

PLACER DEVELOPMENT LIMITED
EXPLORATION DEPARTMENT
PERCUSSION DRILLING REPORT
ON PART OF THE
BURN CLAIM GROUP

BURN 11, 13, 23, 24, 42

OMENICA MINING DIVISION
NTS 93N (93N, 6E, 6W, 11E, 11W)

Latitude: 55°31'N
Longitude: 125°13'W

OWNER: LUC SYNDICATE
OPERATOR: PLACER DEVELOPMENT LTD.

BY:
J.J. HYLANDS, P. ENG.
MARCH 21, 1980

Covering Work Completed During Period
September 30 - October 9, 1979, and
October 21 - November 3, 1979

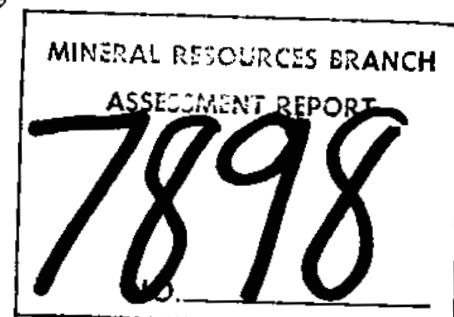


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ILLUSTRATIONS

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1.0

INTRODUCTION

The Burn claim group, comprising 61 full size two-post claims, is located in the headwater area of Burn Creek, a north flowing tributary of Kwanika Creek (Figures 1 and 2). A good gravel road provides access north from Fort St. James and west from Manson Creek to the mouth of Burn Creek, a total distance of approximately 274 km. The 13 km of gravel road south from the Manson-Takla road to the property is passable with four wheel drive vehicles.

1.1 HISTORY

The Burn claims were optioned by Placer Development Limited in 1978 from the LUC Syndicate. In 1971 the Syndicate undertook a soil sampling program to follow up stream sediment anomalies which led to the definition of a large, high metal value Mo/Cu soil anomaly. This was followed by magnetometer and I.P. surveys, trenching and diamond drilling, all of which failed to find a source for the anomaly. The magnetometer and geochemical survey grid was extended during the summer of 1979, and a possible source area for the mineralization defined.

