

# 5303

#1 Locality Map  
#2 Geochemical Survey  
#3 Geochemical Survey

GEOCHEMICAL REPORT ON THE HILL AND

RJ CLAIMS

Vernon Mining Division

by

## 82E/13E

P.E. Fox, PhD. P.Eng. (BC)

FOX GEOLOGICAL CONSULTANTS LTD  
204-635 Victoria St.  
Kamloops, B.C.

for

DAWOOD MINES LTD (NPL)  
Merritt, B.C.

November 20, 1974

Work done: Sept. 28 - Oct. 18, 1974  
Location: 82E 13; 49°59'N, 119°31'W.  
Owner: Dawood Mines Ltd. (NPL)

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT

NO. 5303 MAP \_\_\_\_\_

## INTRODUCTION

This report is an evaluation of geochemical work done on the HILL and RJ claims between Sept. 28 and Oct. 18, 1974. Ten operating days were spent on the property during this period. The survey consists of 133 soil samples and four rock-chip samples collected by a two-man crew working under the supervision of Mr. J.R. Dawson. The writer spent one day on the property to evaluate the work. Maps and related drafting services were provided by Mr. Dawson.

## LOCATION AND ACCESS

The HILL and RJ claims are situated about 7 miles northwest of Kelowna on the west side of Okanogan Lake. Logging roads and other roads established by Dawood Mines Ltd. provide access to most points on the property. The claims are easily reached by the Bear Lake access road from Wilson's Landing (Figure 1).

## OWNERSHIP

The HILL and RJ claims were staked by J.R. Dawson and recorded on Nov. 22, 1971. Dawood Mines Ltd. (NPL) purchased the claims and are now the registered owners of the property. The claims are situated in the Vernon Mining Division and adjoin the BLUE 1 and 2 claims to the west.

The following list notes expiry dates and record numbers for the HILL and RJ claims. Assessment work described in this report will extend due dates to November 22, 1975.

