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AURON MINES LTD.
HAIL HARPER CK. PROJECT
1973 DDH INFO.
Nos J45-J48

HARPER CREEK JOINT VENTURE

Copy

Diamond Drill Program

Four holes were drilled in October - November 1973.

<u>D.D. Hole</u>	<u>Coords</u>	<u>Claim</u>	<u>Depth</u>	<u>Dip-Bearing</u>
J-45	17+50 N 28+00 W	Hail 567 Fr	420	-55° N
J-46	6+00 N 24+00 W	Hail 11	550	-55° S
J-47	7+00 N 16+00 W	Hail 572 Fr	399	-55° S
J-48	3+75 S 20+00 W	Hail 12	402	-55° S

These holes were drilled primarily to investigate possible extensions of the ore zones as delineated by a strong "S" shaped V.L.F. anomaly. (See "Geophysics" - this report)

Scattered minor sulphides - pyrite and pyrrhotite - were encountered in all holes. No significant copper mineralization is apparent with only a few narrow zones indicated which assayed less than 0.01% Cu. and similar traces of Au., Ag., and Pb.

These drill holes have given some geological information as they appear to confirm the V.L.F. anomaly as a graphite horizon (See Geophysics)

Complete Logs of these holes are included.

D.E. Pegg
Geologist
March 15, 1974

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Property Harper Creek Joint Venture

Sheet No. 1 Hole No. J-48

Project No. 36 N.T.S.

Core Size: BQ W.L.

Lat. 3 + 75 S

Elev. 5900 ?

Dip -55

Collared Oct. 27, 1973

Logged by: Ivor Saunders

Dep. 20W

Depth 402

Bearing S

Completed Nov. 6, 1973

ASSAYS

Footage	Rec'y	Rock Type/Alteration	Graphic Log	Mineralization/Structure	% Sulfides	Sample No.	Lt.				
6-12		Overburden Casing									
12-20	90	Semi Sil Bnd. Ser. chlor-phyl. Minor graphite Bnds	✓	Pyrrh Rust on Fractures - 12-18	2						
20-30	95	Same	✓	Py, Pyrrh	4						
30-40	100	Same w. Qtz Sections	✓	Pyrrh, Py	4						
40-50	80	Chlor-phyl. w Serecite and graphite Bnds.	✓	Rusty Fractures Pyrrh	3						
50-60	100	Same	✓	Same	3						
60-70	90	Chlor. Bnd phyl. Some graphite	✓	Minor Py/Pyrrh							
70-80	100	Same grading to Quartzitic Ser-chlor @ 73'		"							

NORANDA EXPLORATION CO. LTD.

Property _____

Sheet No. 2

Hole No. J-48

Project No. _____

N.T.S.

Core Size: _____

Lat. _____

Elev. _____

Dip _____

Collared _____

Logged by: _____

Dep. _____

Depth _____

Bearing _____

Completed _____

ASSAYS

Footage	Rec'y	Rock Type/Alteration	Graphic Log	Mineralization/Structure	% Sulfides	Sample No.	Lt.				
80-90	100	Quartzitic chlor-Ser.		30% Sulphide Bnd 89.5-90.5 Py Pyrrh minor Cpy	5						
90-100	100	Same		Pyrrh, Py	4						
100-110	100	Semi Sil Chlor-phyl		Py, Pyrrh	3						
110-120	100	Semi Sil Ser-chlor-phyl		Minor Sulphides							
120-130	100	White mottled Semi Sil Ser-chlor-phyl		Minor Sulphides							
130-140	100	Same		Qtz-carb string 3" @ 130.4 W. Sphalerite, MoS ₂ and minor Cpy							
140-150	100	Same		Py Cubes	2						
150-160	70	Lenticolor Bnd Sil. Ser-chlor		Py Minor MoS ₂	2						

NORANDA EXPLORATION CO. LTD.

Property _____

Sheet No. 3

Hole No. J48

Project No. _____

N.T.S.