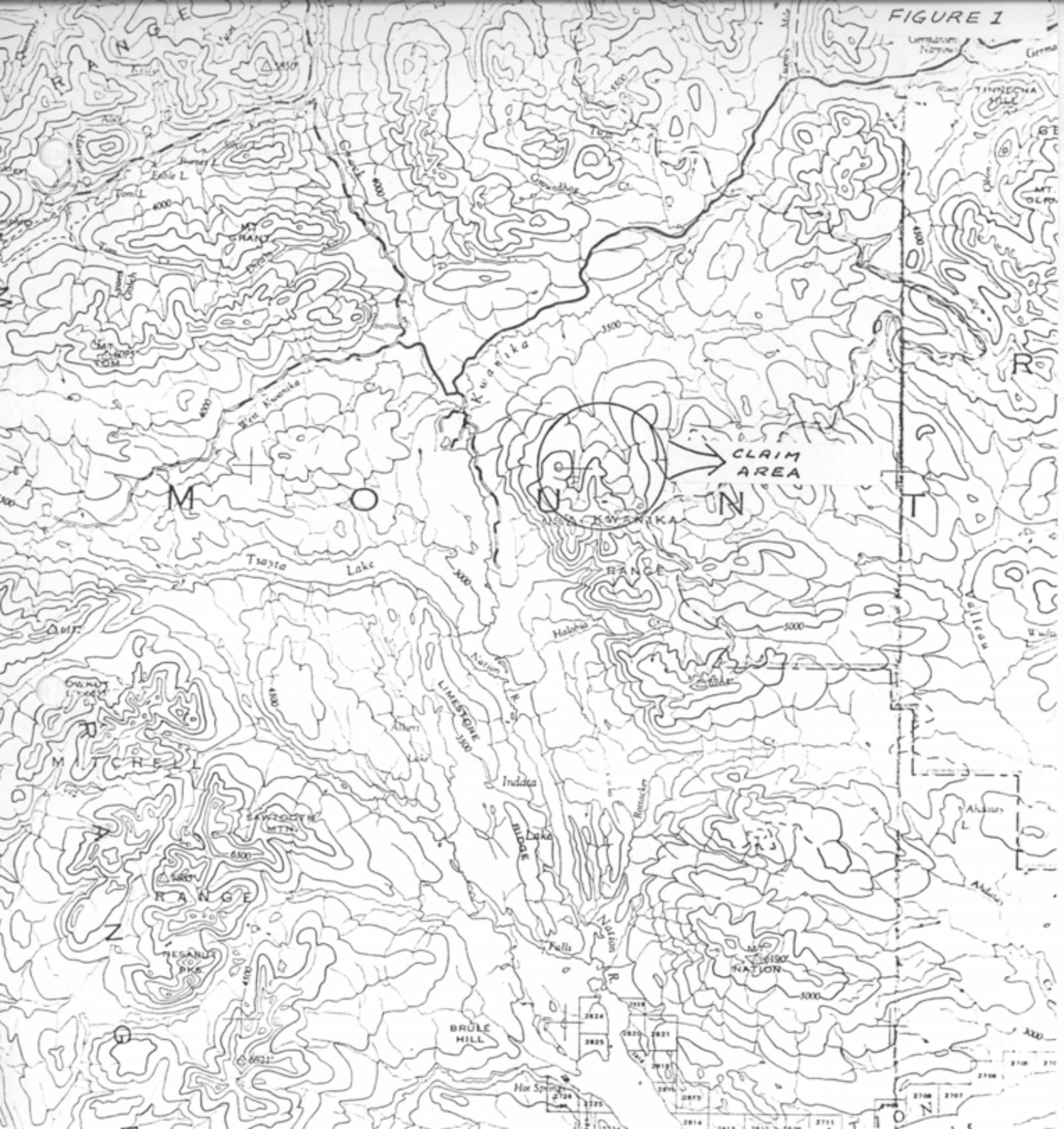
1.2 DRILLING

Seven percussion holes were drilled during late October to test the area defined by the additional geochemical and geophysical work, and to obtain samples for litho-geochemical studies. Each hole was drilled to a depth of 93 m (300 feet) for a total of 650 m (2100 feet).

2.0

DRILLING PROGRAM2.1 EQUIPMENT

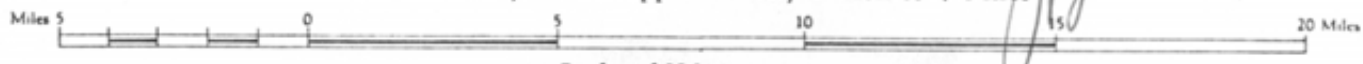
A local contractor, Lorne Spence of Smithers, B.C., was chosen for this program because he had the necessary equipment available at the time it was required. The contractor supplied a Nodwell-Mounted, air powered percussion drill with necessary pumps, rods and drilling supplies, a four-wheel drive service truck, and a John-Deere 450 crawler tractor equipped with blade and winch. The bit diameter was 4.4 cm (1 3/4 inch). Access to the area to be drilled was constructed with a Caterpillar D-8 tractor by Nielsen Equipment Ltd. of Fort St. James during the period September 30 to October 9, 1979. The access trail was not traversable by wheeled vehicles because of snow, boulders and high ground water content.