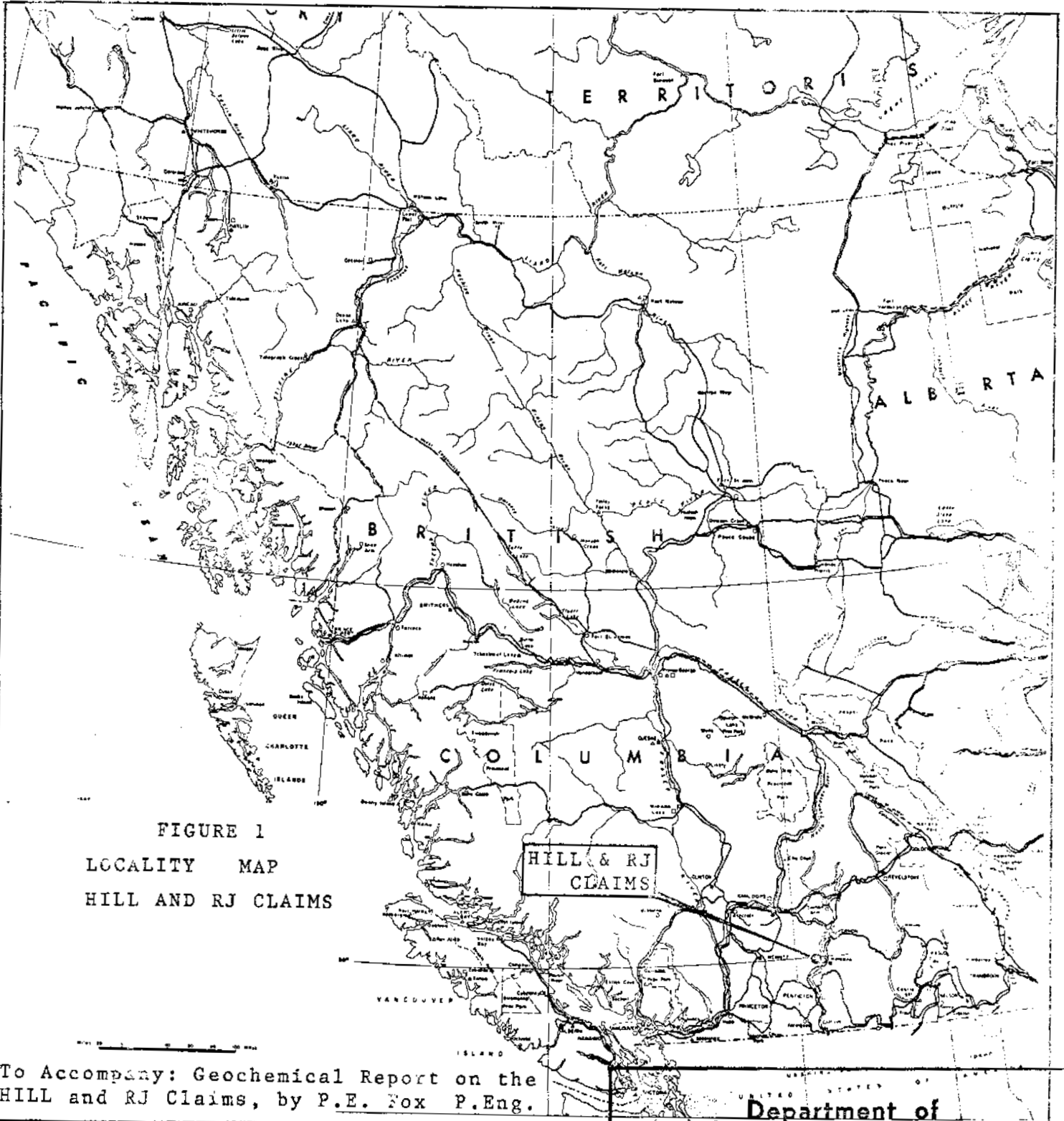


FIGURE 1  
LOCALITY MAP  
HILL AND RJ CLAIMS

To Accompany: Geochemical Report on the  
HILL and RJ Claims, by P.E. Fox P.Eng.

Department of

Mines and Petroleum Resources  
ASSESSMENT REPORT

NO. 5303 MAP #/

5303  
MAP 1

<u>Claim</u>	<u>Record No.</u>	<u>Expiry Date</u>
HILL 1-6	16183 - 188	Nov. 22, 1974
RJ 1-4	16179 - 182	Nov. 22, 1974

#### PREVIOUS WORK

The HILL and RJ claims cover old trenches and underground workings of the Blue Hawk mine. Several quartz veins that range from narrow fracture fillings to veins four feet thick were exploited in 1933 but little work has been done since then. The only recorded production is from the Blue Hawk adit in 1935, which produced some five tons of ore grading 10 oz./ton gold and 3.6 oz/ton silver.

Development work to date by Dawood Mines Ltd. comprises 1700 lineal feet of trenching, line-cutting and grid preparation (11 miles), magnetometer survey, mercury geochemical survey, geological mapping, and geochemical soil sampling. This work represents a continuing exploration program being conducted by the company.

#### REGIONAL GEOLOGY

The HILL and RJ claims are situated on the west part of the Shuswap metamorphic terrain - a broad area underlain by granitic plutons and narrow belts of metamorphosed sedimentary rocks. Numerous precious metal prospects occur in altered sediments west of Vernon and south along the shores of Okanogan Lake. All of the prospects have received development work in past years and many have recorded past production. All of the deposits are vein types

and in addition to their gold and silver content contain various amounts of chalcopyrite, pyrite, pyrrhotite, arsenopyrite, galena, and sphalerite.

#### LOCAL GEOLOGY

The claims are underlain by intensely fractured and altered sediments of the Cache Creek group and a small northwesterly trending body of hornblende diorite that underlies HILL 1 and 2. The sediments consist of argillite, chert, quartzite, and thin tuff beds. These rocks form rubbly outcrops near the Blue Hawk adit and are notably hornfelsed. They are steeply dipping and have a northwest foliation parallel to compositional banding in the sediments. Pyrite and pyrrhotite are common and small amounts of disseminated chalcopyrite were noted in trenches near the Blue Hawk adit.

The diorite stock appears to form a concordant body within the Cache Creek sediments. The diorite is massive to weakly foliated and is the host rock for many of the precious metal quartz veins that were exploited in past years.

#### GEOCHEMICAL SURVEY

Geochemical soil samples were collected along grid lines previously established by Dawood Mines Ltd. Samples were taken on 100-foot intervals by a two-man crew and by Mr. J.R. Dawson. A mattock was used to collect sample material, which was generally obtained from 1 to 2 feet below a thin layer of forest litter. Samples

were taken from a reddish B horizon. Soils along grid lines 8S, 4S, 0, 4N, 8N were sampled. A total of 133 samples were collected.

Soil samples were stored in kraft paper bags and submitted to Kamloops Research and Assay Laboratories for analysis. Samples were analyzed for copper, silver and gold.

