

FALCONBRIDGE LTD
DIAMOND DRILL LOG
Property : LAKE BOND NORTH

Hole # : SP-90-04 Zone # : 12H/1 Contractor : New Valley Drilling Co. Date started : 7/16/1990
Township: Concession: Claim # :LIC. 3591 Date completed: 7/19/1990
Lot : Level : Section: Location :

Collar coordinate : Line : 32+00 S Latitude: 0.00 N Azimuth: 130° 0' 0"
Station: 10+00 W Departure: 0.00 E Dip : -44° 0' 0"
Reference frame : Elevation: 0.00 Length : 197.30 M

Surveyed by:

Deviation tests :

Depth	Dip	Azimuth
43.59 M	-40° 0' 0"	124° 0' 0"
119.79 M	-43° 0' 0"	123° 0' 0"
195.99 M	-45° 0' 0"	115° 0' 0"

Remarks :

Water flow :
Cimented :

Plugged:
Core size: NQ

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppb	Cu ppm	Pb ppm	Zn ppm	Ag ppm
0.00	12.43	Overburden									
		12.43- 40.15 Hematized (65%) / non-hematized (35%) basalt - pervasive fractures with calcite infilling throughout; hematite occurs within the rocks and along fractures; fault and shear zones are directly related to hematization; foliation is poor to undeveloped; non-mineralized.									
		12.43- 16.50 Zone of blocky / broken core.									
		19.15- 19.32 Fracture at 15° to core axis; calcite-chlorite-epidote.									
		22.94 Fracture or fault contact (?) at 25° to core axis; hematized portion separated from non-hematized portion.									
		23.85- 24.10 Zone of calcite stringers at 47° to core axis; fracture-filled.									
		26.23- 26.45 Zone of epidote / silica; blotchy epidote.									
		26.45- 26.70 Extremely hematitic clay, rubbly gouge; fault at 55° to core axis.									
		27.02- 35.20 Fault zone - includes rubbly sections, blocks, zones of extremely broken core, and clay-rich aggregates; section is 90% hematized; shear surfaces at 15° to core axis.									
		35.20- 37.90 Zone of fracturing; 50% hematization									

[illegible]

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppb	Cu ppm	Pb ppm	Zn ppm	Ag ppm
		47.39 Fracture at 60° to core axis; hematized.									
		48.10- 54.40 Basalt contains approximately 5% pyrite throughout.	NF02565	48.00	49.00	1.00	<5	490	<1	490	0.3
		48.10- 49.25 Shear zone at 10 to 52° to core axis; chloritized with cherty banding; 5 to 6% pyrite.	NF02566	49.00	50.00	1.00	<5	116	1	310	<0.2
		49.32- 50.15 Zone of silicified basalt.	NF02567	50.00	51.00	1.00	<5	163	5	1300	<0.2
			NF02568	51.00	52.00	1.00	<5	93	<1	300	<0.2
			NF02569	52.00	53.00	1.00	<5	300	39	184	<0.2
		52.64- 52.91 Pyritic stringers at low angle to core axis; approximately 25% pyrite.									
		53.28- 53.37 Pyritic stringers; distorted.	NF02570	53.00	53.50	0.50	<5	450	60	180	0.2
		53.82- 54.10 Shear zone at 20 to 25° to core axis.									
		55.70- 56.45 Zone of silicified basalt.									
		57.00 Foliation at 50° to core axis.									
		58.42 Fracture at 38° to core axis; hematized.									
		59.55- 59.60 Quartz-silica-epidote zone at 60 to 75° to core axis.									
		60.91- 61.11 Zone of silicified basalt.									
		61.50									

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppb	Cu ppm	Pb ppm	Zn ppm	Ag ppm
		Foliation at 51° to core axis.									
		61.95- 62.55 Zone of silicified basalt.									
		63.93- 63.95 Contact at 65° to core axis.									
		63.94- 79.48 Moderately chloritic mafic volcanics - light to medium green-grey; numerous calcite-quartz stringers; unit is fairly siliceous throughout; epidote stringers not uncommon; minor pyrite.									
		65.35- 65.39 Quartz-calcite vein at 43° to core axis.									
		66.47 Foliation at 70° to core axis.									
		69.29- 69.34 Zone of stringer epidote alteration.									
		69.49- 69.68 Zone of sheared mafics with cherty quartz and trace pyrite.									
		69.90- 70.12 Zone with calcite-silica webbing (fractured basalt ?).									
		71.00 Foliation at 59° to core axis.									
		72.25 Fracture/flow contact at 68° to core axis.									
		73.50- 73.52 Epidote vein at 71° to core axis.									
		76.60- 76.69 Foliation at 55° to core axis.									

