

Part 12

FILE

N.T.S. 104-I

**REPORT**  
**ON**  
TURNAGAIN COPPER-NICKEL  
PROSPECT  
1967

Liard

MINING DIVISION

J. J. McDougall

Vancouver, B.C.  
March, 1968



REPORT ON  
TURNAGAIN COPPER-NICKEL PROSPECT

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REPORT ON  
TURNAGAIN COPPER-NICKEL PROSPECT  
TO DECEMBER, 1967

INTRODUCTION

Last year's report on the Turnagain has been supplemented this year by Lionel Kilburn's report which includes drill logs but not assays. Thus this report covers in more general form the 1967 results. The reader is referred to the earlier reports for more geological background.

LOCATION, ACCESS AND PERSONNEL

1967 access to the property on the Turnagain River a few miles below Hard Creek was gained by aircraft and cat train. During the drill program commencing in February the contractor had equipment sent in on the old winter road from Dease Lake to Wheaton Creek and then constructed 11 miles of cat trail to the property. The cat was used to plow four feet of snow to gain access to the drill sites. With the completion of an airstrip the three - four man drill camp was supplied by ski and wheel planes from Watson Lake and Atlin. Stopovers were made while travelling through the country with the helicopter during the summer.

Personnel involved (February - May) drilling contractors, Schussler and Holtz, with Randall as helper. The cat train, moving in on a job for Cassiar Asbestos at Letaine on the same trip, was owned by Grant Stewart of Cassiar. The writer supervised the drilling and made three visits to the property being accompanied on the last one by Lionel Kilburn of Toronto. Later in the year (early July) a few days of helicopter work was done from the camp by Alex Smith, Roy Hepworth, Gerry Davis (Wheaton Cr.) and the writer. In late August and early September, Pat Russel, Joe Christensen, J. Schussler and Steve Presunka prospected the claim area (guided in part by work done

during the summer by Bill Thompson) and did a limited amount of E.M.-16 work in an attempt to tie in various showings (Map TG 10/67). Early in this period S. Charteris briefly visited the property. The writer with the helicopter worked out of the camp during the final few days.

#### DEVELOPMENT

During the drill program, an airstrip was constructed on a flat stretch of ground about one mile west of camp. Unfortunately, constructed while the ground was frozen, a centrally located "filled" area turned soft during spring weather and until this few hundred feet is compacted with clay, caution is required. Cost of construction was higher than anticipated as the cats did a very thorough job, believing (and convincing our foreman) that by building it up to specifications the government would pay a large share of the costs. Such, of course, is not the case in B.C. A cat trench was put in near Hard Creek in an effort to reach bedrock on the Jackpine claims optioned from G. Davis but the gravel proved too deep.

Two tent frames were erected, one of which was completed entirely with plywood late in the year. A cable was stretched and secured across the river to which a 'car' can be later attached.

Drilling during the year totalled 4,322 feet of AXQ wireline in 13 holes. A dozen or so pits were put in by Thompson and Russel. A few days of E.M. work was carried out by Presunka.

#### A. DRILLING LAYOUT AND RESULTS

##### (1) History and Geological Environment

Initial 1967 drilling was done to test one of a number of geophysically anomalous zones outlined by E.M. and magnetic surveys carried out over part of the property in 1966. The easily accessible

Horsetrail zone, although mostly overburdened, was well outlined and it was felt that more useful information including correlation could be obtained by drilling it rather than testing other, only partially outlined zones elsewhere. In this section a broad E.M. (MK IV) anomaly had superimposed on it several sharp E.M.-16 anomalies with the whole closely paralleled by magnetic highs. Because of equipment breakdown the zone had not been run uphill towards the west more than 1,000 feet. Near the end of the zone material assaying about 2% nickel had been picked up. Geological mapping to this point had indicated gray, poorly mineralized and relatively weakly magnetic, weakly serpentized peridotite lying to the immediate north of the Horsetrail zone. Over most of the zones length and to the south of it only minor outcroppings of resistant gray peridotite were present although numerous blocks of rusty weathering, somewhat more magnetic and darker peridotite were present in the 10 - 15 feet of drift common to the area. A fault or shear zone paralleling the magnetics to the south was suspect due to soil discoloration.

Three drill set-ups at 500 foot intervals from which to explore what appeared to be the footwall of the zone were decided on. The first set-up was designed to test the lower end of the zone as a whole with drilling both north and south. The other two set-ups were laid out for northerly directed drilling from centrally within the zone to intersect the strong E.M.-16 indicated conductors and at the same time to cut most of the MK IV zone and a small portion of the magnetic zone. (See composite map TG 10/67 enclosed.)

From set-up #1, two angle holes (1 and 2) were drilled northerly and a third (#3) southerly. It was decided that the northerly holes did not adequately explain the E.M.-16 results so the drill was moved further north along section to the immediate vicinity of the sharp anomalies and two short steep north and south holes (4 and 5) were collared almost on top of geophysical highs. Hole #6 was run north to test another E.M.-16 anomaly and to pass beyond the end of the MK IV zone boundaries--which also, as it turned out, were suggested by an E.M.-16 crossover. Outcrop along this section amounted to about 5% occurring only near the initial set-up.

From the second set-up, holes 7 and 8 were directed northerly from immediately south of one of the strong persistent E.M.-16 zones. This section contained no outcrop. Holes 9 and 10, also northerly, were put in near the end of the survey grid. They were aimed at a combination of E.M.-16 and MK IV anomalies plus a weakly mineralized peridotite outcrop (5% of the section). From a point 150 feet beyond the end of the survey several short holes were drilled (11, 12, 13). These collared in rusty weathering visibly mineralized material and it was in this section that 2% nickel had been picked up in large blocks of float earlier.

Core recovery was excellent--close to 100%. The core was logged, broken into one - two inch blocks, and alternately sampled. The left-over core was condensed in part and stored on the property. Drilling was done under adverse conditions during extreme cold (down to  $-50^{\circ}$ ) and considerable freeze-up occurred.

## (2) Intersection Results

Although considerable sulphide mineralization was encountered in the drilling, nickel values were lower than hoped for. The MK IV



anomalies were caused by about 5% total sulphide (disseminated pyrrhotite and minor pentlandite) combinations across widths of up to several hundred feet. E.M.-16 highs were plainly due to narrower (5 - 20 feet?) but remarkably consistent bands of  $\pm 50\%$  pyrrhotite containing magnetite and a few per cent graphite. Unfortunately these massive sulphides, which would appear to have resulted from replacement along shear zones within bands of "trapped" sediments, carry a very low nickel content suggesting a later, non-nickeliferous and non-related mineralizing sequence. Dip of the zone in general appears southerly as predicted but there are apparent reversals due possibly to folding, faulting, and interfingering (see sections Map TG 10/67).

Some of the material encountered is distinctly tuffaceous in nature. An extremely well defined "sub Kimberlite" breccia picked up in hole #2 suggests an underlying volcanic "throat" to be present as sub rounded rock fragments of peridotites, tuffaceous volcanic, and locally unknown diorites are present along with occasional garnet clusters. Material with a similar groundmass but lacking the large fragments has been encountered in other holes and may represent dyke-like offshoots. This material has not been seen in outcrop.

Rock types encountered, mostly 'sub basic' peridotites, are described in the logs and no description is attempted here. For brevity the writer's logs, except for assay sections attached to Kilburn's, are not enclosed.

Some 220 assay samples (generally 10 foot lengths) were selected from the drilling. Much larger lengths of obviously poorly mineralized material were taken so that nearly 100% of the core has been subject to at least some testing.

In general grades were better as the peridotite became more basic. Correlation between nickel and sulphur content was not present--actually the converse was true. None of the obviously basic net or sieve-textured material common in several localities elsewhere on the property was encountered although a probably related but much coarser peridotite did occur as a somewhat disconnected but generally predictable horizon(s).

Assays on the first section (holes 1 - 6) were low despite several hundred feet of  $\pm 5\%$  disseminated sulphides. Assays ranged from a low of about 0.05 Ni. to a high of 0.38 Ni. with a suggested average in the order of about 0.18% (see summaries at end of assay logs). Holes 4, 5 and 6 intersected up to 40 feet of near massive graphitic magnetite-pyrrhotite indicating a steep (possibly isoclinal?) somewhat sheared intersedimentary band with a true width of about 20 - 30 feet. Material of this type was not picked up in hole 1.

Hole #7, under 10 feet of overburden, collared in a band of graphitic pyrrhotite which appears to have caused the E.M.-16 reaction, then passed through two coarser peridotite bands plus a second graphitic zone and then on into 'monotonous' footwall rock. Hole #8 at a steeper angle cut approximately the same horizons. The best section was about 27 feet running 0.38% nickel which included 14 feet running 0.54%. The best assay obtained (hole #7 also) was 0.63% across 5 feet. Average content of the sulphide bearing peridotite section would be between 0.15 and 0.19%.

Holes 9 and 10, from a location which appears closer to the footwall but which in fact may be a northerly faulted extension, cut roughly the same rocks as did 7 and 8, both ending up in the monotonous footwall. The best sections, which occurred in #10, showed 282 feet of 0.30% Ni. including 120 feet of 0.4%. Twenty feet of 0.62% nickel represented the best assay.

Holes 11, 12 and 13 were put in to locally test the only mineralized outcropping in the zone and were collared on the rock a couple hundred feet beyond the mapped area. The first two holes tested the band north and south while 13 was designed to intersect a zone containing small, obviously north-south trending mineralized bands or veins, assays of which had returned up to 1% nickel. Values in these holes were very low although disseminated pentlandite was still evident. This rock was much harder than usual and the holes did not intersect the "horizons" indicated by the first three sections. Fault or flexures, although not obvious on the surface, are suspected.