### RESULTS

Results for copper, silver and gold are shown in Figures 2 and 3 and are listed in Appendix I. Maps show sample sites, analytical results, claim boundaries, grid lines, and are color coded for metal content. The coding scheme is based on results of previous geochemical surveys. Threshold concentration for copper appears to be in the range 100 to 140 ppm and amounts greater than 140 ppm are considered to be anomalous. Silver concentrations above 1.4 ppm and gold greater than 0.05 ppm are considered to be anomalous.

### DISCUSSION

Concentrations of copper and silver noted in Figure 2 indicate a large anomaly east of the baseline between lines 4S and 8N. The anomaly is associated with known showings at the Blue Hawk adit near line 0 and recent trenching revealed mineralized bedrock corresponding with anomalous samples collected on line 4N. Evidently the copper and silver contents of the soil corresponds fairly well with known showings and hence indicate a broad area east of the baseline that requires further exploration. More trenching should be done on line 8N and on line 4S to test high concentrations of copper and silver.

Gold contents noted in Figure 3 are associated with known showings on line O near the old Blue Hawk workings. Anomalous soils were noted east of the baseline on line 8N and west of the baseline on line 4S. Several of the soil samples taken from these two areas are considerably above background and should be followed up with further prospecting.

Prepared by  
FOX GEOLOGICAL CONSULTANTS LTD.  
P. A. FOX  
P. A. FOX, PH.D., P. Eng.  
BRITISH  
COLUMBIA  
November 20, 1974  
ENGINEER

STATEMENT OF WORK PERFORMED

Personnel:

The following personnel were employed on the geochemical survey described in this report.

- D. McArron, Merritt, B.C. - sampler @ \$40/day.  
10 days collecting soils and refurbishing grid.
- J. Horne, Merritt, B.C. - sampler @ \$40/day.  
2 days refurbishing grid.
- J. Dawson, Jr., Merritt, B.C. - sampler @ \$40/day.  
2 days refurbishing grid.
- J. Dawson, - Merritt, B.C. - sampler and supervisor  
\$60/day.  
10 days refurbishing grid and collecting soils.
- Dr.P.E. Fox, P.Eng. - Kamloops, B.C. - 1 day @ \$150/day  
Consultant.

Work Details:

Grid refurbishing: 2.5 line-miles  
Rock-chip samples: 4  
Geochemical soil samples: 133  
Crews were based at Kelowna and commuted each day to property. Ten operating days were spent on the property between Sept. 28 and Oct. 18, 1974.  
Work was done on RJ 1 and 2 and HILL 1 and 2 (part of the TOWER GROUP).



EXPENDITURES

1. Personnel:

D. McArron - 10 days @ \$40	\$ 400	
J. Horne - 2 days @ \$40	80	
J. Dawson Jr. - 2 days @ \$40	80	
J. Dawson - 10 days @ \$60	600	
Dr. P.E. Fox, P.Eng. 1 day @\$150	<u>150</u>	\$1,310

2. Vehicle rentals and costs:

2 pickups for 2 days @ \$20	\$ 80	
1 pickup for 8 days @ \$20	<u>160</u>	\$ 240

3. Accomodation and board:

15 mandays		\$ 130
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4. Geochemical analyses:

133 samples (see appendix I)		\$ 643
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5. Drafting:

J. Dawson, 16 hrs. \$16/hr.		\$ 96
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6. Report Preparation:

P.E. Fox, P.Eng., by contract		\$ 300
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7. Total disbursements

		<u>\$2,719</u>
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I hereby certify that the above statement is a true representation of expenditures incurred for the geochemical survey on parts of the HILL and RJ claims conducted from September 28, to October 18, 1974.

*J.R. Dawson*.....

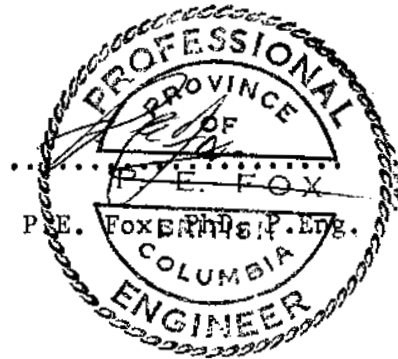
J.R. Dawson  
November 20, 1974

CERTIFICATE

I, Peter Edward Fox, certify to the following:

1. I am a consulting geologist residing at 827 Sicamore Drive,  
Kamloops, B.C. with offices at 204-635 Victoria St.,  
Kamloops, B.C.
2. I am a Professional Engineer registered with the Association  
of Professional Engineers of British Columbia.
3. My academic qualifications are:  
B.Sc., M.Sc. Queens University, Kingston, Ontario  
PhD. Carleton University, Ottawa, Ontario.
4. I have been engaged in geological, geochemical and mining  
work for nine years since graduation.
5. I have no interest, direct or indirect, in the properties  
of Dawood Mines Ltd. (NPL).

