81-#675. 9405

DUVAL INTERNATIONAL CORPORATION
SUITE 505 - 1281 WEST GEORGIA STREET
VANCOUVER BRITISH COLUMBIA V6E 3J7 CANADA TELEPHONE ~~(604) 685-5523~~ PHONE (604) 685-0185

Report on Diamond Drilling on the TOW #1 Claim

Lillooet Mining Division
NTS 92I/12W
50° 33' 40"N, 121° 54' 35"W

Owned by Duval Mining Ltd.
Operated by Duval International Corporation
Report by Gregory R. McKillop

Submitted August 06, 1981

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INTRODUCTION

Summary

This report describes the drilling, logging and analytical results of a 220 metre diamond drill hole which was drilled on the TOW #1 claim to test the characteristics at depth of a significant surface rock geochemical molybdenum anomaly in an altered quartz diorite stock.

The drill hole penetrated 187 m of altered quartz diorite and then 33 m of hornfelsed siltstone. All the core was cut by narrow quartz ± pyrrhotite ± pyrite ± molybdenite ± chalcopyrite ± sphalerite ± arsenopyrite veins which, in some sections, developed strong stockworks. The core was split and one half was sent for analysis for Mo, Cu, Zn and W. The best intercept was 21 metres of 500 ppm Mo.

Location

Mineral claim TOW 1 is located in the drainage of Towinock Creek in the Lillooet Range, about 16 km south of the village of Lillooet in N.T.S. division 92I/12W. The approximate center of the claim lies at latitude 50° 33' 40"N and longitude 121° 54' 35"W. The index map (Figure 1) indicates the position of the claim relative to other claims in the TOW Group.

Access

Access for drilling is only practical by helicopter. The drill site is situated on a very steep (+40°) hillside which is sparsely treed and cut by numerous steep avalanche chutes. There is no flat area large enough to erect a camp.

A drill site and rough heliport were constructed in 1980. The sites were improved and enlarged in 1981 prior to drilling.

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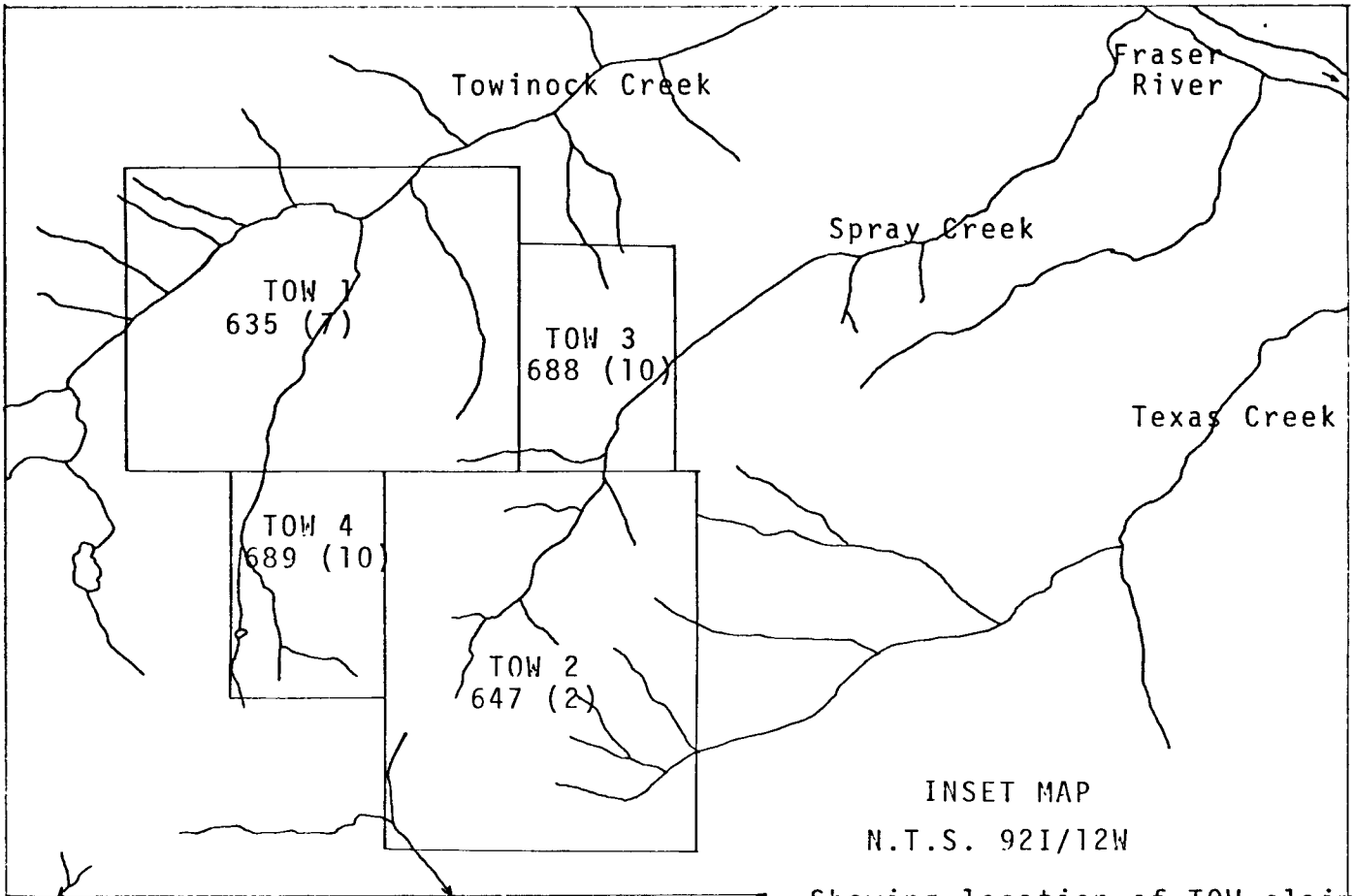

