

ASSESSMENT REPORT
TOURM GROUP

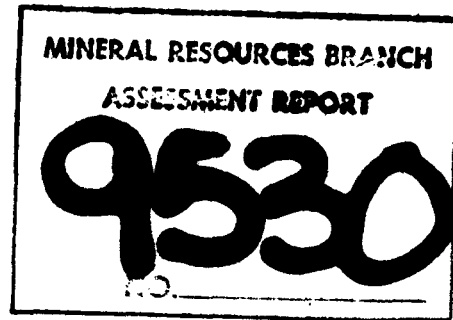
Fort Steele M. D.

Delta, B. C.
July 16, 1981

J. R. Wilson

81-567
-9530

82 G/4W



ASSESSMENT REPORT

TOURM GROUP

FORT STEELE M.D.

NTS 82G/4W

49°04 115°59.

Owner: St. Eugene Mining Corporation Ltd.

Operator: St. Eugene Mining Corporation Ltd.

Author: John R. Wilson

Date Submitted: July 16, 1981.

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INTRODUCTION

The Tourm Group of mineral claims consists of TOURM (20 units). TNT (15 units), TOP (10 units) and AME (8 units).

Tourm was staked in 1978. The other claims were staked in 1980.

The property is located approximately eight kilometres east of the town of Yahk, B. C. It covers the top of Mt. Mahon (1912 metres) and extends south to Hawkins Creek (1066 metres). It is accessible by an old logging road that leaves the Hawkins creek road, passes over Mt. Mahon, and enters the Cold creek road.

One vertical BQ diamond drill hole was run to a depth of 154.5 metres on the Tourm claim for lithologic information.

GENERAL GEOLOGY

Bedrock geology consists of middle (?) Aldridge formation sedimentary rocks of the Lower Purcell Supergroup (grey quartzites, argillaceous quartzites, siltstones, argillites, and argillaceous siltstones).

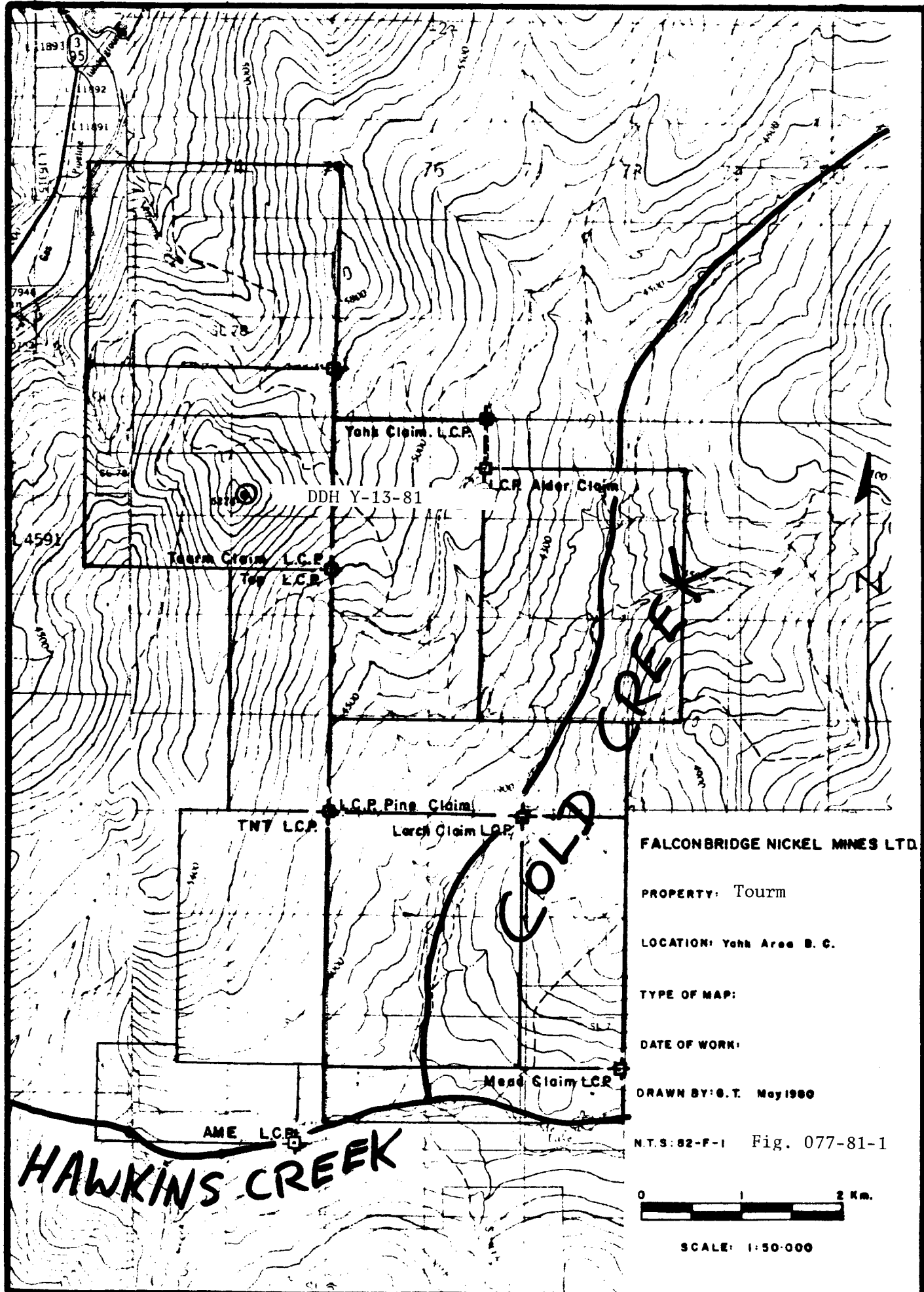
The drill site (on Mt Mahon) is unusual in the district as it has outcrops of very hard tourmaline- rich sedimentary rocks (Tourmalinite).