Core Size: _____

Logged by: _____

ASSAYS

Lat.	Elev.	Dip	Collared					ASSAYS			
Dep.	Depth	Bearing	Completed								
Footage	Rec'y	Rock Type/Alteration	Graphic Log	Mineralization/Structure	% Sulfides	Sample No.	Lt.	Cu			
60-170	88	Sil. Ser-chlor		Py	1						
70-180	95	Same grading to chlor @ 172		Py	2						
80-190	95	Quartzitic chlor-phyl		Py V.M. MoS ₂	2						
90-200	100	Same		Py, Sphalerite	5						
100-210	90	Same		Same	8	P3686	10'	< 0.01			
110-220	98	Grades back to chlorite		Py, Pyrrh, Cpy	8	P3687	10'	0.04			α
120-230	100	Semi Sil Chlorite		Pyrrh, Py	8-10	P3688	10'	0.01			
130-240	100	Same		Same	5						

Lat.		Elev.		Dip		Collared		Logged by:						
Dep.		Depth		Bearing		Completed		ASSAYS						
Footage	Rec'y	Rock Type/Alteration		Graphic Log		Mineralization/Structure		% Sulfides	Sample No.	Lt.				
240-250	98	Semi Sil to Quartzitic chlor				Py, Pyrrh		5						
250-260	100	Chlor. Phyl. W. Qtz. sections and Bnds				Py		2						
260-270	95	Same				Py		2						
270-280	60	Same				Py Brecc. Section 278-279		1						
280-290	98	Same				Py Brecc. 286-287		1						
290-300	100	Same				Py		< $\frac{1}{2}$						
300-310	98	Same				Py minor								
310-320		Sericitic w. large Quartz eyes to 315 315-320 Semi Sil Chlor.				Py Cubes Minor Pyrrh		2						

NORANDA EXPLORATION CO. LTD.

Property _____

Sheet No. 5

Hole No. J48

Project No. _____

N.T.S.

Core Size: _____

Logged by: _____

Lat.	Elev.	Dip	Collared
Dep.	Depth	Bearing	Completed

Footage	Rec'y	Rock Type/Alteration	Graphic Log	Mineralization/Structure	% Sulfides	Sample No.	Lt.	ASSAYS			
320-330	90	Chlorite Some graphite	/	Pyrrh Py	5						
330-340	100	Chlorite w Qtz Bnds. Some graphite	/	Py	1						
340-350	100	Same grading to Quartzitic Ser-chlor.		Py Pyrrh	2						
350-360	98	Quartzitic Chlor-Ser-Phyl		"	5						
360-370	95	Sil Dark Chlorite		Py, Pyrrh	2						
370-380	100	Sil Ser-chlor		"	1						
380-390	98	Same		"	3						
390-402		Same minor graphite last 2'		" V.M. Cpy	6						

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Property HARPER CREEK JOINT VENTURE

Sheet No. 1

Hole No. J-47

Project No. 36

N.T.S.

Core Size: B.Q. W.L.

Lat. 7 N

Elev. 5750 ±

Dip -55

Collared October 27/73

Logged by: Ivor Saunders

Dep. 16 W

Depth 399

Bearing South

Completed October 30/73

ASSAYS

Footage	Rec'y	Rock Type/Alteration	Graphic Log	Mineralization/Structure	% Sulfides	Sample No.	Lt.				
0-14		Overburden Casing									
14-20	98	Bnd. Chlorite		Very minor sulphides							
20-30	98	" "		" " " Clv. variable							
30-40	50	Same w. sil. sections		V. M.S. Clv. variable							
40-50	98	Sil. to 42' Sil. section appears to be composed of small qtz eyes & fragments									
		42-50 mainly fine grained dense chlorite phyl. with some ser. content		Minor pyrhh. and very minor cpy. with it.							
		Some minor sections of Sil. material as noted 40-42									
50-60	90	Mainly chlor. to 54 54-55 Qtz. section -- Qtz. carb. w. ser. & chlor. fragments		Very minor cpy. Small white blebs in chlorite							

55-60 Chloritic phyl.

NORANDA EXPLORATION CO. LTD.

Property HARPER CREEK JOINT VENTURE

Sheet No. 2

Hole No. J.47

Project No. N.T.S.