INSET MAP

N.T.S. 92I/12W

Showing location of TOW claim

1:50,000

0 1 2 3

kilometres

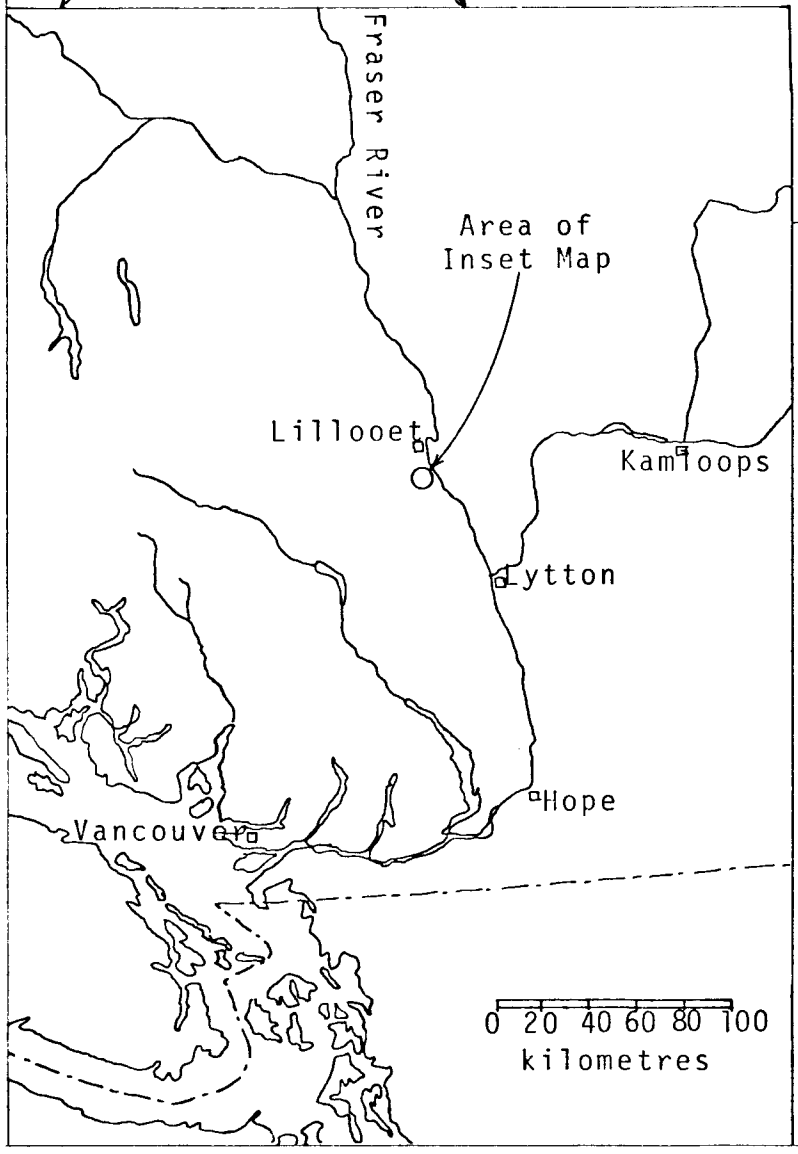

FIGURE 1

INDEX MAP

A Bell 206 helicopter was used to sling the drill and accessory equipment into the site, and to provide twice daily shift changes from a base camp near the village of Lillooet. Exceptionally wet weather in May and June delayed access on several occasions.

Claims

The TOW #1 claim is one of four adjacent claims comprising the TOW Group. It is a 20 unit claim, with tag number 38394, recorded on July 11, 1978. The record number in the Lillooet Mining Division is 635 (7).

The claim is owned by Duval Mining Ltd., Free Miner's Certificate number 208687, and the work described in this report was performed or supervised by Duval International Corporation personnel. The current exploration program by Duval is intended to evaluate the prospect's molybdenum potential. Assessment reports numbered 7211 and 7569 detail Duval's previous work on the claim group.

Several old claim posts have been observed on the TOW #1 claim, but no tags remain to identify the old claims. There is no other evidence of old work on the claims.

Work Done

The work covered by this report consisted of site preparation, diamond drilling, and logging, splitting and analysis of the core.

A drill site and rough heliport were constructed in 1980. Bema Industries Ltd. were contracted in 1981 to enlarge the drill site and to build a 4 m x 4 m timber platform for the heliport. This heliport was constructed of 5 cm x 20 cm (2" x 8") planks on a frame consisting of 15 cm x 15 cm (6" x 6") timbers fastened to the cliff face by rock

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bolts. This work was completed over the period May 21 to May 28, 1981.

The drilling was accomplished by Core Enterprises Ltd. using a new Boyles Model 15A drill powered by a 3 cylinder Hatz diesel motor. It took 9 days starting June 18, to set up the drill, complete the drilling, and remove the drill from the site. Two shifts were employed for the latter part of the drilling.

Exceptionally hard rock led to rapid bit wear and slow drilling. The upper 160.9 m were drilled with NQ (47.6 mm diameter core) equipment, while the rest of the hole was completed using BQ (36.5 mm diameter core) equipment.

Water for drilling was obtained by gravity through a 120 m waterline of 2.54 cm plastic hose tied to pitons which were driven into the cliff face.

The core was transported to the base camp daily. There it was logged and split. Half of the split core was bagged in 3 m intervals and shipped to the Bondar-Clegg & Co. Ltd. laboratory in North Vancouver, B.C., for preparation and geochemical analysis for Mo, Cu and W. Some of the core was also analysed for Zn.

Upon completion of the programme the core was trucked to Duval's warehouse at 1281 West Georgia Street, Vancouver, B.C., for storage.

The location of the drill hole was permanently marked in the field by driving a 8 cm thick, 1.5 m long post into the hole until only 0.6 m remained showing. A metal tag was affixed to this post giving the hole number, bearing, inclination, and total depth.

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DRILLING

Purpose

This diamond drill hole was initiated to test the sub-surface grade and extent of a surface rock geochemical molybdenum anomaly. The anomaly occurs in a sill-like altered quartz diorite stock and adjacent hornfelsed siltstones. Both rock types are cut by numerous quartz sulphide veins which often occur with sufficient intensity to comprise stockworks.

The location of the drill site was determined by terrain rather than by geology. The attitude of the hole was chosen to obtain a cross-section of the sill, and to also test a short distance along the strike of the sill. This attitude is -68° at 30° azimuth, with a collar elevation of 1650 m.

Lithology

The drill hole was collared in a medium grained biotite plagioclase quartz diorite porphyry and continued in this rock type to a depth of 187 m where it entered hornfelsed siltstone. The hole bottomed in siltstone at a depth of 220.3 m. The generalized geology and drill site location are illustrated by Map 1 and Figure 2.

The composition of the quartz diorite is quite variable, although this variation is probably related more to alteration than to the composition of the original melt. Often areas marginal to the contact with siltstones are more biotite rich, indicating a possible contamination by the more iron rich country rock.