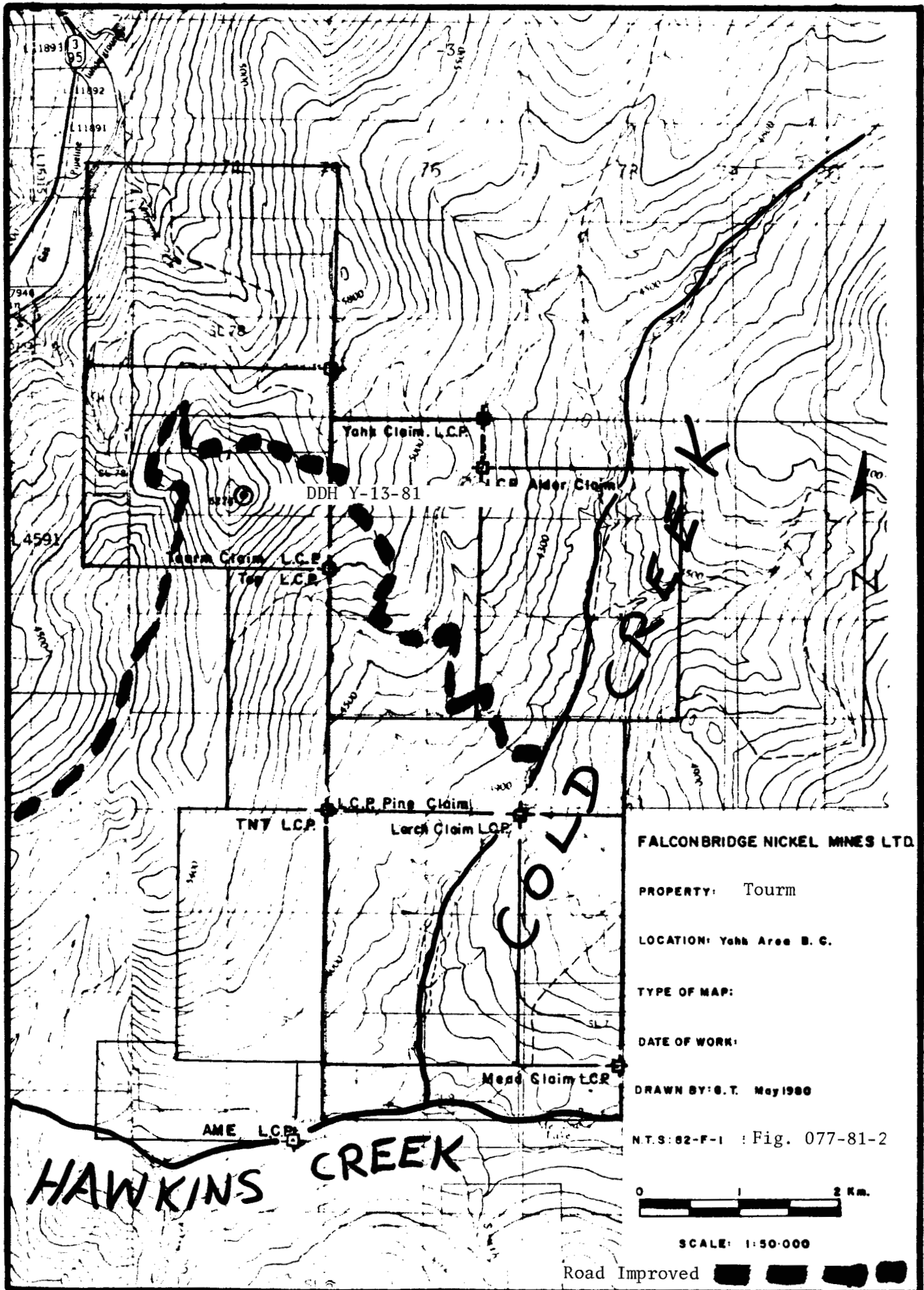
In the drilled area, outcrops exhibit a 5° - 15° north-easterly dip.