#### General Assays and Reserves

Average assay of all "zone" intersections (excluding rock beyond the footwall) approximates something in the order of 0.2% nickel. In excess of several million tons of this mineralized country rock is indicated with many times this inferred. Sections such as that along d.d.h. #10, which could be envisioned as open pit grade (i.e. 120 feet @ 0.40% and assuming only 0.1% tied up in the silicate) if repeated on other sections could make reserves look interesting.

B. SURFACE EXPLORATION

Limited prospecting during 1967 outlined one zone paralleling but some 3,000 feet west of the Horsetrail. Several pits put in within a relatively well exposed but erratic several hundred foot section of normal peridotite returned fairly heavy sulphide samples assaying up to 2.8% nickel. The copper content of about 0.3% is considerably higher than in the Horsetrail but not as high as that in the Discovery zone. Widths of this type of material are narrow--probably a few feet at the most--but the enclosing rusty weathering zone is a couple hundred feet wide. Outcrop to the west is non existent but the E.M.-16, which picked this zone up perfectly, suggests continuation in this direction.

Of interest in this area is the increased copper to nickel ratio indicative of a possible overall mineralogical change in this direction. The pentlandite is quite coarse but there does not seem to be enough chalcopyrite present to account for the copper assay. Cubanite is a possibility but the crumbly, somewhat altered near surface material is not the best for microscopic polished section examination.

South of this zone, Presunka with the E.M.-16 picked up several paralleling anomalies which he was able to tie in to those "left hanging" following earlier mapping. Trenching along these failed to reach bedrock. Indications are that the westerly "ends" of these completely untested zones have been offset several hundred feet to the north by faulting from whence they continue on indefinitely to the west.

## CONCLUSIONS

Drilling of the most easily accessible of one of a group of geophysical anomalies present on the Turnagain property has shown significant sulphide mineralization to be widespread. Such was not indicated on surface. Within the Horsetrail zone the pentlandite to pyrrhotite ratio is unfortunately low although it does occasionally reach proportions envisioned for open pit mining--i.e. a section of d.d.h. #10 showing over 100 feet of 0.4%. There was obviously far more sulphur introduced (early and late) than available nickel within this particular zone if one accepts this particular theory.

Preliminary examination has shown that most pentlandite present is relatively coarse and not too intimately tied up within the pyrrhotite. Just what the recoverable nickel would be is not known. Certainly the peridotite tested, equating visible pentlandite with assay, contains very little nickel tied up in silicate form. Thus the total assay is probably closer to true recoverable nickel than is that contained in the usual more basic host rock. A background of 0.10% nickel or less is suggested.

Regardless of the grade of the Horsetrail deposit, 90% of the property remains overburdened. Certainly a section such as along d.d.h. #10 is good enough to act as a come-along to investigate at least a few of the large number of equally anomalous areas (at least a couple square miles) which are likely to be underlain by basic rock; where tested there has been no problem picking up E.M. anomalies--the latter from the air as well as on the ground. These remain completely untested. A more basic peridotite is no doubt required to allow an economic nickel deposit. This part of British Columbia, centering around this Turnagain area, has some

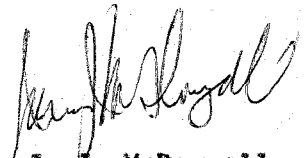
of the largest ultramafic bodies in the west, such being now represented by serpentine and occasionally dunite. It is the writer's contention, considering the size of the area involved, that no one can say that the overburdened sections of the Turnagain property as described do not contain some of these more basic rocks which could lead to higher nickel content. Lenses of such are exposed in the Discovery and the East End deposits. We just do not know enough (geophysically or otherwise) to claim that much larger lenses can not exist, especially to the south west. Certainly the sulphur requirement is sufficient if the Horsetrail is any indication.

Local partly serpentized float of the type that assays 0.15% nickel rather than the 0.05% suggested as background in the Horsetrail peridotites is common as is partial serpentization evident at the extreme northwest edge of the claim group. Certainly there now appears to be enough rock types present to give almost any desired combination.

#### RECOMMENDATIONS

It is recommended that the Turnagain property, which responds so exceptionally well to E.M. and magnetic techniques, be spot tested by diamond drill to determine if there is in fact any overall change in rock type while at the same time gain an explanation for the well defined E.M.-16 and magnetic zones suggested by preliminary work. Results of drilling of the Horsetrail-- a zone in which a lot of pentlandite by any count does occur--can not by any stretch of the imagination be projected to be those expected elsewhere, particularly to the south. More attention should possibly be paid to magnetics or to combinations of high magnetics and perhaps second or third order E.M. anomalies rather than first which appear, at least in the Horsetrail zone, to be late pyrrhotite and graphite (E.M.-16 anomalies) and early excess

pyrrhotite (MK IV anomalies in part). In the writer's view, an airborne E.M.-mag. survey is still in order although given time this could be done on the ground. This would be followed by diamond drill testing of up to a dozen selected targets widely spaced for better representation of the property. About 2,000 feet of drilling in 10 holes would be required. The writer contends a rudimentary although structurally complicated banding with dip to the south to be present thus more than one horizon would have to be tested. Recent G.S.C. mapping describes the "5 mile square area" as one containing "a southwesterly dipping, remarkably fresh ultramafic body, locally displaying compositional layering parallel with its contacts. The enclosing strata, including black crenulated phyllite, meta-chert, meta-diorite, and minor limestone are believed to be Carboniferous and/or Permian."



J. J. McDougall

Vancouver, B.C.  
March, 1968

FALCONBRIDGE NICKEL MINES LIMITEDDIAMOND DRILL LOG

LOCATION 24+35S - 28+45W BEARING N25E HOLE NO. 1  
 LOGGED BY J.C.K. ELEVATION 3325 DIP -35° PROPERTY Turnagain, B.C.  
 STARTED \_\_\_\_\_ TESTS (CORRECTED) \_\_\_\_\_  
 FINISHED \_\_\_\_\_  
 CASING OXT  
 CORE SIZE OXT

FROM	TO	DESCRIPTION
0	10	Overburden
10	24	Fine grained, medium grey ultrabasic with less than 1% finely disseminated sulphides.
24	41	Medium grained, black to dark grey peridotite with disseminated pyrrhotite and fracture filling pyrrhotite averaging less than 2% of the rock.
41	57	Fine grained, medium grey ultrabasic rock which contains less than 1% pyrrhotite. A one foot section of medium grained, epidotized granitic rock occurs at 25 feet and shows knife edge contacts within closing ultrabasic rock. No contact relationships could be observed which indicate whether it is an inclusion or an intrusion.
57	104	Medium grained, medium grey ultrabasic with disseminated sulphides less than 1% on the average, but locally showing concentrations of up to 20% over core lengths of 1".
104	400	A monotonous sequence of medium to light grey, fine grained (locally medium grained) granular ultrabasic rock which contains pockets and irregular disseminations of pyrrhotite averaging less than 1% of the section. Locally this rock type grades into the darker grey or black variety accompanied by an increase in the sulphide content. In the intervals 230 - 235 and 246 - 248, a fine to medium grained white cream coloured (epidotized) granitic material occurs which shows sharp contacts with the surrounding ultrabasic rocks. One of the granitic contacts appear to be chilled suggestive of an intrusive origin and the ultrabasic rocks have been highly altered near this contact. In the interval 104 - 400 - coarser grained and darker bands occur which carry significant amounts of sulphides and look in places as if they result from serpentization of the grey variety of ultrabasic rock. This gives rise to a fine grained to aphanitic black variety. Best sulphide areas lie in the intervals 287 - 289, 323 - 325 and 244 - 245.
400	425	Ultrabasic rock which starts out light grey and gets coarser grained and darker with mottling.
425	430	Narrow massive pyrrhotite sections 1 to 2 inches in width



FNM 35-10-66

**FALCONBRIDGE NICKEL MINES LIMITED**  
**DIAMOND DRILL LOG**

LOCATION \_\_\_\_\_ BEARING \_\_\_\_\_ HOLE NO. 1

LOGGED BY \_\_\_\_\_ ELEVATION \_\_\_\_\_ DIP \_\_\_\_\_ PROPERTY \_\_\_\_\_

STARTED \_\_\_\_\_ TESTS (CORRECTED) \_\_\_\_\_

FINISHED \_\_\_\_\_

CASING \_\_\_\_\_

CORE SIZE \_\_\_\_\_

FROM	TO	DESCRIPTION
425	430	(cont'd.....) cut across the rock described in the previous interval.
430	468	Light grey, medium grained (locally mottled) ultrabasic rock with massive pyrrhotite sections at 439 (2 inches with chalcopyrite in sieve texture); 455 (3 inches); and 465 ( $\frac{1}{2}$ " with chalcopyrite).
468	486	Light grey to black, fine grained to aphanitic ultrabasic rock.
486	500	Very irregular section of fine to medium grained, invariably coloured, serpentinized ultrabasic rock with significant amounts of pyrrhotite (averaging about 50%) at 486 - 496 and 498 - 1 to 2 inches of heavy mineralization at each place.  END OF HOLE

PROPERTY TURNAGAIN - COPPER-NICKEL

HOLE NUMBER 67-1

SHEET NUMBER Supplement A-1

SECTION FROM \_\_\_\_\_ TO \_\_\_\_\_

# DIAMOND DRILL RECORD

LOCATION: LAT. See original Geolog. log

STARTED March 27, 1967

DEP. \_\_\_\_\_

COMPLETED April 1, 1967

ELEVATION OF COLLAR Drillers - Schussler

DATUM Holtz

ULTIMATE DEPTH 500'