Kamloops, British Columbia  
November 20, 1974



APPENDIX I  
Geochemical Analyses

Kamloops Research  
&  
Assay Laboratory  
LTD.



B.C. CERTIFIED ASSAYERS

WEST TRANS CANADA HIGHWAY - BOX 946 - KAMLOOPS, B.C. V2C 5N4  
PHONE 372-2784

GEOCHEMICAL LAB REPORT

Dawood Mines Ltd. (N.P.L.),  
P. O. Box 1499,  
Merritt, B. C.  
VOK 2B0

DATE November 4, 1974.

ANALYST B.B.

FILE NO. G-101

KRAL NO.	IDENTIFICATION	ppm Cu	ppm Ag	ppm Au	KRAL NO.	IDENTIFICATION	ppm Cu	ppm Ag	ppm Au
G-101-1	BL LO + 00	77	1.9	-	31	LO + 00 1500'W	17	.6	-
2	LO + 00 100'E	105	1.6	.025	32	LO + 00S 100'E	82	.7	Tr
3	200'E	136	1.4	.126	33	200'E	63	1.2	Tr
4	300'E	96	1.4	Tr	34	300'E	67	1.6	Tr
5	400'E	118	1.8	.067	35	400'E	49	.4	Tr
6	500'E	81	1.3	.067	36	500'E	59	.7	Tr
7	600'E	171	2.4	Tr	37	600'E	300	1.7	-
8	700'E	153	1.6	.11	38	700'E	230	1.0	Tr
9	800'E	80	1.7	Tr	39	800'E	410	1.5	Tr
10	900'E	83	2.0	Tr	40	900'E	147	1.2	-
11	1000'E	98	1.5	.05	41	1000'E	62	1.2	Tr
12	1100'E	104	3.4	Tr	42	1100'E	57	1.0	Tr
13	1200'E	53	1.7	Tr	43	1200'E	49	.7	Tr
14	1300'E	192	3.5	.11	44	1300'E	27	.9	Tr
15	1400'E	203	2.5	Tr	45	1400'E	22	.9	.032
16	1500'E	106	3.4	Tr	46	1500'E	21	.7	Tr
17	LO + 00 100'W	70	1.1	.025	47	LO + 00S 100'W	151	1.2	-
18	200'W	63	1.0	Tr	48	200'W	26	.7	-
19	300' W	45	1.4	Tr	49	300'W	32	.7	Tr
20	400'W	96	.7	Tr	50	400'W	32	.3	Tr
21	500'W	38	.9	Tr	51	500'W	43	.7	.28
22	600'W	41	.7	Tr	52	600'W	39	.5	Tr
23	700'W	22	.9	.025	53	700'W	26	.5	.05
24	800'W	25	.8	-	54	800'W	27	.3	.05
25	900'W	23	.4	-	55	900'W	27	.7	Tr
26	1000'W	21	.3	-	56	1000'W	27	.7	Tr
27	1100'W	17	.2	-	57	1100'W	24	.8	Tr
28	1200'W	17	.4	-	58	1200'W	21	.7	Tr
29	1300'W	34	.4	-	59	1300'W	19	.4	Tr
30	LO + 00 1400'W	55	.8	-	60	LO + 00S 1400'W	38	2.6	Tr

Cont'd...

# Kamloops Research & Assay Laboratory Ltd.

## GEOCHEMICAL LAB REPORT

FILE NO. G-101

PAGE 2.