Metamorphism and deformation of lithologies is minor.

PHYSICAL WORK

Seventeen kilometres of old logging road was improved to allow access by drill and truck. Second growth was cut and a D7 cat cleared brush and repaired some washouts.





UTM
NORTH 5439220
EAST 574120
ELEV. 6250' (1905 m)
BEARING Vertical
DIP -90° @ collar -83(corr.) @ 154m.

STARTED June 7, 1981
COMPLETED June 9, 1981
LENGTH 507' (154.5m)

FALCONBRIDGE

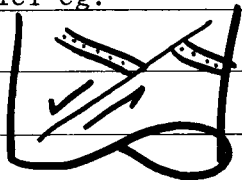
DIAMOND DRILL RECORD

PROPERTY
Yahk Area Claims

PURPOSE To intersect
Tourmalinite beds.
HOLE No. Y-13-81
CLAIM Tourm
SECTION _____
OFFSET _____
LOGGED BY J. R. Wilson
PLOTTED _____

	DESCRIPTION	SAMPLE	FOOTAGE	C.L.				
	D. J. Drilling, BBS-1, BQ core casing left in hole core stored at Delta Office.							
Metres								
0 - 3.7	Casing							
<u>3.7 - 62.5</u>	Mostly alternating Q (some garnet patches) & S. Occ. grading, usually parallel. Some contortions. Rare ripup clasts, rounded clasts, lenses. Occ. T?							
3.7 - 14.0	clasts below 44.2. Weathered near-surface zone. Alternating rusty browns and pale grey. Very soft grey - white Q with 1 mm biotite/muscovite specks in places. Massive, no banding but weak mica foliation @ 45°. Mostly broken chips and pebbles.							
14.0 - 14.6	Very H. white massive f.g. Q.							
14.6 - 16.8	Broken and pebbles. Mod. H. mass. S. or altered Q.							
16.8 - 18.0	Sheared, brecciated light grey mass. Q., Qz V. and rusty frs @ 55°.							
18.0 - 18.7	a.Q. interlayered w. a.S. 1-3 cm very contorted beds.							
18.7 - 19.7	Mass. a.Q.							
19.7 - 20.1	contorted interlayered a.Q., a.S., A. A has slight green tinge (chloritic?)							
20.1 - 20.9	Mass. Q.							
20.9 - 21.0	Mod. H silty A. sharp parallel contacts @ 70°							
21.0 - 21.2	Mass. Q. w. patches of tr. diss. py.							
21.2 - 21.5	(3) thin graded beds. A & S tops dominate the thin Q base. Tops contorted.							
21.5 - 22.1	GB Top 15 cm S w. parallel A laminae. Base Q, purple tinge.							
22.1 - 22.4	S w. dark, soft, rounded pebble clasts.							
22.4 - 23.5	sA and A mod. soft. 2-10 mm laminae parallel, lensing, indistinct.							