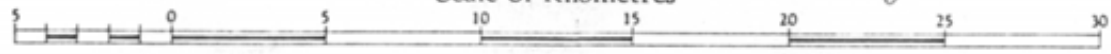
MANSON RIVER

BRITISH COLUMBIA
CASSIAR LAND DISTRICT

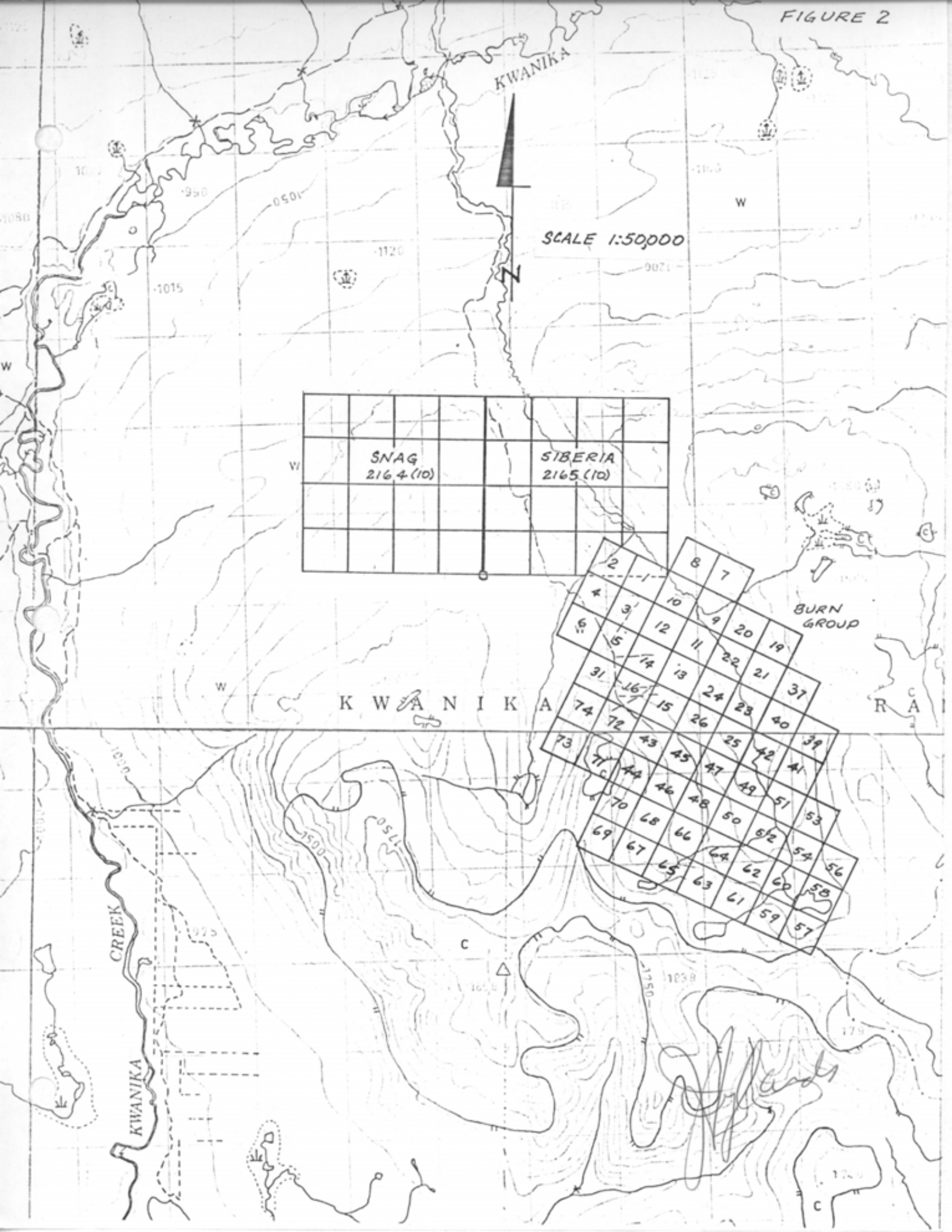
Scale 1:250,000 or approximately 1 Inch to 4 Miles



Scale of Kilometres



J. G. Lewis



2.2 PROGRAM

It was recognized before the program began that the large soil molybdenum anomaly was in a glacial till of relatively local derivation. The latest ice movement was down the valley of Burn Creek in a north westerly direction. The geophysical and geochemical surveys undertaken were to test the up-ice area on the south eastern edge of the soil anomaly. Coincident stream sediment and soil anomalies in Mo were defined, and the drilling program laid out to test the area of the anomalies. Percussion holes were also drilled for litho-geochemical information, to determine if trace elements could be used to detect a trend which could be used to locate additional holes. Seven holes were drilled in a fence (Figure 3) approximately 250 m apart between the area diamond drilled previously and Burn Creek. Three holes were drilled on a neighbouring claim (Siberia claim).