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppb	Cu ppm	Pb ppm	Zn ppm	Ag ppm
		77.50 Foliation at 68° to core axis.									
		77.83- 77.86 Quartz-chlorite vein at 75° to core axis.									
		78.00- 78.07 Quartz stringer with 3-4% pyrite.									
		79.48- 83.90 Feldspar porphyritic diorite dyke - is unaltered with epidote-calcite stringers. Unit is non-mineralized.									
		79.48 Contact at 72° to core axis.									
		83.90- 104.55 Basalt - is light to medium grey-green, moderately chloritized, silicified with numerous quartz-calcite stringers. Pyrite is minimal.									
		84.42 Flow contact at 62° to core axis.									
		84.56 Flow contact at 60° to core axis.									
		85.05- 86.22 Low angle epidote vein at <10° to core axis.									
		86.50- 86.90 Zone of narrow epidote stringers at 45° to core axis.									
		87.35- 87.47 Zone of epidotization with calcite stringers.									
		89.36- 89.43 Zone of shearing with quartz-banding (?) and 5% pyrite at 58° to core									

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppb	Cu ppm	Pb ppm	Zn ppm	Ag ppm
		axis.									
		89.98- 90.07 Zone of cherty silica at 70-80° to core axis.									
		92.08- 92.38 Low angle epidote-quartz-chlorite vein with minor pyrite. Fracture- filling (?), at 5-10° to core axis.									
		93.04- 93.08 Zone of cherty silica with 10-12% pyrite.									
		93.22- 93.39 Quartz-epidote-chlorite vein at 25° to core axis.									
		95.12- 95.25 Silicified basalt with quartz, chlorite and 5-6% disseminated and stringer pyrite.									
		95.26- 95.42 Zone of intense epidote-quartz alteration.									
		95.58- 95.62 Zone of cherty silica with epidote and 5-6% pyrite; at 75° to core axis.									
		96.21- 96.25 Zone of quartz-chlorite-epidote with 8-9% pyrite, at 70° to core axis.									
		96.74- 96.90 Zone of 5-10% narrow pyrite stringers at 80-85° to core axis.									
		97.89- 97.95 Zone of cherty silica at 65° to core axis.									
		98.20									

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppb	Cu ppm	Pb ppm	Zn ppm	Ag ppm
		Flow contact at 75° to core axis.									
		99.22- 99.24 Cherty silica band at 75° to core axis.									
		100.58 Flow contact at 65° to core axis.									
		102.08- 102.16 Zone of quartz-epidote with minor pyrite at 76° to core axis.									
		104.55- 106.59 Basalt - with increased chloritization and 10-12% pyrite bands and trace chalcopyrite. Zones of silicification are common and foliation is moderately developed.									
		104.80- 104.81 Pyrite band parallel to foliation, at 76° to core axis.									
		105.33- 105.35 Quartz band or vein with chalcopyrite bleb, at 80° to core axis.									
		105.80- 105.85 Zone of sugary, white-blue-grey (siliceous-looking) carbonate with 0.5cm pyrite band at top; at 72° to core axis.									
		106.59- 115.21 Basalt is light to medium grey-green, moderately chloritized with numerous calcite-quartz stringers. Unit is fairly silicified throughout. Minor sulphide.									
		106.82- 106.92 Zone of siliceous banding with minor stringer pyrite at 70° to core axis.									
		107.70									