Metres	DESCRIPTION	SAMPLE	FOOTAGE	C.L.				
23.5 - 23.6	Alternating parallel 1 cm beds of vfg medium grey S and fg light grey S. Both mod H.							
23.6 - 24.4	Mass aQ purplish tinge.							
24.4 - 24.8	Alternating 5-15 cm mass. Q and mass S. Indistinct.							
24.8 - 25.3	S beds to 10 cm w. ripup clasts, load casts. Patch of Tr. diss. py.							
25.3 - 26.4	Alternating 6 to 15 cm sections of mass. Q (some w. garnets) and mass S. Occ. S grading to Q. Usually indistinct beds.							
26.4 - 26.6	Contorted A & S. Rounded clasts.							
26.6 - 27.7	Alternating mass aQ to 5 cm & laminated S/A (w. some chips) to 25 cm.							
27.7 - 28.5	G.B. 15 cm S top. Mass. aQ base w. some garnet patches.							
28.5 - 29.0	G.B. 7 cm laminated S/A top mass. Q base w. patches of garnets. Lenses or platy fragments of Q in top of Q section.							
29.0 - 29.9	Interlayered 3-20 mm. S and A, sometimes nearly Q. Parallel, clear 70° bedding, rare load cast.							
29.9 - 30.4	G.B. 10 cm S with A chips in top. mass. Q base.							
30.4 - 33.7	Mostly 5-10 mm interlayered parallel, clear S and A. Occasional slight displacements of laminae. Some convoluted, lensed bedding. Rare 10 cm S, nearly Q (some containing rounded A pebble clasts).							
33.7 - 34.0	3-8 cm parallel layers of massive Q, S, sA. Tr. diss. py @ 33.7							
34.0 - 34.9	Mass Q.							
34.9 - 35.0	S							
35.0 - 35.3	S with laminated A in top 2 cm. Round S clast in center. Ripup A clasts @ base.							
35.3 - 35.5	Interlayered 1-3 cm parallel mass. aQ, S.							
35.5 - 36.0	Fine laminated A and S. 1-2 mm, parallel @ top 5-10 mm, wavy @ base.							
36.0 - 36.9	Mass. S, nearly Q rare 5 cm section of lensed aS							
36.9 - 38.8	Mass. Q., 1 cm angular patch of strong biotite near base.							
38.8 - 40.1	Mass. a.S and S bands, some with A/S pebble clasts, to 8 cm interlayered with fine laminated A/S (usually lensed, irregular. clear beds).							

	DESCRIPTION	SAMPLE	FOOTAGE	C.L.				
40.1 - 41.2	Mass. a.Q w. diss. pink garnets and occ. irregular biotite rich patch.							
41.2 - 43.7	Laminated A & S							
	41.2 - 42.2 1-3 mm laminae, parallel indistinct							
	42.2 - 42.5 2-10 mm laminae, parallel, clear							
	42.5 - 43.0 2-10 mm laminae, contorted. Tr. diss. Po							
	43.0 - 43.7 2-10 mm laminae, usually parallel.							
43.7 - 43.9	mass. Q.							
43.9 - 46.0	Interlaminated, clear A & S. Top 30 cm is 2-5 mm, usually parallel layers. Some lensing, cross bedding. One platy Tourmalinite? chip @ 44.2							
	44.2 - 45.4 5-10 mm beds, load casts, lensing, ripup clasts. Tourmalinite chip @ 44.3.							
	45.4 - 46.0 1-3 cm parallel beds.							
46.0 - 46.3	G.B. S top, aQ base							
46.3 - 46.8	Alternating 1-3 cm aQ and aS. Possible irregular clasts of aQ in S.							
46.8 - 50.1	Mass. Q and aQ. Patches of pink garnets and patches of black rounded concentrations of biotite to 1 cm diameter.							
50.1 - 51.9	Laminated A, sA, S (1-20 mm). Clear parallel beds. Often displaced to 1 cm by 70° slips. Bedding also 70° but not parallel eg.							
								
51.9 - 52.9	Mass. aQ occ. pink garnets.							
52.9 - 54.6	Interlayered A (1-5 mm) & S (1-3 cm) usually parallel, clear beds. occ. contorted. Round 1 cm T? clast @ 53.6							
54.6 - 57.2	Mass. Q w. dark biotite-rich irregular patches to 2cm and occ. pink garnets. Some 2 cm aS layers separating 60 cm Q beds.							
57.2 - 57.4	Q and aS parallel layered, contorted, load casts.							
57.4 - 57.5	Mass. S.							