Core Size:

Lat. Elev. Dip Collared Logged by:

Dep. Depth Bearing Completed ASSAYS

Footage	Rec'y	Rock Type/Alteration	Graphic Log	Mineralization/Structure	% Sulfides	Sample No.	Lt.				
60-70	98	60-62 Quartz 62-63 Chlor 63-70 Fine grained fragmental Quartz (40-42) w some chlorite sections		Very minor sulphides Clv. Av. 12°							
70-80	100	70-75 Qtz. bnd. chlor. 78-80 Bnd. Quartzitic rock		V. M. S. (None)							
80-90	100	Quartzitic Ser. w. chlor. sections		Same							
90-100	100	Same		Same							
100-110	100	Same		Same							
110-120		Mainly chloritic phyl. w. white mottles some quartz sections		Py. on c/w	2						
120-130	100	Same		Same	2						

Lat.	Elev.	Dip	Collared	ASSAYS			
Dep.	Depth	Bearing	Completed				

Footage	Rec'y	Rock Type/Alteration	Graphic Log	Mineralization/Structure	% Sulfides	Sample No.	Lt.				
130-140	100	130-135 Bnd. chlor 135-140 Sil. blk. chlor. and soft green chlor. bnd. Some quartz		Minor sulphides some Brecciation							
140-150	100	As above		Same							
150-160	100	Variable bnd. green chlor. and hite-chlor. Some quartz sections	grap-	Minor sulphides Minor brecciation							
160-170	100	Same		Same							
170-180	100	Same		Same							
180-190	100	Bnd. chloritic Ser. to 185. 185-189 dense grey highly fractured rock. Possibly an old intrusive meta. dyke		Minor sulphides							
190-200	100	Chlor. phy. Some graphitic bnds. Some qutz.		Pyrrh. in qutz. (Tension gashes)							

NORANDA EXPLORATION CO. LTD.

Property HARPER CREEK JOINT VENTURE

Sheet No. 4

Hole No. J.47

Project No. N.T.S.

Core Size:

Lat.

Elev.

Dip

Collared

Logged by:

Dep.

Depth

Bearing

Completed

ASSAYS

Footage	Rec'y	Rock Type/Alteration	Graphic Log	Mineralization/Structure	% Sulfides	Sample No.	Lt.	ASSAYS			
								Cu.	MoS ₂	Pb.	Zn.
200-210	100	Grading to sil. to quartzitic Ser.-chlor.-phyl.		Pyrrh. on tension gashes in quartzitic	1						
210-220	100	Semi. Sil. black bnd. Chlor. Some graphitic bnds.	/	Pyrrh. after Py. Py.	1						
220-230	75	As above grading back to bnd. chlor.	/	Same	1						
230-240	100	Ser.-Chlor.-phyl. (bnd.) Some graphite bnds. Some sil. sections w. quartz eyes (up to 60% qtz. eyes)	/	Py. Pyrrh.							
240-250	98	Variable (as above) grading out of graphite	/	Same							
250-260	100	Bnd. ser.-chlor.-phyl. w. qtz.-carb. sections		(Py., Pyrrh. sphalerite galena? MoS ₂) all in qtz.-carb. sections	3	P.3682	10'	<0.01	0.001	<0.05	0.05
				Some Pyrrh. in chlorite bnds.							

NORANDA EXPLORATION CO. LTD.

Property HARPER CREEK JOINT VENTURE

Sheet No. 5

Hole No. J.47

Project No. N.T.S.

Core Size:

Lat. Elev. Dip Collared Logged by:

Dep. Depth Bearing Completed

ASSAYS

Footage	Rec'y	Rock Type/Alteration	Graphic Log	Mineralization/Structure	% Sulfides	Sample No.	Lt.	ASSAYS			
								Cu.	MoS ₂	Pb.	Zn.
260-270	100	Sil. Ser.-Chlor.-Phyl.		Fine Pyrrh. Small section Pyrrh. Sphalerite with MoS ₂ @ 269.	2	P.3683	10'	<0.01	0.001	<0.05	<0.05
270-280	85	Same Chlor. decreasing		Minor bnds. Pyrrh. sphalerite, MoS ₂	2	P.3684	10'	<0.01	0.001	<0.05	<0.05
280-290	80	Same		Same	2	P.3685	10'	<0.01	0.001	<0.05	0.05
290-300	70	288-293 Broken sil. Phyl. 25% recovery		No sulphides							
		293-400 Dyke Dyke - variable - hard to soft sand.									
300-310	98	Dyke									
310-320	90	310-311 Dyke 311-315 Graphitic phyl. 315-320 Dyke	/	Upper contact - graphite gouge Lower contact conforms to clv. on graphitic phyl. clv. 90° to core							

