LAC MINERALS LTD./MACA

DIAMOND DRILL



010

No. EK93-1

-all det. in Metres.

Section	16130E or 16+30E / 16129.96
Ref. Line	20240 N / 20240.25
Elevation	1060.50
Azimuth	029° Import 32°28'16"
Location	center of L-2450
Northing	
Easting	

Depth 1600'

Dip -79° Import -77°16' on rods

Core Size BQ wireline

Purpose exploration beneath mine to 900'E & looking for N-S striking, W dipping qtz veins

Remarks Abandoned Nov 22

- casing left in hole Collar surveyed by Gyroscope

- hole open hole Sperry Sun surveyed to 1366' where rods would not go beyond - caved?

survey of sheet attached

- all core & sludge assayed & sampled

- casing broken off when moving machine off site but an NQ rod with cap was put over broken part of BW casing to preserve hole

Pulps & metallics sent on samples #'s 1781 → 1854 - no change in overall grade.

Dip Test @ 1000' - 76°
1600 - 75°

20 SC E		
20 SC G		
100 SC P		
20 SC X		
20 SC L		
100 SC L		

Drill Contractor: Heath & Sherwood Drilling (1986) Inc.

Core Stored @ Macassa Mine Core Shack

drill sludges (over)

CORE

Footage

From	To	Description	From	TO	Total	Sample No.	Ozs.
0	14	Casing - BW casing cemented to 16'					
14	355.8	Conglomerate - grey/green small pebble variety with a greenish grey chl matrix					
		- between 19.1' - 25' greenish colored, sandy textured conglomerate					
		@ 33.2' a ½" pinkish white CARB BAND @ 20° TCA - unbroken fracture - tight					
		- from 51' massive conglomerate including red jasper pebbles.					
		- @ 41' a wispy pinkish white CARB BAND @ 5-10° TCA.					
		@ 52.5' a RUSTY FRACTURE @ 26° TCA.					
		@ 68.1' a 1½" bullish white QTZ stringer @ 40° TCA terminating on a 1" STR CHL SLIP @ 40° TCA. Some micro-faulting.					
		- from 89' massive good grey small pebble Timiskaming conglomerate.					
		@ 79.1' a ¾" CARB BLEND BAND @ 35° TCA - a greenish to white stringer tight seam.					
		@ 81.2' a ¾" CARB CHL BAND @ 22° TCA - dull white bullish qtz-carb completely stocked with light green chlorite. Conglomerate is weakly bleached for ± 1" on both sides of band.					
		- massive conglomerate from 108.2' with a few scattered fine hairline carb filled fractures. Some from 127'					
		@ 112.6' a ⅛" TIGHT CHL SLIP @ 13° TCA.					
		from 127' from 146.4' continuation of greenish grey colored, small pebble conglomerate, locally hairline fractured with white carb fracture filling					
		@ 155' a 3/16" STRONG CHL SLIP-BRECC @ 40° TCA. Preceding 2" is coarsely FRACTURED with black chlorite fracture filling. Slip proper is very strong with intense laminations over 3/16" & flaky green chlorite fracture filling.					
		from 185.3' massive small pebble conglomerate					
		@ 169.1' a 1" CARB-CHL FRACTURE @ 45° TCA. dull greenish white carb seam with thin chlorite laminations					

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Footage From	Footage To	Description	From	To	Total	Sample No.	Oz's.
		@ 179' a ½" white CARB FRACTURE @ 12° TCA. Mod white tight comm lag.					
		-thru 204.5' continuation of generally grey massive pebble conglomerate & comm thru 215. Between 215 - 217' a mm scale gougy/rubble zone.					
		@ 219.6' a SOFT MOLY MUD FAULT @ 17° TCA. a soft ½" purple comm with an adjacent ½" laminated chlorite sub-comm. Trace of subsh min. Ubk zone from 219.4 - 220					
		- beyond 224' HIGHLY BLEACHED conglomerate with a pale grey green color. Pebble lithons < 1" comm with high frequency of dull white clasts comprising chalky qtz.					
		@ 227.7' a 1 - 1½" TIGHT BRECC CHLORITE FAULT @ 53° TCA. An intensely broken comm with angular wallrock rimmed by black chlorite. a strong tight structure looking on both chloritics.					
		- from 227.8' thru 232.2' continuation of HIGHLY BLEACHED conglomerate					
		232.2' thru 234.4' broken core interval on a STRONG CHLORITE MUD BREAK ZONE @ 28 & 65° TCA. Rock powder is comm 0.6' & consists of variably crushed & chloritized host material. Many core angles @ 50-55° TCA strongly suggest that both may be @ the high angle (ie 65°). Several core ends are coated with a fine grey dusting of pyrite but overall only a trace of subsh min.					
		- interval from 232.8 - 233.5' is ubk recovered due to dusting of fine sulphide on core ends.					
		-					
		- thru 236.2' conglomerate is HIGHLY BLEACHED with strongly pale green laminated chlorite intervals.					
		@ 236.2' FRACTURING increases to a max @ 236.4' where a 1" TIGHT BRECC CHLORITE FAULT is @ 90°. No strong or structure @ 227.7'					
		from 236.6' thru 239.6' continuation of HIGHLY BLEACHED conglomerate - unit is also strongly SHEARED/LINEATED @ 87° TCA. over this interval					
		between 239.6' - 241.2' broken very crumbly chloritized core wedges & wafers loss - probable BREAK in loss @ 33° - highly bleached & shrd/linear conglomerate continues thru 242' & thru 249'					
		@ 249' a STRONG CHLORITE FAULT ZONE @ 28° TCA. a ½" strongly chloritized comm loss with crumbly uniform & generally 0-2' broken chloritized comm loss. Followed by a 0-3' white qtz vein @ 38 & 43° TCA. a ½° heavily pyritized fracture within the qtz vein. Ubk recovered.					
		- fault 'mushy' and to highly shrd/linear conglomerate.					

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Footage From	Footage To	Description	From	To	Total	Sample No.	Oz/t
		-Thru 406.3' pinkish brown clast, good porphyritic textured bimodal porphyry contains a few dark green mafic xenoliths similar to those in the normal agmatite porphyry.					
		403-404.2 - weakly reddened bimodal porphyry with coarse grained feldspar to ¼" pegmatoid stumbs trending generally @ 47°					
		- Thru to end of unit massive bimodal porphyry					
420.1	429'	Conglomerate - above natural loading contact @ 10-15° TCA					
		- grayish looking Timiskaming conglomerate - looks slightly graphitic - small pebble variety including pegmatoid grains.					
		@ 422.7' a 0.6-0.8' finger of bimodal porphyry					
		- minor unit thru to end.					
429	460.7'	Bimodal Porphyry - above natural irregular contact @ ~ 10° TCA.					
		- return to a more pinkish brown color & carb filled fracture variety of bimodal porphyry.					
		@ 448.5' a ¼" TIGHT SMOOTH BAND @ 45°					
		- generally massive, good coring unit to end of unit.					
460.7	530.2	Conglomerate - natural loading contact @ 63° TCA with a ¾" grayish crushed & weakly graphitic appearance - intensely competent. Tight fracture.					
		- a small pebble phase of brownish gray colored conglomerate.					
		-@ 463.4' a 2" GREEN CARB BAND terminating on a TIGHT CHL SLIP @ 22° TCA. Tight competent fracture.					
		466-467' - a partial ¼" thick grayish greenish quartzite & pegmatoid band @ 5-10° TCA. Overall ~1% fine pyrite in fractured zone.					
		is brownish gray colored conglomerate.					
		Thru 476.7' grayish gray colored, small pebble conglomerate.					
		@ 494.3' a 0.3' aganitic porphyry pebble? or dike with ¼" calcitized contacts @ 80-85° TCA.					
		-Thru 501' small pebble Timiskaming conglomerate with scattered 1-3' grayish colored, sandy textured gouge sections. Some thru 520' and 539'					
		@ 529.8' a ¼" CARB CHL SLIP @ 32° TCA. a tight carb filled slip plane followed by a ¼" white carb filled fracture @ 32° TCA.					
		- massive darker grayish gray colored longer pebble conglomerate thru 572'. Thru to end of unit containing ~ 1% of coarse 6-10"					

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Footage From	Footage To	Description
		dissemin. pebbles in the conglomerate.
580.2	598.5'	Tuff – strong internal banding contact @ 20°TCA.
		– unit is dark greenish grey in color with a fine grained texture – weakly magnetic unit.
598.5'		Conglomerate – contact banding contact @ 48°TCA.
		– first 3-4" is moderately FRACTURED
		between 589.4' – 590.1' a STRONGLY SHEARED section of conglomerate @ 50°TCA with dull greenish chloritic stringers & ~1% fine pyrite vein within the laminations.
		– conglomerate is dark greenish green colored with upto 6" rounded pebbles. Lapilli grains also present thru 596.3'
		thru 615.7' greenish green, more small pebble conglomerate.
		@ 603' a 1½' sandy gouge section with bedding @ 53°TCA.
		from 618' thru 626' a sandy gouge plane with some 1-3" dull white/green chloritic patches between 622-625' – patches sheared
		627.8' – 629.9' a highly sheared section with 15-20% dull white qtz stringers & qtz flooding @ 55-60°TCA with a 1" Breccia Band adjacent to a CHL SLIP @ 58° TCA. Overall ~ 0.5% fine pyrite.
		from 629.9' thru 632.6' a dark brownish black colored tuff/sediment looking interval fg with a few widely scattered <1" dia. rounded pebbles
		– @ 632.6' a 0.3" CHLD/MYLONITIC BAND @ 30°TCA. Intensely sheared band with greenish chloritic laminations & ~1% fine pyrite – abt crossed.
		beyond 633' definite tuff with a brownish to orange color.
633	636.6	Tuff – may be tuff actually from 629.9' but definitely by 633'
		– @ 634.6' a 3/16" CHL-QTZ FEAL/SLIP @ 35° TCA
		– tuff unit is variable in texture from locally porphyritic to small fragmental sections with milky angular fg – 3" thin carbonated greenish clasts including some darker grey ones. Generally non magnetic unit with about 4-8" moderately magnetic intervals.
		from 636.6' normal tuff becomes increasingly altered pinkish in color & more siliceous with a 0.3' greyish white qtz stringer zone @ 40°TCA.