The siltstone is also somewhat variable, occurring as a fairly massive unit, or thinly bedded. Grain size may vary between beds, as may color.

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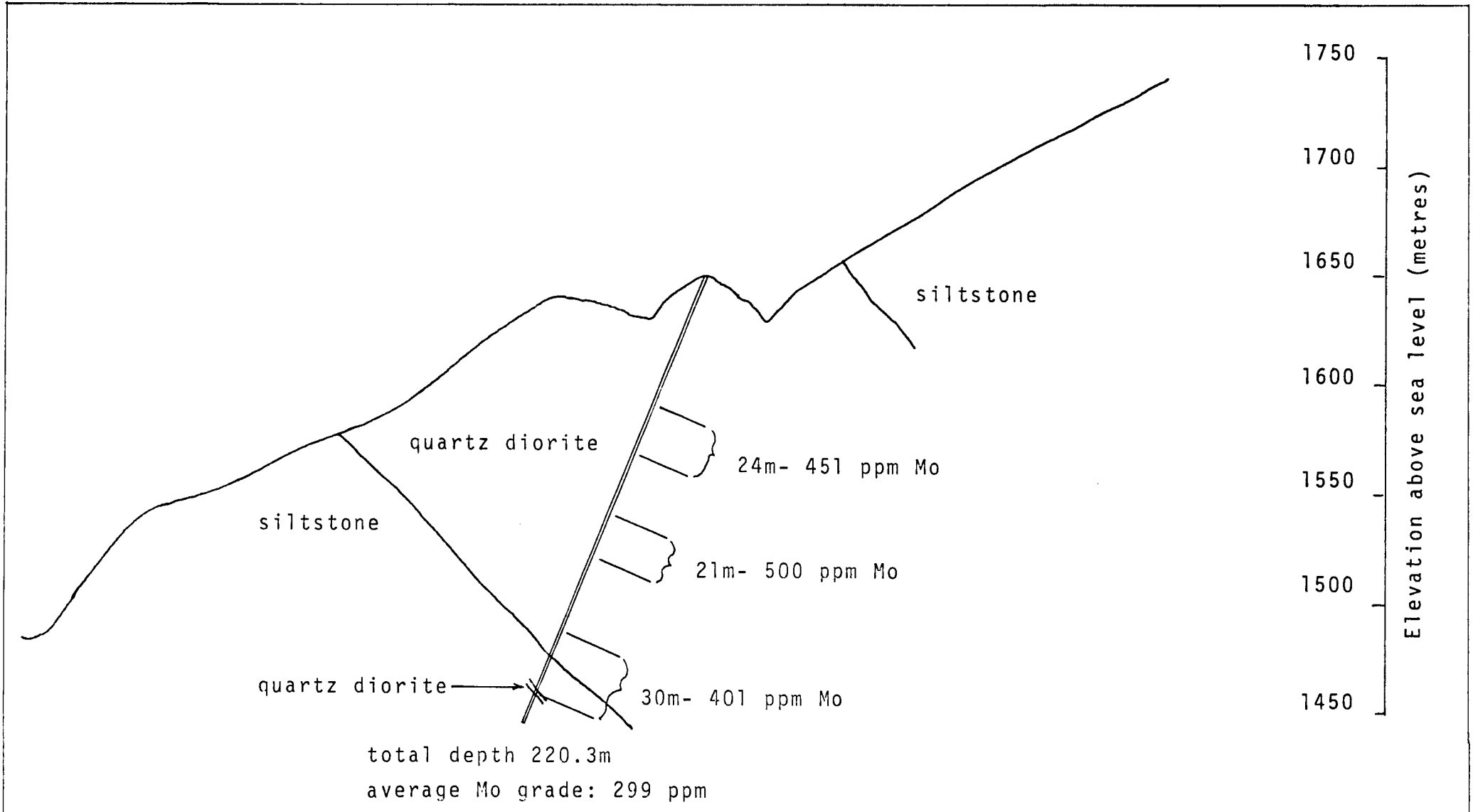

FIGURE 2
Section through DDH CH81-2
From northwest.
Scale 1:2500

metres
0 50 100 150

Alteration

Alteration encountered in the drill core is extremely erratic and may change several times over a one-metre interval.

In order to simplify core logging, four different alteration assemblages were recognized, and the most commonly occurring types in a 3 metre interval were recorded. The alteration assemblages are described below:

Type 1 - characterized by coarse dark brown biotite, occasionally as phenocrysts up to 1 cm across, and by cloudy but still translucent feldspars.

Type 2 - chlorite is the most commonly occurring mafic mineral, and the feldspars are nearly opaque. Mineral grains are still distinct, and the porphyritic texture of the quartz diorite is readily discernable.

Type 3 - this assemblage is typified by strong silicification and few mafic grains. Grain boundaries are indistinct and the porphyritic texture is obscured. Feldspars are opaque and sericitized.

Type 4 - this alteration type is identified by the presence of fine grained light brown mica (biotite ?). The rock may be strongly silicified and foliated, or may be porphyritic with cloudy to opaque feldspars. Chlorite may also be present.

Alteration assemblages 1, 2 and 3 can be seen to be gradational. Type 4 has less obvious association with the other assemblages. In one location type 4 alteration was seen to be cut by narrow bands of type 3 related to narrow calcite veins. In some instances the fine grained light brown biotite is believed to be formed as a result of contamination of the quartz diorite by the assimilation of iron-rich

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metasediments. In other cases it may represent potassic alteration, but random sodium cobaltinitrate stain tests on the quartz diorite have failed to identify potash feldspars.

This classification of alteration assemblages is somewhat arbitrary. This is partly because of the rapidity with which the alteration changes, and partly because the alteration assemblages in the core do not always fit the above-mentioned "typical" alteration types.

Mineralization

Sulphides noted in the core are, in decreasing order of abundance: pyrrhotite, pyrite, molybdenite, chalcopyrite, arsenopyrite and sphalerite. Pyrrhotite occurs consistently throughout the core, mostly as disseminations, but also as a common constituent of quartz veins. Pyrite occurs most commonly in quartz veins, often in close association with pyrrhotite, but is also noted as disseminations in the quartz diorite. Chalcopyrite is noted in trace amounts in quartz veins erratically throughout the core. Arsenopyrite is a rare constituent of the core and occurs only in quartz veins. It usually occurs as distinct crystals at least 2 mm across, and is generally a major component of the individual veins in which it occurs. Sphalerite is observed as a minor component of a number of quartz veins, generally larger ones, in the core. The sphalerite is of the high iron, or "Black Jack" variety.