Lat.	Elev.	Dip	Collared	ASSAYS							
Dep.	Depth	Bearing	Completed	ASSAYS							
Footage	Rec'y	Rock Type/Alteration	Graphic Log	Mineralization/Structure	% Sulfides	Sample No.	Lt.				
320-330	90	320-325 Dyke 325-331 Graphite	/	Contacts not defined (Broken)							
330-340	100	331-340 Dyke									
340-350	85	340-343 Dyke 343-344 Quartz & graphite 344-345.8 Dyke 345.8-346.2 Quartz & graphite 346.2-350 Dyke	/	Contacts not defined (core badly broken)							
350-360	98	Dyke									
360-370	98	Semi. sil. graphite	/	Py. Pyrrh.	1						
370-380	98	Same		Same							
380-390	100	Sil. chlor.		Py. Pyrrh. minor							

NORANDA EXPLORATION CO. LTD.

Property Harper Cr. Joint Venture

Sheet No. 1

Hole No. J-46

Project No. 36

N.T.S.

Core Size: BQ

Lat. 6N

Elev. 5730 +

Dip -55

Collared 24 Oct 73

Logged by: Ivor Saunders

Dep. 24W

Depth 550

Bearing S

Completed 27 Oct 73

ASSAYS

Footage	Rec'y	Rock Type/Alteration	Graphic Log	Mineralization/Structure	% Sulfides	Sample No.	Lt.				
0-26		Overburden									
26-30	75	26-28 - quartz Ser.		Minor Sulphides.							
30-40	100	Ser. chlor., with chlor., filled tension gashes, Some		Minor Sulphides.							
40-50	100	Same		Same							
50-60	98	chlor., -ser., -phyl., with chlor., filled tension gashes, broken.		Prominent fractures//to core. Very minor sulphides.							
60-70	85	Chlor., -phyl., Some qtz. sections 67-68		Fault/Breccia @63'. Very minor sulphides.							
70-80	100	Bnd. chlor., -phyl., Some 1" quartz sections.		Very minor sulphides.							
80-90	80	Same grading to graphite @84' (Quartz with graphite)		Very minor sulphides							

Lat. _____

Elev. _____

Dip _____

Collared _____

Logged by: _____

Dep. _____

Depth _____

Bearing _____

Completed _____

ASSAYS

Footage	Rec'y	Rock Type/Alteration	Graphic Log	Mineralization/Structure	% Sulfides	Sample No.	Lt.				
90-100	75	Sil., graphite becomes fragmental, grades back to bnd. chlor., @98.	/	Py., Pyrrh., in second Bnd. Section.	3						
100-110	100	Semi Sil., Bnd. Ser., chlor., - phyl.,		Pyrrh., on cleavage and in tension gashes.	8						
110-120	90	Same		Same	8						
120-130	90	Soft Bnd. Ser., -phyl., with green mica Bnds. Quartz Bnds. 1/4".		Pyrite mostly in quartz Bnds. Minor Pyrrh.	1						
		Some quartz-carb. sections with green mica.									
130-140	98	Same grading to graphitic Bnd @136' 136-140 graphite.	/	Pyrite, Pyrrh., Very minor sphalerite + Cpy. ? Py. cubes in graphite.	5						
140-150	98	Mainly graphitic	/	Intense folding @143 Pyrite.	2						
150-160	98	Ser., --chlorite-graphite bnd. Mainly graphite also quartz crystals. on // fractures	/	Pyrite, Pyrrh., Hematite Very minor sphalerite and cpy.	10						

NORANDA EXPLORATION CO. LTD.

Property _____

Sheet No. 3

Hole No. J-46

Project No. _____

N.T.S.

