



41115SW0167 0014 HUTTON

010

Diamond Drilling

Township of Hutton

Report NO: 19

Work performed by: International Mine Services Ltd./
Lion Nickel Mines of Canada Ltd.

Claim NO	Hole NO	Footage	Date	Note
S 155660	J-1	1064'	Sept/69	(1)
S 154702	J-2	1300'	Sept/69	(1)
	J-3	1667'	Oct/69	(1)

TOTAL: 3 DH 4031 FT

Notes:

(1) 285/69

DIAMOND DRILL RECORD

PROPERTY Lion Nickel Mines of Canada -
Hutton Twp., Ontario

HOLE NO. J-1

SHEET NUMBER 1

SECTION FROM _____ TO _____

STARTED Sept. 2/69

LATITUDE 1280 8

DATUM CLAIM: S. 155660

COMPLETED Sept. 16/69

DEPARTURE 680 8

BEARING _____

ULTIMATE DEPTH 1064'

ELEVATION _____

DIP -90°

PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAY VALUES				
0 - 38.0	Casing									
38.0 - 100.6	Bruce conglomerate formation. Dark grey, fine grained, impure quartzite approaching greywacke in places. Fine flacks biotite in many places. Only occasional grey granite pebble mainly pea size but few up to 2"-4". Massive, fine grained, with only occasional trace of vague bedding. Very little fracturing. Fine disseminated pyrite throughout. Up to 1/8 to 1/4 in places. Trace of pyrrhotite and chalcopryite in fracture at 100.1.									
100.6-110.3	Continuation of Bruce conglomerate Darker grey than previous. Impure quartzite, approaching greywacke in many places. Few scattered, small pebbles granite & white quartz from 1/4" to 2". Very little fracturing Light biotite in places.									

DRILLED BY CONTINENTAL DIAMOND DRILLING

SIGNED A. Watt A. WATT

DIAMOND DRILL RECORD

PROPERTY Lion Nickel Mines of Canada - HOLE NO. J-1
Hutton Twp., Ontario

SHEET NUMBER 2 SECTION FROM _____ TO _____ STARTED _____

LATITUDE _____ DATUM _____ COMPLETED _____

DEPARTURE _____ BEARING _____ ULTIMATE DEPTH _____

ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAY VALUES		
100.6-110.2	Very few traces of bedding. At 110.2' bedding shows 60° to core. Light fine pyrite disseminated throughout, amounting to 1/8 in places.							
110.2-174.0	Grey, massive, fine grained, impure quartzite. Traces of bedding at 122' show an angle of 60° to core. Traces biotite throughout. Fine pyrite amounting to less than 1/8 disseminated throughout.							
174.0-184.0	Similar to 100.6 to 110.2 Grey to greenish grey.							
184.0-231.0	Impure quartzite. Very fine grained massive, with very little fracturing. Few traces of indistinct bedding at 229' are at core angle of 60°. Rare small white quartz pebbles. Traces fine pyrite.							
231.0-261.0	Continuation of Bruce conglomerate. Dark grey, impure quartzite, approaching siliceous greywacke. Occasional small quartz or granite pebbles.							

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DIAMOND DRILL RECORD

PROPERTY Lion Nickel Mines of Canada - HOLE NO. J-1
Hutton Twp., Ontario

SHEET NUMBER 3 SECTION FROM _____ TO _____ STARTED _____
 LATITUDE _____ DATUM _____ COMPLETED _____
 DEPARTURE _____ BEARING _____ ULTIMATE DEPTH _____
 ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAY VALUES			
231.0-261.0	Considerable biotite throughout. Light, fine pyrite disseminated amounting to ½% to 1% in places. Very little fracturing. Fairly distinct bedding in places Core angle 60°. Distorted in places ½" white quartz stringer at 45° at 238.2								
261.0-308.0	Continuation of Bruce conglomerate Medium grey, massive, fine grained impure quartzite with no traces of bedding. Occasional small grey granite pebble. Flecks biotite throughout. Darker sections approach- ing siliceous greywacke. Fine, disseminated pyrite throughout and in places amounting to 1%. Few black, hairline fractures. One set fractures at 45° to core, but many other irregular directions also. Traces pyrrhotite and chalco in few								

fractures.

W. J. ...

DIAMOND DRILL RECORD

PROPERTY Lion Nickel Mines of Canada
Hutton Twp., Ontario

HOLE NO. J-1

SHEET NUMBER 4 SECTION FROM _____ TO _____ STARTED _____
 LATITUDE _____ DATUM _____ COMPLETED _____
 DEPARTURE _____ BEARING _____ ULTIMATE DEPTH _____
 ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAY VALUES
308.0-372.0	Continuation of Bruce conglomerate. Darker grey than previous section, impure quartzite, approaching siliceous greywacke. Fine biotite throughout but not as abundant as previous sections. Fine grained, massive, no bedding. Very little fracturing. Few gray granite pebbles from 1/2" to 1 1/4". Fine disseminated pyrite up to 1/8 in places.					
372.0-470.0	Start of Mississagi Formations. Gray, fine grained, dense, hard, massive, arkositic quartzite. No trace bedding. Much less biotite than previous sections. Few scattered fractures. Traces fine, disseminated pyrite. Occasional tiny fracture with pyrrhotite filling. Graduation to following					
470.0-494.0	Continuation of Mississagi Formation Lighter gray than previous section, d					

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DIAMOND DRILL RECORD

PROPERTY Lion Nickel Mines of Canada

HOLE NO. J-1

SHEET NUMBER 5 SECTION FROM _____ TO _____ STARTED _____

LATITUDE _____ DATUM _____ COMPLETED _____

DEPARTURE _____ BEARING _____ ULTIMATE DEPTH _____

ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAY VALUES		
	dense, hard, massive arkositic quartzitic Very little biotite. No trace of bedding. Very few fractures. Traces of feldspar grains.							
494.0-512.0	Continuation of Mississagi formation Light buff coloured, very fine grained, dense, almost cherty, quartzite. No trace bedding, and very little fracturing. Traces fine pyrite in places.							
512.0-588.0	Continuation of Mississagi Formation Grey to dark gray, fine grained dense, hard, arkositic quartzite, with some lesser sections similar to 494.0-512.0 quartzite. Traces biotite and feldspar. Fine disseminated pyrite in trace amount throughout. Very few fractures. No pebbles or bedding.							
588.0-596.0	Continuation of Mississagi formation Light buff coloured. Very fine grained, hard, dense, almost cherty							