Molybdenite is a common component of many quartz veins, and is also occasionally seen as disseminations, particularly associated with the more siliceous type 3 alteration assemblage. In quartz veins it most often occurs as thin selvages along the margins, but it sometimes constitutes a major part of a narrow vein. Coarse rosettes of

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molybdenite are rare, as are veins of "blue quartz", so called because of the blue color caused by very fine disseminations of molybdenite in the quartz.

Structure

Structures noted in the core are bedding, foliation, and quartz veining. As mentioned earlier, bedding is defined by variations in grain size and color. Beds range in thickness from several millimetres to several metres. Bedding generally cuts the core axis with an angle of 40° to 60°.

Several sections of the core are strongly foliated. These sections are generally quite siliceous and often biotite rich. They may be interpreted as healed shear zones, and are occasionally marginal to large quartz veins.

Quartz veining is very common with intensities of about 20 to 25 veins/metre in the quartz diorite and over 60 veins/metre in the siltstone. Veins range in width from less than 1 mm to over 1 metre, with most veins being less than 1 cm. The most common vein attitude is at an angle of about 50° to the core axis, but angles range from sub-parallel to 90°. The most important occurrence of molybdenite is in these veins. Where veins cut siltstone, they are commonly accompanied by a bleached and silicified halo from 1 mm to 30 mm in width. Calcite veins are much less common than quartz veins, and rarely exceed 1 mm in width.

Drill Log

The drill core was logged in three metre intervals to coincide with the assay intervals. The drill log records lithology, extent of weathering, alteration, silicification, intensity of quartz veining,

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sulphide content, and core recovery, and notes other observations of interest. The log is attached to the end of this report as Appendix 1.

GEOCHEMISTRY

After being logged, the drill core was split using a Longyear type core splitter. One half of the core was retained for future reference while the other half was bagged at 3 metre intervals in 30 cm x 45 cm poly bags and fastened with a twist-tie. The bags were numbered and careful records were kept to correlate bag numbers and core intervals. The bagged samples were shipped by truck to Bondar-Clegg & Co. Ltd., 130 Pemberton Avenue, North Vancouver, B.C., where they were dried, crushed, pulverized and sieved to -100 mesh. The -100 mesh fraction was then digested and analysed for Mo, W, Cu and, in most cases, Zn. The digestion and analysis procedures for these elements are tabulated below:

Element	Digestion	Analysis
Mo	HNO_3-HCl Hot extraction	Atomic Absorption
W	Carbonate Sinter	Colorimetric
Cu	HNO_3-HCl Hot extraction	Atomic Absorption
Zn	HNO_3-HCl Hot extraction	Atomic Absorption.

The detection limit for these methods is reported to be 1 ppm for Mo, Cu and Zn, and 2 ppm for W.

The results of these analyses are tabulated in Appendix 2, Compilation of Geochemical Analyses, and are diagramatically represented in Figure 3. Histograms of metal content are shown in Figure 4. The table below lists some elementary statistics relating to the analyses:

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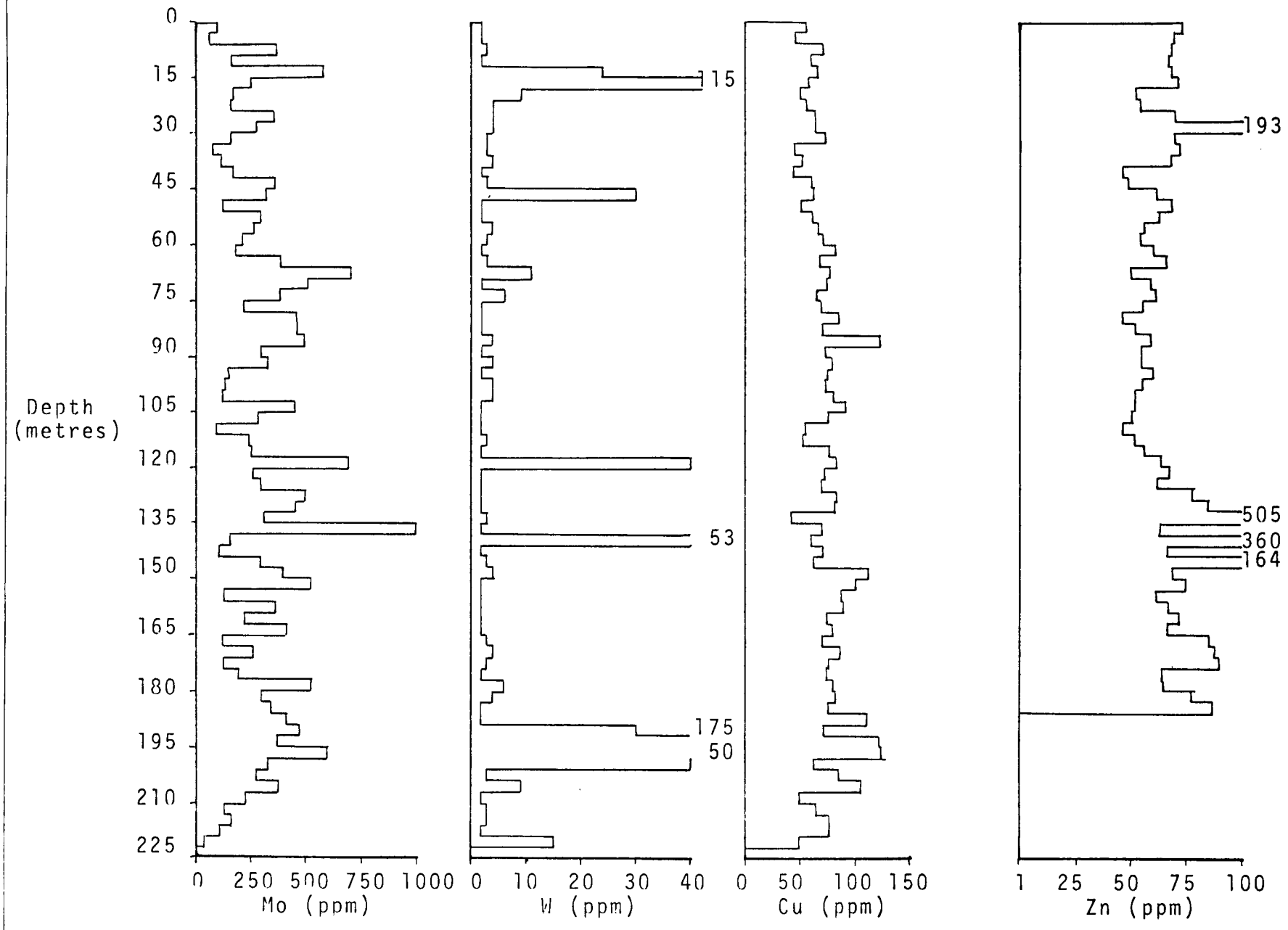

Figure 3 - Diagramatic representation of metal content in core.