DIRECTION AT START: BEARING \_\_\_\_\_

PROPOSED DEPTH \_\_\_\_\_

DIP Sampling - J. McDougall

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Ni.	Comp. Au.-Ag.	Comp. Cu.	Comp. S.
13 - 20	Sample #16002 (Start)	27'		7	0.10	(Trace unless noted)		
20 - 30				10	0.15		0.04	2.38
30 - 40				10	0.29			
40 - 50				10	0.15			
50 - 60				10	0.10		0.02	1.54
60 - 70		40'		10	0.16			
70 - 80				10	0.17			
80 - 90				10	0.23			
90 - 100		40'		10	0.14		0.03	1.73
100 - 110				10	0.19			
110 - 120				10	0.23			
120 - 130				10	0.13			
130 - 140				10	0.17		0.03	1.31
140 - 150				10	0.18			
150 - 160				10	0.19			
160 - 170				10	0.15			
170 - 180		40'		10	0.15		0.03	1.39
180 - 190				10	0.14			
190 - 200				10	0.13			
200 - 210				10	0.13			

PROPERTY TURNAGAIN COPPER NICKEL

HOLE NUMBER 67-1

SHEET NUMBER A - 2

SECTION FROM \_\_\_\_\_ TO \_\_\_\_\_

# DIAMOND DRILL RECORD

LOCATION: LAT. \_\_\_\_\_  
 DEP. \_\_\_\_\_

ELEVATION OF COLLAR \_\_\_\_\_

DATUM \_\_\_\_\_

DIRECTION AT START: BEARING \_\_\_\_\_  
 DIP \_\_\_\_\_

STARTED \_\_\_\_\_

COMPLETED \_\_\_\_\_

ULTIMATE DEPTH \_\_\_\_\_

PROPOSED DEPTH \_\_\_\_\_

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	NI.	AU. - AG.	CU.	S.
210 - 220		40'		10	0.15	0.10	0.02	0.99
220 - 230				10	0.14	Ag.		
230 - 240				10	0.05			
240 - 250				10	0.08			
250 - 260		40'		10	0.23		0.03	1.16
260 - 270				10	0.27			
270 - 280				10	0.22			
280 - 290				10	0.21			
290 - 300		40'		10	0.20		0.05	2.01
300 - 310				10	0.12			
310 - 320				10	0.15			
320 - 330				10	0.15			
330 - 340				10	0.23			
340 - 350		40'		10	0.21	0.10	0.04	1.54
350 - 360				10	0.17	Ag.		
360 - 370				10	0.23			
370 - 380		40'		10	0.21		0.03	1.05
380 - 390				10	0.17			
390 - 400				10	0.25			
400 - 410				10	0.17			

PROPERTY TURNAGAIN COPPER NICKEL

HOLE NUMBER 67 - 1

SHEET NUMBER A - 3

# DIAMOND DRILL RECORD

SECTION FROM \_\_\_\_\_ TO \_\_\_\_\_

LOCATION: LAT \_\_\_\_\_

STARTED \_\_\_\_\_

DEP \_\_\_\_\_

COMPLETED \_\_\_\_\_

ELEVATION OF COLLAR \_\_\_\_\_

ULTIMATE DEPTH \_\_\_\_\_

DATUM \_\_\_\_\_

PROPOSED DEPTH \_\_\_\_\_

DIRECTION AT START: BEARING \_\_\_\_\_

DIP \_\_\_\_\_

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Ni.	Au. - Ag.	Cu.	S.
410 - 425				15	0.18			
425 - 431		41'	X	6	0.12		0.05	1.75
431 - 437				6	0.11			
437 - 441				4	0.29			
441 - 450				9	0.19			
450 - 460		39'		10	0.13		0.05	1.67
460 - 470				10	0.19			
470 - 480				10	0.17			
480 - 490				10	0.19		0.06	1.48
490 - 500		20'		10	0.08			
END OF HOLE								
Average Assay - Complete 487 ft. of hole = <u>0.170 Ni.</u> , <u>0.035 Cu.</u> , <u>1,506 S.</u>								
Best Significant Section - 240 - 400 ft. (160 ft.) @ <u>0.201 % Ni.</u>								
Best Assay - <u>10 ft. &amp; 4 ft. @ 0.29 % Ni.</u>								
Lowest Assay - Peridotite = <u>0.05 % Ni.</u>								
Suggested Sulphide content -- whole hole = <u>3.7 %</u>								
Included dyke content = 5 ft.								

FALCONBRIDGE NICKEL MINES LIMITEDDIAMOND DRILL LOGLOCATION 24+35S - 28+45W BEARING N25E HOLE NO. 2LOGGED BY L.C.K. ELEVATION 3325 DIP -60° PROPERTY Turnagain, B.C.

STARTED \_\_\_\_\_ TESTS (CORRECTED) \_\_\_\_\_

FINISHED \_\_\_\_\_

CASING OXTCORE SIZE OXT

FROM	TO	DESCRIPTION
0	13	Overburden
13	21	Dark grey to black, medium grained ultrabasic, averaging about 1% disseminated sulphides throughout.
21	25	Fine grained grey ultrabasic (looks rather siliceous) with less than 1% disseminated pyrrhotite.
25	36	Medium grained, mottled grey and greenish grey ultrabasic zone - at 27 feet about 1 inch of 50% pyrrhotite.
36	44.5	Fine grained, grey (siliceous looking) ultrabasic with less than 1% pyrrhotite.
44.5	90	Fine to medium grained, dark grey to black ultrabasic rock which averages less than 1% sulphides throughout, but locally shows concentrations as fracture fillings at 54, 70 and 85 feet.
90	100	Same rock as above but the colour is changed to a medium or dark grey.
100	181	Medium grained, medium grey, granular ultrabasic rock with irregularly disseminated sulphides throughout. Concentrations of sulphides occur as follows: 101 - 2 inches of 30% sulphides 128 - 1/2 inch of 30% sulphides 134 - 3 inches of 5% sulphides 137 - 1 inch of 10% sulphides 140 - 145 about 2% sulphides
181	182	Altered and bleached ultrabasic rock at the contact with what looks like a intrusive granitic breccia. About 5% of disseminated pyrrhotite occurs in the alteration zone over a width of about 4 inches.
182	194.5	Medium grained, inclusion laden, light grey granitic rock which resembles an intrusive breccia.
194.5	200	Medium grained, grey granular ultrabasic rock.

FNM 35-10-66

**FALCONBRIDGE NICKEL MINES LIMITED**

**DIAMOND DRILL LOG**

LOCATION \_\_\_\_\_ BEARING \_\_\_\_\_ HOLE NO. 2

LOGGED BY \_\_\_\_\_ ELEVATION \_\_\_\_\_ DIP \_\_\_\_\_ PROPERTY \_\_\_\_\_

STARTED \_\_\_\_\_ TESTS (CORRECTED) \_\_\_\_\_

FINISHED \_\_\_\_\_

CASING \_\_\_\_\_

CORE SIZE \_\_\_\_\_

FROM	TO	DESCRIPTION
200	207	Reaction zone between granitic breccia and ultrabasic rock.
207	225	Light grey granitic breccia.
225	250	Altered, irregularly medium to fine grained ultrabasic rocks which has been irregularly replaced by pyrrhotite and chalcopyrite as follows: 231 - 232 - 10% 228 - 1 inch of 15% 244 - 4 inches of 3%
250	265	Light grey granitic breccia which has been heavily fractured and filled with white quartz and pink feldspar.
265	267	Green gouge.
267	275	Fine to medium grained black dense ultrabasic rock with finely disseminated pyrrhotite averaging about 2%.
275	306	Light grey granite, breccia fractured and filled with quartz and feldspar.
306	310	Hybrid zone of granite breccia and ultrabasic rock.
310	350	Granitic breccia fractured and filled with quartz and feldspar.
350	375	Granitic breccia - ultrabasic - hybrid zone.
375	400	Ultrabasic rock of irregularly grain size and colour containing finely disseminated sulphides much less than 1%.
END OF HOLE.		

PROPERTY TURNAGAIN COPPER NICKEL

HOLE NUMBER 67 - 2

# DIAMOND DRILL RECORD

SHEET NUMBER Supplement B-1

SECTION FROM \_\_\_\_\_ TO \_\_\_\_\_

LOCATION: LAT See Orig. Geolog. Log  
 DEP \_\_\_\_\_  
 ELEVATION OF COLLAR Drillers - Schussler  
 DATUM Holtz  
 BEARING Randall  
 DIRECTION AT START: DIP Sampling - J. McDougall

STARTED April 1, 1967

COMPLETED April 7, 1967

ULTIMATE DEPTH 407 ft.