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DIAMOND DRILL RECORD

PROPERTY Lion Nickel Mines of Canada
Hutton Tp. Ontario

HOLE NO. J-1

SHEET NUMBER 6 SECTION FROM _____ TO _____ STARTED _____
 LATITUDE _____ DATUM _____ COMPLETED _____
 DEPARTURE _____ BEARING _____ ULTIMATE DEPTH _____
 ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAY VALUES				
588.0-596.0	quartzite. Similar to section 494.0-512.0									
595.0-622.6	Continuation of Mississagi Formation Gray, fine grained, dense, hard, arkositic quartzite. Very little fracturing. No trace bedding. Traces light fine pyrite.									
622.6-623.6	Continuation of Mississagi Formation Light grayish green, altered, arkositic material. Few dark fractures? or bad planes at 65° to core. Minor fault zone?									
623.6-648.0	Continuation of Mississagi Formation Light buff coloured, very fine grained hard, dense, almost cherty, quartzite Very few, black hairline fractures at 30° to 70° to core. No bedding.									
648.0-697.0	Continuation of Mississagi Formation Gray, fine grained, hard, dense, impure arkositic quartzite. Few flecks black biotite. Traces pink									

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DIAMOND DRILL RECORD

PROPERTY Lion Nickel Mines of Canada
Hutton Twp., Ont.

HOLE NO. J-1

SHEET NUMBER 7 SECTION FROM _____ TO _____ STARTED _____

LATITUDE _____ DATUM _____ COMPLETED _____

DEPARTURE _____ BEARING _____ ULTIMATE DEPTH _____

ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAY VALUES		
648.0-697.0	feldspar grains in places. No bedding Very few fractures to 681 with small amount thereafter at mainly 65° to 45°. Pinkish orange feldspar alteration along edges some fractures.							
697.0-831.3	Continuation of Mississagi Formation Continuation of previous gray, fine grained, hard arkositic quartzite. Traces biotite in places. In some short sections feldspar grains show prominent pinkish freckles. Increase in fracturing from previous section. Fractures mainly at 45° to core - few at 30°. Fracture at 761.5 at 10° to core, and filled with vuggy, white carbonate (1/8" - 1/4") with pink feldspar alteration along edge of fracture. Many other fractures filled with black mineral and have same pink feldspar alteration along edges. Some sections show numerous pink feldspar grains.							

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DIAMOND DRILL RECORD

PROPERTY Lion Nickel Mines of Canada HOLE NO. J-1

SHEET NUMBER 8 SECTION FROM _____ TO _____ STARTED _____
 LATITUDE _____ DATUM _____ COMPLETED _____
 DEPARTURE _____ BEARING _____ ULTIMATE DEPTH _____
 ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAY VALUES				
697.0-831.3	Very little pyrite mineralization. 1/4" white quartz stringer at 50° to core at 702.6 with small bleb py. Fractures from 790-795 show various core angles with 20° to 35° predom- inating. After 700' many sections of shattered, broken-up core. Following sections of core are badly shattered and are probably fault associated crush zones. 699-702, 710-711, 712-713, 796-797, 798-798.5, 808-815, 816-817, 820-821 825-827,									
831.3-837.0	Fault Zone - Start of Bruce Conglom- erate Formation. Badly broken-up core 60% of core lost Fragments show traces breccia. Some prominent pink feldspar grains and few pink granite pebbles. Grains are mainly quartz, with some feldspar and biotite flecks. Traces chlorite.									

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DIAMOND DRILL RECORD

PROPERTY Lion Nickel Mines of Canada HOLE NO. J-1

Hutton Twp., Ontario

SHEET NUMBER 9 SECTION FROM _____ TO _____ STARTED _____

LATITUDE _____ DATUM _____ COMPLETED _____

DEPARTURE _____ BEARING _____ ULTIMATE DEPTH _____

ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAY VALUES				
837.0-853.0	Continuation of Bruce Conglomerate Continuation of previous broken up core, but decreasing in severity. Dark gray, impure quartzite, approaching siliceous greywacke. Occasional pea sized pink granite pebble, and one 3" pink granite cobble. Grains are mainly quartz feldspar and biotite flecks. Slight trace disseminated py. Section 847.0-847.5 altered to light green chloritic and carbonated. Resembles minor fault zone.									
853.0-898.8	Continuation of Bruce Conglomerate Formation Dark grayish green, arkositic quartzite Considerable (8?) tiny pink granite pebbles from pea size to two up to 2" and 3". Few quartz and chert pebbles. Matrix is fine to medium grained and shows quartz, & feldspar grains with some chlorite and biotite. Traces pyrite throughout. Rapid									