Core Size: _____

Lat.		Elev.		Dip		Collared		Logged by:					
Dep.		Depth		Bearing		Completed		ASSAYS					
Footage	Rec'y	Rock Type/Alteration		Graphic Log	Mineralization/Structure		% Sulfides	Sample No.	Lt.				
160-170	98	Sil., Ser., —chlor., grading in and out of graphite.		/	Pyrrh., Py.,		4						
170-180	98	Chlor., -graphite Bnd. Some quartz sections.		/	" "		5						
180-190	98	Bnd. graphite with large quartz fragments (sil.,)		/	Pyrrh., Pyrite, Hematite.		5						
190-200	65	Sil., graphite to 194 194-200 semi sil. Bnd. Ser., —chlor.,		/	Py., 5% sulphide in graphite.								
200-210	98	Semi sil. Bnd. Ser., -- chlor. phyl.,		/	Tension gashes with Pyrite + Pyrrh., Very fine.		5- 10						
210-220	99	Same with chlorite blobs.		/	Same		5- 8						
220-230	100	Semi Sil., Band. Sericite-chlorite.		/	Pyrrh., Py., Minor sphalerite/Hematite		5+						
230-240	100	Sil. chlorite-phyl., Some graphite		/	Pyrrh., Pyrite Very minor cpy.		8						

NORANDA EXPLORATION CO. LTD.

Property _____

Sheet No. 4

Hole No. J-46

Project No. _____

N.T.S.

Core Size: _____

Lat. _____

Elev. _____

Dip _____

Collared _____

Logged by: _____

Dep. _____

Depth _____

Bearing _____

Completed _____

ASSAYS

Footage	Rec'y	Rock Type/Alteration	Graphic Log	Mineralization/Structure	% Sulfides	Sample No.	Lt.				
240-250	100	Sil. graphite ruggy.	/	Pyrite cubes.	5						
250-260	100	Hard graphite 258-262 - quartz eye rhyolite	/	Pyrite cubes. Appearance of minor faulting @258.	3						
260-270	100	Rhyolite phases into Bnd. graphite @262 262-268 Bnd. Fragmental graphite may still be an ex- pression of rhyolite.	/	268-270 very ruggy hole started making water @268 - 4 gpm. and continues to do so.	3						
270-280	100	Sil., graphite (graphite rich sil. chlorite)	/	Minor sulphides							
280-290	100	Same	/	Same							
290-300	100	Same slightly more graphite	/	Same							
300-310	100	Sil., dark phyl., some pure graphite in cren- ulations @303	/								
310-320	94	Sil. graphite phyl., to 313 313-318 semi sil. Bnd.	/	Minor Pyrite, Pyrrh.							

NORANDA EXPLORATION CO. LTD.

Property _____

Sheet No. 5

Project No. _____

N.T.S.

Core Size: _____

Lat. _____

Elev. _____

Dip _____

Collared _____

Logged by: _____

Dep. _____

Depth _____

Bearing _____

Completed _____

ASSAYS

Footage	Rec'y	Rock Type/Alteration	Graphic Log	Mineralization/Structure	% Sulfides	Sample No.	Lt.	ASSAYS				
								Cu.				
320-330	70	320-328 as above 328-330 - sulphide rich ruggy chlorite.		Pyrite, Pyrrh., Cpy.	10	P.3676	10'	0.01				Spl.
330-340	95	ruggy chlorite to 333 333-337 - semi sil. graphitic chlorite 337-340 - chlorite-phy1.,		Pyrrh., Pyrite, Very minor cpy.	8	P.3677	10'	0.01				
340-350	100	Graphitic Bnd. chlor.,		Pyrrh.,, Pyrite	5	P.3678	10'	<0.01				
350-360	95	Graphite chlor., to 352 352-353 - quartz 353-360 - chlorite(sil.)		Quartz contains minor galena and brown sphalerite. minor cpy. extends below qtz. into chlorite Pyrrh., Pyrite.	6	P.3679	10'	<0.01				α
360-370	100	Sil. Chlorite with graphite Bnds.		Pyrrh., Pyrite	5							
370-380	100	Same		Same	4							
380-390	100	As above grading to graphite		Breccia @382 Pyrrh., Pyrite.	2							
390-400		Sil. graphite		Pyrrh., Pyrite	4							

NORANDA EXPLORATION CO. LTD.