From	To	Total	Sample No.	Ass.

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Footage From	Footage To	Description	From	To	Total	Sample No.	Gus.
		636.6 – 638.2' – 10% localized qtz, stringers @ 40° TCA with <1% fine pyrite min in increasingly pinkish / reddish alt tuff?? Round small scattered qtz? or feldspar? phenocrysts scattered thru-out the matrix strongly suggesting this to be a porphyry. Considered to be a separate unit due to the numerous phenocrysts & obvious Trails intact.					
636.6	684'	Porphyry? – as described above appears to be a porphyry – does not look like Immediate nor the Typical feldspar porphyry intr in the main part of the K.L. camps. Contains ~ 3-5% dull greenish pretty rounded clasts of dark to light green amphibole??					
		@ 639.7' an abrupt end to the porphyry? but may be just an effect of alteration since both the greenish clasts and white small phenocrysts persist onward in the unit which now has a more greenish brown color.					
		– between 639.7' – 641.3' – variably CRUMB greenish porphyry? ¼ min with ~2% very fg. pyrite min. Chl arranged.					
		– Thru 641' unit is mostly a dull greenish grey speckled porphyry with numerous small ⅛ – ¼" white phenocrysts – mm magnetic unit. beginning @ 641' porphyry becomes more reddish altered to a max @ 649.6' where a ¾" SILICEOUS ALT FRAC/SHR is @ 30° TCA.					
		– thru 653' variably FRACTURED & ALTERED porphyry with a ½" STRONG MUDDY CHLORITE SHR @ 651.2' @ 40° TCA					
		@ 652.4' a partial ½" BRECC CHL SHR @ 47° TCA with smeared pyrite coating much of slip plane. Heads off a bright orange colored highly porphyritic phase of porphyry.					
		– section is dark arranged from 648.6 – 653' – min with ~1% fine pyrite					
		– more alteration extends thru to 654.5' but STRONG FRACTURING persists thru to 659.7' with limited white fracture fillings. Chl arranged from 653 thru 655' with <1% very fg. sulphide & smeared dull dusty white qtz – cut clasts thru out interval.					
		– @ 662.1' a ½" qtz – carb FRACTURE @ 37° TCA. & @ 662.5' a ½" QTZ CHL FRACTURE/SHR @ 13° TCA. 6 fine lenses ⅛ – ¾" accumulations of pyrite on slip planes surface but brownish looking alteration.					
		– thru 667.3' a brown colored, strongly porphyritic textured unit					
		@ 667.3' a ½" MICHL SHR @ 35° TCA heads off a variably broken core interval thru 671' with many core fragments requiring reorienting oriented core ends / surfaces & localized coring intervention.					
		logged to 671' Nov 23/93 B. Newcomb.					
		– broken oriented core fragments thru 674.5'					

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Footage From	Footage To	Description	From	To	Total	Sample No.	Gms.
		- Thru 677' porphyry is reddish brown in color, finely porphyritic & exhibits varying degrees of BRECCIATION from 674.5 - 677' ~1% fine localized pyrite min.					
		677 - 679.3 - combination of reddish brown porphyry with <1% fine pyrite min & fine FRACTURING/BRECC. a ±⅛"-¼" dull dusty white qtz stringers @ 23° TCA.					
		Interval 681.7 - 683.7' variably FRACTURED/BRECCIATED reddish altered porphyry with 10-15% dull dusty white qtz flooding and 1-2% very fine pyrite min. - @ 682.2' a ±⅛" CHL SHR @ 33° TCA. upper to contact zone of increased qtz flooding - @ 683.7' a ±⅛" CHL SHR @ 65°					
684	699.2	Tuff - along natural leading contact @ 66° TCA					
		- Thru 686' a dull green colored phase of sericitic tuff with numerous small ±⅛" reddish limonite grains, <1% fine pyrite @ 685.8' a ⅜" CARB CHL FAULT @ 15° TCA with several pyrite & minor chalcopyrite specks					
		685.7 - 686.3' 1-2% pyrite in fault zone followed by greenish green colored, fg. tuff with a central ±⅛" dull white qtz stringer @ 60° TCA.					
		Beyond 686.3' tuff is more greenish in color					
		686.3 - 688.7' - thru ¼ - ½" dull white qtz stringers @ 45° & 55° TCA in fg. tuff. Trace of pyrite min.					
		688.7 - 691.3' - 15% localized pyrite white ¼ - 1-2" stringers of qtz flooding @ 55° TCA. in mod limonitic green tuff. - a few mildly scattered specks of pyrite & chalcopyrite @ 691.' looking 55°					
		691.3 - 694' - as previous except that tuff is more greenish color. Middle Gate noted @ 691.3' (retained), 692.9' (retained) & @ 693.7' - all as fine pyrite is generally white qtz. <1% fine localized pyrite min. @ 692.8' a ±⅛" MYLONITIC CHL SHR @ 57° TCA.					
		694 - 697.1' - 5-8% scattered ± ¼" white qtz stringers @ 63° in green colored sericitic altered tuff, <1% fine localized pyrite often within the qtz stringers					
		697.1' - 699.2' - as previous sample					
699.2		Basic Intrusive - natural leading contact @ 53° TCA.					

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Footage From	Footage To	Description	From	To	Total	Sample No.	Oz.
		734 - 737.6' - ~30% scattered qtz stringers & brecciated intervals with centim white brecciated qtz fragments recemented by late dark grey dusty qtz. min with ~3-5% brecciated pyrite / chalcopyrite min.					
		737.6' - 740.5' massive to variably FRAC/CRSHD/BRECC greenish brownish biotite with 10-15% scattered blebby & stringy greyish & white qtz, 1-2% fin pyrite min.					
		740.5 - 742.6' - more INTENSELY BRECC brownish & emerald green with primary texture almost totally obliterated. min with 10-15% scattered grey & white blebby qtz and 1-2% fin brecciated pyrite					
		742.6 - 743.7' - 60% INTENSELY BRECC 0.2' qtz vein @ 37° TCA with white qtz stringers recemented by late darker grey dusty qtz. Surrounded by white & greyish stringer qtz. Two sparse V.F. veinl - both in sample. Brecc zone looks like a Break line - tight but strong.					
		743.7 - 747' - 30-40% white & dull dusty white stringy & stringer qtz generally @ 25° TCA. 2-3% fin pyrite min.					
		747 - 748.3' - 40% white stringer qtz in greenish highly sericitic fine biotite. 1-2% fin pyrite min.					
		748.3' - 751' - 40% grey & white massive to brecciated fragmental qtz in brown alt to green biotite. 1-2% fin brecciated pyrite min.					
		@ 751' a 1/4" STRONG CHLORITE FAULT @ 43° TCA - a 1/4" band flaky chlorite zone in this structure proceeding 2-3° gtz & brecciated					
		751 - 752.4' 30% white & some grey brecciated qtz in brecciated brownish biotite with sericitic appearance. 1-2% fin pyrite min.					
		@ 752.4 a 1/2" INTENSELY BRECC BAND @ 8° TCA - competent zone strong but tight texture in the qtz with dark green chlorite fracture filling.					
		752.4 - 755.1' - 90% massive vein qtz with 3-5% fin pyrite & chalcopyrite. V.F. veinl @ 752.8, 753.1', 754.1' & 758.9' - a [redacted] looking section					
		755.1 - 758.2' - 70% massive white & some grey qtz brecciated min with 5-8% pyrite / chalcopyrite. V.F. veinl @ 755.3' & 757.3'					
		758.2' - 761.4' - 30% white qtz 1-3" stringers generally @ 40-45° TCA. 1-2% fin brecciated pyrite min. & a dusting of MoS2 on core ends @ 758.3' & 758.4'					
		- end of min mineralized zone @ 758.2' but qtz veining continues onward.					
		761.4 - 764'' - 20-30% mostly white qtz stringers in darker green fine biotite. Min with ~1% fin brecciated pyrite					