Each hole was drilled to a depth of 92 m below surface. Two 92 m holes were drilled per 10 hour shift, on a one shift per day basis. Water for drilling was obtained from sumps near each site prepared with the John-Deere 450. The small tractor was also used to level drill sites, carry fuel to the drill and samples to the service truck. Each sample taken represented 6.2 m of rock intersected. The cuttings were passed through a splitter which gave a final sample of 1/8 of the total cuttings produced. Each sample was collected in a clean 5 gallon pail, the fines flocculated and the liquid decanted. The samples were double bagged in plastic sample bags and shipped to the Placer Development Research Laboratory in Vancouver.

The cuttings were dried and a 100 gm split obtained using Jones Riffle Samplers. Approximately 20 gms of -10+20 mesh material was obtained from each sample of cuttings and retained in clear plastic sample trays to be used for visual examination.

2.3 GEOLOGY

The cuttings retained were examined mega- and microscopically. They were uniformly of a pink to pinkish orange colour; the rock samples was holocrystalline, hypidiomorphic-granular, and composed of orthoclase, plagioclase, quartz and biotite with minor hornblende. Scattered fine grains of pyrite were seen, and the occasional tiny grain of molybdenite was recognized. Alteration effects were minor conversion of mafic minerals to chlorite and locally the development of epidote. With the exception of cuttings from hole 79-6, the samples appeared to be of relatively fresh, unaltered, unmineralized quartz monzonite.

The cuttings from hole 79-6 were visibly bleached. The mafic minerals had been altered to a pale green mixture of epidote and chlorite, while the feldspars had been mildly saussuritized. Fine pyrite had been converted to limonite. No other sulphides were seen. Chemically this hole differs from the others - it is lower in Fe, F, Bi and Na (Table 2). It is concluded that it was drilled very close to a fault.

TABLE 1. Averaged Analytical Results, Percussion Holes.

PDH	O/B	INTERVAL	Mo	Cu	F	Ag	Bi	Na	K	Fe
	<u>m</u>	<u>m</u>	<u>ppm</u>	<u>ppm</u>	<u>ppm</u>	<u>ppm</u>	<u>ppm</u>	<u>%</u>	<u>%</u>	<u>%</u>
79-1	6.2	86.4	2.0	8.1	220	0.19	18	1.05	1.27	1.3
79-2	9.3	83.3	11.8	11.9	194	0.46	20	1.31	1.44	1.6
79-3	12.3	80.2	1.8	9.6	182	0.35	17	1.27	1.51	1.5
79-4	12.3	80.2	1.0	6.1	175	0.02	18	1.35	1.32	1.2
79-5	12.3	80.2	1.8	9.0	153	0.02-	16	1.32	1.23	1.6
79-6	12.3	80.2	1.0	4.5	145	0.03	11	1.17	1.35	0.7
79-7	18.5	74.1	1.0	7.0	92	0.05	9	1.09	1.40	0.9

2.4 MINERALIZATION

Only one percussion hole, 79-2, intersected "appreciable" molybdenum mineralization. Over 83 m the cuttings averaged 11.8 ppm Mo compared to less than 2.0 ppm from the rest of the holes. The results from this hole were also higher in Ag, Cu, and Bi than the rest. Minor molybdenite was visible under the binocular microscope in the cuttings from hole 79-2.

2.5 ANALYSES

All analyses were performed in the Placer Development Research Laboratory, Vancouver. The samples were dried at approximately 90°C and sieved to -80 mesh. The -20 mesh +80 mesh fraction and any -80 mesh fraction remaining after analytical procedures is retained. For Mo, Cu, Zn, Bi, Pb, Ni and Co the samples were digested in 2:1 perchloric: nitric acid, boiling for four hours, and the metal concentrations determined by atomic absorption spectroscopy (AAS). For Ag the samples were digested with five molar nitric acid, and concentration determined by AAS. Na, K, and Fe were determined by heating 1 gm of sample to dryness in 2:2:1 HCl:HF:HNO₃, leaching twice with HCl, diluting and analyzing by AAS. Fluorine was determined by fusion digestion of samples followed by analysis using a specific ion electrode.

2.6 LITHOGEOCHEMISTRY

The analytical results for each sample are appended, and summarized in Table 1. Although the results for fluorine are much lower than expected, a definite trend is apparent from relatively high F in hole 79-1 to low F in hole 79-7. Similar but less marked trends exist for Bi and Ag. The low iron in hole 79-5 cannot be explained by visual examination of the cuttings.