PROPOSED DEPTH \_\_\_\_\_

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Comp.	Comp	Comp	Comp.
					Ni.	Au.-Ag. Trade unless noted	Cu	S.
12 - 20	Start #16051			8	0.15			
20 - 30		38'		10	0.15		0.04	1.71
30 - 40				10	0.27	0.2 Ag.		
40 - 50				10	0.12			
50 - 60				10	0.21			
60 - 70		40'		10	0.12		0.05	2.87
70 - 80				10	0.15			
80 - 90				10	0.15			
90 - 100				10	0.15			
100 - 110				10	0.15			
110-120		40'		10	0.17		0.04	2.03
120 - 130				10	0.19			
130 - 140				10	0.21			
140 - 150				10	0.21			
150 - 160		45'		10	0.13		0.04	1.50
160 - 170				10	0.17			
170 - 175				5	0.21			
175 - 194				19	0.07		0.03	0.38
194 - 203				9	0.09		0.05	3.08
203 - 225				22	0.03		0.03	0.38
225 - 230				5	0.12		0.05	3.08

PROPERTY TURNAGAIN COPPER NICKEL

HOLE NUMBER 67 - 2

SHEET NUMBER B - 2

SECTION FROM \_\_\_\_\_ TO \_\_\_\_\_

# DIAMOND DRILL RECORD

LOCATION: LAT \_\_\_\_\_  
 DEP \_\_\_\_\_

STARTED \_\_\_\_\_

ELEVATION OF COLLAR \_\_\_\_\_

COMPLETED \_\_\_\_\_

DATUM \_\_\_\_\_

ULTIMATE DEPTH \_\_\_\_\_

DIRECTION AT START: BEARING \_\_\_\_\_  
 DIP \_\_\_\_\_

PROPOSED DEPTH \_\_\_\_\_

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Ni.	Au. - Ag.	Cu.	S.
230 - 240				10	0.13		0.05	3.08
240 - 250				10	0.13		0.05	3.08
250 - 265				15	0.02		0.03	0.38
265 - 275				10	0.10		0.05	3.08
275 - 306				31	0.03		0.04	0.19
306 - 316				10	0.02		0.02	0.29
316 - 346				30	0.09		0.04	0.19
346 - 366				20	0.07		0.02	0.29
366 - 376				10	0.03		0.03	0.13
376 - 386				10	0.17		0.06	1.18
386 - 400				14	0.13		0.06	1.18
400 - 407				7	0.05		0.03	0.13
END OF HOLE								
Peridotite Section - 0 - 175 = 0.173 % Ni., 0.042 Cu., 2.02 % S.								
Best Section = 10 ft. @ 0.27 % Ni.								
Lowest Peridotite assay 10 ft. @ 0.07 % Ni.								
Suggested percentage sulphides = 5 %								



**FALCONBRIDGE NICKEL MINES LIMITED****DIAMOND DRILL LOG**LOCATION 24+35S - 28+45W BEARING S25W HOLE NO. 3LOGGED BY L.C.K. ELEVATION 3325 DIP -35° PROPERTY Turnagain, B.C.

STARTED \_\_\_\_\_ TESTS (CORRECTED) \_\_\_\_\_

FINISHED \_\_\_\_\_

CASING QXTCORE SIZE QXT

FROM	TO	DESCRIPTION
0	20	Overburden
20	35	Irregularly coloured and grain size ultrabasic rock which has been extensively altered - 1" of 50% pyrrhotite at 27 feet.
35	47	Medium grained, mottled, light grey and dark grey ultrabasic rock with patchy dissemination of sulphides averaging about 2%.
47	95	Fine to medium grained, dark grey (locally black) peridotite with disseminated sulphides averaging about 3% between 47 and 75. Sulphide content increases to about 7% between 75 and 100.
95	100	Green gouge.
100	150	Medium grained, dark grey granular ultrabasic rock which contains only insignificant amounts of finely disseminated sulphides. Intrusive granitic breccia was intersected at 103 - 103.3 and 107 - 107.8. Massive sulphide blebs were intersected as follows: 113.5 ( $\frac{1}{4}$ " size), 117 ( $\frac{1}{4}$ " size), 131 ( $\frac{1}{4}$ " size) and along various slips and fractures throughout the section.
150	229	Medium grained, medium grey granular ultrabasic rock with mottled light grey patches - much less than 1% disseminated sulphides throughout.
229	236	Medium grained, medium grey ultrabasic rock which contains disseminated sulphides varying between 5 and 20% but averaging 7% for the section. These sulphides look as if they are interstitial and have a primary textural relationship with respect to the silicate pseudomorphs.
236	323.5	Fine to medium grained, medium grey granular ultrabasic rock which contains less than 1% disseminated sulphides throughout. Locally this rock is coarser grained and mottled with a light grey alteration. At 293 and 318 very short

FNM 35-10-66

**FALCONBRIDGE NICKEL MINES LIMITED**  
**DIAMOND DRILL LOG**

LOCATION \_\_\_\_\_ BEARING \_\_\_\_\_ HOLE NO. 3

LOGGED BY \_\_\_\_\_ ELEVATION \_\_\_\_\_ DIP \_\_\_\_\_ PROPERTY \_\_\_\_\_

STARTED \_\_\_\_\_ TESTS (CORRECTED) \_\_\_\_\_

FINISHED \_\_\_\_\_

CASING \_\_\_\_\_

CORE SIZE \_\_\_\_\_

FROM	TO	DESCRIPTION
236	323.5	(cont'd) intersections of light coloured material occur which resembled the light grey granitic breccia.
323.5	340	Medium grained, mottled light grey ultrabasic rock which contains slightly coarser sulphides averaging 8% pyrrhotite and pentlandite.
340	405	Fine to medium grained, grey granular ultrabasic rock which does not contain significant amounts of sulphides.
END OF HOLE.		

PROPERTY TURNAGAIN COPPER NICKEL

HOLE NUMBER 67-3

SHEET NUMBER Supplement C-1

SECTION FROM \_\_\_\_\_ TO \_\_\_\_\_

# DIAMOND DRILL RECORD

LOCATION: LAT See Orig. Geolog. Log  
 DEP \_\_\_\_\_

STARTED April 7, 1967

ELEVATION OF COLLAR Drillers - Schussler

COMPLETED April 16, 1967

DATUM Holtz

ULTIMATE DEPTH 405'

DIRECTION AT START: BEARING \_\_\_\_\_

PROPOSED DEPTH \_\_\_\_\_

DIP Sampling - J. McDougall

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Comp.			
					Ni.	Au. - Ag.	Cu	S.
18.5 - 30	Start 16084					Trace unless noted		
30 - 35		16.5		11.5	0.08			
35 - 40				5	0.08		0.04	1.86
40 - 45				5	0.18		0.03	2.05
45 - 50		10		5	0.11			
50 - 55				5	0.17		0.03	3.57
55 - 65				5	0.12			
65 - 70				10	0.15		0.05	2.40
70 - 75				5	0.17	0.3 Ag.	0.03	2.76
75 - 80				10	0.21	0.3 Ag.		
80 - 85				5	0.18		0.03	1.75
85 - 90				5	0.12		0.03	3.04
90 - 95				10	0.17			
95 - 105				5	0.17			
105 - 115				15	0.13		0.02	1.11
115 - 125				10	0.19			
125 - 130		30		10	0.19		0.04	2.12
130 - 135				5	0.14			
135 - 150				5	0.35		0.14	1.18
150 - 160				15	0.35	0.1 Ag.	0.04	1.20
		25		10	0.23	0.1 Ag.		

PROPERTY TURNAGAIN COPPER NICKEL

HOLE NUMBER 67 - 3  
 SHEET NUMBER C - 2  
 SECTION FROM \_\_\_\_\_ TO \_\_\_\_\_

# DIAMOND DRILL RECORD

LOCATION: LAT \_\_\_\_\_  
 DEP \_\_\_\_\_  
 ELEVATION OF COLLAR \_\_\_\_\_  
 DATUM \_\_\_\_\_  
 DIRECTION AT START: BEARING \_\_\_\_\_  
 DIP \_\_\_\_\_

STARTED \_\_\_\_\_  
 COMPLETED \_\_\_\_\_  
 ULTIMATE DEPTH \_\_\_\_\_  
 PROPOSED DEPTH \_\_\_\_\_

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Ni	Au. - Ag	Cu.	S.
160 - 170				10	0.13			
170 - 180		40		10	0.13		0.03	1.26
180 - 190				10	0.14			
190 - 200				10	0.21			
200 - 220		40		20	0.15	0.1 Ag.	0.04	0.41
220 - 240				20	0.38	0.1 Ag.		
240 - 260		40		20	0.23	0.1 Ag.	0.02	0.71
260 - 280				20	0.25	0.1 Ag.		
280 - 300		40		20	0.31		0.03	0.68
300 - 320				20	0.25			
320 - 340		40		20	0.33		0.03	0.76
340 - 360				20	0.25			
360 - 380				20	0.26		0.03	0.19
380 - 400		45		20	0.23			
400 - 405				5	0.23			
END OF HOLE								
Average Nickel - Complete Hole = <u>0.220 %</u>				Average Copper = <u>0.036 %</u>				
Best Assay 20' @ <u>0.38 %</u>								
Lowest Assay (Peridotite) - <u>0.08 %</u>				Average Sulphur = 1.16 % (2.9 % S <sub>2</sub> )				
Best Significant Section - 120' @ <u>0.291 % Ni.</u>				Section 0 - 200 = 1.84 % S. (4.6 % S <sub>2</sub> )				
Best Section - 20' @ <u>0.35 % Ni.</u>								

**FALCONBRIDGE NICKEL MINES LIMITED****DIAMOND DRILL LOG**

LOCATION 21+85S - 27+30W BEARING S25W HOLE NO. 4  
 LOGGED BY L.C.K. ELEVATION 3360 DIP -40° PROPERTY Turnagain, B.C.  
 STARTED \_\_\_\_\_ TESTS (CORRECTED) \_\_\_\_\_  
 FINISHED \_\_\_\_\_  
 CASING QXT  
 CORE SIZE QXT

FROM	TO	DESCRIPTION
0	18	Overburden
18	25	Fine grained, medium grey, granular ultrabasic rock which contains pyrrhotite, chalcopyrite and graphite in a 4" seam at 19 feet. In between 21.5 and 23 feet about 60% of the rock has been replaced by pyrrhotite.
25	29	Sheared and replaced with pyrrhotite, the ultrabasic rock has been completely altered. Locally there is the remanent of a sieve texture but most of the pyrrhotite is of the schistose or fracture filling type and averages about 30% of the 4 foot section in places. The rock may consist of up to 80% pyrrhotite.
29	45	Fine grained, light grey, granular ultrabasic rock which contains both disseminated interstitial pyrrhotite and pentlandite and fracture filling pyrrhotite. Pyrrhotite occurs in the blebs and patches of $\frac{1}{4}$ "- $\frac{1}{2}$ " across, throughout this section and in many places is highly schistose with significant amounts of graphite intermixed. The interval 36.5 - 44 contains about 5% sulphides.
		END OF HOLE.