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Footage From	Footage To	Description
		764 - 768' - as previous sample but with only trace of fine pyrite in very sericitic basaltic with one felsic stringer.
	-	Logged to 768' Nov 27/93 J. Kinnunen
		768 - 771.6 - 15 - 20% white, qtz stringers @ 33° TCA in dark green coloured, highly sericitic fg. basaltic host. One of the white quartz appears to be locally brecciated and bright green chlorite ?
		771.6 - 775.4' - 40% scattered white & pale grey coloured stringers and fragmental qtz with a ½" intensely BRECCIATED white qtz shard cemented by dark grey clasty qtz @ 773.9' @ 15° TCA. Min with ~1% fine brecciated pyrite - basaltic host is light green bleached with variably FRACTURED/BRECCIATED appearance.
		775.4 - 780' - 20% ¼ - 1½" white qtz stringers as fracture fillings in highly sericitic and bleached green basaltic host.
		780 - 782' - 40% grayish white massive qtz, brecciated/well fractured & min with 1% pyrite & 1% chalcopyrite min. Several angular wallrock fragments caught up in the qtz - alteration - basalt clasts in places. Some pyrite in fine grained & highly sericitic
		782 - 783.9' - 70% massive white quartz with ~ <0.5% fine pyrite. One quartz [redacted] @ 782.2' - returned
		783.9' - 787.7' - 30 - 40% ½" - 2" white & minor grayish qtz stringers @ 25° TCA. << 0.5% fine brecciated pyrite min.
		787.7 - 790.3' - 15 - 20% white & minor grayish qtz stringers ¼ - 1½" across trending generally @ 23° TCA. Trace of calcite min.
		@ 790.9' a abrupt change to a more grayish brown coloured phase of probable basic pyroxenite. Some carbonated pyrite still visible. Contact is @ 87° TCA with a 3" dull white qtz stringer on contact. May just be a fg. felsic rib. Ends @ 792'
		790.3' - 791.6' 8 - 10% grayish white qtz stringers ½ - ¾" with << 0.5% fine pyrite and one quartz [redacted] sample 7169 (submitted)
		791.6' - 795.7' 5 - 8% ½ - ¾" white qtz stringers @ 30° TCA & min with << 0.5% fine brecciated sulphides @ 793' another brownish 0.6' felsic rib? Qtz stringers contain widely scattered fine clotted chalcopyrite nets.
		795.7 - 798.4' - as previous sample with fg. highly sericitic basaltic
		798.4' - 801.7' - as previous sample with a 0.7' brown felsic rib @ 800.9'
		801.7 - 803.5' - 15 - 20% scattered white stringer qtz with a ½" STR CHLORITE SLIP @ 803' followed by a 0.2' qtz vein barren min with chalcopyrite and minor coarse white galena. Overall ~ 3% brecciated sulphide min.
		803.5 - 807' - 5 - 8% dull white ¾" quartz stringers @ 25 - 30° TCA in highly sericitic, fg. basaltic host with a abrupt contact @ a 806.7' leading into a brown coloured fg. textured felsic rib? Last 1.5' of unit has some ½ - ¾" dark greenish black chlorite filled fractures. @ 30 - 40° TCA.
		807 - 810.3' - moderately fractured green sericitic basaltic with 8 - 10% white qtz stringers @ 30 - 40° TCA.

From	To	Total	Sample No.	Ozs.

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Footage From	Footage To	Description
		810.3 - 811.9' - STRONGLY FRACTURED brnish aspnite with 20-30% greenish chl. ptg. Flooding & stringers including a ½" dark greenish blackish band @ 20° TCA. V.G. std @ 810.6, 810.8? & @ 811.6' with VFG 810.6 submitted is sample. Overall 2-3% fine sulphide min. concentrated in follen part of section.
		811.9' - 814.4' - 8-10% scattered stringy & blebby dull greyish white qtz in green bkish fg. brnish aspnite - badly fractured with <1% fine pyrite mineralization.
		814.4 - 818.5' - 3-5% scattered dull white ½ - ½" qtz filled fractures in green brnish aspnite with med grained highly bleached phenocrysts. Overall trace / sulph min. Many qtz stringers are offset in. They were disturbed by faulting / fracturing after emplacement.
		818.5 - 821' - as previous sample.
		@ 821.1' a 1" dull white qtz stringer @ 20° TCA with an epidote V.G. included in sample
		821.7 - 824.4' - 5-8% ½ - 1" dull white qtz stringers generally @ 30° TCA.
824.4	826.4'	Felsic bpnite - above natural leading contact @ 55° TCA. On N epnite a 2-3" seam of qtz stringers & on felsic epnite side seam of fine pyrite.
		- unit is a brown weathering variety, STRONGLY FRACTURED with 10-15% dull white to clear qtz stringers & dark greenish clayey qtz, chlorite fracture filling. Min with 3-5% fine pyrite min.
826.4	849.3	Brnish bpnite - leading contact is natural but very irregular.
		- returns to green colored, highly sericitic, fine to med grained brnish epnite with numerous ½ - 3" white qtz filled fractures & stringers.
		824.4 - 827.5 - 10-15% greyish white quartz stringers & 3-5% fine pyrite mostly in the felsic epnite.
		827.5 - 831' - 60% massive, fragmental & stringer qtz - mostly white with some greenish grey matrix. Rarely min with << 0.5% fine sulph. most of the qtz is strongly fractured with greenish chlorite fracture filling.
		831 - 834' - ~5% scattered white qtz stringers & stringers @ 25 - 40° TCA - weakly min with < 0.5% fine pyrite. Bpnite continues to be sericitic & very sericitic & with bleached augite phenocrysts.
		from 834' thru 847' medium grained, green colored with highly bleached augite phenocrysts. Unit is also very sericitic. A few widely scattered brown leading quartz stringers noted (as fractures marked on next page.
		@ 838.1' a 1" TIGHT STRONG MYLONITIC FAULT @ 30° TCA - an intensely laminated seam with greenish chlorite & very tight structure followed by a 1.5' reddish brown more felsic looking section.

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Footage From	Footage To	Description	From	To	Total	Sample No.	Ozs
		Qtz stringers are listed below down to 847					
		Footage / Width / CA / Remarks					
		835-1 / 1/2" / 35° / white					
		835.5' / 1/4 - 1/2" / 20° / grayish white					
		836.5' / 3/4" / 37° / several grayish white qtz.					
		836.9' / 1/2" / 25° / few white qtz.					
		838.2' / 1/4" / 38° / grayish white qtz					
		839.7 / 3/4" / 22° / This is mostly a white albite? vein					
		841.1' / 1/4" / ~30° / - dull white "waxy" carb - qtz stringer					
		842'-842.6' / 1/2 - 3/4" / 23° / grayish white scattered qtz stringers with a few dark grey sulphide specks.					
		843.4' / 1" / 48° / a STRONG TIGHT CHL FLT here cutting strong bleaching in the grayish white qtz - a few fine seams of pyrite + CHL coated.					
		845.5' / 2" / 30° / white qtz - banded.					
		847' ± / 3/4" / 35° / - a dull shitty brick white qtz stringer.					
		848 / 1/4" / 57° / white bullish qtz stringer					
849.3	851'	Felsic Syenite - leading contact is a CHL QTZ FRACTURE @ 32° TCA. - a bullish 3/8" dull white qtz band on leading contact. - unit is dull brown in clr with a f.g. texture					
851	866	Basic Syenite - leading contact is in conformity with no definite angle. - varies to medium to locally c.g. textured, highly saussuritic green b.syenite with bleached margins. Widely fractured with dull white carb qtz fracture filling. 866.4' - 866.85 - broken core intersected with few MUDDY CHL SLIPS @ 25° TCA Minor coarse pyrite on one surface. This interval consists of mainly CARBD basic unit with 5-8% white qtz fragments. Min with <1% pyrite.					
868	892.9	Felsic Syenite - leading contact is also interval. - unit is a dull reddish brown clr with a f.g. texture & a moderately fine banding fractured appearance. Locally minor basic woolly porphyritic.					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-1