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DIAMOND DRILL RECORD

PROPERTY Lion Nickel Mines of Canada
Hutton Twp. Ontario

HOLE NO. J-1

SHEET NUMBER 10

SECTION FROM _____ TO _____

STARTED _____

LATITUDE _____

DATUM _____

COMPLETED _____

DEPARTURE _____

BEARING _____

ULTIMATE DEPTH _____

ELEVATION _____

DIP _____

PROPOSED DEPTH _____

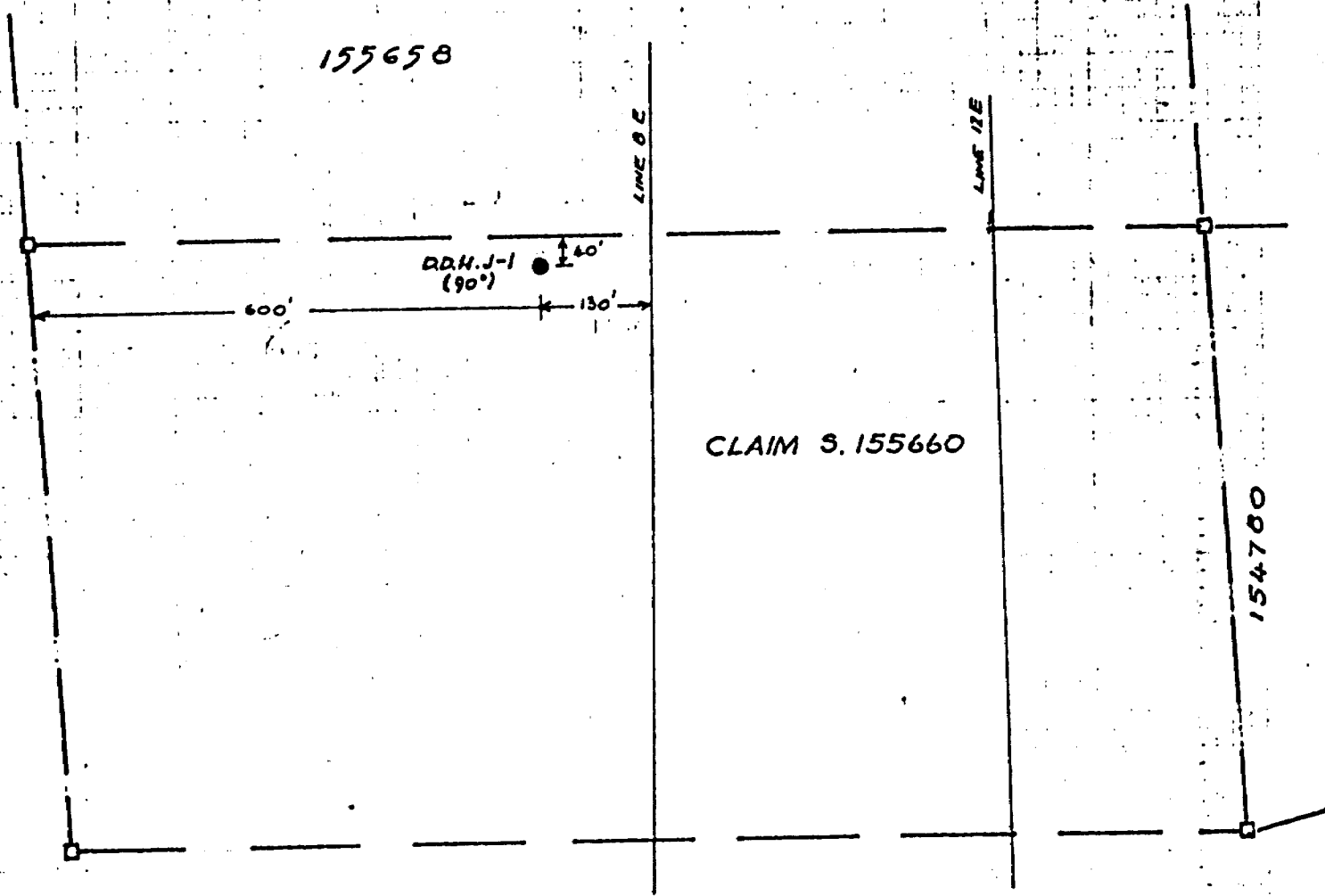
DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAY VALUES				
853.0-898.8	decrease in fracturing after 853. Very few tiny (1/4"), white carbonate filled fractures, mostly at 60° to core.									
898.8-1064.0	Continuation of Bruce Conglomerate Formation Dark gray green, siliceous greywacke, with many gray granite, pink granite and few quartz and chert pebbles. Pebbles range from 1/4" to 8", Matrix is fine to medium grained with quartz and feldspar grains and biotite and chlorite in interstices Very little fracturing. Vague traces bedding at 60° in few places. Fine disseminated pyrite up to 1/8" in places and traces chalcopyrite and pyrrhotite.									
1064	End of hole.									

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A. Watt

155658



LOCATION MAP

D.D.H. # J-1.

CLAIM S. 155660

HUTTON TWP. ONT.

SCALE: 1" = 200'

NOTE: Drill core stored at drill site.

#285/69 Hutton Lys
International Mine Services

DIAMOND DRILL RECORD

PROPERTY Lion Nickel Mines of Canada **HOLE NO.** J-2
Hutton Twp., Ontario
SHEET NUMBER 1 **SECTION FROM** _____ **TO** _____ **STARTED** Sept. 20/69
LATITUDE 2860 South **DATUM CLAIM:** S. 154702 **COMPLETED** OCT. 3/69
DEPARTURE 1680 East **BEARING** 250° **ULTIMATE DEPTH** 1300'
ELEVATION _____ **DIP** -85° **PROPOSED DEPTH** _____

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAY VALUES				
0-8.0	Casing									
8.0-181.0	White to very light gray. fine grained, hard ^{Bruce (Bruce)} Mississagi quartzite interbedded in thick beds with light gray arkositic quartzite containing a high percentage of tiny (1/8"-1/4") grains and chips of quartz, feldspar, and occasionally chert. Grains are usually poorly rounded. Rare pebble up to 3/4" diameter. Occasional thin bed (1/8"-1/4") greenish, fine grained banded argillite. Core angle of beds is 30°. Several sections core from 32 feet to 74 feet shows a dark purplish red hematite coloration in streaks and patches. Hematite is mostly associated with few tiny vugs occasional minor fracture, or bedding but is also disseminated in places. Some light green, sericitic alteration at 173-173.5 at 35° to core. Minor									

fault?