FOOTAGE	DESCRIPTION	SAMPLE	FOOTAGE	C.L.				
57.5 - 57.7	G.B. S top, aQ base							
57.7 - 58.1	Interlayered S, sA, aQ in clear, parallel 2-20 mm layers.							
58.1 - 58.9	15-20 cm mass aQ and 1 cm A/S							
58.9 - 59.1	2-10 mm laminated A/S - lensed and parallel.							
59.1 - 59.2	Mass aQ w. garnet and biotite rich patch.							
59.2 - 59.6	G.B. 2 cm S top. mass aQ base.							
59.6 - 59.9	Parallel and lensed 5-30 mm aS, S							
59.9 - 60.5	Mass. aQ w. garnets							
60.5 - 61.4	Parallel, some lensed aS, S							
61.4 - 62.5	Mass aQ w. garnets.							
62.5 - 113.8	Occ. dark grey and black T parallel beds interlayered with garnet aQ and lesser S, Q. Disrupted beds common near base (rip up clasts, rounded clasts, lenses, contortions).							
62.5 - 62.9	v.H. fg dark grey (possibly weakly tourmalinized) a.Q. 76° bedding.							
62.9 - 63.2	mass. aQ w. pink garnets.							
63.2 - 63.4	v.H- fg dark grey aQ possibly T.							
63.4 - 64.0	Mass. 15 cm S top. Parallel laminated (3-10 mm) S, aS @ base.							
64.0 - 64.4	G.B. 3 cm S top. aQ base with irregular dark grey patches containing tr. py.							
64.4 - 64.6	Mass. aQ w. garnets and 1% diss. py.							
64.6 - 65.2	G.B. 16 cm f.g. dark grey v.H. T.? top Coarser grained typical aQ base w. garnets.							
65.2 - 65.3	Possible T or aQ							
65.3 - 65.6	G.B. aS and aQ							
65.6 - 65.8	T?							
65.8 - 68.2	Mass. Q w. garnet & biotite rich patches.							
68.2 - 68.6	5-50 mm layers of aQ w. biotite - garnet concretions, vfg dark grey H. T? beds w. load casts, rip up clasts.							
68.6 - 69.1	Minor aS showing parallel and lensed beds. Massive aQ w. garnets							
69.1 - 69.2	5-40 mm bands of light grey Q with 5mm chips of dark grey T? and dark grey vfg H T. Parallel 80° beds.							
69.2 - 69.6	some cross-bedding. Mass. aQ w. garnets.							

FOOTAGE	DESCRIPTION	SAMPLE	FOOTAGE	C.L.				
69.6 - 70.0	med. to dark grey vfg H T? w. platy T? chips, cross bedding, parallel and lensed bedding.							
70.0 - 70.3	Garnet aQ top grading down to dark grey T?							
70.3 - 71.6	Garnet aQ w. occ 5 cm. T? patch.							
71.6 - 71.8	Mass. dark grey vfg mod. H. silty T?							
71.8 - 72.5	Garnet aQ w. occ 3 cm. T.							
72.5 - 75.2	Black vfg T bands to 1 cm and dark grey vfg T bands to 3 cm. Broken rip-up clasts of black T near top. Rare 8 cm garnet aQ. Usually parallel but much load casts, rip up clasts, lensing. Euhedral garnets in some T beds. 78° bedding.							
75.2 - 78.9	Garnet aQ w. acc 1-3 cm black T bands, some load casts, rip up clasts							
78.9 - 80.2	vfg V.H. dark grey T?. Occ. 5-10 mm black T laminae & rounded pebbles clasts. H white Q laminations at base and 5 mm 50° 92V.							
80.2 - 81.2	garnet aQ							
81.2 - 81.7	Grey T. w. occ 1 cm rounded black T. clasts. Occ. 1 cm black T layer. Top 5 cm is contorted.							
81.7 - 82.0	Garnet aQ							
82.0 - 82.2	Grey & black T, load casts							
82.2 - 83.0	Garnet aQ							
83.0 - 83.2	Garnet aQ and grey T with pebble clasts, load casts, contorted.							
83.2 - 84.7	Garnet aQ							
84.7 - 85.0	Grey T and garnet aQ layering							
85.0 - 85.2	Interlaminated T and S as 1-5 mm. parallel 77° layers. Occ. T clasts.							
85.2 - 85.3	Grey T w. clasts of black T.							
85.3 - 85.4	aS							
85.4 - 85.9	5-20 mm. parallel layers of black and grey T and light grey Q. Trace py along Q laminae.							
85.9 - 86.2	Garnet aQ							
86.2 - 86.3	Grey T. Top 2 cm contorted.							
86.3 - 89.1	Garnet aQ. Occ. garnet-biotite concretions.							
89.1 - 89.9	Interlayered aQ (to 6 cm) with T clasts Black T to 5 cm. Loadcasts and flames of Q into T. Rounded 2 cm T clasts in Q.							
89.9 - 90.6	Garnet aQ as 10 cm beds.							