Footage From	Footage To	Description	From	To	Total	Sample No.	Oz.
		thru 973.5' dark greenish black basaltic - massive med grn'd unit.					
		beyond 974' abruptly changes to a much fine grained phase of increasingly brown to dark maroon colored phase of mac					
		fabric augite - locally appears finely porphyritic between 975 - 976.2' & 978.4 - 979.5' - very faint to fabric shifting - no					
		real change contact. Balance of section is fine to med grained textured basaltic.					
		from 980 thru 992' medium grained textured dark green to brownish massive basaltic. @ 985.2' a ½° CARB CHL SLIP @ 37°					
		beyond 993' basaltic & thru 998' a fg. section of dk grn/grey basaltic.					
		beyond 998' basaltic becomes more fine to med grained textured.					
		- generally basaltic for some ½ - 1' scattered dull brown fabric rib.					
		- thru 1018' dark greenish grey colored, generally fg. textured basaltic with a few scattered pinkish white carb/qtz filled ½° fractures.					
		from 1018 thru to 36.8 dark greenish black colored fine to locally med grained basaltic					
		@ 1031' a ½ - ½" CARB/CHL FRAC/SLIP @ 15° TCA.					
		thru 1054.5' dark green black fine to locally med grained locally chloritic basaltic					
		@ 1038' a ½° TIGHT MUDDY CHL SLIP @ 43° with a ½" pink carb band adjacent to slip plane - Tight fracture.					
		- core changed beyond here 1038'.					
		- thru 1067' dark greenish black colored fine to med grained basaltic. & zones thru 1086' & 1105					
		@ 1086.9' a ½" TIGHT CHL SLIP @ 15° TCA.					
		@ 1109' a ½ - ½" STRONG SERPENTINITE/CHL SLIP @ ~5° TCA.					
		- thru 1123' continuation of dark greenish black fg. basaltic with a few Tight CHL FRACTURES @ ~5° TCA.					
		@ 1125.6' a 1/8" MUDDY CHL SLIP @ 8° TCA					
		@ 1136.2' a 3/16 MUDDY CHL SLIP/FLT @ 10° TCA.					
		- thru 1142' continuation of dark greenish black colored, fg. basaltic.					
		@ 1153.3' a 3/16" CARB-CHL SLIP @ 7° TCA.					
		- thru 1161' continuation of blk, fg basaltic. & zones thru 1179.7' & thru 1198.5'					
		from 1198.5' thru 1217.6' continuation of dark greenish grey colored, medium grained textured basaltic with a few widely scattered					
		basalts to ½" dull white carb filled fractures.					
		@ 1205' a 1/16" CHL SLIP @ 35° TCA followed by a 3/16" pinkish calcite CARB BAND.					

LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-1

Footage From	Footage To	Description	From	To	Total	Sample No.	Ozs.
		-thru 1236' medium grained textured greenish to slightly brownish colored basic syenite					
		@ 1232.5' a STRONG 3/16" MUDDY CHL SHR @ 10° TCA. Soft green chlorite over bxe -					
		-thru 1255.6' medium grained, dark greenish gray colored massive basic syenite with a few dull white 1/4" carb filled fractures.					
		from 1256 - 1266' more hairline fractured like above. @ beyond 1269' 1-2" dull brown felsic intrusion.					
		- @ 1276.2' a CHL SHR @ 13° TCA with the adjacent 1" MYLONITIZED wallrock.					
		- beyond 1283' basaltic is quite fg. Textured					
		@ 1289.3' Two 1/4" MUDDY CHL SHR 1" apart @ 55° & 30° TCA. with a partial 3/4" pinkish orange CARB BAND					
		- beyond 1292' basaltic becomes more fg. Textured with angular evidently more blended.					
		@ 1295.7' a 1/4 - 1/2" dull greyish white qtz stringer @ 30° TCA. Brown looking but check around - white qtz.					
		@ 1311' a 3/4" dull greyish grn qtz stringer subparallel a 1/8" STRONG CHL SHR/FLT @ 10° TCA. Trace of sulph min. Chl white qtz around.					
		@ 1311.5' a 2" STRONG MYLONITIC BAND @ 33° TCA is mix with 3-5% fine pyrite min. Leads off a PYRITIC ZONE in variably CRUSHED/SILICIFIED dark green basic syenite					
		1311.2' - 1313.1' 10-15% dull greyish siliceous flooding of dull greenish grey colored variably crushed basaltic. Min. with 8-10% very fg. to small 1/16" subrnd pyrite.					
		1313.1 - 1315.5' as previous sample with 8-10% fine sulphides and a 2" dull brownish grey qtz stringer core @ across end of sample section Trending @ 29° TCA.					
		1315.5 - 1316.7' - 5-8% fine pyrite in variably CRUSH/MYLON basaltic with hairline @ 29° TCA. Fine grained pyrite on broken pyritic surfaces.					
		from 1316.7' thru 1330.5' - medium to coarse grained green basaltic with some hairline carb fractures & a few scattered dark felsic intr.					
		@ 1333' a 1" pinkish CARB/QTZ BAND @ 10° TCA - a dull white to pinkish 1" zone with closely spaced qtz stringers/stkwks - core is broken from tight MUDDY CHLORITIC surfaces @ 5-30° TCA. No string features noted here.					
		-@ 1338.9' a 3/8" MYLONITIZED/CARBONATIZED WAFER @ 17° TCA. - conjugate set fractures.					
		@ 1341' a 1/4" dull greish white closely knitted qtz stringer @ 70° TCA					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-1

Footage From	Footage To	Description	From	To	Total	Sample No.	Oz.
		@ 1344.9 a $\frac{1}{16}$" - $\frac{1}{8}$" dull white quartz stringer @ 80° TCA within a 1" band of pinkish b opinite (~ 5% min 1°) clk margined.					
		- Thru 1349' medium grained textured dark green chlorite and some thru 1367.4'					
		- between 1363 - 1366 moderately fractured b opinite with annual $\frac{1}{8}$" dull white qtz carb filled fractures.					
		- beyond 1373' opinite become increasingly blended.					
		@ 1375' a $\frac{1}{4}$ - $\frac{3}{4}$" white qtz carb stringer @ 13° TCA - min with ~5% fine disturbed opinite. From 1376 thru 1379.3' a $\frac{1}{4}$ - 1" dull shitty white to grey colored fractured qtz stringers, bands and lobes trending down and core @ ~10° TCA. min with 2-3% fine opinite. Qtz ends on a $\frac{1}{4}$" STRONG MUDDY CHLORITE SLIP @ 18° TCA. A which trips to the most supporting presence of MOLY marks end of qtz zone. - crossed in 2 parts.					
		- beyond 1390' b opinite is medium grained with angular b opinite @ 25-30° TCA.					
		- beyond 1384' rock becomes increasingly blended - generally some structure?					
		- logged to 1396.5' Nov 27/93 S. Nemeth.					
		@ 1389.8' a $\frac{1}{8}$" MYLONITIC CHL CARB SLIP/FLT @ 20° TCA. Tight zone loss @ 1392' a $\frac{1}{4}$" dull white QTZ CARB BAND terminating on a 1" chl slip @ 27° TCA. Trace of sulphide min. @ 1395.7' a $\frac{1}{4}$" - $\frac{1}{2}$" dull pinkish white qtz carb bleached with $\frac{1}{2}$" chlorite - inconsequential fracture with a few grains opinite. clk margined.					
		- Thru 1405' med grained Textured, locally fissile fractured clk gn b opinite. & some thru 1424' between 1422 - 1423' choppy broken core on chl coated and b opinite @ ~ 15° TCA.					
		from 1424' Thru 1441' green to pinkish green colored, med grained textured and moderately banding fractured b opinite. a few v/f reddish brown fissile subs.					
		beyond 1441' b opinite is moderately FRACTURED & BLEACHED with a med grained texture & banding to $\frac{1}{8}$" dull white qtz-carb fracture filling thru 1461'					
		1460-1461' - a TIGHT 1" BRECC CARB CHL FAULT @ 32° TCA - Tight zone of crushing / blending dull white carb bounded with dark green chlorite. Fine 1-2" on both sides of the above b opinite variably crushed & min with 8-10% fine b opinite - broken like a light on fracture.					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-1

Footage From	Footage To	Description	From	To	Total	Sample No.	Oz/t.
		@ 1465.4' a 1" pinkish white CARB BAND @ 28° TCA - host rock is reddened for 1-2" on either side of each of main carb bands on irregular wallrock fragment - tight fracture.					
		from 1465.4' thru 1467.5' several scattered ± - ½" pinkish white carb filled bands @ 30-40° TCA.					
		- thru 1479.7' moderately limonitic fractured, med grnd greyish green hematite.					
		@ 1478.6' a ½" CHL CARB SLIP @ 23° TCA.					
		@ 1480.6' a 0.3' CRUSHD/MYLON FAULT @ 28°TCA - moderately limonitic crushed hematite with ½ - ½" pinkish white altered carbonate & ½" dull grey clayey qtz host - some chlorite was noted mixing here but recovered core did not have a 3/8" band of chlorite across it. Trace of pyrite min - wkly to mod chloritic.					
		- thru 1498' dull greyish green colored, med grained, limonitic fractured hematite.					
		@ 1494.5' a STRONG ½" MUDDY CHL SLIP @ 23° TCA.					
		from 1498' thru 1516' STRONGLY HAIRLINE FRACTURED med grnd hematite with dull white carb & clayey white qtz fracture filling - locally very limonitic to blocky over section. Angles are moderately blended.					
		@ 1506.2' a ½" CHL FRACTURE/SLIP @ 45° - tight.					
		@ 1516.3' a 1/8 & 3/16" dull clayey grnish white qtz stringer @ 45° TCA. min with <1% fine brecciated pyrite.					
		@ 1519.2 & 1519.9' 3/16 - ¼" dull clayey white bullish qtz stringer @ 40° TCA.					
		1526 - 1526.5' a ½" TIGHT CHLORITE MYLON FAULT ZONE @ 30° TCA - oxidized limonitic chlorite - wkly angular core with 2" of surrounding hematite min with ~3% fine pyrite - chl coated.					
		1526.5' thru 1534.5 STRONGLY HAIRLINE FRAC hematite with short scattered moderately CRUSHD sections. Overall greyish green color.					
		1533.6 - 1534.5' - a ½" pyritized fracture trending down core @ ~5° TCA. Overall <1% fine pyrite.					
		1535.4' - 1539.7' - a ½ - ½" dull greyish white bull pyritized qtz stringer trending down core @ ~5° TCA - Overall ~1% fine brecciated pyrite in some veins.					
		1539.7 - 1541.5' - med to cg hematite with a ¾" dull white qtz stringer @ 1541' @ 23° TCA. Well pyritized with a fine stock running down thru middle of stringer. Overall ~1% fine brecciated pyrite.					
		1541.5 - 1544.8' - med grnd siliceous hematite with <1% very fine pyrite.					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK 93-1

