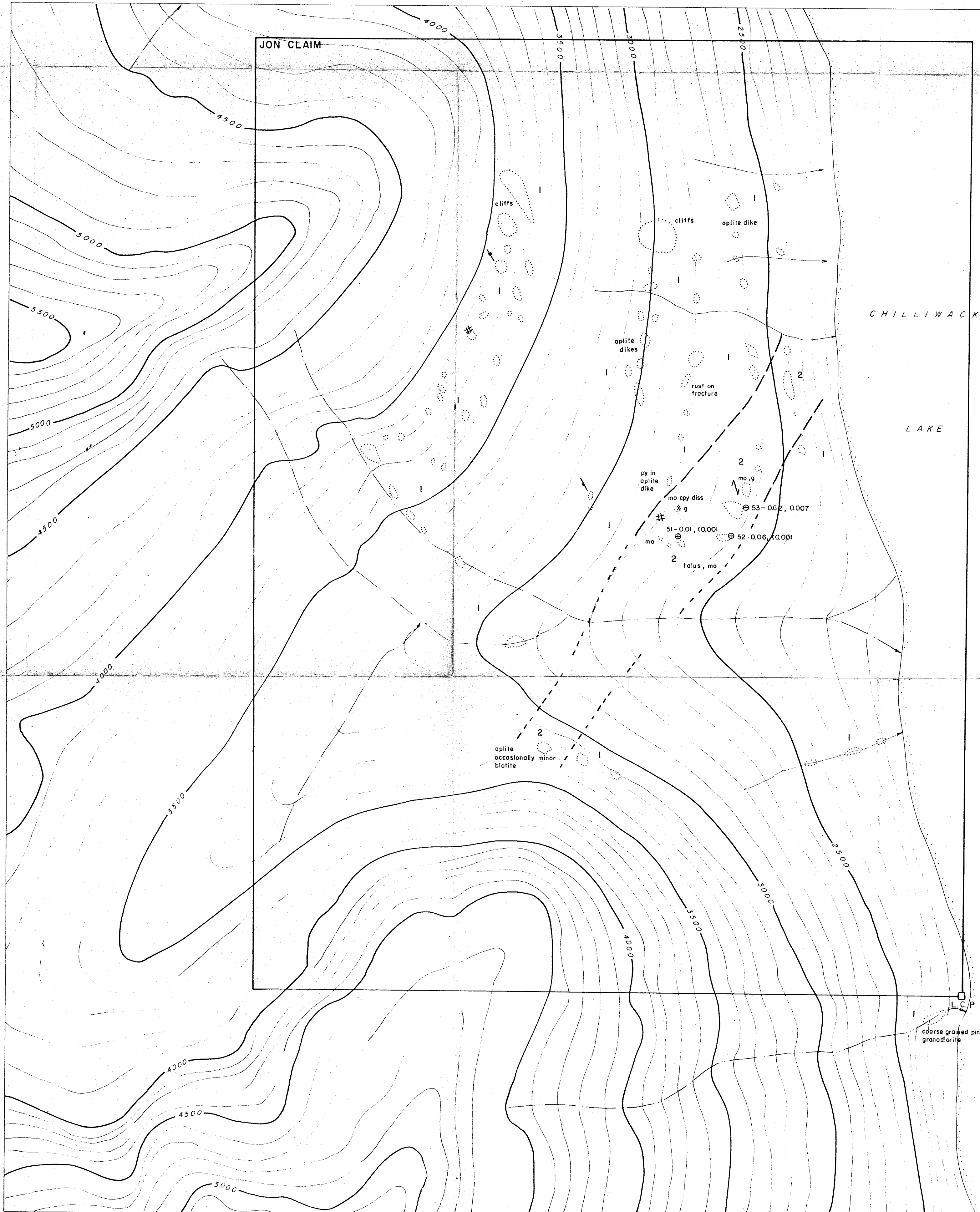
DATE ANALYSED MAY 23, 1982

PROJECT

No.	Sample	pH	Mo	Cu								No.
01	34-25N		6	84								01
02	30N		2	108								02
03	35N		16	160								03
04	40N		7	364								04
05	45N		9	640								05
06	50N		95	520								06
07	55N		}									07
08	60N		}	NO SAMPLE								08
09	65N		}									09
10	36- 1A		3	42								10
11	B		27	284								11
12	00N		6	100								12
13	5N		3	60								13
14	10N		2	42								14
15	15N		14	76								15
16	20N		7	36								16
17	25N		24	56								17