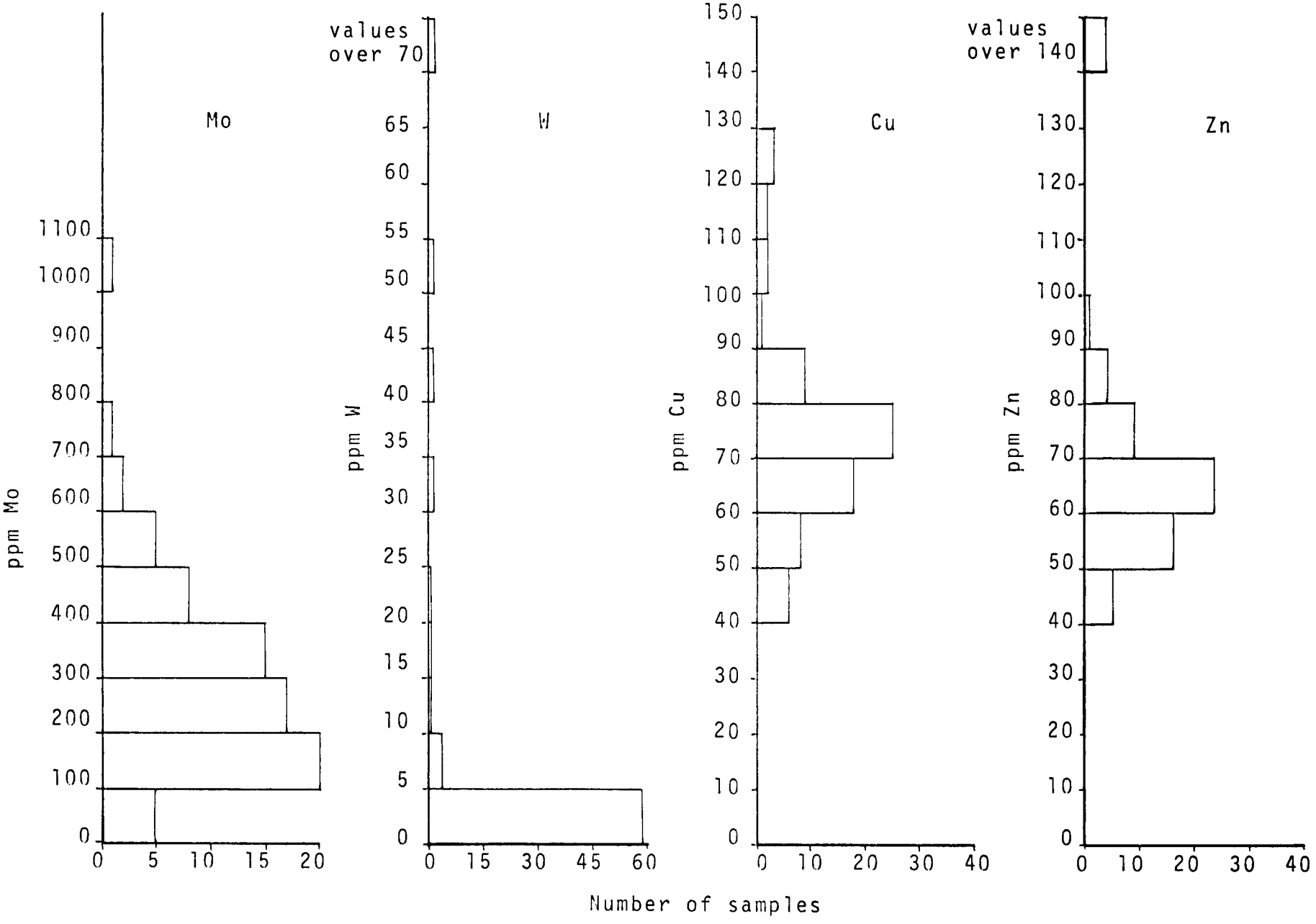

Figure 4 - Histograms of metal content.

Element	Number of Samples	Mean	Approx. Mode	Std. dev.	Mean + 2 std. dev.
Mo	74	299	150	173	645
W	74	10	3	25	60
Cu	74	72	75	18	108
Zn	62	79	65	70	219

Molybdenum

Molybdenum values ranged from 37 ppm to 1000 ppm. The lowest value occurred in siltstone at the bottom of the hole, while the highest value occurred in association with a large quartz vein. The hole average grade of 299 ppm Mo included the following sections:

63 m to 87 m (24 m length) averaging 451 ppm Mo,
127 m to 138 m (21 m length) averaging 500 ppm Mo,
177 m to 207 m (30 m length) averaging 401 ppm Mo.

Although these values are sub-ore grade, they do represent significant molybdenum concentrations. Molybdenum content increases near the contact of the quartz diorite with the siltstone, partially due to the greater intensity of veining in the siltstone.

Tungsten

Tungsten values ranged from a low of 2 ppm to a high of 175 ppm. Overall tungsten values are low. A cursory examination of the core with an ultraviolet lamp identified scheelite associated with some of the larger veins. As demonstrated by Figure 3, tungsten content is relatively high in the vicinity of the quartz diorite-siltstone contact.

Copper

Copper values show very little variation through the length

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of the core, except for a slight concentration at the contact followed by a possible subtle depletion in the siltstones.

Zinc

Zinc analyses were not completed for all the core, however, they are available for the upper 186 m. Over this interval the values range from a low of 46 ppm to a high of 505 ppm Zn, with most of the higher values occurring between 132 m and 147 m. Sphalerite-bearing quartz veins were noted at 135 m and 192 m.