FOOTAGE	DESCRIPTION	SAMPLE	FOOTAGE	C.L.				
90.6 - 91.7	Grey aS grading to aQ in places.							
91.7 - 93.6	V.H. grey Q and darker grey T? usually in 8 cm beds. Some 5-10 mm laminated and contorted.							
93.6 - 94.5	Garnet Q. 1 cm A band @ 94.3							
94.5 - 94.9	1-4 cm banded black T and grey T with 3 cm garnet aQ.							
94.9 - 95.5	Garnet aQ.							
95.5 - 95.6	5-10 mm light to dark grey, irregular and ripped up, bands of Q and T.							
95.6 - 95.7	(2) G.B.: S to Q.							
95.7 - 95.8	Laminated black T, white Q.							
95.8 - 96.1	G.B.: S to garnet aQ.							
96.1 - 96.8	Grey T and black T and Q interlayered and contorted. Rounded clasts.							
96.8 - 97.0	Garnet aQ.							
97.0 - 97.2	Dark grey T?							
97.2 - 100.1	Mostly garnet aQ with occ. irregular 3-5 cm grey T. interlayered w. aS.							
100.1 - 102.8	Streaky, indistinct looking beds of black T, grey T, and aS as 2-20 mm. beds, usually lensed, some cross-bedded. Occ. garnets, rip up clasts, slips. 78° bedding.							
102.8 - 105.2	Garnet aQ and garnet Q with (2) 2 cm S layers. Minor diss. po, py, cpy.							
105.2 - 105.4	Parallel 1 cm bands of black T & aQ.							
105.4 - 105.5	Garnet aQ.							
105.5 - 106.1	1-3 cm bands of S, aS and S grading to Q. Parallel and contorted beds.							
106.1 - 106.7	Garnet aQ.							
106.7 - 106.8	Laminated S, sa							
106.8 - 106.9	Garnet aQ.							
106.9 - 107.2	S grading down to garnet aQ.							
107.2 - 111.9	Mod. H. mostly interlayered (5-20 mm) S, sa as indistinct beds. Some 4 cm aQ zones w. garnets, rounded Q clast near top. Lensing, irregular beds common. Platy black T. clasts. 75° bedding.							
111.9 - 113.8	Interlayered black T, grey T, garnet aQ, aQ. Rounded clasts of T. Rip-up clasts, Parallel laminations.							
	113.0 - 113.1 rusty qz filled breccia.							

FOOTAGE	DESCRIPTION	SAMPLE	FOOTAGE	C.L.				
113.8 - 154.5	Alternating garnet aQ & S. Occ. A, Q, aS. Commonly							
	rip-up clasts, rounded clasts, cross-beds, convolutions. Rare T. clasts.							
113.8 - 116.9	Garnet aQ.							
116.9 - 120.8	Massive aS to 3 cm interlayered with laminated S, A.							
	Usually irregular lensed, indistinct bedding. Minor garnet aQ. A rip-up clasts in S at base.							
120.8 - 123.9	119.2: 1 cm 92 - chlorite vein. Garnet aQ w. minor 3 cm aS/S layers.							
123.9 - 133.6	- Mod. H. interlayered S, A, aS - Massive S to 8 cm.							
	- Laminated dark grey aS, black A & grey S. in 2 to 20 mm layers, usually indistinct parallel bedding @ 79°. Some very contorted zones. Rounded Q and T? clasts.							
133.6 - 134.1	- Occ. garnet biotite aQ (concretions?). aQ							
134.1 - 134.4	Parallel fine laminated sA, S for top 3 cm. Garnet aQ base.							
134.4 - 134.7	Fine banded, indistinct, cross bedded S, aS.							
134.7 - 135.6	Garnet aQ							
135.6 - 135.8	2 - 5 mm banded, cross bedded S, aS.							
135.8 - 137.9	H. aQ Occ. garnets.							
137.9 - 138.9	Alternating 3-40 mm aS, A, minor S. Mod. H. Parallel, some disrupted beds.							
138.9 - 140.3	Massive 10-20 cm aS. Mod H. Indistinct beds. Occ. garnet rich hard zones (concretions?).							
140.3 - 140.6	Primary Q & S breccia. Biotite in fractures.							
140.6 - 140.7	1 cm parallel S, aS layers							
140.7 - 141.3	Q							
141.3 - 142.3	Banded S, Q some near Q (mod. H) w. garnets. Occ. minor slips @ 0 - 20° 141.7 - 141.8 primary breccia.							
142.3 - 144.6	aQ some garnets.							
144.6 - 145.4	2-10 mm laminated S & A. Irregular bedding. Rounded 1 cm clasts, rip up clasts, parallel bedding.							
145.4 - 146.2	Interlayered 2-5 cm Q, S w. rounded clasts & rip up clasts & parallel beds.							
146.2 - 147.4	Mass. S, nearly Q. Some garnet zones.							
147.4 - 147.5	aS and garnet aQ.							
147.5 - 147.6	1 cm banded A, S.							