**FALCONBRIDGE NICKEL MINES LIMITED****DIAMOND DRILL LOG**

LOCATION 21+85S - 27+30W BEARING S25W HOLE NO. 5  
 LOGGED BY L.C.K. ELEVATION 3360 DIP -55° PROPERTY Turnagain, B.C.  
 STARTED \_\_\_\_\_ TESTS (CORRECTED) \_\_\_\_\_  
 FINISHED \_\_\_\_\_  
 CASING QXT  
 CORE SIZE QXT

FROM	TO	DESCRIPTION
0	15	Overburden
15	25	Fine grained, medium grey, granular ultrabasic rock which is highly schistose and silicified. About 2% pyrrhotite occurs along the schistosity.
25	50	Fine grained, granular ultrabasic rock which contains massive pyrrhotite as replacements along fractures and schistose sections in addition to fine grained textural impregnations. Graphite is intimately mixed with the pyrrhotite in the sheared variety and even in the fine grained impregnations at some places. The best sulphide sections are 36 - 37 = 80% and 40 - 41 = 90%. A medium grained more crystalline variety of ultrabasic rock lies between the sulphide sections and carries interstitial disseminations of pyrrhotite averaging about 2%.
50	70	Same as 25 - 50 with heavy sulphides between 50 - 54 feet. The finely impregnated pyrrhotite contains significant amounts of graphite in this part of the hole.
		END OF HOLE.

PROPERTY TURNAGAIN COPPER NICKEL

HOLE NUMBER 67 - 4

SHEET NUMBER Supplement D - 1

SECTION FROM \_\_\_\_\_ TO \_\_\_\_\_

# DIAMOND DRILL RECORD

LOCATION: LAT. See Orig. Geolog Log  
 DEP. \_\_\_\_\_

STARTED April 18, 1967

ELEVATION OF COLLAR Drillers - Schussler

COMPLETED April 18, 1967

DATUM Holtz

ULTIMATE DEPTH 47 Feet

DIRECTION AT START: BEARING Randall

PROPOSED DEPTH \_\_\_\_\_

DIP Sampling - J. McDougall

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Comp.	Comp	Comp	Comp	
					Ni.	Au.	Ag.	Cu.	S.
18 - 23	Start #16119			5	0.13	Trace unless noted	0.1 Au.	0.08	10.15
23 - 27				5	0.11			0.07	10.62
27 - 32				5	0.05		0.05	4.51	
32 - 37				5	0.05		0.03	3.72	
37 - 39				2	0.16		0.11	14.61	
39 - 45				6	0.05		0.02	2.04	
45 - 47				2	0.05		0.02	5.39	
	END OF HOLE								
	Average Ni. = <u>0.08 %</u>								
	Average Cu. = <u>0.05 %</u>								
	Average S. = <u>6.87 % (17.1 % Sulphides*)</u>								
	Highest Sulphides (2' @ 14.61 %) = Approx. <u>36 %</u>								

PROPERTY TURNAGAIN COPPER NICKEL

HOLE NUMBER 67 - 5

SHEET NUMBER Supplement E - 1

# DIAMOND DRILL RECORD

SECTION FROM \_\_\_\_\_ TO \_\_\_\_\_

LOCATION: LAT. See Orig. Geolog. Log  
 DEP. \_\_\_\_\_  
 ELEVATION OF COLLAR Drillers - Schussler  
 DATUM Holtz  
 BEARING Randall  
 DIRECTION AT START: DIP Sampling - J. McDougall

STARTED April 19, 1967

COMPLETED April 19, 1967

ULTIMATE DEPTH 69 Feet

PROPOSED DEPTH \_\_\_\_\_

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Comp		Comp		Comp	
					Ni.	Au. - Ag.	Cu.	S.		
14 - 16	Start #16126			2	.06	Trace unless noted	0.06			6.77
16 - 21				5	.13	0.01 Au	0.13			6.52
21 - 28.5				7.5	.05		0.05			5.52
28.5 - 32.5				4.0	.09	0.02 Au.	0.09			10.72
32.5 - 38.5				6.0	.17	0.02 Au: 0.30 Ag:	0.17			13.71
38.5 - 44				5.5	.12	0.01 Au.	0.12			1.01
44 - 50				6.0	.07		0.07			3.00
50 - 54				4.0	.16	0.4 Ag.	0.16			13.47
54 - 64				10.0	.05		0.02			1.12
64 - 69				5.0	.05		0.03			1.86
	END OF HOLE									
	Average Nickel = <u>0.09 %</u>									
	Sulphides Approx. 15%; Highest 6' @ <u>34 %</u>									
	Average soil at drillsite - <u>0.03 Ni., 0.02 Cu</u>									



**FALCONBRIDGE NICKEL MINES LIMITED****DIAMOND DRILL LOG**

LOCATION 21+85S - 27+30W BEARING N25E HOLE NO. 6  
 LOGGED BY L.C.K. ELEVATION 3360 DIP -35° PROPERTY Turnagain, B.C.  
 STARTED \_\_\_\_\_ TESTS (CORRECTED) \_\_\_\_\_  
 FINISHED \_\_\_\_\_  
 CASING \_\_\_\_\_  
 CORE SIZE AXT

FROM	TO	DESCRIPTION
0	16	Overburden
16	60	Medium grained, light to medium grey ultrabasic rock.
60	90	Fine grained, equivalent of the rock described above, containing scattered disseminated pyrrhotite (less than 1%).
90	96	Dark grey pyroxenitic ultrabasic (about 2% disseminated sulphides). Seams of pyrrhotite and graphite occur along shears which cut the rock - especially between 94 and 96.
96	114	Medium to light grey ultrabasic, locally highly fractured and mottled.
114	127	Light grey, coarse grained and mottled ultrabasic <sup>grading</sup> downwards into 127 - 128, medium grained granular ultrabasic rock.
128	161.5	Light grey, medium to coarse grained, mottled ultrabasic rock. 161.5 - irregular sharp contact between the two ultrabasic types.
161.5	173	Light grey matrix grading from aphanitic to medium grained size, mottled with black irregular crystals-ultrabasic.
173	180	Medium grained granular ultrabasic.
180	195	Medium to dark grey mottled ultrabasic.
195	214	Fine to medium grained, light grey ultrabasic which contains local batches of black crystals.
214	224	Same as 180 - 195.
224	228	Same as 195 - 214.
228	250.5	Fine to medium grained (locally schistose) ultrabasic rock with black crystals, locally altered to a definitely greenish colour.
250.5	255	Fine to medium grained, medium grey ultrabasic which is extensively fractured and the fractures have been cemented with pyrrhotite. The last 4" consist of nearly massive pyrrhotite.
255	322	Dark grey to black granular peridotite with large amounts of pyrrhotite in cross fractures. In addition, disseminated

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FALCONBRIDGE NICKEL MINES LIMITED

DIAMOND DRILL LOG

LOCATION \_\_\_\_\_ BEARING \_\_\_\_\_ HOLE NO. 6

LOGGED BY \_\_\_\_\_ ELEVATION \_\_\_\_\_ DIP \_\_\_\_\_ PROPERTY \_\_\_\_\_

STARTED \_\_\_\_\_ TESTS (CORRECTED) \_\_\_\_\_

FINISHED \_\_\_\_\_

CASING \_\_\_\_\_

CORE SIZE \_\_\_\_\_

FROM	TO	DESCRIPTION
255	322	(cont'd.....) (cross texture) pyrrhotite averages about 2% with up to 5% in places. This rock is heavily seamed and replaced by black aphanitic serpentinization.
322	331	Fine grained at the contact, but grading to a medium grained size, light grey ultrabasic rock.
331	342	Dark grey to black, medium grained peridotite with irregularly distributed sulphides averaging less than 1%.
342	375	Medium to coarse grained (crystalline), light to dark grey or black peridotite. Disseminated sulphides throughout but averaging less than 1%.
END OF HOLE		

PROPERTY TURNAGAIN COPPER NICKEL

HOLE NUMBER 67 - 6

SHEET NUMBER Supplement F - 1

SECTION FROM \_\_\_\_\_ TO \_\_\_\_\_

# DIAMOND DRILL RECORD

LOCATION: LAT. See Orig. Geolog. Log

STARTED April 20, 1967

DEP. \_\_\_\_\_

COMPLETED April 26, 1967

ELEVATION OF COLLAR Drillers - Schussler

DATUM Holtz

ULTIMATE DEPTH 375 Feet

DIRECTION AT START: BEARING \_\_\_\_\_

PROPOSED DEPTH \_\_\_\_\_

DIP Sampling - J. McDougall

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Comp	Comp	Comp	Comp
					Ni.	Au. - Ag. Trade unless noted	Cu	S.
25 - 35	Start # 13236			10	0.13		0.03	4.46
91 - 96				5	0.13		0.03	2.81
255 - 265				10	0.23		0.03	2.81
END OF HOLE								
Hole only partially assayed								
(ie better S2 sections)								
Estimated grade 0.18 % ???								