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FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppb	Cu ppm	Pb ppm	Zn ppm	Ag ppm
		116.74 Flow contact or dyke at 62° to core axis; stringer pyrite at margins.									
		118.33- 122.10 Basalt - is moderately to strongly chloritized, well foliated and hosts 5-6% narrow pyrite stringers.									
		120.30- 120.52 Zone of well foliated, chloritized basalt with 10% disseminated and stringer pyrite at 80° to core axis.									
		121.34- 121.59 Zone of sheared basalt with cherty bands.									
		122.10- 125.45 Basalt - is light to medium green-grey, moderately chloritized with numerous quartz-calcite stringers. Silicification is common and sulphide mineralization is minimal.									
		122.15- 122.30 Zone of amygdaloidal basalt with amygdules decreasing in size down hole (topping up-hole).									
		123.32 Foliation at 69° to core axis.									
		125.45- 126.72 Basalt - is more chloritic, moderately to well foliated, with 7-8% pyrite as stringers.									
		125.80 Foliation at 47° to core axis.									
		126.72- 132.98 Basalt - is relatively fresh with fewer calcite stringers, moderate silicification, and hematization along									

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppb	Cu ppm	Pb ppm	Zn ppm	Ag ppm
		fractures. Quartz-calcite-epidote stringers occur locally. Sulphide mineralization is minimal.									
		126.72 Contact at 66° to core axis.									
		128.10- 128.89 Zone of broken core.									
		128.90- 128.94 Quartz vein at 44° to core axis.									
		130.09- 130.12 Quartz-calcite-epidote vein at 85° to core axis.									
		131.40- 132.50 Zone of broken core.									
		132.98- 133.50 Basalt - is strongly chloritic with well developed foliation, and 16-18% pyrite and trace chalcopyrite.									
		132.98- 133.04 Calcite stringer at 62° to core axis.									
		133.16- 133.18 Massive pyrite band with minor chalcopyrite.									
		133.23- 133.29 Zone with 14-16% pyrite and 1-2% chalcopyrite.									
		133.38 Foliation at 65° to core axis.									
		133.50- 149.20 Basalt - is light green-grey, moderately chloritized with numerous quartz-calcite stringers. Moderate silicification throughout. Sulphides occur locally.									

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppb	Cu ppm	Pb ppm	Zn ppm	Ag ppm
		135.38- 135.47 Zone of epidote alteration with pyrite stringer.									
		136.66- 136.76 Quartz-epidote vein with chlorite at 65° to core axis.									
		137.30- 137.85 Zone of broken core.									
		137.98- 138.00 Epidote-calcite-quartz vein at 80° to core axis.									
		138.35 Foliation at 70° to core axis.									
		139.86- 139.88 Siliceous band with pyrite stringer at 70° to core axis.									
		140.27- 140.30 Zone of cherty silica with 5% disseminated pyrite.									
		141.26- 141.34 Zone of cherty silica with epidote and stringer pyrite, at 80° to core axis.									
		141.76- 141.86 Zone of quartz-epidote and 10% pyrite with 0.5-1% chalcopyrite (vein hosted).									
		142.60- 142.62 Band of cherty silica with 10-15% pyrite at 80° to core axis.									
		144.65- 144.68 Zone of cherty silica with epidote and 5% pyrite at 77° to core axis.									
		146.92									

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppb	Cu ppm	Pb ppm	Zn ppm	Ag ppm
		Foliation at 70° to core axis.									
		147.95- 148.80 Zone of broken core.	NF02571	149.00	150.00	1.00	<5	260	20	119	0.2
		149.20- 150.37 Basalt - is strongly chloritized, dark green-grey, moderate to well foliated, and contains 8-10% pyrite stringers.									
		149.50 Foliation at 75° to core axis.	NF02572	150.00	150.50	0.50	<5	660	11	340	0.2
		150.37- 151.94 Feldspar porphyritic flow or dyke - is light to medium grey-green, with epidote stringers at 40° to core axis, and good chilled margins. Dyke is relatively unaltered and contains no significant sulphide mineralization.									
		151.94- 167.52 Basalt - is strongly chloritized, well foliated, with numerous quartz-calcite stringers, and 12-15% pyrite and 0.5-1.0% chalcopyrite.									
		151.94 Contact at 70° to core axis.									
		151.95- 152.09 Zone with 35% pyrite as stringers at 65-66° to core axis.	NF02573	151.96	153.00	1.04	15	3700	5	122	0.5
		152.15 Chalcopyrite bleb.									
		152.53 Chalcopyrite bleb.									
		153.35- 153.40 Calcite-chlorite-minor quartz vein at 55° to core axis.	NF02574	153.00	154.00	1.00	<5	4400	10	157	0.8
			NF02575	154.00	155.00	1.00	<5	1900	<1	141	0.2
			NF02576	155.00	156.00	1.00	<5	3300	<1	240	0.5