Footage From	Footage To	Description	From	To	Total	Sample No.	Ozs.
		From To					
		223.6 259.4					
		351.6 388.4					
		577.1 596.3					
		615.7 1054					
		1310.7 1405					
		1441 1461					
		1516 1600					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-1

Footage From	Footage To	Description	From	To	Total	Sample No.	Ozs.
		1544.8 – 1546.8' – variably CRUSHED / MYLON hematite with 2-3% very fg. pyrite min					
		– hematite remains variably crushed thru to 1548' where a 1/8 – 3/16" STR MUDDY CHLORITE SHR is @ ~5° TCA.					
		1546.8' – 1548 – variably crushed hematite with <0.5% fine pyrite.					
		1548 – 1551.6' – continues 3/16" STR MUDDY CHL SHR @ ~5° with balance of section consisting of dk grn grey fg. hematite with 2-3% fine pyrite min.					
		1551.6 – 1555.5' – moderately altered brownish colored, locally crushed hematite with trace of pyr min – dk mineral.					
		1555.5 – 1557.8' – STRONG CHLORITE MUD BREAK ZONE @ 10° TCA – a very strong 1" soft flaking & muddy green chloritic gouge containing small lenses angular wallrock fragments – leading edge of main mud zone is @ 28° TCA while mud is fairly uniform @ 10° TCA. Immediate wallrock & mud is min with ~1% very fg. pyrite – ore structure? – looks as strong as 04 Break @ Macassa					
		– beyond 1557.8' gradually less altered by continued strongly kinkie fractured hematite thru 1570' with a few 1/8 – 1/4" dull white CARB/QTZ filled FRACTURES @ 18–35° TCA.					
		from 1570' thru 1588.4' fine to med grained textured, grey to greenish colored hematite @ 1578' a 1/2" dull white CARB/QTZ FRACTURE @ 18° TCA – dull white band thinly stringed with chlorite. from 1588.4 thru 1600' hematite is dark greenish black with a med grained texture and section is moderately kinkie fractured.					
	1600'	EOH Nov 28/93 S. Maxwell					
		list of retained boxes from this hole on next page.					

Lac Minerals Ltd. Macassa Division

Hole # CK93-

Date: Nov. '93

Sperry-Sun Borehole Survey Data Sheet

Type of Survey: Open hole Sperry Sun magnetic multishot using wireline cable surveying down the hole. Camera kept running after surveying CK 93-6

Layout Dip: -78° Layout Azimuth: 030

Camera Time Interval: 1 min

Surface / Underground Survey Conducted By: L. Renaud

Film Developed By: L. Renaud Film Readings By: L. Renaud

Depth	Time In	Time Out	Dip as Read on film	Dip Corrected	Azimuth as read on film	Azimuth Corrected for Declination	Rotated Azimuth for Sonsurv Plots
25	54:00	57:00	13	77	N40°E/040	026.5	
100	59:00	1:02:00	13	77	N40°E/040	026.5	
200	1:03:00	1:06:00	13	77	N40E/040	026.5	
300	1:08	1:11:00	14.5	75.5	N46E/046	032.5	
400	1:13	1:16:00	14.5	75.5	N49E/049	035.5	
500	1:17	1:20:	15	75	N50E/050	036.5	
600	1:21	1:25	15	75	N51E/051	037.5	
700	1:26	1:29	15	75	N53E/053	039.5	
800	1:30	1:34	15	75	N56E/056	042.5	
900	1:36	1:39	15	75	N59E/059	045.5	
1000	1:40	1:43	15	75	N62E/062	048.5	
1100	1:45	1:48	15.5	74.5	N63E/063	049.5	
1200	1:50	1:53	15.5	74.5	N62E/062	048.5	
1300	1:55	1:58	15.5	74.5	N66E/066	052.5	
1361 1400	2:01	2:05	15.5	74.5	N69E/069	055.5	
1500							
1600							
1700							
running off @							
2:13							

LAC MINERALS LTD./MACASSA DIVISION

DIAMOND DRILL LOG

Hole No. BK93-2

Section 1734 25E | 17309.42
Ref. Line 19400N | 19403.39
Elevation 1129.50
Azimuth 0° Legent 5°56'49"
Location NW pt of cl L2453
Northing 19403.39
Casting 17309.42
Drill Contractor: Heath & Sherwood Drilling (1986) Inc
Core Stored @ Macassa mine Core Shack

Depth 906'
Dip 66°42° on rods
Core Size BQ Wireline
Purpose To intersect the subducted vein ~ 100' E & up plunge above the 300' elevation.

Remarks J. Renaud Nov 11/93
- sludges surveyed @ Macassa old lab. Core surveyed @ Sweetie.
- hole open hole Eastman Sun surveyed
& casing left in hole - collar surveyed by B. Lanoie
- survey sheet attached

Factor
Dip Test @

20 sc E		
20 sc G		
100 sc P		
20 sc X		
20 sc L		
100 sc L		

all data in Brown

Footage

CORE sludges (over)

From	To	Description	From	TO	Total	Sample No.	Ozs.
0	4	Casing					
4	63.7	Conglomerate - Typical Timiskaming pebble conglomerate with red jasper & minty greenish grey/pink matrix supported pebble including a 0.6' aplite porphyry dyke? @ 7-3'					
		- large BW casing run to 8'					
		- from 42-4' good casing of massive pebbly conglomerate with a greenish grey color.					
		- to 61.7' interbedding of massive conglomerate					
		@ 63.6' a 1" RUSTY FRACTURE @ 43° TCA.					
63.7'	86'	Intermediate-basic intrusive - a tight dull olive @ 47° TCA.					
		- a dull olive green colored, fg., non magnetic unit.					
		@ 65.2' a 2.5' STRONG SHD MUD FAULT @ 50° TCA. a 1.5" white calc, beige calcareous greyish white qtz laminated seam with thin chlorite laminations. a 1/2" soft chlorite mud gouge on one core end. Trace of sulphides on the planar stong bounded fractures.					
		beyond 65.5' return to a more sandy greywacke texture and beginning @ 66' greywacke quickly becomes blended to a pale green / beige color.					
		67.8 - 69.3' a highly blended section of SILICIFIED greywacke rock with 0-40% dull white stringy & blebby qtz veining @ 25° & core ends on a RUSTY CHL FRACTURE @ 53° TCA. At 67.8' a thin hematite MOLY FRACTURE @ 38° TCA with a thin film of fine sulphides					
		@ 69.3' return to brown colored greywacke					
		between 70.0' - 70.6' a STRONG SHD ZONE @ 40 TCA & bounded on a 3" RUSTY CHL-CARB SLIP/FLT @ 40°					
		between 71 - 71.8' is COARSELY FRACTURED CARB FRAC/FLT ZONE @ 45° TCA					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK 93-2

Footage From	Footage To	Description	From	To	Total	Sample No.	Ozs.
		green chlorite fracture filling. entire interval is broken up. minor ½" angular dissipation stringers with very fg. pyrite min. Calc noted from 71.8' thru 80.2' brownish grey colored, sandy textured greywacke with several stringy sections of dull white qtz.-calc stringers @ 30° TCA.					
		79.7- 80.2' - a ½" white qtz. stringer @ 22° TCA with several ¼ - ¾" clots of chalcopyrite in the qtz. Overall 1-2% disseminated chalcopyrite					
		- @ 80.4' & 80.6' - Two ½ - 1" white CARB filled FRACTURES @ 20° & 30° respectively in the green greywacke.					
		- @ 81.3' a 2-3" green bleached/alt CARB/CHL FRACTURE/SHR @ 30° TCA.					
		Interval 81.9- 83.6'- variably CARB FRAC locally purplish grey greywacke with ~1% fine pyrite scattered thru out entire - a garish ruby? staining on fracture @ <5° TCA.					
		83.6- 84.6' Two 3" thick STRONG CHLORITE MOLY SLICK @ 35° 0.6' apart. Intervening greywacke has ~2% dissem chalcopyrite scattered thru-out unit.					
		84.6- 86' - variably SHEARED & locally folded greywacke - strong @ 32° TCA - some muddy coated slickensides.					
86	103.6'	Porphyry - leading contact is a tight CHL FRACTURE @ 35° TCA					
		- normal aspect porphyry observed @ Macassa & rest of Wildcat Camp.					
		- unit is bleached lite brown in colour to 87' thereafter becoming darker brown in colour & more porphyritic					
		- Interval 88- 91.5' COARSELY BRECCIATED zone with angular wallrock cemented by dk green chlorite. a ¼" CHL-CARB FRACTURE trends along core axis for 2-3'					
		- thru 96' brown colored porphyritic textured brown porphyry with small scattered dark green colored mafic xenoliths					
		@ 100.5' a 0.3' section of orange/pink & white qtz.-calc stringers @ 62° TCA. Bulbid fracture filling.					
		- to end of unit brown colored, moderately porphyritic textured porphyry.					
103.6		Tuff - normal leading contact @ 20° TCA.					
		- first 1' of unit is CRUSHED & rich with 10% white stringy & fragmental carbonate					
		- generally unit is dark greenish grey colored with a fine sandy/silty texture - no pyrite noted.					
		@ 107.2' a 0.3' gouge clayey crushed band with coarse subbed pyrite - band terminates on a CHL SHR @ 42° TCA. Overall 2% fine subbed pyr.					
		- thru 114.4' greenish grey colored massive tuff					

LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-2

Footage From	Footage To	Description	From	To	Total	Sample No.	Ozs.
		@ 115.6 a 1.0' light green bleached HIGHLY FRACTURED unit of carbonatized tuff - Trend is @ 22° TCA.					
		Thru 126' sandy textured dark green colored massive good coring tuff.					
		Beyond 126' tuff becomes lighter greenish grey colored.					
		@ 127.7' bedding is @ 37° TCA.					
		from 132.6' thru 151.9' uniform grayish brown colored, variable textured tuff - locally well bedded.					
		- bedding @ 141' is @ 43° TCA.					
		- Tuff is weakly to moderately magnetic.					
		from 151.9' thru 171.2' gray to brown colored, variable textured tuff with occ thin coarse sandy sections including sections of ~1" rusty angular clasts.					
		- @ 167' bedding is @ 48° TCA.					
		from 171.2' thru 190.8' brownish gray colored, variable textured tuff. Massive good coring unit with a few ~ 1/8" white carb filled fractures.					
		- Thru 204.6' continuation of brownish gray colored " " " with about same lattice intervals.					
		@ 207' core is broken for 1.5' on a 1/8" TIGHT CHL SHR/FLT @ 5-15° TCA. minor mud on slip plane. Preceeding 1' of tuff is crowded with small white carb or fracture filling.					
		Thru 227.4' brownish gray colored, variable textured tuff. Interval between 204.6 - 211' contains coarse 1-2" angular thru subrounded clasts.					
		@ 214' bedding @ @ 47° TCA.					
		from 227.4 thru 246' grayish brown colored generally well bedded tuff with a gradually increasingly fractured appearance with white carb fracture filling.					
		- to 255' coarse sandy textured tuff and beyond this point tuff becomes fine silty textured and locally darker brown colored.					
		@ 261' bedding is @ 42° TCA.					
		@ 264.8' a 1/8" CHL SHR @ 48° TCA - conjugate tight fracture.					
		beyond 267' tuff becomes increasingly bleached and FRACTURED with white carb fracture filling.					
		between 274 - 280' reddish brown to brown colored variably fractured tuff					
		@ 281.6' a 1/8" CARB/CHL FRACTURE @ 14° TCA.					
		beyond 283' tuff is weakly HIGHLY BLEACHED and locally pervasively textured. A pale green/beige color thru 302'					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-2

Footage From	Footage To	Description	From	To	Total	Sample No.	Ozs.
		295.7 - 297.7' - light green bleached tuff with a STRONG SHD/MYLON appearance over 1.0' @ 28° TCA. Core is intensely crushed/crumbly with strong chlorite lamination. A few coarse calcite 1/8" pyrite grains @ start of interval.					
		- intense BLEACHING extends thru to 298.3' where a 3" CHL-CARB FAULT is @ 45° TCA - a 1/4" orange oxide band with chlorite laminated 1/4" seam. Some soft films of chlorite mud on some core ends.					
		beyond 299.5' tuff is more bleached in color with a moderately fractured appearance with dull white oxide or fracture filling. Logged to 302.2' Nov 11/93 S. Maxwell					
		between 305.4 - 306.2' highly BLEACHED tuff with ~20% dull white stocky & blebby calcite - brown looking core.					
		- thru 324 greenish gray colored sandy textured tuff with numerous bleached streaks/bands & brittle bleached fractures. @ 316.2' a 1" CHL SHR @ 45° TCA followed by a 1" SHD/MYLON BLCHD BAND - strongly laminated tight fracture. B					
		from 324' thru 329' brownish gray colored sandy greywacke.					
		from 329' thru 340' variably BLCHD/ALT sandy to shrt fragmental section with some having a bright orange color bet. 331-@ 330.8' 1/16" CHL SHR @ 37° TCA & @ 58° TCA.					
		@ 336.7' a 1/4" TIGHT FRACTURE @ 15° TCA - followed by a 1-6' section of variably fractured orange brown tuff with thin gray quartz/calcite fracture filling - thru to 339.2' variably CRSHD orange brown tuff - overall trace of fine pyrite mineralization.					
		- thru 352.6' brown to greenish brown colored mostly sandy textured tuff with localized sections of variably bleached/alt & crushed carbonatized tuff.					
		@ 352.6' a STRONG CHL MUD BREAK @ 42° TCA - a 3/8" soft mud seam followed by 0.8' variably BRECC tuff with dark green colored chlorite fracture filling - a strong structure B loss.					
		- thru 355' tuff is bleached & strongly FRACTURED/CARBONATIZED with a dull brown color.					
		@ 355' another STRONG BRECC FAULT @ 60° TCA - a 1/2" sandy coated seam including a 1/8" soft sandy mud seam on this structure. - thru 358' brown colored tuff with several core ends coated with black gray colored MOLY/SPECULARITE coated films - Trace of pyrite min.					
		- from 358' thru 376' moderately bleached sandy to silt textured tuff with numerous dull white oxide filled fractures - Tuff appears to be increasingly bleached.					

LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK 93-2

Footage From	Footage To	Description
		between 368.8 - 370.5' - 2-3% coarse ¼" euhedral pyrite occ in bleached & fractured tuff. Occ ¼" grayish white qtz/carb band @ ~ 10° TCA.
		from 376' - then 394.5' moderately BLCHD & FRACTURED greenish & brownish gray colored, variable textured tuff. Several ¼" dull white calc filled fractures.
		@ 386.4' a ¼" TIGHT CHL SLIP/FLT @ 12° TCA. Conspicuous chlorite laminated & seam.
		- tuff unit is variably to moderately magnetic.
		beginning @ 391.5' tuff contains an increasing # of greish colored ¼" mostly angular clasts making unit look like a lithic tuff
		- extends then to 405'
		- from 405' then 413.4' highly bleached coarse fragmental tuff with angular clasts up to 1½".
		from 413.4' then 432.8' - HIGHLY BLCHD & VARIABLY FRAC/BRECC light greish brown colored fragmental tuff.
		@ 426' a ¾" BRECC FRAC @ 10-15° TCA with dk green chlorite fracture filling.
		between 430 - 432' strongly brecciated zone with fine limited dk green carb-chlorite as fracture filling.
		from 432.8' then 451.7' locally moderately bleached and FRACTURED tuff - overall a beige to light greish green color.
		from 451.7' then 470.6' pale dull greish green colored, mostly fragmented textured tuff. Unit has numerous ¼ - ¾" darker greenish colored mostly angular clasts set within a lighter green colored fg. matrix. Moderately magnetic
		470.6' then 489.7' dull greenish gray colored combination of mostly fragmented tuff as just described. This section contains several subtle ⅛ - ½" clasts that are not considered to be pieces grains & ∴ not groundmass hue.
		from 489.7 then 506.5' highly bleached brown to orange brown colored tuff, mostly fragmented textured, locally moderately magnetic with blebs possibly magnetite rich grains between 500 - 501.5'
		- between 503 - 506.5' some bright orange feldspathic banding. Not reactive to HCL.
		- then 517.5' bleached light brown colored fragmented tuff.
		between 516 - 517.5' a few large euhedral pyrite grains up to ¾" across, many with a dark gray colored qtz rim around them.
		beyond 517.5' tuff abruptly becomes darker green in color.
		- @ 521' a ¼" CHL SLIP @ 13° TCA. Tight
		@ 525.7' a ¾" TIGHT MYLONITIC SLIP @ 13° TCA. Cuts strong qtz pervasive fracture.
		@ 531.7' a 3/16" RUSTY CHL SLIP/FLT @ 33° TCA. A 3/16" laminated chl seam bounded by a 0.3' laminated chlorite

From	To	Total	Sample No.	Ozs.