**FALCONBRIDGE NICKEL MINES LIMITED**  
**DIAMOND DRILL LOG**

LOCATION 19+70S - 31+70W BEARING N25E HOLE NO. 7  
 LOGGED BY L.C.K. ELEVATION 3465 DIP -35° PROPERTY Turnagain, B.C.  
 STARTED \_\_\_\_\_ TESTS (CORRECTED) \_\_\_\_\_  
 FINISHED \_\_\_\_\_  
 CASING QXT  
 CORE SIZE QXT

FROM	TO	DESCRIPTION
0	6	Overburden
6	26	Irregularly fine and medium grained, light to medium grey ultrabasic rock which is impregnated and replaced by zones of pyrrhotite and graphite. A host rock appears to be finer grained around the impregnation, which are located as follows: 12 - 13 60% sulphides 13 - 14.5 30% pyrrhotite and about 20% graphite 16 - 17 15% sulphides 22 - 1/4" of 70% sulphides  Around the sulphides and graphite impregnations the host rock is fine grained and siliceous looking, but closely alternating with these zones are the normal ultrabasic rock which leads me to believe that shearing, possibly silicification, sulphidization and introduction of graphite with the sulphides are the sequence of events which alter this ultrabasic body near pre-existing joints or cross fractures.
26	56	Sheared and fractured, medium grained granular ultrabasic rock which shows characteristic fine black seams of serpentine. Sulphides are finely disseminated. Throughout an average of about 1% (this rock will be referred to henceforth as the "black seamed variety").
56	83	Medium grained, grey granular ultrabasic with finely disseminated pyrrhotite averaging less than 1%.
83	95	Darker grey to black granular ultrabasic rock with less than 1% disseminated sulphides but locally showing concentrations up to 20% (see 85 feet). The sulphides are interstitial and in many places almost <del>con-</del> <sup>con-</sup> into a sieve texture.
95	114	Fine to medium grained, light grey ultrabasic, which is extensively replaced by pyrrhotite (about 30% between 112 and 114. This is the fine grained, impregnated and siliceous looking altered equivalent described above.

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**FALCONBRIDGE NICKEL MINES LIMITED**

**DIAMOND DRILL LOG**

LOCATION \_\_\_\_\_ BEARING \_\_\_\_\_ HOLE NO. 7  
 LOGGED BY \_\_\_\_\_ ELEVATION \_\_\_\_\_ DIP \_\_\_\_\_ PROPERTY \_\_\_\_\_  
 STARTED \_\_\_\_\_ TESTS (CORRECTED) \_\_\_\_\_  
 FINISHED \_\_\_\_\_  
 CASING \_\_\_\_\_  
 CORE SIZE \_\_\_\_\_

FROM	TO	DESCRIPTION
114	138	Medium grained, medium grey ultrabasic rock, (locally fine grained) which contains distinctive blebs and interstitial sulphide disseminations throughout averaging about 10%.
138	146	Same rock type but with finer grain size and 1-2% sulphides.
146	154.5	Fine grained, schistose and fractured zone with late pyrrhotite filling and impregnation - about 3% sulphides.
154.5	200	Fine grained, light grey rock which is locally impregnated with pyrrhotite - average less than 1% sulphides.
200	220	Medium grained, dark ground mass with greenish white mottling in the form of crystals. Locally small amounts of pyrrhotite impregnation.
220	280	A monotonous zone of medium grained and medium grey rock which is locally mottled with a greenish white pattern. Average sulphide content is significantly less than 1%.
280	293	Very light grey to white ultrabasic rock.
293	315	Black seamed grey granular ultrabasic rock (medium grained) with about 3% disseminated pyrrhotite.
315	335	Same rock type with patchy disseminations of sulphides - interstitial through the silicate pseudomorphs and grading in places to a sieve texture - average 1% sulphide but at 332 patch of pyrrhotite 3/4" across with one small crystal of pentlandite 1/16" across.
335	350	Similar type but with very minor amounts of disseminated sulphides.
350	435	Black seamed, medium grained, grey granular ultrabasic zone.
435	497	Same grey granular ultrabasic rock but with fewer black seams.

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**FALCONBRIDGE NICKEL MINES LIMITED**  
**DIAMOND DRILL LOG**

LOCATION \_\_\_\_\_ BEARING \_\_\_\_\_ HOLE NO. 7

LOGGED BY \_\_\_\_\_ ELEVATION \_\_\_\_\_ DIP \_\_\_\_\_ PROPERTY \_\_\_\_\_

STARTED \_\_\_\_\_ TESTS (CORRECTED) \_\_\_\_\_

FINISHED \_\_\_\_\_

CASING \_\_\_\_\_

CORE SIZE \_\_\_\_\_

FROM	TO	DESCRIPTION
497	515	Same rock type but with a few short sections of black aphanitic peridotite.  END OF HOLE.

PROPERTY TURNAGAIN COPPER NICKEL

HOLE NUMBER 67 - 7

SHEET NUMBER Supplement G - 1

# DIAMOND DRILL RECORD

SECTION FROM \_\_\_\_\_ TO \_\_\_\_\_

LOCATION: LAT. See Orig. Geolog. Log  
 DEP. \_\_\_\_\_  
 ELEVATION OF COLLAR Drillers - Schussler  
Holta  
 DATUM \_\_\_\_\_  
 BEARING Randall  
 DIRECTION AT START: DIP Sampling - J. McDougall

STARTED April 29, 1967  
 COMPLETED May 5, 1967  
 ULTIMATE DEPTH 540  
 PROPOSED DEPTH \_\_\_\_\_

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Comp		Cu.	Comp S.
					Ni.	Au. - Ag. Trace unless noted		
6 - 15	Start 16218			9	0.25			
15 - 25				10	0.15			
25 - 35		49		10	0.19		0.03	2.43
35 - 45				10	0.15			
45 - 55				10	0.12			
55 - 75				20	0.19			
75 - 85				10	0.13		0.03	1.52
85 - 95		56		10	0.17			
95 - 111				16	0.12			
111 - 120				9	0.07		0.06	3.56
120 - 126		15		6	0.21			
126 - 130				4	0.49			
130 - 135		14		5	0.63		0.07	2.50
135 - 140				5	0.50			
140 - 147				7	0.23		0.03	2.25
147 - 154		14		7	0.10			
293 - 308				15	0.13		0.05	1.37
308 - 322		29		14	0.29			
	END OF HOLE							

PROPERTY TURNAGAIN COPPER NICKEL

HOLE NUMBER 67 - 7

SHEET NUMBER G - 2

SECTION FROM \_\_\_\_\_ TO \_\_\_\_\_

# DIAMOND DRILL RECORD

LOCATION: LAT \_\_\_\_\_  
          DEP \_\_\_\_\_  
ELEVATION OF COLLAR \_\_\_\_\_  
DATUM \_\_\_\_\_  
DIRECTION AT START: BEARING \_\_\_\_\_  
                          DIP \_\_\_\_\_

STARTED \_\_\_\_\_  
COMPLETED \_\_\_\_\_  
ULTIMATE DEPTH \_\_\_\_\_  
PROPOSED DEPTH \_\_\_\_\_

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Ni.	Au. - Ag.	Cu.	S
	<u>Average Ni. - 148 ft. @ 0.195 %</u>							
	<u>Best Significant section (120 - 147) = 27' @ 0.388 %</u>							
	<u>    including 14' section @ 0.543 %</u>							
	<u>Best Assay 5' @ 0.63 %</u>							
	<u>Lowest (Peridotite) assay - 0.07 %</u>							
	<u>Average Copper = 148' @ 0.037</u>							
	<u>Average S. = 148' @ 2.18 % (5.45% Sulphides approx.)</u>							
	<u>Highest sulphides = 15' @ 8.90 %</u>							



**FALCONBRIDGE NICKEL MINES LIMITED**  
**DIAMOND DRILL LOG**

LOCATION 19+70S - 31+70W BEARING N25E HOLE NO. 8  
 LOGGED BY L.C.K. ELEVATION 3465 DIP -60° PROPERTY Turnagain, B.C.  
 STARTED \_\_\_\_\_ TESTS (CORRECTED) \_\_\_\_\_  
 FINISHED \_\_\_\_\_  
 CASING QXT  
 CORE SIZE QXT

FROM	TO	DESCRIPTION
0	7	Overburden
7	25	Medium grained, medium grey ultrabasic with significant amounts of pyrrhotite replacement as follows: 8 - 8" of 50% 17 - 20 = 20% in massive patches of $\frac{1}{2}$ " to 1" across
25	38	Light grey, fine grained ultrabasic - no sulphides - 38 feet 1" of massive pyrrhotite.
38	113	Medium to coarse grained, medium grey granular ultrabasic which contains significantly less than 1% finely disseminated pyrrhotite. Locally over 1-2" there are stringers of pyrrhotite containing about 30% occurs between 78 and 79 feet.
113	123	Extensive intergranular impregnation by pyrrhotite which leads to massive sulphides in places (38-113) average for the section is about 30% pyrrhotite.
123	162	The rock changes to a fine grained size and medium grey colour - heavy fracturing is infilled with pyrrhotite and fine grained intergranular impregnation by pyrrhotite is common - average for the section is 3% sulphides.
162	174	Medium to coarse grained (crystalline) mottled and altered ultrabasic rock.
174	187	Fine to very fine grained ultrabasic rock (which looks siliceous) and is highly schistose in places. Heavy pyrrhotite impregnation has led to an average content of about 15%.
187	197	Highly altered zone in the ultrabasic rock is strongly schistose and impregnated with pyrrhotite.
197	198.5	Schist heavily impregnated with pyrrhotite and graphite.

FNM 35-10-66

**FALCONBRIDGE NICKEL MINES LIMITED**  
**DIAMOND DRILL LOG**

LOCATION \_\_\_\_\_ BEARING \_\_\_\_\_ HOLE NO. 8

LOGGED BY \_\_\_\_\_ ELEVATION \_\_\_\_\_ DIP \_\_\_\_\_ PROPERTY \_\_\_\_\_

STARTED \_\_\_\_\_ TESTS (CORRECTED) \_\_\_\_\_

FINISHED \_\_\_\_\_

CASING \_\_\_\_\_

CORE SIZE \_\_\_\_\_

FROM	TO	DESCRIPTION
198.5	215	Light grey, medium grained and locally schistose ultrabasic rock - this rock appears to be silicified.
215	240	Medium grey, medium grained ultrabasic rock (silicified?) - impregnated and replaced with pyrrhotite between 225 and 226 - 30%.
240	265	Dark grey groundmass with angular greenish white crystals.
265	400	Light to medium grey, medium grained ultrabasic rock which shows greenish white mottling.
400	421	Same mottled rock type as above but the colour has taken on a greenish hue and the rock contains finely disseminated sulphides averaging quite a bit less than 1%.
421	428	Same rock type with about 2% disseminated sulphides.
428	429.5	Extensive replacement and impregnation with pyrrhotite - averaged 25%.
429.5	432	Disseminated sulphides again averaging about 3% of the rock.
432	448.5	Same as the interval 400 - 421 - mottled white - sheared with graphite along the slip surfaces.