Property _____

Sheet No. 6

Hole No. J-46

Project No. _____

N.T.S.

Core Size: _____

Lat. _____

Elev. _____

Dip _____

Collared _____

Logged by: _____

Dep. _____

Depth _____

Bearing _____

Completed _____

ASSAYS

Footage	Rec'y	Rock Type/Alteration	Graphic Log	Mineralization/Structure	% Sulfides	Sample No.	Lt.				
400-410	100	Same	/	Same	5						
410-420	95	Graphite with qtz. sections	/	Same	5						
420-430	98	Sil. graphitic ser.,	/	Pyrrh., Pyrite.	5						
430-440	98	As above with qtz. sections	/	Pyrrh. and very minor cpy. after Pyrite.	6						
440-450	85	Mainly qtz. and graphite. Some chlor., Ser., Bnds.	/	Pyrrh., Pyrite in graphitic Bnds.	10						
450-460	90	Same	/	Same	3						
460-470	100	Bnd. graphite with qtz.	/	Minor sulphides							
470-480	100	As above to 476. 476-480 - ser., Phyl.,	/	Minor sulphides							

ORANDA EXPLORATION CO. LTD.

Property _____

Sheet No. 7

Hole No. J-46

Project No. _____

N.T.S.

Core Size: _____

at.

Elev. _____

Dip _____

Collared _____

Logged by: _____

ep.

Depth _____

Bearing _____

Completed _____

ASSAYS

footage	Rec'y	Rock Type/Alteration	Graphic Log	Mineralization/Structure	% Sulfides	Sample No.	Lt.				
0-490	98	Sericite to 483. 483-490 Bnd. graphite	/	Pyrrh. and Pyrite in graphite.	3						
0-500	90	Broken graphite chlor., Ser., mixture to 495. 495-499 - barren qtz. 499-500 - graphite.	/	Minor sulphides.							
0-510	90	Graphite-chlorite with qtz. Bnds.	/	" "							
0-520	100	Bnd. chlor., and graphite (mainly graphite) also fragmental qtz. sections semi-sil.,	/	Minor Pyrrh., and Pyrite.							
0-530	90	Same	/	Minor sulphides Py.-Pyrrh.	1						
0-540	100	Silicite chlor.-graphite	/	Pyrite, Pyrrh.	2						
0-550	100	Same	/	Same	2						
				End of Hole Casing left in - Acid Test Bottom Hole - 60°							

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Property Harper Cr. Joint Venture

Sheet No. 1 Hole No. J-45

Project No. 36 N.T.S.

Core Size: B-Q

Lat. 17 + 50 N

Elev. 5630 +

Dip -55

Collared Oct. 19/73

Logged by: Ivor Saunders

Dep. 28 W

Depth 420

Bearing N

Completed Oct. 23/73

ASSAYS

Footage	Rec'y	Rock Type/Alteration	Graphic Log	Mineralization/Structure	% Sulfides	Sample No.	Lt.				
1-17		Overburden Casing									
17-20	100	Chlor. phyl. w. qtz. bnd. Some intensely graphitic sections conforming to clv.	/	Some rust Clv. 70-90° very minor py.							
20-30	100	As above, grading to Sil.	/	Py. Pyrrh.	1						
30-40	120	30-35 very sil. Ser. 35-40 Chlor. bnd.	/	Pyrrh. py.)) Py., Pyrrh. Cpy.)	2						
			/	Cpy., with pyrrh. replac ng Py. cubes							
40-50	90	Variable. Sil. Ser. grading to sil. chlor. w. fine banding Both phases with some graphite and quartz stringers	/	Minor sulphides. Py., Pyrrh. Cpy.							
50-60	80	Large quartz stringers. Bnd.-Brecc., Chlor-graphite Some carbonate in qtz.	/	Py cubes in graphitic bnds. Also minor cpy., on 0-20° Fractures	1						