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DIAMOND DRILL RECORD

PROPERTY Lion Nickel Mines of Canada
Hutton Twp., Ontario

HOLE NO. J-2

SHEET NUMBER 2 SECTION FROM _____ TO _____ STARTED _____

LATITUDE _____ DATUM _____ COMPLETED _____

DEPARTURE _____ BEARING _____ ULTIMATE DEPTH _____

ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAY VALUES				
181.0-369.0	Similar to preceding, except for more numerous argillaceous sections Thick interbeds of fine grained, white quartzite, and light grey arkose with tiny grains and chips; and beds of black argillaceous arkose. The latter sections contain fine grains of quartz and feldspar with black argillaceous interstitial material. Occasional thin 1/4"-1/2" bed of fine grained, dark green argillite. Core angle of bedding is variable - average 30°.									
369.0-376.0	Slight pyrite disseminated in places and rare, tiny bleb. Interbedded, thin bands (1/8"-1/4"), black argillaceous arkose, and grey arkose. Core angle of bands 45°.									
	No clasts. Sparse fine pyrite.									

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DIAMOND DRILL RECORD

PROPERTY Lion Nickel Mines of Canada
Hutton Twp., Ontario

HOLE NO. J-2

SHEET NUMBER 3 SECTION FROM _____ TO _____ STARTED _____
 LATITUDE _____ DATUM _____ COMPLETED _____
 DEPARTURE _____ BEARING _____ ULTIMATE DEPTH _____
 ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAY VALUES				
376.0-430.0	Thick interbeds of black argillaceous arkose, and grey arkose. Scattered grains and chips quartz, feldspar and occasional chert ranging from 1/8" to 3/16". Band of fine grained greenish argillite from 388 to 391 feet. Bedding is contorted, average core angle is 30°									
430.0-492.0	Similar to preceding section, but with decrease in number of tiny clasts. Traces bedding in more argillaceous sections show core angle of 45°. Occasional small bleb pyrite, and light pyrite disseminated in places.									
492.0-590.0	Grading into more argillaceous arkosite, with only rare, tiny clast. Traces bedding at 30° to core. Very little pyrite.									
590.0-619.0	Medium to light gray fine grained arkosite, with scattered, low									

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DIAMOND DRILL RECORD

PROPERTY Lion Nickel Mines of Canada
Hutton Twp., Ontario

HOLE NO. J-2

SHEET NUMBER 4 SECTION FROM _____ TO _____ STARTED _____

LATITUDE _____ DATUM _____ COMPLETED _____

DEPARTURE _____ BEARING _____ ULTIMATE DEPTH _____

ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAY VALUES				
	percentage, tiny, feldspar clasts and occasional quartz. Clasts are mostly rounded, and range from 1/8" - 3/16" in diameter. Very light pyrite in places.									
619.0-776.0	Similar to preceding but gray arkose is interbedded in thick (3' to 25') beds with black argillaceous arkose, and lesser, thin beds argillite. Scattered, tiny clasts from 1/16" to 3/16" in both gray and black rocks, rarely in the argillite sections. Clasts are poorly rounded, mostly quartz and felsite. Very few traces of bedding except in argillite. Bedding in this material is at 20° to core. Occasional section with few specks pyrite, and blebs.									
776.0-797.0	Gray, medium grained arkose. Scattered tiny (1/16" - 1/4") clasts feldspar and quartz. Few pink feldspar grains									

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DIAMOND DRILL RECORD

PROPERTY Lion Nickel Mines of Canada HOLE NO. J-2
Hutton Twp., Ontario

SHEET NUMBER 5 SECTION FROM _____ TO _____ STARTED _____
 LATITUDE _____ DATUM _____ COMPLETED _____
 DEPARTURE _____ BEARING _____ ULTIMATE DEPTH _____
 ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAY VALUES				
	(or crystals) in places. Scattered traces pyrite and lesser pyrr. and chalco.									
797.0-809.0	Dark gray to black argillaceous arkosite. Fine grained. No bedding Very few tiny feldspar and quartz clasts. Occasional crystal pyrite.									
809.0-814.5	Gray, hard, medium grained arkose. Reddish orange feldspar alteration along a few fractures.									
814.5-830.2	Altered arkose. Highly feldspathized. Altered arkose is an assemblage of reddish pink feldspar crystals (1/4" to rare 1/2") intermixed with white feldspar and clear quartz, and a very low percentage of biotite. Feldspars appear to be crystals and not detrital grains. Core has a striking, pink and white mottled and granular texture. Many sections show numerous tiny (1/16") vuggy pits. Pits are lined with clear									

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DIAMOND DRILL RECORD

PROPERTY Lion Nickel Mines of Canada Ltd. HOLE NO. J-2
Hutton Twp., Ontario

SHEET NUMBER 6 SECTION FROM _____ TO _____ STARTED _____
 LATITUDE _____ DATUM _____ COMPLETED _____
 DEPARTURE _____ BEARING _____ ULTIMATE DEPTH _____
 ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAY VALUES				
	quartz crystals. Small fracture at									
	830.2 shows vuggy calcite crystals.									
	The following sections lost considerable core due to grinding.									
	819.0-821.0 - 10% lost core									
	821.0-827.0 - 8% " "									
	827.0-830.2 - 40% " "									
830.2-943.5	Gray, hard, medium grained, arkose. Scattered, tiny (1/16" - 3/16")									
	grains quartz and felsite. No trace of bedding. Traces pink feldspar alteration along few fractures after 901 feet. Occasionally pink alteration is disseminated and not associated with fractures.									
	Section 859 to 871 feet has much black, argillaceous interstitial filling. Few scattered specks pyrite in places and traces pyrrhotite.									
943.5-956.0	Grayish-brown, medium grained arkose. Considerable alteration in places,									

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DIAMOND DRILL RECORD

PROPERTY Lion Nickel Mines of Canada HOLE NO. J-2
Hutton Twp., Ontario

SHEET NUMBER 7 SECTION FROM _____ TO _____ STARTED _____
 LATITUDE _____ DATUM _____ COMPLETED _____
 DEPARTURE _____ BEARING _____ ULTIMATE DEPTH _____
 ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAY VALUES				
	consisting of few small patches of light greenish chlorite, and pink feldspathization. Section 952 to 954 is most heavily feldsparized and shows many 1/16" pits lined with vuggy, clear quartz crystals. Numerous small (1/16" - 3/16") quartz and felsite clasts. Traces disseminated pyrite throughout.									
956.0-1007.0	Gray, hard, dense, medium to fine grained arkose. Scattered, 1/16" to 3/16" grains quartz, feldspar and chert. Sparse pyrite along few fractures and in small blebs in places. Few traces pink feldspathization along occasional fracture. Traces of very indistinct bedding? at 995 feet show core angle of 45° - 48°.									
1007.0-1074.0	Continuation of above, hard, dense, gray arkose. Finer grained and only sparse grains & clasts. No bedding and very little argillaceous material.									