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. MK93-2

Footage From	Footage To	Description
		occas. a string lit tight fracture
		- between 536-537.5' a few ⅛-¼" CHL CARB SLIPS @ 30° TCA spaced ~2-3" apart.
		@ 541.2' a ½" STR CHL SLIP @ 15°. a soft flaky chlorite seam preceded by a 2-3" section of strongly chloritic laminated tuff.
		- to 543.4' increasingly blebid variably fragmental tuff
		from 541.4 thru 560' med blebid dull grnish green colored, generally fragmental textured tuff with some darker green sections - unit has a few 1-3° convex to planar laminated intervals and often sections streaked with pale green chlorite. @ 560.2' a 1/16-¼" TIGHT CHL SLIP @ 5-10° TCA.
		- @ 567' a 1' section of dull white dusty quartz fragments up to 1" across - mostly angular, barren appearance chert.
		569.9-570.6' a 0.3' laminated CARB CHL BAND @ 40° TCA with thin pale, minor pyrite, translucent quartz and some blende to green colored stringy chlorite. a few scattered ⅛" pyrite grains caught up within the chloritic lamination. Clk enrgd.
		- beyond 578' increasingly FRACTURED/BRECC/CARBD green colored, sandy textured tuff.
		@ 580' a ¾" BRECC FRACTURE @ 20° TCA - dk green colored chlorite fracture filling.
		between 581.1-582.1' a pale blended green dusty section looking off @ 75° & ending @ 38° TCA. Trace of sulphides. Clk enrgd. logged to 582.8' Nov 12/93 S. Nemeth. Box #31
		from 581.8-588.6 variably BRECCIATED/FRACTURED tuff with 15-20% dull white cavity filling & fracture filling.
		@ 588.6' a ¾" CARB CHL FAULT @ 13° TCA. a ½" white cavity & ¼" total chlorite seam on this stringy structure. Gouge is mix with ~2% blebby brassy colored sphalerite? white vein is laminated with dark green chlorite. Tuff surrounding fault continues to be variably CARBD & FRAC
		from 589 thru 592.3'- INCREASINGLY BLCHD pale olive colored siliceous looking tuff with some pale greenish chlorite streaking. Overall trace of sulphide mix. This section is variably overlaid with 5-10% dusty white qtz stringers Clk enrgd.
		592.3-594.2'- 80% massive white qtz siliceous looking @ 65-75° - mostly bull white qtz with pale blebid olive colored wallrock fragments. Trace of sulph mix.

From	To	Total	Sample No.	Oz/t

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-2

Footage From	Footage To	Description	From	To	Total	Sample No.	Ozs.
		594.2 – 596' – Continuation of HIGHLY BLEACHED SILICEOUS looking altered altered fractured felsic? – trace of sulph mi.					
596'	650.6'	Basic Syenite – looking intact may have been restored? on on a tight CHL FRACTURE @ ~ 22° TCA.					
		– almost appearance of small blocked angular phenocrysts. Unit is intensely hairline fractured with white carb fracture filling					
		@ 597' a ½" CHL SLIP @ ~15° TCA.					
		@ 598' a 0.6' dull white HIGHLY FRACTURED choty qtz zone. Trends @ 22° TCA. Appears looking tight compressional fracture. Not sampled.					
		@ 600.0' a 1/16" MUDDY CHL SLIP @ 12° TCA.					
		@ 601' a 1" dull white brecciated carb band @ ~ 10° TCA with small angular wallrock fragments scattered throughout band – looks healed.					
		from 602' thru 619.3' good coring of dark greenish grey colored, medium fine grained textured basic syenite					
		– @ 607' a ½" dull white choty qtz stringer trending @ 33° TCA. followed by a 0.5' section of moderately blebbed / carb & syenite with dull white stringy carbonate. Competence lower portion.					
		between 611 – 618.3' unit is mod fractured with dull white carb & minor hull qtz as fracture filling.					
		– thru 638.3' & syenite is moderately fractured with dull white carb & qtz as fracture filling.					
		@ 623.6' a ½" dull choty white qtz stringer @ ~15° TCA – lower looking except for a few mm pyrite grains.					
		between 623 – 630' a few 1-3" QUARTZ / MYLONITIC blocked large looks trending @ 38° TCA. Appears looking.					
		– @ 634.5' a ⅜" grey choty QTZ STRINGER @ 53° TCA. Trace of sulph on a chl fracture cutting vein @ 5°. Surrounding & syenite is healthy pyritic.					
		– thru 650.6' & syenite is quite strongly fractured with dull white carb fracture filling. Unit is medium grained with moderately blocked angular phenocrysts.					
650.6	652.1'	Lower Mike Basic – intact looking intact @ 40° TCA. A dull olive green colored unit with a/g. texture – some dark green aggregates ≤ ½" elliptic inclusions some ¼ – ½" with glassy qtz? grains.					
		– @ 1½" pinkish white bullish qtz stringer @ 53° TCA					
		– a lower looking more magnetic unit					
652.1		Basic Syenite – looking intact & @ 33° TCA. Strong & natural.					
		– dark green colored, medium grained textured massive unit. Quite magnetic.					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-2

Footage From	Footage To	Description
		- thru 676.6' uniform dull greyish green colored, medium grained, locally fair banding, fractured hematite.
		- one ft reddish brown fabric rib noted @ 661', otherwise quite near ribbing.
		- to 693.5' dull greyish green colored, fair to banding, fractured, medium grained hematite
		@ 693.5' a ¾" - ½" CHL SHR @ 23° TCA. @ ⅜ - ½" dull greyish crushed chloritic section with occasional ¼" white carb vein parrelling shr
		- beginning @ 693.5' & thru 695.5' hematite is INTENSELY BRECC with angular wallrock/hematite cemented by dull greyish white chalky qtz-carb.
		@ 695.5' a 1" dull greyish white qtz carb stringer zone laminated with thin dk green chlorite trending @ 35° TCA. @ tight chl shrs low dip || to stringer. Banded looking interval.
		@ 709.7' a 1½" section with ½ - ¾" white carb stringers @ 57° TCA followed by a 0.8' section of dull greyish white chalky QTZ-STRINGERS also @ 23° TCA. Trace of sulphide min. Chl arranged.
		from 711' thru 713' hematite is STRONGLY CRUSHD with sections of angular wallrock cemented by a dull grey chalky matrix. Trace of sulphide min.
		- fracture @ 713.6' a ¼" CARB CHL SHR/FRACTURE @ 40° TCA
		between 714 - 715' STRONGLY CRSHD/MYLONITIZED hematite? - strong lineation of greenish chlorite & white carb @ 28° TCA. Core can end exhibits a fine skeining of pyrite. A strong Tight zone. Chl arranged.
		@ 715.1' a STRONG CHL FLT ZONE @ 27° TCA - a 0.4' strongly chloritic laminated zone with ⅜" soft flaky chlorite. A strong banded structure has @ 715.9' a 1" section with a few coarse ½" sub euhedral pyrite grains - banded looking - not ore
		to 729' dull greyish green colored, medium grained fractured hematite.
		- beyond 729' hematite gradually becomes increasingly reddish brown alt with a few reddish brown fabric ribs becoming evident.
		Thru 733.5' medium grained, moderately fractured brownish colored hematite.
		- thru 752-3' uniform massive medium grained gneiss containing dull greyish green hematite
		- long gneiss core between 738.7 - 743' removed to support fluorescent light fixture over table.
		from 752-3 thru 771-3' uniform dull greyish colored, medium grained fractured locally fair banding fractured hematite.
		from 771-3 thru 790.6' mostly more strongly FRACTURED hematite with up to ¾" dull white qtz & carb filled fractures. Unit is brownish green colored with more fabric ribs evident. Some thru 809.6' but with more fabric ribbing.

From	To	Total	Sample No.	Ozs.

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-2

Footage From	Footage To	Description	From	To	Total	Sample No.	Ozs.
		-thru 328.4 moderate grained textured dull brownish grey/green colored unit with several scattered hairline carbonate filled fractures.					
		thru 839.4' dull greyish green colored, fine to med grained textured massive hematite.					
		@ 839.1' a ½" CHL CARB BAND @ 75°TCA. followed by dull greyish white chalky or waxy looking ½ - 1" quartz					
		Twisty @ ~5° TCA. Trace of chlorophyte in adjacent hematite wallrock. Qtz stringer(s) persist thru 943.4'. Sampled					
		on one interval. Not expected to run anything - about 5-10% Tot Qtz					
		from 843.4' thru 847' mod brownish colored, fg. Textured massive hematite - banded looking.					
		from 847 thru 866' mod brownish alt colored, fine to med grained textured moderately fractured hematite with some					
		white qtz carb stringers & fracture filling upto ½" wide. All brown looking.					
		@ 866.6' a 2-3" VUGGY CARB ZONE @ 23° TCA - unsure with dense calcite crystals growing in vugs. Trace of galah.					
		@ 870.6' a ½" MUDDY CHL SLIP @ 13°TCA.					
		thru 877' hematite is dominantly fractured with upto ½" dull white to light qtz filled fractures filled with irregular white carb.					
		- hematite has a brownish / greenish color.					
		877 thru 885.7' dull greenish grey colored, med grained textured hematite.					
		885.7 thru 904.5' UNUSUALLY BLEACHED generally fg. Textured hematite with several ¼ - ½" dull chalky white carb / qtz					
		filled fractures. Most fractures are laminated with a white carbonate envelope rimming the fracture.					
	906	EOH Nov 13/93 S. Newcomb					