KRAL NO.	IDENTIFICATION	ppm Cu	ppm Ag	ppm Au	KRAL NO.	IDENTIFICATION	ppm Cu	ppm Ag	ppm Au
61	L4 +00S 1500'W	31	.9	Tr	95	L4 + 00N 200'E	122	1.0	Tr
62	BL 4 S	38	1.1	-	96	300'E	69	.9	Tr
63	BL 8 S	25	.8	-	97	400'E	32	.3	Tr
64	L8 +00S 100'E	23	.8	-	98	500'E	77	.6	Tr
65	200'E	31	.9	-	99	600'E	64	.8	Tr
66	300'E	76	4.0	-	100	700'E	88	1.0	Tr
67	400'E	94	3.1	-	101	800'E	238	2.0	Tr
68	500'E	35	1.0	-	102	900'E	155	2.0	Tr
69	600'E	42	1.0	-	103	1000'E	58	2.2	Tr
70	700'E	47	.9	-	104	L4 + 00N 100'W	58	1.3	Tr
71	800'E	21	.7	-	105	200'W	55	1.2	Tr
72	900'E	43	2.9	-	106	300'W	65	1.5	Tr
73	1000'E	23	1.2	-	107	400'W	107	1.7	Tr
74	1100'E	28	1.2	-	108	500'W	43	1.6	.025
75	1200'E	65	.8	-	109	600'W	24	1.4	Tr
76	1300'E	68	1.6	-	110	700'W	26	1.2	Tr
77	1400'E	90	3.1	-	111	800'W	23	.7	Tr
78	1500'E	72	.7	-	112	900'W	37	.8	Tr
79	L8 +00S 100'W	27	.6	-	113	1000'W	17	1.0	Tr
80	200'W	55	1.2	-	114	1100'W	13	.6	Tr
81	300'W	14	.2	Tr	115	1200'W	21	.3	Tr
82	400'W	16	.1	Tr	116	1300'W	16	.8	Tr
83	500'W	22	.1	Tr	117	1400'W	24	.8	Tr
84	600'W	18	.8	-	118	1500'W	19	.6	Tr
85	700'W	18	.6	Tr	119	L8 + 00N 100'E	62	1.9	Tr
86	800'W	14	.5	-	120	200'E	57	1.6	.067
87	900'W	85	3.0	-	121	300'E	33	.8	Tr
88	1000'W	12	.3	-	122	400'E	57	.7	Tr
89	1100'W	13	.6	-	123	500'E	73	1.2	.050
90	1200'W	32	2.4	-	124	600'E	41	.9	.56
91	1300'W	10	.5	-	125	700'E	221	2.0	Tr
92	1400'W	22	.2	-	126	800'E	130	1.3	Tr
93	1500'W	37	.9	-	127	900'E	412	1.5	Tr
94	L4 +00N 100'E	39	1.1	.025	128	L8 +00N 1000'E	140	1.7	.05

Cont'd...