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Asst. Mgt.

DIAMOND DRILL RECORD

PROPERTY Lion Nickel Mines of Canada Ltd. **HOLE NO.** J-2
Hutton Twp., Ontario
SHEET NUMBER 8 **SECTION FROM** _____ **TO** _____ **STARTED** _____
LATITUDE _____ **DATUM** _____ **COMPLETED** _____
DEPARTURE _____ **BEARING** _____ **ULTIMATE DEPTH** _____
ELEVATION _____ **DIP** _____ **PROPOSED DEPTH** _____

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAY VALUES				
	Considerable, knife edge fracturing.									
	Fractures usually filled with black mineral, occasionally carbonate.									
	Some sections are pinkish orange due to feldsparization. Radio-activity is as much as twice background in places.									
1074.0-1094.0	Pinkish, fine grained highly fractured arkose. Fractures filled with black fine grained mineral and occasionally carbonate. Considerable feldsparization throughout. Very little pyrite. Core is highly broken up and considerable core ground. Following shows percentage of core lost from 1074'-1076' 25% core ground.									
	1076'-1081' 60% core ground									
	1081'-1086' 40% core ground									
	1086'-1088' 30% core ground									
	1088'-1093' 5% core ground									
	1093'-1098' 40% core ground									

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SIGNED _____

A. Smith

DIAMOND DRILL RECORD

PROPERTY Lion Nickel Mines of Canada HOLE NO. J-2

SHEET NUMBER 9 SECTION FROM _____ TO _____ STARTED _____
 LATITUDE _____ DATUM _____ COMPLETED _____
 DEPARTURE _____ BEARING _____ ULTIMATE DEPTH _____
 ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAY VALUES
1094.0-1095.3	Gray siliceous breccia resembling micro conglomerate. Rock is composed of high percentage of quartz and chert fragments, mostly very angular - few rounded. Matrix is very fine grained gray siliceous material. Few tiny pits in core. Radioactivity is twice background. The same as most of previous section.					
1095.3-1112.0	Fault Zone. End of Mississagi Highly fractured dark pinkish fine grained arkose. Traces chlorite and rare carbonate in some fractures. Core is badly broken up and much of the core has been lost by grinding as shown below					
	from 1093'-1098' 40% core ground					
	1098'-1101' 30% " "					
	1101'-1104' 50% " "					
	1104'-1107' 30% " "					
	1107'-1112' 10% " "					

Aslett

DIAMOND DRILL RECORD

PROPERTY Lion Nickel Mines of Canada HOLE NO. J-2

SHEET NUMBER 10 SECTION FROM _____ TO _____ STARTED _____
 LATITUDE _____ DATUM _____ COMPLETED _____
 DEPARTURE _____ BEARING _____ ULTIMATE DEPTH _____
 ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAY VALUES				
1112.0-1150.5	Start of Bruce Formation. Dark gray fine grained arkose. Occasional small white quartz and felsite clastic from 1/8" to 1/2". Some chloritic alteration at 1145'. Traces pinkish alteration in few fractures and blebs.									
1150.5-1241.1	Black, medium grained argillaceous arkosite, with occasional white quartz pebble 1/2" to 1" and gray granite pebbles 1" to 3". One large gray granite boulder from 1237 to 1241.1. Slight chloritization and traces shear at 1235. Core angle of shear is 48°. Slight pyrite and pyrrhotite in few blebs and streaks.									
1241.1-1245.3	Light gray to white quartzite with few 1/2" longitudinal veinlets of clear quartz. Very little mineralization. Resembles vein quartz. Very little mineralization.	J-7	1241.2	1245.2						

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Asst. Mgr.