Correlations

By studying Figure 3 we can see some weak correlations between metals. Mo and W correlate quite well for spot high values and for the broad area of higher values at the quartz diorite-siltstone contact. Copper values correlate only in the contact area, while zinc highs correlate with Mo and W highs in the vicinity of large quartz veins at 135 metres depth.

CONCLUSIONS

Diamond drill hole CH81-2 intersected 220.3 metres of mineralized quartz diorite and siltstone that averaged 299 ppm Mo, a significant length of well mineralized but sub-ore grade rock. Additional drilling along the strike of the sill may locate better grade mineralization.

Aug 6/81

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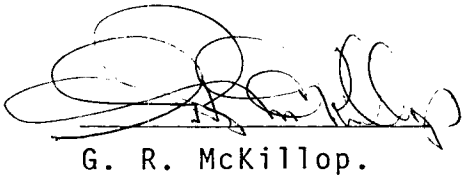
STATEMENT OF QUALIFICATIONS

Michael J. Gray

Michael J. Gray had completed one year of studies in science at Douglas College, Surrey, B.C., at the time of his employment on the TOW claims. He was engaged in core splitting, sampling, site preparation and drill moves over the period from June 18 to June 26, 1981. He is known to the writer as a competent and conscientious worker.

Gregory R. McKillop

Gregory R. McKillop graduated from the University of British Columbia, Vancouver, B.C., with a Bachelor of Science Degree in Honors Geology in May of 1973. Up to that time he had spent 5 summer seasons working for various mining exploration companies, and since graduation he has been employed by Duval International Corporation. He is currently District Geologist for Duval's Vancouver office. Mr. McKillop supervised site preparation, diamond drilling, and sampling on the TOW claims and logged the core.



G. R. McKillop.

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STATEMENT OF COSTS

Diamond Drilling by Core Enterprises Ltd.

personnel: Allen Harvey - foreman and driller
Allen Gleason - driller
Roy Stoner - helper
Garnet Campbell - helper
John Spence - helper

labour charges: Date	Hours
June 18	30
" 21	2
" 25	21
" 26	36

Total.....89 hrs @ $20/hr.....$ 1,780.00

hole stabilization: 4 hrs @ $65/hr.....$ 260.00

mobilization - demobilization: 1/4 x $750.00.....$ 187.50

bit costs: 1 NQ bit @ $500.00.....$ 500.00

footage: 220.3 m (723') @ $24.50/ft.....$17,713.50

meals: 4 men x $15/man-day x 9 days.....$ 540.00

Site Preparation by Bema Industries Ltd.

labour charges:
M.J. Beley - project manager - 2 days @ $250/day.....$ 500.00
D. Lockwood-field supervisor - 4 1/4 days @ $200/day..$ 850.00
I. Somers - field technician - 3 1/4 days @ $165/day..$ 536.25
M. Roden - field technician - 3 1/4 days @ $145/day..$ 471.25

meals: (Bema) 12 3/4 days @ $15/day.....$ 191.25

accommodation: (Bema) 5 days @ $52/day.....$ 260.00

materials:
lumber: 25 - 12' x 2" x 8" @ $.40/ft.....$ 120.00
8 - 12' x 6" x 6" @ $2.07/ft.....$ 198.72
2 - 6' x 8" x 8" @ $3.39/ft.....$ 38.40
cables, clamps, pins, nails, etc.....$ 213.88

Sub-total.....$24,360.75

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	Brought forward.....	$24,360.75
equipment rental:		
chain saw - $20/day x 4 days.....		$ 80.00
Pionjar drill - $55/day x 4 days.....		$ 220.00
GMC truck - $35/day x 5 days.....		$ 175.00

Helicopter Support

for drilling:	13.6 hrs @ $400/hr.....	$ 5,440.00
for site preparation:	9.8 hrs @ $400/hr.....	$ 3,920.00

Assaying

sample preparation	73 x $2.75.....	$ 200.75
analysis for Cu, Zn, Mo	73 x $3.25.....	$ 237.25
analysis for W	73 x $3.75.....	$ 273.75

Miscellaneous

core boxes: NQ - 27 @ $4.40.....		$ 118.80
BQ - 8 @ $4.55.....		$ 36.40
transport from Vancouver: 325 km @ $.20/km.....		$ 65.00
printing, typing, drafting of report.....		$ 100.00

Duval Labour

G.R. McKillop - supervision, core logging, report preparation - 11 days @ $118/day.....		$ 1,298.00
M.J. Gray - core splitting, sampling, etc. 9 days @ $55/day.....		$ 495.00
	TOTAL COST....	$37,020.70

G. R. McKillop,
District Geologist.

APPENDIX 1

CORE LOG

9405

HOLE #: CH81-2
BEARING: 30° azimuth
INCLINATION: -68°
LOCATION: E 5775070
N 5601310
COLLAR ELEVATION: 1650 m

ABBREVIATIONS: N/D - none detected
wk. - weak
mod.- moderate
str.- strong
dissem.-disseminated

q.d. - quartz diorite
silts.- siltstone
N/M - not measured
tr. - trace

see text for description of alteration types. J.R. Phillips Aug 6/81

Depth (metres)	Rock Type	Weathering	Alteration (decreasing order of abundance)	Silicification	Quartz veins per metre	% Sulphides					% Core Recovery	Notes	Mo ppm
						Pyrite	Pyrrhotite	Chalcopyrite	Arsenopyrite	Molybdenite			
0-1.2	casing												
1.2-3	q.d.	str.	2	mod.	N/M	1	3			tr.		highly broken, strong weathering	97
3-6	q.d.	str.	2	mod.	N/M	1	3			tr.		" " " "	56
6-9	q.d.	str.	2, 3	mod.	N/M	1	3		tr.	tr.	80	" " " "	362
9-12	q.d.	str.	2	mod.	20	1	3	tr.	tr.	tr.	100	weathered only along fractures	153
12-15	q.d.	mod.	2, 4	mod.	30	1	3	tr.		tr.	100	occasional biotite veins	575
15-18	q.d.	mod.	2	mod.	25	1	3	tr.		tr.	100	occasional coarse molybdenite rosettes	248
18-21	q.d.	mod.	2, 3, 4	mod.	30	1	3			tr.	100	foliated in part, no veins where foliated	169
21-24	q.d.	mod.	2, 4	mod.	15	1	3	tr.	tr.	tr.	100	calcite veins begin to appear	156
24-27	q.d.	wk.	2, 4	mod.	35	1	3	tr.		tr.	100		359
27-30	q.d.	wk.	2	mod.	25	1	3	tr.		tr.	100		276
30-33	q.d.	wk.	2	mod.	35	1	3	tr.		tr.	100	2 cm "andesite" dike @ 31.9 m. Pre-mineral.	155
33-36	q.d.	wk.	1, 2	mod.	25	1	3			tr.	100		81
36-39	q.d.	wk.	2, 1	mod.	20	1	3			tr.	100		113
39-42	q.d.	wk.	2, 3, 4	mod.	25	1	3	tr.		tr.	100	more siliceous in part	164
42-45	q.d.	wk.	2, 1, 3	mod.	30	1	3			tr.	100	" " " "	362
45-48	q.d.	wk.	2	mod.	30	1	3	tr.		tr.	100		318
48-51	q.d.	wk.	2, 1	mod.	25	1	3			tr.	100		125
51-54	q.d.	wk.	2, 1, 3, 4	mod.	30	1	3			tr.	100		297