18	30N		52	132								18
19	35N		8	220								19
20	40N		12	80								20
21	45N		3	34								21
22	50N		3	54								22
23	55N		2	56								23
24	60N		2	30								24
25	38- 0N		6	110								25
26	5N		5	76								26
27	10N		9	126								27
28	15N		3	28								28
29	20N		8	210								29
30	25N		17	142								30
31	30N		11	78								31
32	35N		30	540								32
33	40N		7	136								33
34	45N		5	26								34
35	50N		24	58								35
36	55N		12	134								36
37	60N		3	16								37
38												38
39												39
40												40

Certified by

J. Rossbacher



LEGEND

- # QUARTZ STOCKWORK
- 1 BIOTITE GRANODIORITE
- 2 APLITE
- - - GEOLOGICAL BOUNDARY (approx., assumed)
- - - QUARTZ VEIN
- ↗ JOINT (inclined, vertical)
- ⊕ 53-0.02, 0.007 SAMPLE LOCATION, SAMPLE NO. - Cu, Mo
- cpy CHALCOPYRITE
- mo MOLYBDENITE
- py PYRITE
- g GOSSAN
- x SULPHIDES

CONTOUR INTERVAL 100 FEET

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
8052
N.C.

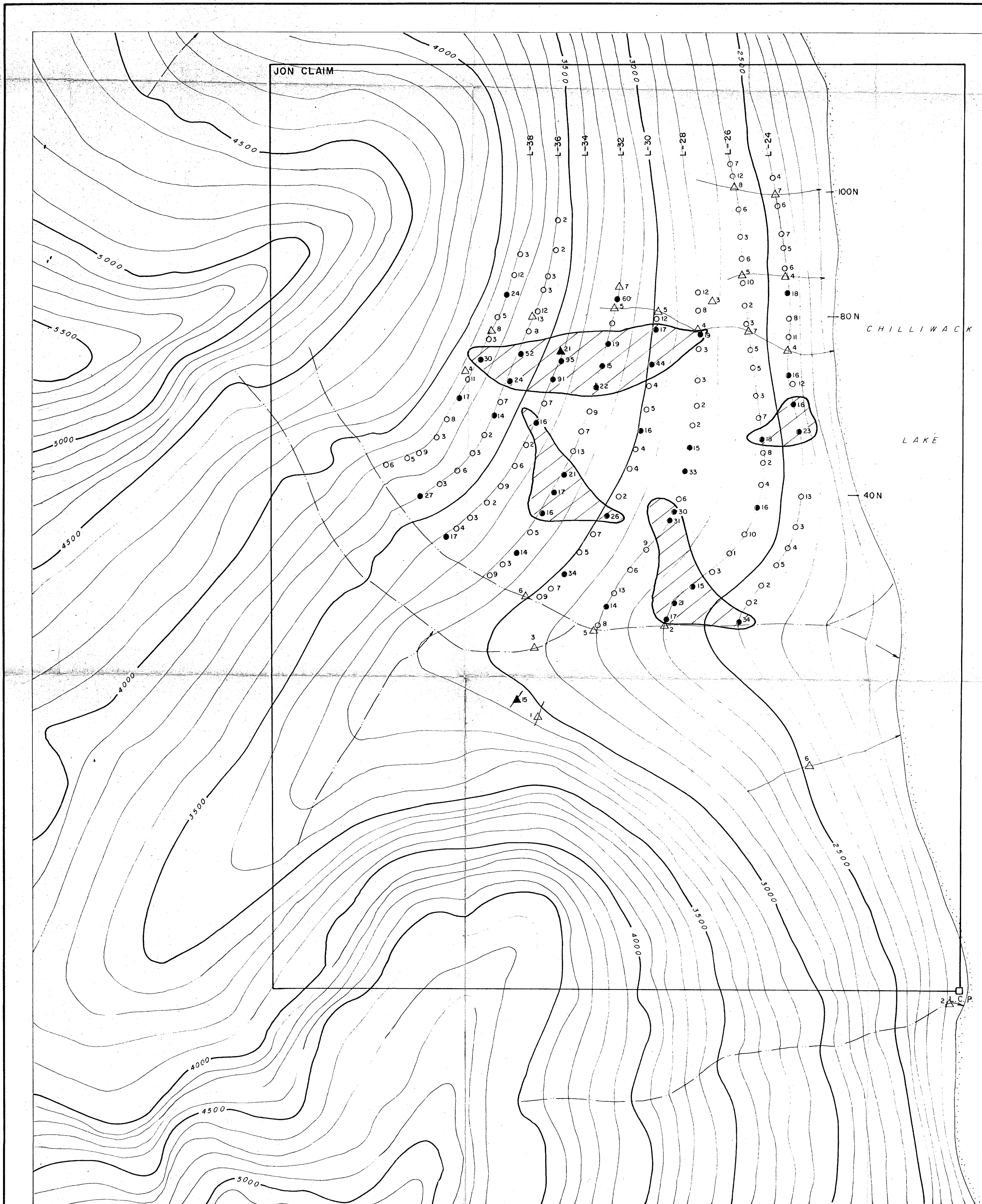
MIDNAPORE OIL CO. LTD.
VANCOUVER, B.C.
WESTRIDGE ENTERPRISES LTD.