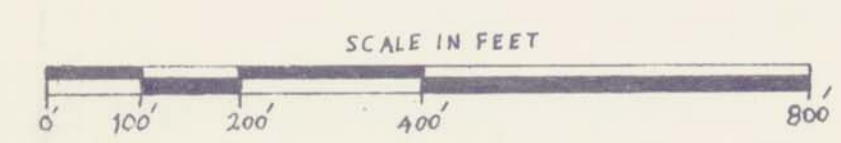


Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 5303 MAP #3

5303  
MAP 3



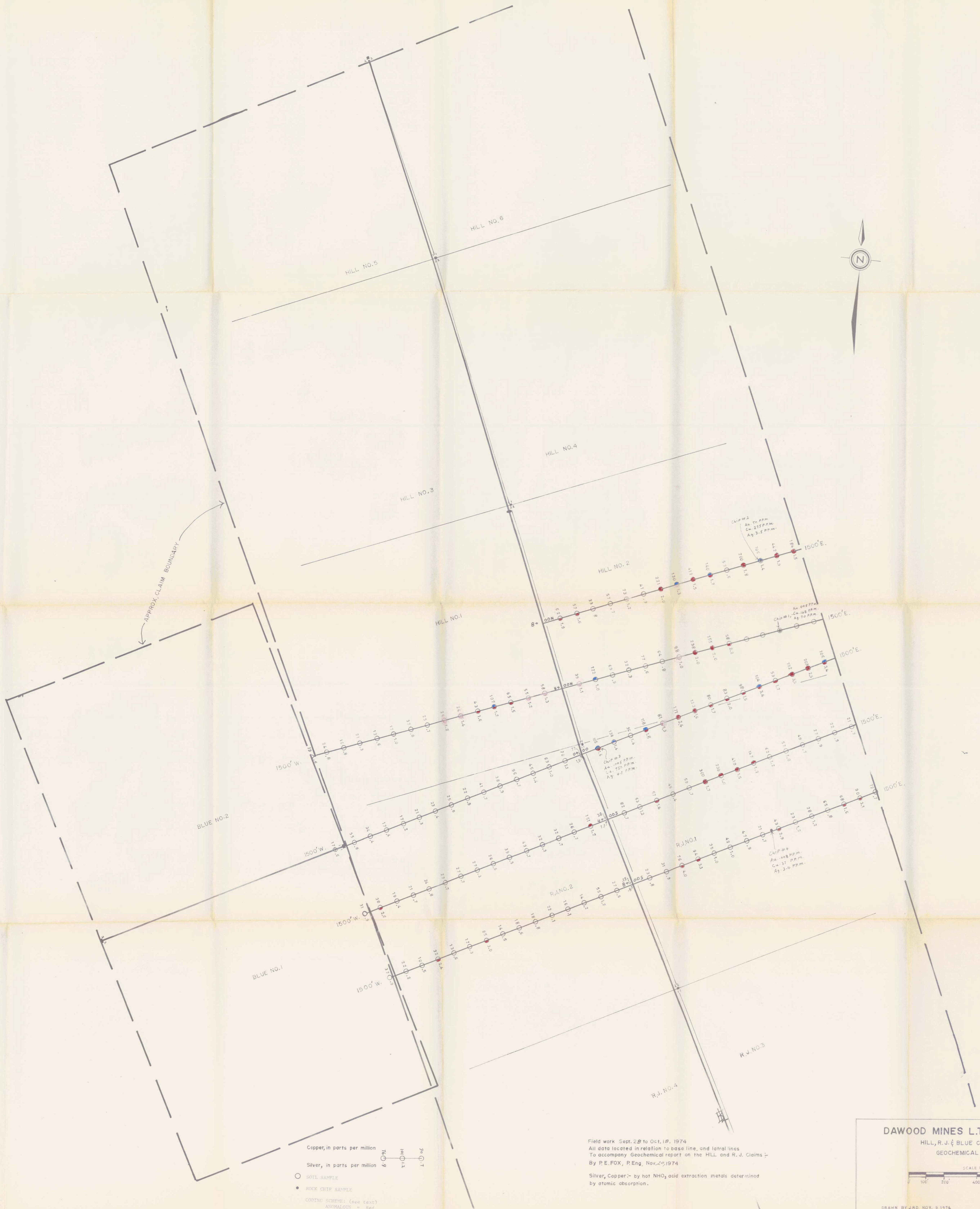
DAWOOD MINES L.T.D. (N.P.L.) 49° 59' N 119° 31' W.)  
HILL, R.J. & BLUE CLAIMS, VERNON, M.D.  
GEOCHEMICAL SURVEY



Field work Sept. 28 to Oct. 18, 1974  
All data located in relation to base line and cross lines  
To accompany Geochemical report on the HILL and R.J. Claims  
By R.E. FOX, P.Eng. Nov. 20, 1974  
Gold, in parts per million, determined by atomic absorption

DRAWN BY J.R.D. NOV. 16, 1974

FIG. 3



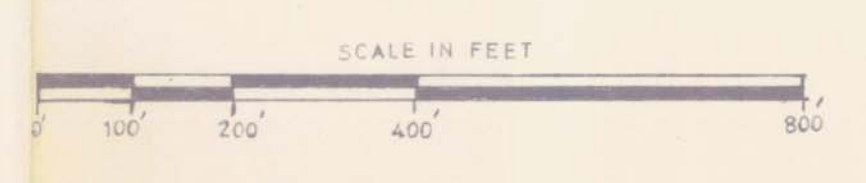
Copper, in parts per million  
 Silver, in parts per million  
 ○ SOIL SAMPLE  
 ● ROCK CHIP SAMPLE  
 CORING SCHEME: (see text)  
 ANOMALOUS - Red  
 THRESHOLD - Blue  
 BACKGROUND - Black

Field work Sept. 28 to Oct. 18, 1974  
 All data located in relation to base line, and lateral lines  
 To accompany Geochemical report on the HILL and R.J. Claims -  
 By P.E. FOX, P.Eng. Nov. 29, 1974  
 Silver, Copper - by hot  $\text{HNO}_3$  acid extraction metals determined  
 by atomic absorption.

Department of  
 Mines and Petroleum Resources  
 ASSESSMENT REPORT  
 NO. 5303 MAP #2

5303  
 MAP 2

DAWOOD MINES L.T.D. (N.P.L.) (49° 59' N, 119° 31' W)  
 HILL, R.J. & BLUE CLAIMS, VERNON, M.D.  
 GEOCHEMICAL SURVEY



DRAWN BY J.R.D. NOV. 9, 1974

FIG. 2