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CORE LOG

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Aug 6/81

Depth (metres)	Rock Type	Weathering	Alteration (decreasing order of abundance)	Silicification	Quartz veins per metre	% Sulphides					Core Recovery	Notes	Mo ppm
						Pyrite	Pyrrhotite	Chalcopyrite	Arsenopyrite	Molybdenite			
54-57	q.d.	wk.	2, 3, 4	mod.	15	1	3			tr.	100		263
57-60	q.d.	wk.	2, 4	mod.	25	1	3			tr.	100	foliated in part	208
60-63	q.d.	wk.	2, 1, 4	mod.	30	1	3	tr.		tr.	100		182
63-66	q.d.	wk.	2, 1, 4	mod.	30	1	3	tr.		tr.	100	several large (+10 cm) quartz veins	392
66-69	q.d.	wk.	2, 4	mod.	30	1	3			tr.	100		705
69-72	q.d.	wk.	2	mod.	25	1	3			tr.	100		510
72-75	q.d.	wk.	2	mod.	35	1	3			tr.	100		380
75-78	q.d.	N/D	2	mod.	30	1	3			tr.	100		220
78-81	q.d.	wk.	2	mod.	35	1	3			tr.	100		455
81-84	q.d.	wk.	2	mod.	25	1	3			tr.	100		460
84-87	q.d.	wk.	2	mod.	40	1	3			tr.	100	biotite clots & veins	490
87-90	q.d.	wk.	2, 4	mod.	30	1	3			tr.	100		292
90-93	q.d.	wk.	2, 1, 4	mod.	35	1	3	tr.		tr.	100		323
93-96	q.d.	wk.	1, 2	mod.	20	1	3	tr.		tr.	100	rare coarse (0.5 cm) biotite grains	145
96-99	q.d.	wk.	1, 2	mod.	20	1	3	tr.		tr.	100	" " " "	134
99-102	q.d.	wk.	1, 2, 4	mod.	15	1	3	tr.		tr.	100	" " " "	119
102-105	q.d.	wk.	2, 4	mod.	30	1	3			tr.	100		450
105-108	q.d.	wk.	2, 4	mod.	25	1	3			tr.	100		282
108-111	q.d.	wk.	2, 3, 4	str.	15	1	3			tr.	100	strong foliation, later calcite veins	93
111-114	q.d.	wk.	2, 4, 3	str.	30	1	3			tr.	100		240

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CORE LOG

HOLE #: CH81-2
BEARING: 30° azimuth
INCLINATION: -68°
LOCATION: E 5775070
N 5601310
COLLAR ELEVATION: 1650 m

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Depth (metres)	Rock Type	Weathering	Alteration (decreasing order of abundance)	Silicification	Quartz veins per metre	% Sulphides					Core Recovery	Notes	Mo ppm
						Pyrite	Pyrrhotite	Chalcopyrite	Arsenopyrite	Molybdenite			
114-117	q.d.	wk.	2, 1	mod.	25	1	3			tr.	100		250
117-120	q.d.	wk.	2, 1	mod.	30	1	3			tr.	100		690
120-123	q.d.	wk.	2, 1	mod.	25	1	3			tr.	100	biotite veins. 2 cm breccia of qtz fragments in sericite matrix (120.2 m)	260
123-126	q.d.	wk.	2, 1	mod.	25	1	3		tr.	tr.	100	chlorite halo on 3 cm quartz vein	290
126-129	q.d.	wk.	4, 2	str.	20	1	3			tr.	100	minor biotite-rich clots (inclusions)	500
129-132	q.d.	wk.	4, 2	str.	15	1	3	tr.		tr.	100	partly foliated	450
132-135	q.d.	wk.	4	str.	10	1	2	tr.		tr.	100	1 m qtz-po-MoS_2-sphal vein, q.d. foliated	310
135-138	q.d.	wk.	2, 4	mod.	20	1	3			tr.	100		1000
138-141	q.d.	wk.	4, 2	str.	15	N/D	3			tr.	100		150
141-144	q.d.	wk.	2, 3	mod.	25	tr.	3			tr.	100		108
144-147	q.d.	wk.	2, 3, 4	mod.	20	tr.	3			tr.	100	2 cm MoS_2-bearing siliceous breccia @ 144.1 m	288
147-150	q.d.	wk.	2	mod.	20	tr.	3			tr.	100		388
150-153	q.d.	N/D	2	mod.	20	1	3			tr.	100	strong calcite veining	520
153-156	q.d.	N/D	2, 1	mod.	10	1	3			tr.	100		124
156-159	q.d.	N/D	2, 1	mod.	20	1	3			tr.	100		356
159-162	q.d.	N/D	2, 1	mod.	15	1	3			tr.	100	8 cm biotite-rich inclusion @ 162.0 m	226
162-165	q.d.	N/D	1, 2	mod.	20	1	3			tr.	100	minor inclusions	415
165-168	q.d.	N/D	2	mod.	20	1	3			tr.	100		124