3.0

CONCLUSIONS

It is apparent from the above results that neither a molybdenite deposit nor an explanation for the Mo soil anomaly has been found. Some trace elements (Mo, F) are known to increase towards concentrations of molybdenite whereas other (Ag, Bi, Pb, Zn, Mn) form halos peripheral to molybdenite deposits. The trends identified in section 2.6 can be interpreted to indicate that molybdenite mineralization may occur south to west of the area drilled.

4.0

RECOMMENDATIONS

- In light of the above, it is recommended that:
- a) a surficial geologist undertake a study of the geochemical patterns and surficial geology to determine if a source for the anomalous till can be determined; and
 - b) a bedrock sampling program should be initiated to test the area south and west of the area percussion drilled.

5.0

ITEMIZED COST STATEMENTCamp Costs

R.A. Boyce	-	30 days @ \$20	=	\$ 600	
C. Reynolds	-	14 days @ \$20	=	280	
J.J. Hylands	-	8 days @ \$20	=	160	
M. Boyd	-	12 days @ \$20	=	240	
L. Spence	-	10 days @ \$20	=	200	
D. Spence	-	20 days @ \$20	=	200	
				<u>\$1,680</u>	$\times 0.7 =$ \$ <u>1,176</u>

Salaries

R.A. Boyce	-	30 days @ \$75	=	\$2,250	
C. Reynolds	-	14 days @ \$50	=	700	
J.J. Hylands	-	8 days @ \$150	=	1,200	
M. Boyd	-	12 days @ \$60	=	720	
				<u>\$4,870</u>	$\times 0.7 =$ \$ <u>3,409</u>

Transportation

Maintenance company vehicle #31					
3000 miles @ \$0.25	=	\$750			
230 gal. fuel @ \$1.00	=	<u>\$230</u>			
				<u>\$980</u>	$\times 0.7 =$ \$ <u>686</u>

Road Construction

Mobilization and demobilization, property access road (8.0 km) upgrading	-	\$3,690	$\times 0.7 =$	\$ <u>2,583</u>	
Construction of 2.0 km of drill access road, initial site preparation	-	(All on Burn Group)		<u>\$3,630</u>	\$ <u>3,630</u>

Percussion Drilling

Mobilization and demobilization	=	\$ 1,820			
3000 feet drilling @ \$6.00	=	18,000			
Rental of John Deere	=	<u>1,000</u>			
				<u>\$20,820</u>	$\times 0.7 =$ \$ <u>14,574</u>

Analytical Costs - Rock

Pulverizing	-	\$1.25			
Mo = \$1.25; Cu, Zn, Co, Ni, Pb = \$0.65 each					
Ag = \$2.00; F = \$3.50; Bi = \$2.50					
Na = \$2.00; K = \$2.00; Fe = \$2.00					
Total Cost = \$19.75 x 92 samples	=	\$1,817			\$ <u>1,817</u>

TOTAL COST (BURN CLAIMS) \$27,875

Note: Ten holes were drilled in this area, seven of which were on the Burn Group. Costs have therefore been apportioned 70% to the Burn Group.

6.0

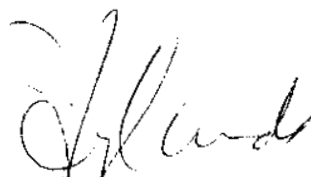
STATEMENT OF QUALIFICATIONS

I, J.J. Hylands, with a business address of 700 Burrard Building, 1030 West Georgia Street, Vancouver, British Columbia, V6E 3A8, do hereby certify that I have supervised or carried out the field work and have assessed and interpreted the data from the percussion drilling program on part of the BURN claim group.

I also certify that:

- (1) I am a graduate of the university of British Columbia, Vancouver (B.A. Sc. Geological Engineering, Option I, 1966).
- (2) I have engaged in the study and practice of mineral exploration since graduation, in Canada, the United States and the Philippines.
- (3) I am a Professional Engineer registered in the Province of British Columbia.

Respectfully submitted,
PLACER DEVELOPMENT LIMITED



J.J. Hylands, P. Eng.

7.0

APPENDIX

7.1 ANALYTICAL RESULTS

Area: BURN
 Map Sheet No.: 93N 11E
 Venture: V-166

PLACER DEVELOPMENT LIMITED
 Geochemistry Analysis Sheet No. 1.