Lat.	Elev.	Dip	Collared	ASSAYS						
Dep.	Depth	Bearing	Completed							
Footage	Rec'y	Rock Type/Alteration	Graphic Log	Mineralization/Structure	% Sulfides	Sample No.	Lt.	Cu.		
120-130	100	Sil. Chlor-phyl. Grphite stops @ 121.3' Phases to sil. ser. @ 127'	/	Py - mainly cubic	1					
130-140	99	Sil. ser. w. chlor. sect. Minor qtz eyes		Py.	3					
140-150	95	semi sil. ser-phyl. w. chlor. bnds.		Py.	2					
150-160	40	Sil. ser-phyl.		Py.	2					
160-170	75	Same		Py.	1					
170-180	45	Sil. Ser-chlor-phy. w. qtz. bnds.		Py., cpy.	4					
180-190	65	Same Less quartz		Py., very minor cpy.	4					
190-200	100	Semi sil. ser-phyl		Py., cpy.	4	P.3680	10'	0.05		

NORANDA EXPLORATION CO. LTD.

Property HARPER CR. JOINT VENTURE

Sheet No. 4

Hole No. J-45

Project No. N.T.S.

Core Size:

Lat. Elev. Dip Collared Logged by:

Dep. Depth Bearing Completed ASSAYS

Footage	Rec'y	Rock Type/Alteration	Graphic Log	Mineralization/Structure	% Sulfides	Sample No.	Lt.	Cu.			
200-210	100	Semi Sil. ser-chlor. bnd Phyl.		Py., Cpy.	3	P.3681	10'	0.11			
210-220	98	Same		Py., Cpy.	4						
220-230	98	Same		Same	4						
230-240	98	Same		Same	5						
240-250	65	Same		Same	4						
250-260	95	Ser-Chlor-phyl		Py. Cpy.	5						
260-270	85	Same 18' qtz-carb. 261-262.5		Fault 267-269 Py. Cpy.	4						
270-280	98	Same to 273 273-280 Ser-phyl Fine brecc.		High Grade Diss. Cpy. 270-271	1						

NORANDA EXPLORATION CO. LTD.

Property HARPER CR. JOINT VENTURE

Sheet No. 5

Hole No. J-45

Project No. N.T.S.

Core Size:

Logged by:

Lat.		Elev.		Dip		Collared		ASSAYS						
Dep.		Depth		Bearing		Completed								
Footage	Rec'y	Rock Type/Alteration		Graphic Log		Mineralization/Structure		% Sulfides	Sample No.	Lt.				
280-290	90	Semi Sil. Chlor-Ser-phyl.				Py., cpy.		5						
290-300	40	Same				Py. Cpy.		5						
300-310	90	Semi Sil. chlor-phyl. Some ser. bnd.				Py. Cpy.		10						
310-320	100	Qtz-bnd. Semi sil. chlor-Ser-phyl.				Py. Cpy.		5						
320-330	95	✓				✓		4						
330-340	90	✓				✓		3						
340-350	85	Sil. ser-phyl. w. qtz-carb. sections Grades to true bnd.				Minor sulphides								
		Phyl. @ 345 w. qtz. Fragments												

Lat.	Elev.	Dip	Collared	ASSAYS							
Dep.	Depth	Bearing	Completed								
Footage	Rec'y	Rock Type/Alteration	Graphic Log	Mineralization/Structure	% Sulfides	Sample No.	Lt.				
350-360	50	Bnd. phyl. with qtz. stringers and sections grades to graphite @ 359	/	Minor sulphides .. large py. cubes in	3						
360-370	90	Soft graphite to 364 364-368 gradual increase in silicification	/	Py. in graphite Sulphides throughout							
		Chlor. and carb.									
370-380	50	370-374 Qtz and graphite 364-380 Sil. phyl.	/	Py.	4						
380-390	80	Sil. to quartzitic phyl. in part brecc.		Py.	2						
390-400	25	Brecc. qtz-chlor-and qtz-carb.		Py.	6						
400-410	100	Semi Sil. bnd. phyl.		Py.	1						
410-420	100	Sil. Ser.		Py. Acid test -60°	2						

CASING LEFT IN HOLE