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CORE LOG

HOLE #: CH81-2
BEARING: 30° azimuth
INCLINATION: -68°
LOCATION: E 5775070
N 5601310
COLLAR ELEVATION: 1650 m

ABBREVIATIONS: N/D - none detected
wk. - weak
mod.- moderate
str.- strong
dissem.-disseminated

q.d. - quartz diorite
silts.- siltstone
N/M - not measured
tr. - trace

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Depth (metres)	Rock Type	Weathering	Alteration (decreasing order of abundance)	Silicification	Quartz veins per metre	% Sulphides					Core Recovery	Notes	Mo ppm
						Pyrite	Pyrrhotite	Chalcopyrite	Arsenopyrite	Molybdenite			
168-171	q.d.	N/D	2	mod.	15	1	3	tr.		tr.	100	rock colour begins to darken	256
171-174	q.d.	N/D	2, 1	mod.	15	1	3	tr.		tr.	100		129
174-177	q.d.	N/D	2, 1, 4	mod.	15	1	3			tr.	100		193
177-180	q.d.	N/D	2, 4, 1, 3	mod.	20	1	3			tr.	100		530
180-183	q.d.	N/D	1, 2	mod.	20	1	3			tr.	100		300
183-186	q.d.	N/D	1, 4, 2	mod.	20	1	3			tr.	100		340
186-189	q.d.	N/D	4	mod.	20	1	3			tr.	100	contact with hornfelsed siltstone at 187 m	405
189-192	silts.	N/D		str.	60	tr.	3			tr.	100	bedding 40° to 50° biotite selvages on veins	475
192-195	silts.	N/D		str.	80	1	3	tr.		tr.	100	quartz-chlorite-biotite-pyrrhotite-sphalerite vein	372
195-198	silts.	N/D		str.	60	1	3			tr.	100	most veins less than 1 mm wide	600
198-201	silts.	N/D		str.	90	1	3			tr.	100	1 mm calcite blebs, minor q.d.	336
201-204	silts.	N/D		str.	70	1	3	tr.		tr.	100	minor q.d. with dissem. MoS_2	280
204-207	q.d.	N/D	1, 2	mod.	25	1	3	tr.		tr.	100	minor siltstone	376
207-210	silts.	N/D		str.	80	1	3			tr.	100	beds 1 mm to 15 cm, bedding ~60°	229
210-213	silts.	N/D		str.	30	1	3		tr.	tr.	100	alt'n haloes around very narrow fractures	128
213-216	silts.	N/D		mod.	30	1	3			tr.	100	many calcite veins, rock chloritized	158
216-219	silts.	N/D		mod.	40	1	3			tr.	100	rock coarser grained, calcite blebs	105
219-220.3	silts.	N/D		mod.	40	1	3			tr.	100	" " " "	37

APPENDIX 2

9405

COMPILATION OF GEOCHEMICAL ANALYSES

Interval (metres)	Mo ppm	W ppm	Cu ppm	Zn ppm
1.2-3	97	2	54	73
3-6	56	2	46	69
6-9	362	3	70	68
9-12	153	2	60	67
12-15	575	24	65	68
15-18	248	115	58	72
18-21	169	9	50	52
21-24	156	4	55	54
24-27	359	4	63	70
27-30	276	4	63	193
30-33	155	3	73	70
33-36	81	3	45	72
36-39	113	4	51	68
39-42	164	2	44	46
42-45	362	3	60	48
45-48	318	30	61	62
48-51	125	2	50	68
51-54	297	2	61	63
54-57	263	4	67	56
57-60	208	3	70	54
60-63	182	2	81	60
63-66	392	3	67	66
66-69	705	11	74	49
69-72	510	2	72	59
72-75	380	6	66	61
75-78	220	2	69	55
78-81	455	2	82	46
81-84	460	2	70	52
84-87	490	4	122	59
87-90	292	2	72	55
90-93	323	4	78	55
93-96	145	2	74	60
96-99	134	4	72	55

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COMPILATION OF GEOCHEMICAL ANALYSES

Interval (metres)	Mo ppm	W ppm	Cu ppm	Zn ppm
99-102	119	4	79	52
102-105	450	2	90	52
105-108	282	2	74	50
108-111	93	2	53	47
111-114	240	3	51	52
114-117	250	2	77	56
117-120	690	40	82	63
120-123	260	2	72	67
123-126	290	2	69	62
126-129	500	2	81	77
129-132	450	2	80	85
132-135	310	3	41	505
135-138	1000	2	69	63
138-141	150	53	60	360
141-144	108	2	70	66
144-147	288	3	62	164
147-150	388	4	112	68
150-153	520	2	100	75
153-156	124	2	87	61
156-159	356	2	88	67
159-162	226	2	72	72
162-165	415	2	79	67
165-168	124	3	69	85
168-171	256	4	85	88
171-174	129	3	75	90
174-177	193	2	72	64
177-180	530	6	79	64
180-183	300	4	80	77
183-186	340	2	75	82
186-189	405	2	110	
189-192	475	30	70	
192-195	372	175	121	
195-198	600	50	123	

.../...

COMPILATION OF GEOCHEMICAL ANALYSES

Interval (metres)	Mo ppm	W ppm	Cu ppm	Zn ppm
198-201	336	40	62	
201-204	280	3	84	
204-207	376	9	105	
207-210	229	2	48	
210-213	128	3	64	
213-216	158	3	75	
216-219	105	2	77	
219-220.3	37	15	49	

50° 34' 30"

121° 56' 00"

5,602,500 mN

5,602,000 mN

5,601,000 mN

5,600,500 mN

5,600,000 mN

5,599,500 mN

5,599,000 mN

5,598,500 mN

5,598,000 mN

5,597,500 mN

50° 31' 30"

121° 52' 00"

SEPPAY CREEK

TOW 1 TOW 3 TOW 2

TOW 4

w/L 1945 M.

MAP 1 - TON CLAIMS

Simplified Geology and Drill Hole Location Map

9405

2 Quartz Diorite Porphyry

1 Metasediments and Metavolcanics

Geologic Contact - definite, approximate

Limit of Hornfels in Metasediments and Metavolcanics

Claim Boundary and L.C.P.

Diamond Drill Hole (projected to surface) with Total Depth and Inclination

Scale 1:5,000

0 100 200 300 400 500

metres

To accompany a report titled "Report on the Diamond Drilling on the TON #1 Claim".

Aug 6/81

Integrated Resources Photography Ltd.
310 Water Street
Vancouver, B.C. V6B 3W5
(604)681-3506

DUVAL INTERNATIONAL

MAP SCALE: 1:5,000
CONTOUR INTERVAL: 10 m.
PHOTO SCALE: 1:20,000
PHOTO DATE: 27-7-75
DATUM: GEODETIC
MAP REF: 92 I/12
PROJECT No: 80-637
CONTROL BY: 1:50,000 92I/12W

SHEET 1 of 1

NOTES

PRELIMINARY RECONNAISSANCE MAPPING