Geologist: J. Hylands
 Date: 27 Nov 1979 Page 1 of 100

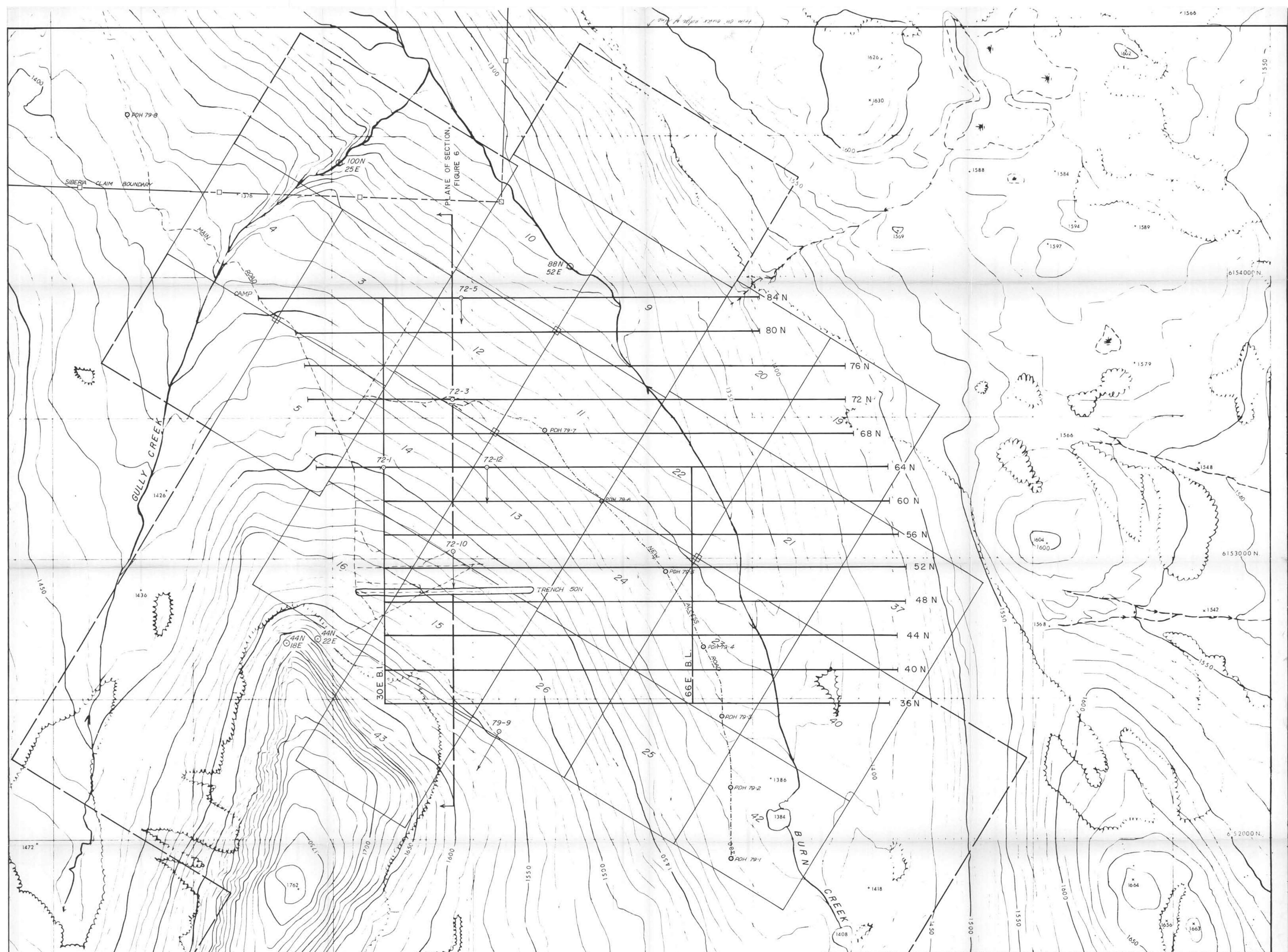
Card Type	SAMPLE No.	Lab. Proj.	P P M											%								
			Mo	Cu	Zn	Pb	F	Ni	Co	Ag	Bi	Fe	Na	K								
			17	20	21	25	26	30	31	35	36	40	21	25	46	50	51	55	56	60	61	25
A	PDH 79-1 20-40		1	16	23	204	195	12	8	0.56	17	1.5	1.40	1.85								
	40-60		2	11	27	170	190	16	8	0.51	20	1.5	1.01	1.22								
	60-80		2	7	33	70	220	16	8	0.22	17	1.4	0.92	1.10								
	80-100		1	8	35	50	230	14	8	0.58	20	1.3	0.86	0.96								
	100-120		2	6	33	27	220	27	7	0.16	20	1.4	1.04	1.10								
	120-140		1	6	36	23	210	21	7	0.08	21	1.3	1.56	2.00								
	140-160		6	6	31	19	205	23	8	0.09	21	1.3	0.84	1.02								
	160-180		3	6	26	15	200	16	7	0.06	19	1.0	0.83	1.08								
	180-200		2	6	24	14	230	24	8	0.12	18	1.2	0.90	1.09								
	200-220		1	5	26	15	230	5	8	0.05	22	1.2	1.09	1.17								
	220-240		2	5	29	46	230	19	9	0.04	10	1.2	1.41	1.71								
	240-260		2	18	28	9	205	14	8	0.10	10	1.2	0.96	1.08								
	260-280		1	7	26	7	220	15	8	0.04	19	1.2	0.95	1.19								
	280-300		1	6	27	12	290	16	9	0.04	21	1.1	0.96	1.08								