GEOLOGY
JON CLAIM
NEW WESTMINSTER M.D., BRITISH COLUMBIA

0 100 200 300 METRES

DRAWN BY G. CROOKER NTS 92 H / 3 W
DATE JUNE 1980 FIGURE NO. 2

Geat Crooker



- LEGEND**
- SOIL GEOCHEM. IN P.P.M.
 - △ SILT " " "
 - SOIL ANOMALOUS > 14 p.p.m.
 - ▲ SILT " " "
 - Mo ANOMALOUS

CONTOUR INTERVAL 100 FEET

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
8052
NO.

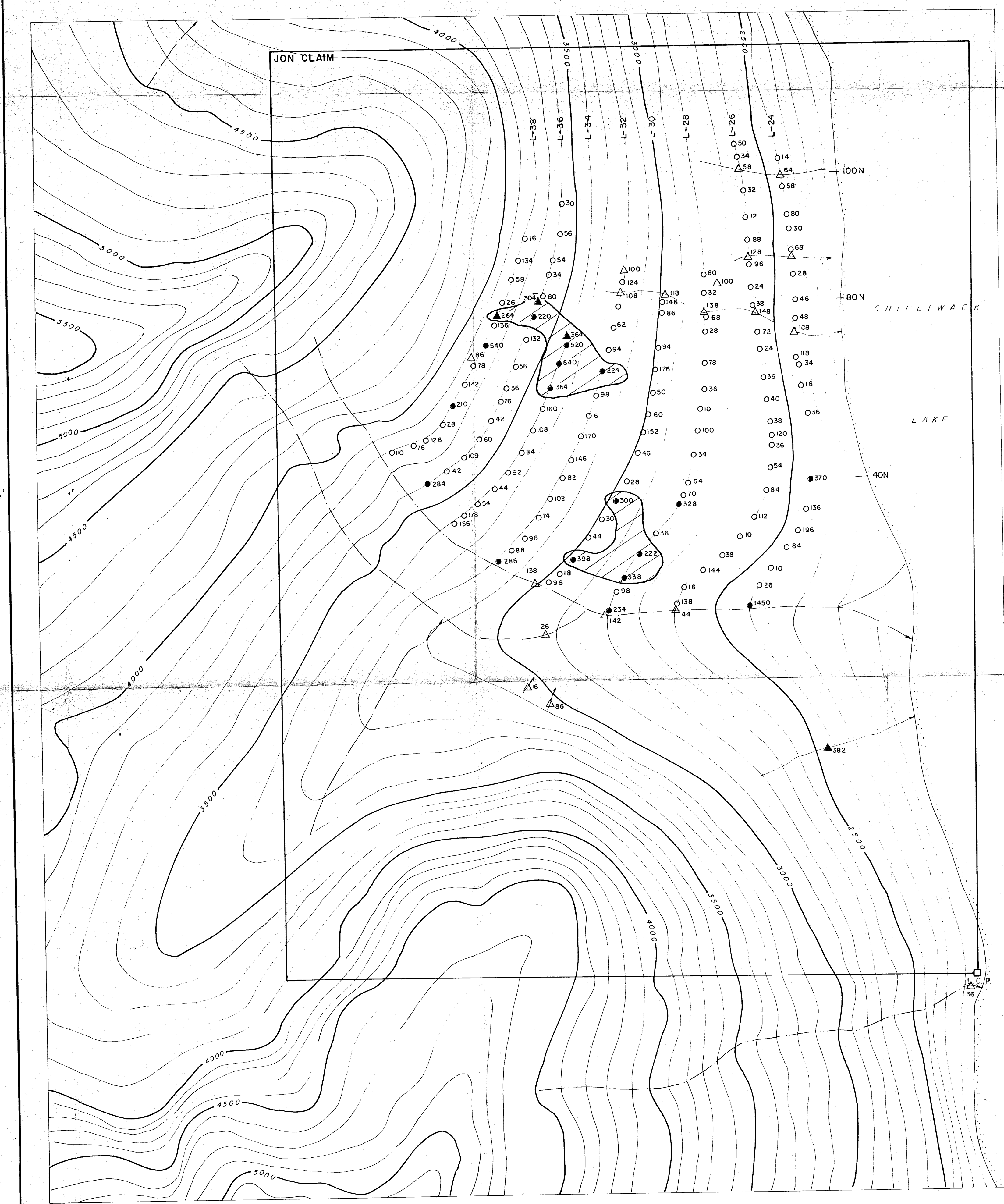
MIDNAPORE OIL CO. LTD.
VANCOUVER, B.C.
WESTRIDGE ENTERPRISES LTD.

SOIL & SILT GEOCHEM.
- Mo -
JON CLAIM
NEW WESTMINSTER M.D., BRITISH COLUMBIA

0 100 200 300 METRES

DRAWN BY: G. CROOKER N.T.S.: 92 H / 3 W
DATE: JUNE 1980 FIGURE NO. 4

Gent Crooker



- LEGEND**
- SOIL GEOCHEM. IN P.P.M.
 - △ SILT " " "
 - SOIL ANOMALOUS >200 p.p.m.
 - ▲ SILT " " "
 - ◊ Cu ANOMALOUS

CONTOUR INTERVAL 100 FEET

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
8052
NO.

MIDNAPORE OIL CO. LTD.
VANCOUVER, B.C.
WESTRIDGE ENTERPRISES LTD.
SOIL & SILT GEOCHEM.
-Cu-
JON CLAIM
NEW WESTMINSTER M.D., BRITISH COLUMBIA

0 100 200 300 METRES

DRAWN BY : G. CROOKER N.T.S. : 92 H / 3 W
DATE : JUNE 1980 FIGURE NO. 3

John Crocker