FOOTAGE	DESCRIPTION	SAMPLE	FOOTAGE	C.L.				
147.6 - 148.4	Interlayered massive S, nearly Q to 10 cm and parallel A/S 5-10 mm layers, some lensing, irregular beds.							
148.4 - 149.0	Very irregular A & S laminae (2-10 mm). Lensing and rip up clasts. 80° bedding.							
149.0 - 150.5	Interlayered (a)Q (w. occ. garnets) and S (nearly Q) to 6 cm. (b) laminated A & S (3-10 mm bands) to 15 cm. Load casts. Rip up clasts. Very irregular, lensed bedding. Clear. 2 cm angular black T clast @ 149.9 m.							
150.5 - 152.5	1-10 mm laminated A & S. Clear parallel bedding @ 85°. Some load casts and occ. 6 cm. aS. Rare 1 cm angular black T clasts (eg. 150.9 m) Occ. v. contorted zones.							
152.5 - 154.5	Mostly aQ. Some garnet biotite zones and rare convoluted 5 cm S/aS.							
	END OF HOLE							
	Magnetic Susceptibility tested by Scintex SM 5 showed							
	0.0 X 10 ⁻³ cgs throughout.							
	<u>Core recovery</u>							
	3.7 - 6.1 metres 80%							
	6.1 - 9.1 metres 70%							
	9.1 - 12.2 metres 80%							
	12.2 - 15.2 metres 60%							
	15.2 - 18.3 metres 45%							
	18.3 - 154.5 metres 100%							

ABBREVIATIONS

T	Tourmalinite
s	silty
a	argillaceous
arg.Q(a.Q.)	argillaceous quartzite
Q	quartzite
A	argillite
S	siltstone
diss.	disseminated
qz. v.	quartz vein
py.	pyrite
occ.	occasional
Tr.	trace
dia.	diameter
qz.	quartz
v.f.g.	very fine grained
po.	pyrrhotite
f.g.	fine grained
calc.	calcite
cpy.	chalcopyrite
m.g.	med. grained
c.g.	coarse grained
fr.	fracture
H.	hard
mod.	moderate
med.	medium
w.	with
@	at
G.B.	graded bed
mass.	massive
bi	biotite
gar.	garnet.

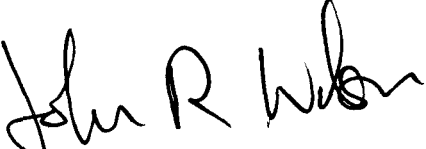
STATEMENT OF COSTS

Physical Work

Improving 17 km of old logging road	
25 May 1 man @ \$100.00 chainsawing	100.00
26-27 May D7 cat 19 hrs @ \$50.00/hr	<u>950.00</u>
Total Physical Work	<u>1050.00</u>

Diamond Drilling

Proportion of original mobilization of drill and drillers from Midway, B. C. (May 7)	158.99
Proportion of final demobilization of drill and drillers to Vancouver (June 12)	690.36
Demobilizing D7 cat to Cranbrook (June 12)	147.75
D7 cat skidding drill to site (June 6 and 7) 15 hrs @ \$50.00/hr	750.00
D7 cat skidding drill down road after drilling (June 10 and 11) 13 hrs @ \$50.00/hr	650.00
Drilling costs (June 7-9)	10,606.97
Labor while drilling, moving to site, moving out standby (June 6-12) 108 hrs @ \$19.00/hr	2,052.00
Room and Board 4 men, 6 days @ 44.25 per man day (June 6-12)	1,062.00
Supervision and core logging 1 man, 4 days @ \$110.00/day	440.00
Room and Board 1 man, 4 days @ \$20.00/day	80.00
Truck expenses 4 days @ \$30.00/day	120.00
Report writing, typing, prints, assembly	<u>180.00</u>
Total Drilling	<u>16,938.07</u>
Total physical work and drilling	<u>17,988.07</u>