Area: BURN
 Map Sheet No.: 93N 11E
 Venture: V-166

PLACER DEVELOPMENT LIMITED
 Geochemistry Analysis Sheet No. 1.

Geologist: J. Hylands
 Date: 27 Nov 1979 Page 2 of 10

1 Card Type	2 SAMPLE No.	Lab. Proj.	P P M										%		%	
			Mo	Cu	Zn	Pb	F	Ni	Co	Ag	Bi	Fe	Na	K		
A	PDH 79-2 30-50		1	19	19	9	140	21	11	0.08	27	2.2	1.09	0.93		
	50-70		1	23	19	5	290	22	11	0.07	25	2.3	1.02	0.87		
	70-90		6	12	22	5	260	14	9	0.07	20	1.6	1.26	1.21		
	90-110		11	9	27	6	250	13	9	0.22	26	1.5	1.06	1.18		
	110-130		12	9	30	11	190	20	9	0.07	15	1.3	1.04	1.05		
	130-150		7	8	27	7	180	25	9	0.04	18	1.5	1.66	1.63		
	150-170		25	10	31	6	220	23	9	0.05	16	1.4	1.24	1.54		
	170-190		18	9	28	5	170	21	8	0.10	17	1.6	1.29	1.36		
	190-210		18	8	27	5	150	19	7	0.08	18	1.3	1.03	1.27		
	210-230		16	7	28	6	150	17	7	0.06	18	1.2	1.03	1.21		
	230-250		14	11	28	13	170	20	7	0.25	20	1.6	1.78	2.16		
	250-270		18	8	27	8	200	21	8	5	19	1.6	1.78	2.16		
	270-290		17	10	28	7	190	22	7	0.06	21	1.6	1.37	1.50		
	290-300		1	24	20	6	160	17	10	0.30	18	1.7	1.63	2.06		



PDH 79-1 PERCUSSION DRILL HOLES, 1979
 MINERAL RESOURCES BRANCH ASSESSMENT REPORT
7898
 Scale and elevation datum based on limited ground control resulting in good relative but uncertain absolute map accuracy.
 Compiled from aerial photographs at an approximate scale of 1:60,000 in the month of SEPT. 1975.

PLACER DEVELOPMENT LTD.
 BURN CREEK FIGURE 3
 GENERAL LOCATION MAP

Scale	1:5,000
Contour Interval	10 Metres
Date	AUG. 1979
Job No.	06830-0
Sheet No.	1 of 1

McElhannay
 McElhannay Surveying & Engineering Ltd.
 1700 West Pender Street Vancouver, B.C., Canada

0 100 200 300 400 500 METRES