DIAMOND DRILL RECORD

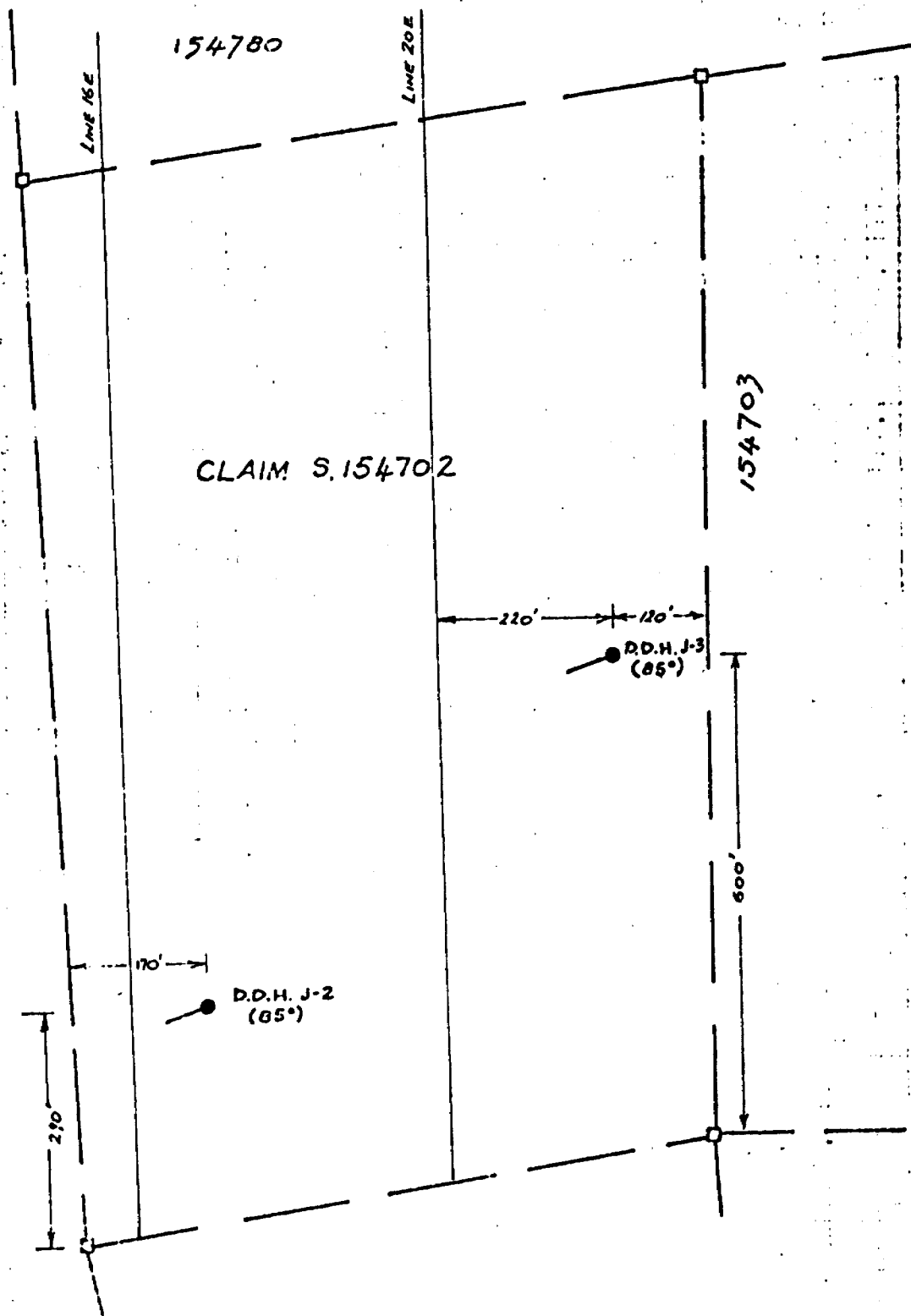
PROPERTY Lion Nickel Mines of Canada HOLE NO. J-2
Hutton Twp., Ontario

SHEET NUMBER 11 SECTION FROM _____ TO _____ STARTED _____
 LATITUDE _____ DATUM _____ COMPLETED _____
 DEPARTURE _____ BEARING _____ ULTIMATE DEPTH _____
 ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAY VALUES
1245.3-1248.0	Bluish gray, fine grained quartzite with some argillaceous material. Few small blebs pyrite. Traces bedding at 50m to 60°					
1248.0-1253.8	Bluish gray to white, fine grained quartzite with few tiny clear quartz veinlets in fractures. Sparse pyrite in places.	J-8 J-9	1248.0 1251.2	1251.2 1253.8		
1253.8-1281.6	Dark gray to black argillaceous arkosite. Scattered grains and chips bluish quartz and gray granite. Traces bedding at 60°					
1281.6-1299.5	Grayish white, fine grained quartzite. Resembles vein quartz. No mineralization.					
1299.5-1300	Similar to 1253.8-1281.6					
1300.0	End of hole					

DRILLED BY _____

SIGNED *Aslett*



LOCATION MAP

D.D.H. # J-2 & J-3

CLAIM S. 154702

HUTTON TWP., ONT.

SCALE: 1" = 200'



NOTE: Drill core stored at drill site.

DIAMOND DRILL RECORD

PROPERTY Lion Nickel Mines of Canada **HOLE NO.** J-3
Hutton Twp., Ontario
SHEET NUMBER 1 **SECTION FROM** _____ **TO** _____ **STARTED** October 6, 1969
LATITUDE 2540 S **DATUM CLAIM** S. 154702 **COMPLETED** Oct. 27/69
DEPARTURE 2220E **BEARING** 250° **ULTIMATE DEPTH** 1667'
ELEVATION Approx. 270' above river **DIP** -85° **PROPOSED DEPTH** _____

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAY VALUES
0-5.0	Casing					
5.0-342.5	Bruce Formation. Dark grey conglomerate. Medium grained, dark greywacke matrix with numerous gray granite pebbles and boulders ranging from 1/4" to 1 1/2" feet in diameter. Small percentage white quartz pebbles, and few chips of chert. No distinct bedding. Traces pyrite in places.					
342.5-345.0	Fine grained, greenish argillite. Bedding is contorted. Core angle of beds is 30°.					
345.0-546.0	Similar to 5.0'-342.5'. Traces of bedding at following at 378'-379' - Core angle 22° at 469' - " " 23° at 544' - " " 30° White arkose beds at 394' to 397' and at 404.6 to 407.0'. 3/16", gray quartz stringer with 5% pyrite at					

480.3'

DRILLED BY CONTINENTAL DIAMOND DRILLING

SIGNED

A. Watt
A. WATT

DIAMOND DRILL RECORD

PROPERTY Lion Nickel Mines of Canada Ltd. HOLE NO. J-3

SHEET NUMBER 2 SECTION FROM _____ TO _____ STARTED _____

LATITUDE _____ DATUM _____ COMPLETED _____

DEPARTURE _____ BEARING _____ ULTIMATE DEPTH _____

ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAY VALUES				
	Light pyrite in places and traces py. throughout.									
<u>546.0-704.0</u>	Dark gray greywacke. Fine grained with some argillaceous sections, and only occasional small clasts. Clasts are gray granite and white quartz. Very few traces indistinct bedding. Traces biotite in places. Very light pyrite in few sections.									
<u>704.0-1122.2</u>	Continuation of Bruce formation. Dark gray to black graywacke. Similar to previous section. Scattered clasts of gray granite and lesser white quartz and chert. Clasts vary in size from ¼" to 4", with occasional boulder of several feet. Few traces of bedding show core angle of 20°. Beds of light greenish gray argillite from 814 ft. to 820 ft. and from 987.5 ft. to 990 ft. show core angle of 30°. Clasts become less numerous after 1000 ft.									