John R. Wilson



FALCONBRIDGE NICKEL MINES LIMITED

6415 - 64th Street, Delta, B.C., Canada V4K 3N3

Tel. (604) 946-0441

Telex 04-53245

STATEMENT OF QUALIFICATIONS

Mining Recorder

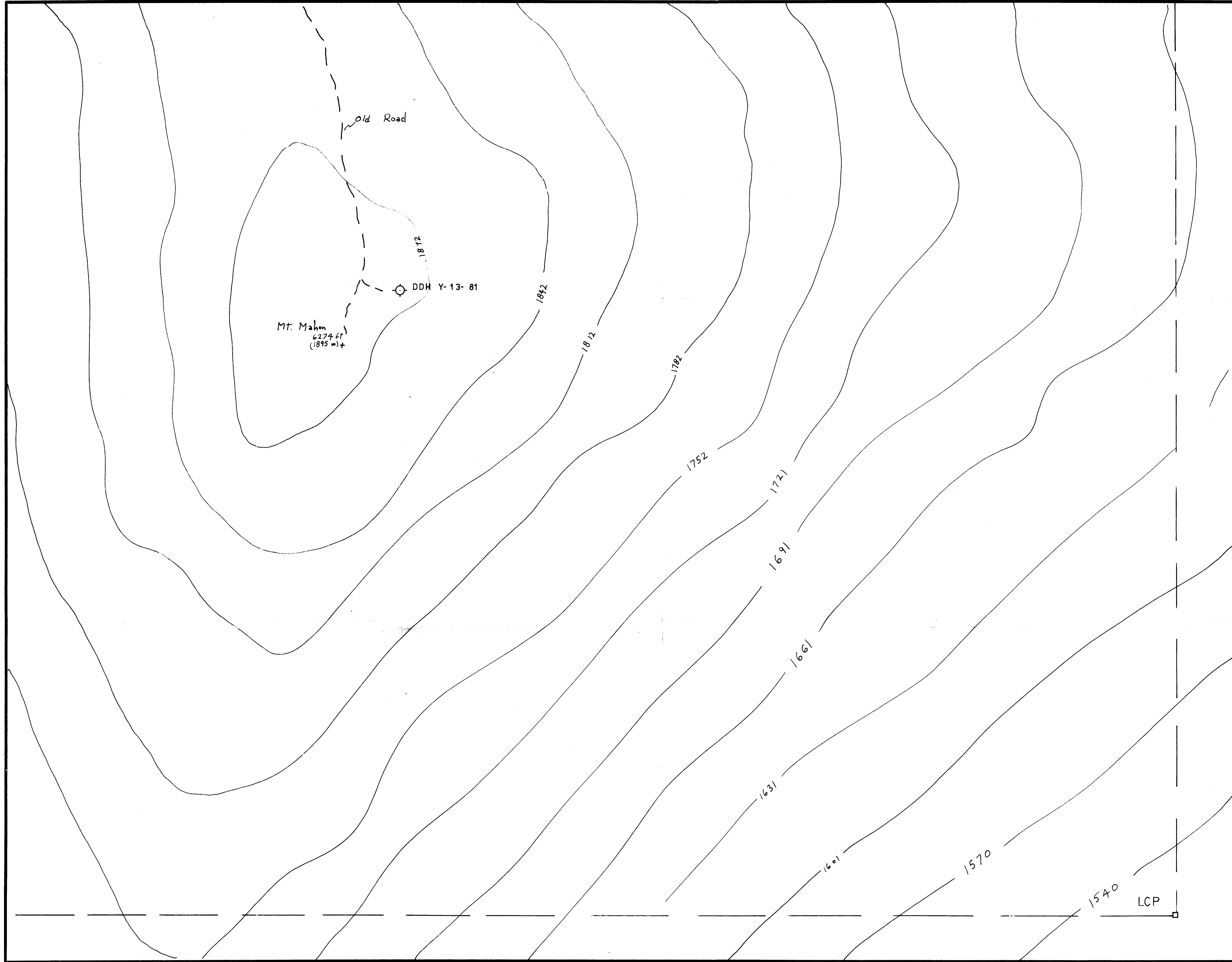
Department of Energy, Mines and
Petroleum Resources
411, Douglas Building
Victoria, B. C.
V8V 1X4

Dear Sir:

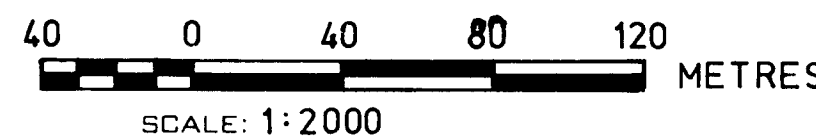
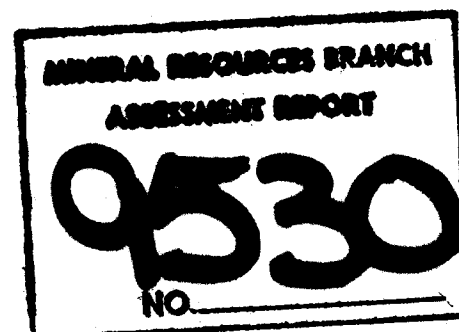
Mr. John R. Wilson graduated from the University of British Columbia in 1972 with a B. Sc. (honours geology) and has worked for the Falconbridge Nickel Mines group of companies as an exploration geologist since graduation.

Yours truly

J. R. Wilson.



Claim posts and boundary lines
were located by topographic maps,
chain, and compass.



FALCONBRIDGE NICKEL MINES LIMITED		
PROPERTY: TOURM		
LOCATION: YAHK		
TYPE OF MAP: DRILL LOCATION		
WORKING PLACE:		
BASED ON:		
DATE OF WORK: 1981	MAP REF. NO.:	FIG. NO.: 077-81-4
DRAWN BY:		
DATE:	N.T.S. NO.: 82 G 4W	