END OF HOLE.

PROPERTY TURNAGAIN COPPER NICKEL

HOLE NUMBER 67 - 8

SHEET NUMBER Supplement H - 1

# DIAMOND DRILL RECORD

SECTION FROM \_\_\_\_\_ TO \_\_\_\_\_

LOCATION: LAT. See Orig. Geolog. Log

STARTED May 5, 1967

DEP. \_\_\_\_\_

COMPLETED May 8, 1967

ELEVATION OF COLLAR Drillers - Schussler

ULTIMATE DEPTH 448 Feet

DATUM Holtz

BEARING Randall

DIRECTION AT START: DIP Sampling - J. McDougall

PROPOSED DEPTH \_\_\_\_\_

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Comp Ni.	Comp Au. - Ag. Trace unless noted	Comp Cu.	Comp S.
7 - 15	Start # 16201	31		8	0.19	noted	0.03	2.39
15 - 23				8	0.15			
23 - 38				15	0.21			
38 - 50				12	0.12			
50 - 70		52		20	0.13		0.04	2.03
70 - 90				20	0.08			
90 - 100				10	0.10			
100 - 110				10	0.15			
110 - 120				10	0.21			
120 - 130				10	0.23			
130 - 140		41		10	0.21		0.04	3.49
140 - 150				10	0.15			
150 - 161				11	0.17			
161 - 174				13	0.21			
174 - 188		26		14	0.08		0.03	1.86
188 - 200				12	0.05			
422 - 433				11	0.56		0.07	4.60
END OF HOLE								
Average Ni = 193 Ft. @ 0.140 %					Lowest Assay = 0.05%			
Best Significant section - 30 ft. @ 0.22 %					Average Copper = 0.036 %			
Best Assay - 11 ft. @ 0.56 %					Average S. = 2.40 = 6% Sulphides			

FALCONBRIDGE NICKEL MINES LIMITEDDIAMOND DRILL LOG

LOCATION 18+50S - 36+85W BEARING N25E HOLE NO. 9  
 LOGGED BY L.C.K. ELEVATION 3570 DIP -35° PROPERTY Turnagain, B.C.  
 STARTED \_\_\_\_\_ TESTS (CORRECTED) \_\_\_\_\_  
 FINISHED \_\_\_\_\_  
 CASING OXT  
 CORE SIZE OXT

FROM	TO	DESCRIPTION
0	24.5	Overburden
24.5	37	Medium to coarse grained dark grey to black pyrrhotite with disseminated interstitial sulphides averaging 5%.
37	60	Fine to medium grained, medium grade granular ultrabasic with about 2% disseminated sulphides.
60	65	Dark grey groundmass with white mottling-ultrabasic.
65	83	Dark grade of black and changing again to light grey, medium grained granular ultrabasic rock with minor amounts of black serpentine seams - less than 1% sulphides.
83	118	Medium grey, medium grained granular (locally mottled white) ultrabasic rock with minor amounts of black serpentine seams.
118	120	Zone of black alteration (compare with seams) along one side of the core-sharp contact with the alteration.
120	137	Medium grey, medium grained, granular ultrabasic with a weakly developed white mottling-minor amounts of black serpentine seams.
137	177	Medium dark grey granular ultrabasic-abundant black serpentine seams.
177	195	Fine grained, light grey ultrabasic averaging less than 1% sulphide, at locally increasing to 2%.
195	201.5	This is an excellent section to show the change from grey to black ultrabasic, and the grey ultrabasic rock is replaced along fractures, showing stoping and replacement by the black serpentine. This section shows definitely that the black variety is younger than the grey and if it is not an altered equivalent, it could represent the intrusive contact between a younger black and older grey variety of ultrabasic igneous rocks.
201.5	235	Interstitial disseminated sulphides continue in the black serpentinite which grades downwards through a dark grey to light grey variety. Sulphide content averages 10%.

FNM 35-10-66

**FALCONBRIDGE NICKEL MINES LIMITED**  
**DIAMOND DRILL LOG**

LOCATION \_\_\_\_\_ BEARING \_\_\_\_\_ HOLE NO. 9

LOGGED BY \_\_\_\_\_ ELEVATION \_\_\_\_\_ DIP \_\_\_\_\_ PROPERTY \_\_\_\_\_

STARTED \_\_\_\_\_ TESTS (CORRECTED) \_\_\_\_\_

FINISHED \_\_\_\_\_

CASING \_\_\_\_\_

CORE SIZE \_\_\_\_\_

FROM	TO	DESCRIPTION
235	251	Same rock type continues downwards and changes to a light grey colour but does not contain sulphides. The rock slowly becomes finer grained with depth.
251	264	The light coloured rock described above develops a schistosity and slowly grades into a fine grained, light grey to white schist which is extensively impregnated with pyrrhotite and minor amounts of graphite. Massive sections of pyrrhotite are found at 260 (3"), 262 (2") and 263 (3").  <u>IMPORTANT:</u> The above sequence between 195 - 264 could represent a differentiated sill or flow and this sequence may be seen in other holes but is sometimes difficult to recognize because of later shearing and fracturing which has been extensively impregnated with pyrrhotite and graphite.
264	286	Monotonous section of medium to dark grey granular ultrabasic rock.
286	300	Medium grained, light grey granular ultrabasic rock with a weak black mottling.
300	350	Medium grained, medium grey, granular ultrabasic rock.
350	507	Monotonous zone of medium grained, medium grey, granular ultrabasic rock with black serpentine seams, especially in the interval 350 - 425. Some asbesots seams are seen in the lower part of the hole.
		END OF HOLE



**FALCONBRIDGE NICKEL MINES LIMITED**  
**DIAMOND DRILL LOG**

LOCATION 18+50S - 36+85W BEARING N25E HOLE NO. 10  
 LOGGED BY L.C.K. ELEVATION 3570 DIP -60° PROPERTY Turnagain, B.C.  
 STARTED \_\_\_\_\_ TESTS (CORRECTED) \_\_\_\_\_  
 FINISHED \_\_\_\_\_  
 CASING QXT  
 CORE SIZE QXT

FROM	TO	DESCRIPTION
0	13	Overburden
13	46	Medium grey ultrabasic rock (crystalline variety) with interstitial (pyrrhotite-pentlandite) varying throughout the section. Sulphide content starts at about 5% and increases to about 25% between 35 - 40 feet. In this section the relationship is shown clearly between interstitial (disseminated) sulphides and late cross-cutting massive pyrrhotite-graphite sections. Sections of finely disseminated with pyrrhotite and graphite cut across the ultrabasic-disseminated pyrrhotite type of rock at 26 - 27 = 40%; 28.5 - 30 = plus 80%; 39.5 - 40.5 plus 90%.
46	55	Fine grained aphanitic, medium to light grey ultrabasic rock with less than 1% pyrrhotite.
55	80	Zone of fine grained to aphanitic material described above, locally coarse grained with local concentration of disseminated sulphides - especially at 75 - 77.5 which averages 40% sulphides and up to 80% between 77 and 77.5. The entire zone (55 - 80) has been fractured and filled with secondary pyrrhotite and graphite. In many places, this has caught up the primary disseminated sulphides and would lead to the dilution of any nickel content in the disseminated variety.
80	121	Medium grained, medium to dark grey (ultrabasic rock with disseminated sulphides up to 3% but averaging less than 1%.
121	163	Medium grained, medium to dark grey ultrabasic rock changing to a black colour downwards developing a very granular texture. Small amounts of black serpentine seams. Pyrrhotite and graphite shears occur at 156 - 157.5. Up to 5% finely disseminated sulphides are seen locally but the average is about 1%.
163	188	Medium grey to black, medium grained peridotite with disseminated interstitial sulphides up to 40% locally but averaging 5% for the section. Richer parts of the primary sulphides could be diluted by pyrrhotite and graphite shears

FNM 35-10-66

**FALCONBRIDGE NICKEL MINES LIMITED**

**DIAMOND DRILL LOG**

LOCATION \_\_\_\_\_ BEARING \_\_\_\_\_ HOLE NO. 10

LOGGED BY \_\_\_\_\_ ELEVATION \_\_\_\_\_ DIP \_\_\_\_\_ PROPERTY \_\_\_\_\_

STARTED \_\_\_\_\_ TESTS (CORRECTED) \_\_\_\_\_

FINISHED \_\_\_\_\_

CASING \_\_\_\_\_

CORE SIZE \_\_\_\_\_

FROM	TO	DESCRIPTION
		and slips which cut across this section of the hole.
188	215	Medium grey to black seamed granular ultrabasic with disseminated sulphides generally 1 - 2% but better sections up to 5%.
215	240	Similar type averaging 10% sulphides with massive sections up to 1" wide. There is no evidence of late shearing in the attendant pyrrhotite-graphite impregnation in this section and I would expect interesting nickel assays here.
240	244	Light grey to white, medium grained ultrabasic.
244	251.5	Fine grained to aphanitic, light grey schistose zone with pyrrhotite-graphite impregnations and minor amounts of chalcopyrite.
251.5	270	Medium grained, grey granular ultrabasic rock which contains bleb and fine disseminations of sulphides averaging about 7%.
270	275	Fine grained, sheared and mylonitized zone which is heavily impregnated with pyrrhotite and graphite.
275	283	Medium grained, light grey granular ultrabasic rock.
283	300	Medium grained, medium grey granular ultrabasic with disseminated sulphides averaging 2%.
300	316	Same rock type with less than 1% sulphides.
316	335	Medium to dark grey (mottled white) granular ultrabasic rock.
335	345	Medium grey, medium grained granular ultrabasic rock with small amounts of black seams.
345	356	Fine grained, light grey granular ultrabasic.
356	370	Fine grained, greenish light grey granular ultrabasic.
370	376.5	Same rock type as 345 - 356.
376.5	407	Fine to medium grained, light to grey ultrabasic with very irregular texture and colouring - less than 1% disseminated pyrrhotite throughout.