DRILLED BY _____

SIGNED *W. W. [Signature]*

DIAMOND DRILL RECORD

PROPERTY Lion Nickel Mines of Canada HOLE NO. J-3
Hutton Twp., Ontario

SHEET NUMBER 3 SECTION FROM _____ TO _____ STARTED _____
 LATITUDE _____ DATUM _____ COMPLETED _____
 DEPARTURE _____ BEARING _____ ULTIMATE DEPTH _____
 ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAY VALUES
	Few pyrite cubes in places. Core					
	badly shattered from 1013 ft. to					
	1018. Crushing and shattered appears					
	to be from blocking rather than					
	fractured ground.					
1122.2-1355.5	Start of Mississagi formation.					
	Interbedded light gray to greyish					
	white arkose, with dark gray to gray					
	black argillaceous arkose in beds					
	from 1/4" to 10 feet thick. Scattered					
	thin beds of fine grained, light					
	greenish gray argillite. Scattered					
	clasts throughout. Clasts are tiny					
	chips and grains of white quartz and					
	felsite 3/8" to 1/2". No pebbles.					
	Slight pinkish feldsparization from					
	1137 ft. to 1141 ft. Very light					
	pyrite in tiny blebs and disseminated					
	in places. Fairly distinct core					
	angle of bedding of thin argillite					
	beds are as follows:					

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DIAMOND DRILL RECORD

PROPERTY Lion Nickel Mines of Canada HOLE NO. J-3
Hutton Twp., Ontario

SHEET NUMBER 4 SECTION FROM _____ TO _____ STARTED _____
 LATITUDE _____ DATUM _____ COMPLETED _____
 DEPARTURE _____ BEARING _____ ULTIMATE DEPTH _____
 ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAY VALUES
	Ø 1150 ft. Core Angle 34° to 45°					
	Ø 1222 ft. " " 20°					
	Ø 1238 ft. " " 45°					
	Ø 1252 ft. " " 35°					
	Ø 1271 ft. " " 35°					
	Ø 1274 ft. " " 40°					
	Ø 1275 ft. " " 30°					
	Ø 1299 ft. " " 40°					
	Thin argillite bed of 1222 ft. is displaced 3/4" by minor fault.					
	3/8" white quartz stringer at 50° to core at 1169.5 ft.					
1355.5-1360.0	Continuation of Mississagi Light gray, fine grained arkose. Very few tiny felsite and quartz clasts. Traces disseminated py. and occasional small bleb.					
1360.0-1373.0	Dark gray, medium to fine grained arkose. Very few tiny clasts. No bedding visible. Traces pyrite					

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SIGNED _____

A. Watt

DIAMOND DRILL RECORD

PROPERTY Zion Nickel Mines of Canada

HOLE NO. J-3

SHEET NUMBER 5 SECTION FROM _____ TO _____ STARTED _____
 LATITUDE _____ DATUM _____ COMPLETED _____
 DEPARTURE _____ BEARING _____ ULTIMATE DEPTH _____
 ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAY VALUES				
1373.0-1387.5	Light gray, medium grained arkose. Fairly abundant small clasts. Clasts are felsite & quartz ranging from 1/4" to 1/8". Only occasional trace pyrite.									
1387.5-1388.8	Light grayish green, fine grained argillite. Fine bedding at 45° to 50° to core.									
1388.8-1422.0	Light gray to white arkose. Scattered clasts quartz and feldspar ranging from 3/8" to 1/8". Thin argillite bed 1394.0 to 1394.1 shows bedding at 45° to core.									
1422.0-1434.0	Dark gray, fine grained arkose. very few tiny clasts. Light pyrite in places. Traces pyrrhotite									
1434.0-1444.5	Light gray to buff coloured, medium grained arkose with abundant quartz and felsite clasts sized from 3/8" to 1/8".									
1444.5-1464.0	Dark gray, medium grained arkose. Occasional tiny quartz clast. Traces									

DRILLED BY _____

SIGNED *A. Witt*

DIAMOND DRILL RECORD

PROPERTY Lion Nickel Mines of Canada

HOLE NO. J-3

SHEET NUMBER 6 SECTION FROM _____ TO _____ STARTED _____
 LATITUDE _____ DATUM _____ COMPLETED _____
 DEPARTURE _____ BEARING _____ ULTIMATE DEPTH _____
 ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAY VALUES				
	pyrite and pyrrhotite.									
1464.0-1466.5	Light gray arkose. Very few tiny quartz clasts. Traces pyrite.									
1466.5-1471.0	Dark gray, fine grained arkose. Very few clasts.									
1471.0-1476.0	Light gray, medium grained arkose. Many small quartz and felsite clasts sized from 1/4" downward.									
1476.0-1481.0	Dark gray arkose. Very few tiny clasts.									
1481.0-1568.0	Light gray to buff coloured arkose. Many small quartz and feldspar clasts sized 3/8" to 1/8". Slight pinkish colour 1488' to 1490'									
1568.0-1585.4	Dark gray to black, medium grained arkose. Very few tiny (1/8") quartz clasts. Traces of bedding at 50° Slight pyrite in places.									
1585.4-1586.0	Fine grained, light greenish argillite. Finely bedded at 50° to core.									

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SIGNED _____

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DIAMOND DRILL RECORD

PROPERTY Lion Nickel Mines of Canada
Hutton Twp., Ontario

HOLE NO. J-3

SHEET NUMBER 7

SECTION FROM _____ TO _____

STARTED _____

LATITUDE _____

DATUM _____

COMPLETED _____

DEPARTURE _____

BEARING _____

ULTIMATE DEPTH _____

ELEVATION _____

DIP _____

PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAY VALUES				
1586.0-1594.1	Light gray to white medium grained arkose. Very few tiny clasts.									
1594.1-1596.4	Fine grained, dark gray to black argillite. Finely bedded at 50° to 55° to core.									
1596.4-1608.0	Light gray medium grained arkose. Few quartz and feldspar clasts sized ¼" to 1/8".									
1608.0-1643.0	Dark gray, medium grained arkose. Very few tiny clasts.									
1643.0-1655.5	Light gray to pinkish buff coloured arkose. Few tiny (1/8") quartz and felsite clasts. Several open vuggy fractures - 1/8" wide, two 1/16" carbonate filled fractures.									
1655.5-1667.0	Dark gray to black, medium grained arkose. Very few tiny clasts. ¼" white quartz stringers at 1663.5 at 60° to core.									
1667.0	End of hole.									