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppb	Cu ppm	Pb ppm	Zn ppm	Ag ppm
		155.25- 155.35 Semin massive pyrite (35%) with 2% chalcopyrite. Distorted band.									
		156.00 Foliation at 70° to core axis.	NF02577	156.00	157.00	1.00	<5	360	<1	184	<0.2
		157.41- 157.45 Zone of cherty silica.									
		159.11- 159.16 Zone of cherty silica with 5-7% pyrite.									
		160.74- 160.83 Quartz-chlorite vein.									
		161.00 Foliation at 75° to core axis.	NF02578 NF02579	162.00 163.00	163.00 164.00	1.00 1.00	<5 <5	240 410	17 <1	2600 1800	<0.2 <0.2
		163.13- 163.16 Zone of Quart-calcite with banded pyrite at 75° to core axis.									
		164.00 Foliation at 75° to core axis.	NF02580 NF02581	164.00 165.00	165.00 165.50	1.00 0.50	<5 <5	570 860	<1 <1	510 1800	<0.2 <0.2
		164.78- 165.76 Zone with 20% banded pyrite at 60° to core axis.									
		167.00- 167.52 Zone of banded cherty-silica at 60-80° to core axis.									
		167.52- 197.51 Basalt - is light to medium grey-green, moderately chloritized, with numerous calcite-quartz stringers. Zones of silicification are common. Sulphide mineralization is minimal.									
		170.23- 170.29 Calcite-quartz-chlorite vein at 62° to core axis.									

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppb	Cu ppm	Pb ppm	Zn ppm	Ag ppm
		171.14- 171.17 Calcite-quartz-chlorite vein at 62° to core axis.									
		172.48- 172.55 Chlorite-filled fracture at 42° to core axis.									
		173.75 Foliation at 75° to core axis.									
		175.00- 175.20 Low angle fracture at 13° to core axis; calcite-quartz.									
		175.43- 175.68 Zone of breccia (fracture ?) with chlorite.									
		177.00- 178.22 Zone of broken core.									
		178.83- 178.86 Pillow rim (?) at 60° to core axis.									
		178.94- 178.99 Zone with calcite amygdules.									
		181.23- 181.36 Banded calcite at 70-75° to core axis.									
		185.35- 185.63 Shear zone with calcite and epidote at 45-55° to core axis.									
		190.02- 190.60 Low angle fracture at 0-5° to core axis, with hematite along surface.									
		191.35- 191.38 Zone of cherty silica at 68° to core axis.									
		191.75- 191.98 Zone of basalt with blotchy quartz veining.									

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppb	Cu ppm	Pb ppm	Zn ppm	Ag ppm
197.30		195.87- 196.02 Zone of epidote-cherty silica banding at 68° to core axis. 197.30 Flow contact at 70° to core axis. End of hole Total amount of samples= 17 Total length sampled = 15.54M									

HOLE NUMBER: SP-90-04

GEOCHEM. SHEET

Sample	From (M)	To (M)	Length (M)	SiO2 %	Al2O3 %	CaO %	MgO %	Na2O %	K2O %	Fe2O3 %	MnO %	TiO2 %	P2O5 %	Cr2O3 %	LOI %	SUM %	Cr ppm	Rb ppm	Sr ppm	Y ppm	Zr ppm	Nb ppm	Ba ppm
NF02375	13.00	16.00	3.00																				
NF02376	43.00	46.00	3.00																				
NF02382	56.00	59.00	3.00																				
NF02377	73.00	76.00	3.00																				
NF02378	103.00	106.00	3.00																				
NF02379	133.00	136.00	3.00																				
NF02380	163.00	166.00	3.00																				
NF02381	193.00	196.00	3.00																				