FNM 35-10-66

**FALCONBRIDGE NICKEL MINES LIMITED**

**DIAMOND DRILL LOG**

LOCATION \_\_\_\_\_ BEARING \_\_\_\_\_ HOLE NO. 10

LOGGED BY \_\_\_\_\_ ELEVATION \_\_\_\_\_ DIP \_\_\_\_\_ PROPERTY \_\_\_\_\_

STARTED \_\_\_\_\_ TESTS (CORRECTED) \_\_\_\_\_

FINISHED \_\_\_\_\_

CASING \_\_\_\_\_

CORE SIZE \_\_\_\_\_

FROM	TO	DESCRIPTION
407	500	<p>A monotonous zone of medium grey, medium grained ultrabasic with small amounts of black serpentine seams throughout. No significant amount of sulphides were evident.</p> <p>END OF HOLE</p>

PROPERTY TURNAGAIN COPPER NICKEL

HOLE NUMBER 67 - 10  
 SHEET NUMBER Supplement J - 1  
 SECTION FROM \_\_\_\_\_ TO \_\_\_\_\_

# DIAMOND DRILL RECORD

LOCATION: LAT See Orig. Geolog. Log  
 DEP \_\_\_\_\_  
 ELEVATION OF COLLAR Drillers - Schussler  
 DATUM Holtz  
 BEARING Randall  
 DIRECTION AT START: DIP Sampling - J. McDougall

STARTED May 18, 1967  
 COMPLETED May 23, 1967  
 ULTIMATE DEPTH 502 Feet  
 PROPOSED DEPTH \_\_\_\_\_

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Ni.	Comp	Comp	Comp	
						Au. - Ag.	Cu.	S.	
18 - 25	Start 16173			7	0.19	Trace unless noted	0.05	1.75	
25 - 35				10	0.27		0.13	9.37	
35 - 45			20		10		0.15	0.05	3.29
45 - 55					10		0.13		
55 - 65			20		10		0.27	0.08	8.18
65 - 75					10		0.22		
75 - 82					7		0.25	0.14	12.60
82 - 100			28		18		0.24	0.02	0.57
100 - 110					10		0.27		
110 - 120					10		0.31		
120 - 130			40		10		0.33	0.03	0.99
130 - 150					20		0.28		
150 - 170					20		0.24		
170 - 180			50		10		0.42	0.09	2.19
180 - 190					10		0.49		
190 - 200				10	0.33				
200 - 210				10	0.56				
210 - 220		40		10	0.63	0.11	2.39		
220 - 230				10	0.61				
230 - 240				10	0.33				

PROPERTY TURNAGAIN COPPER NICKEL

HOLE NUMBER 67 - 10

SHEET NUMBER J - 2

SECTION FROM \_\_\_\_\_ TO \_\_\_\_\_

# DIAMOND DRILL RECORD

LOCATION: LAT. \_\_\_\_\_

STARTED \_\_\_\_\_

DEP. \_\_\_\_\_

COMPLETED \_\_\_\_\_

ELEVATION OF COLLAR \_\_\_\_\_

ULTIMATE DEPTH \_\_\_\_\_

DATUM \_\_\_\_\_

PROPOSED DEPTH \_\_\_\_\_

DIRECTION AT START: BEARING \_\_\_\_\_  
DIP \_\_\_\_\_

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Ni.	Au. = Ag.	Cu.	S.
240 - 250				10	0.15	]	0.11	3.27
250 - 260				10	0.47			
260 - 270		20		10	0.31		0.11	4.24
270 - 280				10	0.18			
280 - 290				10	0.31		0.07	1.75
290 - 300		30		10	0.19	]		
300 - 350				50	0.17		0.03	0.80
350 - 400				50	0.05	0.04	1.26	
END OF HOLE								
Average Nickel		0 - 300 = 282 Ft. @ 0.306 % Ni		0 - 350 = 332 Ft. @ 0.287				
Best Significant Section (170 - 290) = 120 Ft. @ 0.400 % Ni.								
Best Section 20' @ 0.62 % Ni.								
Lowest Assay - 0.05 %								
Average Copper = (282 ft.) @ 0.075 %								
Average Sulphur = 3% = 7.51 Sulphides								
* Graphitic Carbon - (240 - 250) = 1.30 %								

**FALCONBRIDGE NICKEL MINES LIMITED**  
**DIAMOND DRILL LOG**

LOCATION 18+00S - 38+15W BEARING N25E HOLE NO. 11  
 LOGGED BY L.C.K. ELEVATION 3590 DIP \_\_\_\_\_ PROPERTY Turnagain, B.C.  
 STARTED \_\_\_\_\_ TESTS (CORRECTED) \_\_\_\_\_  
 FINISHED \_\_\_\_\_  
 CASING \_\_\_\_\_  
 CORE SIZE \_\_\_\_\_

FROM	TO	DESCRIPTION
0	1	Overburden
1	28	Medium grained, medium grey, ultrabasic rock with irregularly disseminated sulphides throughout - average 2% locally showing concentrations of up to 5%. In places the sulphides become sufficiently concentrated to develop a sieve texture and the best sulphides appear in areas where coarser grained and more crystalline rock occurs (slightly mottled white).
28	40	Mottled white on dark grey granular ultrabasic-disseminated sulphides considerably less than 1%.
40	110	Medium to fine grained, medium grey granular ultrabasic rock with black serpentine seams - locally white mottled texture is evident.
110	120	Zone of extensive black serpentine alteration.
120	363	Monotonous zone of medium grained, medium grey, granular, ultrabasic rock which shows black serpentine seams and bands. Local light mottling is evident in certain parts of the rock.
		END OF HOLE



**FALCONBRIDGE NICKEL MINES LIMITED****DIAMOND DRILL LOG**

LOCATION 18+00S - 38+15W BEARING N25E HOLE NO. 12  
 LOGGED BY L.C.K. ELEVATION 3590 DIP -35° PROPERTY Turnagain, B.C.  
 STARTED \_\_\_\_\_ TESTS (CORRECTED) \_\_\_\_\_  
 FINISHED \_\_\_\_\_  
 CASING \_\_\_\_\_  
 CORE SIZE \_\_\_\_\_

FROM	TO	DESCRIPTION
0	50	Fine to medium grained, medium to dark grey ultrabasic rock with irregularly disseminated sulphides just like the first part of drill hole 11. Average sulphide content is about 2%.
50	75	Medium grained, medium grey granular ultrabasic rock which shows black serpentine seams.
75	100	Same rock type but with abundant black serpentine alteration.
100	125	Medium grained, medium grey granular ultrabasic rock with minor amounts of black serpentine and patches.
		END OF HOLE

PROPERTY TURNAGAIN COPPER NICKEL

HOLE NUMBER 67-12

SHEET NUMBER Supplement L-1

SECTION FROM \_\_\_\_\_ TO \_\_\_\_\_

# DIAMOND DRILL RECORD

LOCATION: LAT See Orig. Geolog Log  
 DEP \_\_\_\_\_

STARTED May 28, 1967

ELEVATION OF COLLAR Drillers - Schussler

COMPLETED May 29, 1967

DATUM Holtz

ULTIMATE DEPTH 126 Feet

DIRECTION AT START: BEARING Randall  
 DIP Sampling - J. McDougall

PROPOSED DEPTH \_\_\_\_\_

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Comp Ni	Comp Au. - Ag.	Comp Cu.	Comp S.
0 - 10	Start 16243			10	0.15	Trace unless noted		
10 - 20				10	0.27			
20 - 30		50		10	0.07	0.04 Ag.	0.06	3.16
30 - 40				10	0.12			
40 - 50				10	0.13			
50 - 60				10	0.12			
60 - 80		50		20	0.17		0.03	1.61
80 - 100				20	0.08			
100 - 115				15	0.19			
115 - 126				11	0.12			
	END OF HOLE							

**FALCONBRIDGE NICKEL MINES LIMITED****DIAMOND DRILL LOG**

LOCATION 18+00S - 38+15W BEARING N65W HOLE NO. 13  
 LOGGED BY L.C.K. ELEVATION 3590 DIP -35° PROPERTY Turnagain, B.C.  
 STARTED \_\_\_\_\_ TESTS (CORRECTED) \_\_\_\_\_  
 FINISHED \_\_\_\_\_  
 CASING \_\_\_\_\_  
 CORE SIZE \_\_\_\_\_

FROM	TO	DESCRIPTION
0	34	<p>Same as the first parts of drill holes 11 and 12 only with a slightly greater amount of sulphides. There is about 35% sulphides in the first two feet of this hole and the rest averages about 3% disseminated. At a depth of 5 feet there is a 1" band of pyrrhotite along late fracture filling. In between 12 and 13 feet there is a late fracture filling of about 5% pyrrhotite. First 2 feet of this hole contains sulphides which appear to be primary and may yield significant nickel assays.</p> <p>END OF HOLE</p>