DRILLED BY _____

SIGNED _____

A. Webb

DIAMOND DRILL RECORD

PROPERTY Lion Nickel Mines of Canada
Hutton Twp., Ontario

HOLE NO. J-3

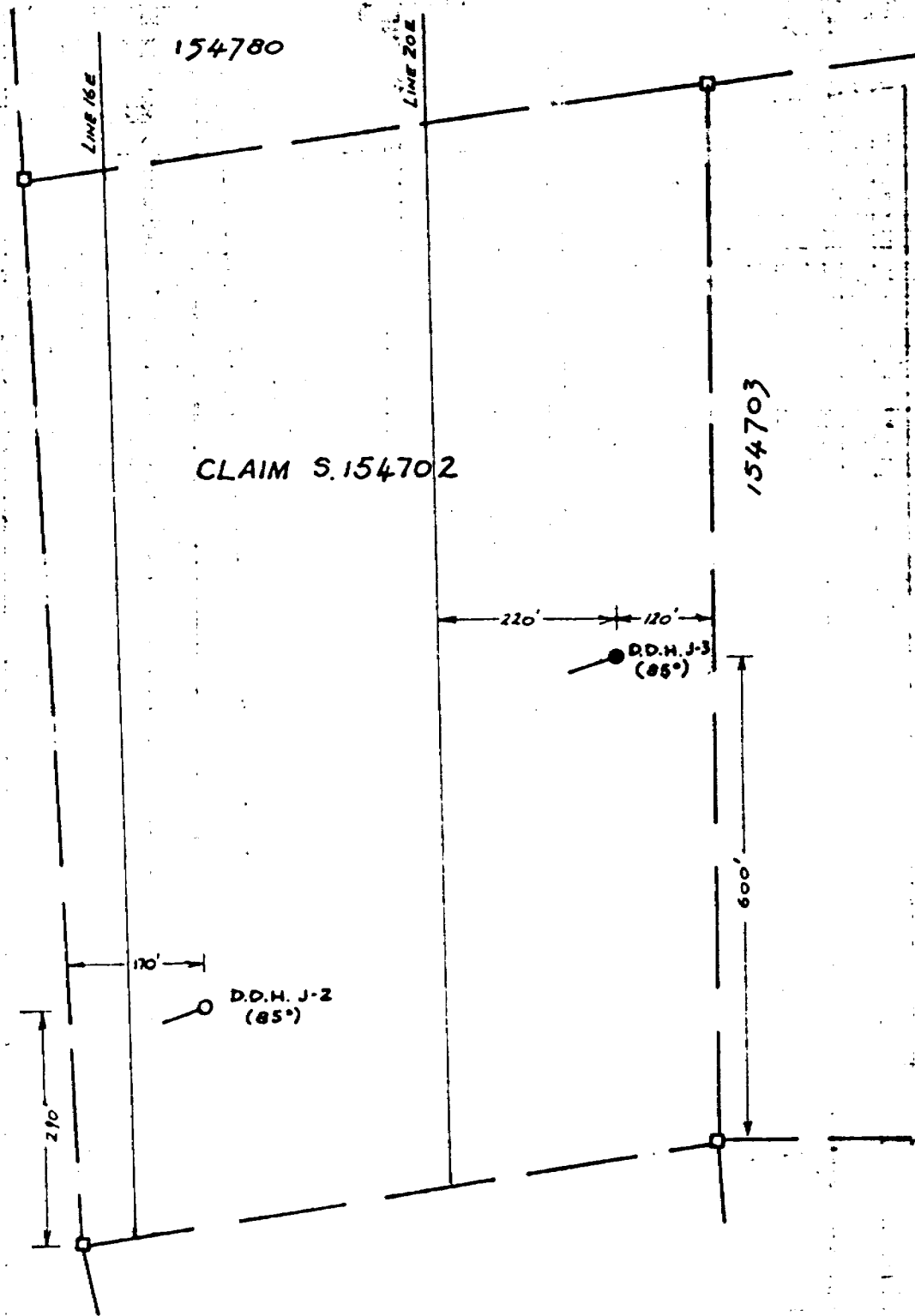
SHEET NUMBER 8 SECTION FROM _____ TO _____ STARTED _____
 LATITUDE _____ DATUM _____ COMPLETED _____
 DEPARTURE _____ BEARING _____ ULTIMATE DEPTH _____
 ELEVATION _____ DIP _____ PROPOSED DEPTH _____

DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAY VALUES
	<u>Dip Tests for DDH No. J-3</u>					
	@ 500 ft. Etoh angle	77½°				
	Corrected Angle	73°				
	@ 1000 ft. Etoh angle	65°				
	Corrected Angle	58½°				
	@ 1500 ft Etoh angle	48°				
	Corrected Angle	41°				
	The following sections show mild radioactivity. (Approximately twice B.G. on Geiger counter) and have been split for U ₃ O ₈ assay)					
		Width				
	1568.0' - 1571.0'	3.0'	J12			
	1588.0' - 1591.0'	3.0'	J13			
	1663.0' - 1666.0'	3.0'	J14			
	1594.1' - 1597.1'	3.0'	J15			

DRILLED BY _____

SIGNED _____

A. Watt



LOCATION MAP

D.D.H. # J-2 & J-3

CLAIM S. 154702

HUTTON TWP, ONT.

SCALE: 1" = 200'

NOTE: Drill core stored
at drill site.