Lac Minerals Ltd. Macassa Division

Hole # CK93-2

Date: Nov 13 /93

Sperry-Sun Borehole Survey Data Sheet

Type of Survey: Open hole Sperry Sun magnetic multishot - surveying from collar down the hole

Layout Dip: -66°41' Layout Azimuth: 0°

Camera Time Interval: 1 min

~~Surface~~ Underground Survey Conducted By: B. Renaud

Film Developed By: B. Renaud Film Readings By: B. Renaud

Depth	Time In	Time Out	Dip as Read on film	Dip Corrected	Azimuth as read on film	Azimuth Corrected for Declination	Plotted Azimuth for Borsurv Plots
25	4						
100	4:00	8:00	26	64	N15°E / 015	003	
200	10:00	13:00	28	62	N17°E / 017	005	
300	14:00	18:00	28.5	61.5	N17°E / 017	005	
400	20:00	23:00	29°	61	N18°E / 018	006	
500	25:00	28:00	29.5	60.5	N19.5E / 019	007	
600	30:00	34:00	30	60	N20E / 020	008	
700	37:00	40:00	30	60	N20E / 020	008	
800	41:00	44:00	30.5	59.5	N21E / 021	009	
878	46:00	50:00	30.5	59.5	N25E / 025	013	
Camera at 54:20							

LAC MINERALS LTD./MACASSA DIVISION

DIAMOND DRILL LOG

Hole No. CK93-4

SCK93-04 all data in Borsurv

Section	17800E / 17804.74	Depth	1752'	Remarks	J. Norwood Nov 14/93
Ref. Line	19795 N / 19757.09	Dip	-60° Inclinometer -60°10' on rods		- casing left in hole. Hole deviation surveyed using the drill rod string. Survey sheet attached
Elevation	1138.30	Core Size	BQ wireline		Note: core damaged from ~950-1336' & related losses
Azimuth	031° Inclinometer 31°33'43"	Purpose	Exploration drilling		Fault 'A' (~75°W dip) and beneath into Hanging wall. See end of log for details.
Location	SE pt of L-2257		Felsic syenite mass mapped on surface		Drill water return lost after 890' - probably on breaks
Northing	19757.09		± E of Fault 'A' trace with extensive		Collar surveyed by B. Lavoie
Easting	17804.74				- core assayed @ Swastika
Drill Contractor	Heath & Sherwood Drilling (1986) Inc.		swamp cover.		- sludges assayed @ Macassa new mill 'attic lab'
Core Stored @	Macassa Mine Core Shack				

20 sc E					
20 sc G					
100 sc P					
20 sc X					
20 sc L					
100 sc L					

CORE sludges (over)

Footage

From	To	Description	From	TO	Total	Sample No.	O2%
0	6	Casing					
6	32.6	Tuff - brown to rusty brown colored, non magnetic unit. Very bleached thru 20'					
		- unit veined from fine ank to about cg. to this section					
		16.8 - 17.8' - 5% grayish qtz stringers including a rusty CHL FRACTURE @ 53° TCA. Looks like vein type qtz but does not make it across the core. Min with ~1% fine pyrite.					
		Between 19-20' tuff is rusty & fine waxy appearance.					
		@ 26' good bedding @ 50° TCA.					
		- thru to end of unit tuff is brown to gray in color with an ash thru small fragmental textured section.					
32.6	204.7	Basic Intrusive - intrusive chilled bedding contact @ 37° TCA.					
		- unit is brown to greenish gray in color and fine to medium grained textured with a moderately bleached appearance.					
		From 42 thru 61' dull greenish gray colored, pyrite and grained textured HIGHLY FRACTURED intrusive with both dull white carb & qtz as fracture fillings.					
		52.8 - 54.6' - thru 1½" dull white qtz stringers with carbonate vein trending @ 55° TCA. Weak < 0.5% fine pyrite min confined to the 2-3" bleached intrusive halos around each of the stringers					
		@ 57.8' a ¼" dull gray colored chalky qtz stringer @ 43° TCA - barren looking - not assayed.					
		From 67' thru 75' intrusive is locally crushed & fractured with some lighter brown colored, locally sericitic sections.					
		- @ 70' a ¼" gray qtz stringer trending @ 10-15° TCA. Min with ~1% fine disseminated pyrite. Ubs assayed.					
		Beyond 93' intrusive gradually becomes increasingly bleached with coarser grained crystals & by 96' unit is a light greenish brown color.					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-4

Footage From	Footage To	Description	From	To	Total	Sample No.	Ozs
		- @ 96.9' a 1" section of variegated chalky grey colored qtz stringer - barren looking with no definite core angle.					
		- @ 97.7' a 1" bullish white qtz with white and ½ orange carb/feldspar alteration trending @ 50° TCA. one dot pyrite noted within a ½" dark chlorite seam.					
		from 98.7' thru 117.9' fine to med grained textured, locally moderately bleached massive biotite. a few scattered ½ - ¾" dull white qtz - carb filled fractures a few with rare dots of chalcopyrite - all tite looking, gently min fractures.					
		- thru 136.9' uniform dull greenish grey colored, medium grained textured, locally fractured biotite. massive good cond.					
		from 136.9' thru 154' dark greenish grey to locally bleached greenish brown colored, fine to med. grained textured massive biotite. Sericite thru 175.5' with a few dull white chalky qtz filled fractures scattered in a few spots thru - out the core.					
		- from 175.5' thru 194' biotite is weakly bleached to a dull brownish grey color. Overall medium grained texture.					
		- thru to end of unit, massive medium greenish grey colored, fine to med grained textured biotite					
204.7	221'	Tuff Basal contact is on a ½" CARB/CHL FRACTURE @ 42° TCA.					
		- unit is variable from brown to grey in color & texture varies from ash thru fragmental above.					
		- first 0.9' of unit is highly bleached to a light brown color.					
		@ 207' bedding is @ 55° TCA.					
		- logged to 213.4' Nov 14/93 J. Newcomb					
		- thru to end of unit Tuff is grey in color with 1-2.0' brown alt/bleached intervals but no appreciable sulph mineralization.					
		- unit is variable textured from fine ash thru coarse fragmental sections.					
221	277	Basic Intrusive - abrupt natural basal contact @ 22° TCA. First 6-8" of unit is bleached.					
		- overall unit is fine to med grained textured with a dark dull greenish grey color. Fabric ribbing is absent thru 233.6'					
		- @ 225.1' a TIGHT CHL SLIP @ 25° TCA with some smeared pyrite on slip plane surfaces.					
		@ 226.5' a 0.4' section of dull bluish grey chalky qtz w fracture filling tracking @ 40° TCA. Trace of sulph min.					
		@ 226.7' a ½" STR CHL SLIP/FLT @ 17° TCA. a few dissem sulphide contaminated zones with thin carb-qtz.					
		- thru 250' generally med grained textured massively fractured biotite with localized 1-2.0' bleached lighter green-grey biotite.					
		- a few scattered ½" CARB/PYRITE clots in the unit.					

LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-4

Footage From	Footage To	Description	From	To	Total	Sample No.	Ozs.
		from 250.3' thru 252.1' basalt is variably CRBHD FRACTURED / CARB with pale green chloritic bleaching @ 23° TCA. Trace of sulphide min.					
		- CRBHD/FRACTURED/CARBONATIZED rock - sulphide variety since original texture obliterated. Overall dark green mafic w/ the similar to that noted in porphyry					
		- @ 254.2' a 1" carbonated chert of green fg matrix supporting numerous sub 1/4" grains? Looks like volcanic?					
		- beg 255.6' dolomite & basalt looking off @ 17° TCA making end of general 16' laminated deformed section.					
		from 256' thru 269.8' with several sections of dull chalky white to slight colored stringers & bands					
		- @ 263.5' a strong beige to white colored chalky bullish qtz - carb band @ 5-10° TCA. Thru 269.8' coring down thin chalky siltstone band.					
		between 273.6 - 275.5' - dull white chalky QTZ CARB fracture filling & cementing angular crushed basalt. Trending @ 20° TCA.					
		- last evidence of basalt in as chalky complete in the qtz - carb mush @ 275.5'					
		- highly blocked / crushed core thru to 277' - min with min to sulphides core between 275.5 - 277' dk grayed.					
277'	283.6'	Tuff - abrupt loss between preceding blocked crushed etc core & following dk gray tuff. @ 17° TCA.					
		- unit is brownish gray in color & fine grained to fragmental textured - highly variable.					
		- non magnetic unit.					
283.6	293.6'	Syenite (Basic) - appears to be an intrusive contact looking contact @ 37° TCA.					
		- starts off as a brown fg fabric phase thru to 284'. Black in color between 284 - 287' and then transitionally over 3-6' becomes more brown in color & more felsic in appearance.					
		- from 287 thru 293.7' 5% dull chalky white qtz stringers @ 10-20° TCA. Some looking fracture filling.					
		- thru 293.6' more brown looking syenite with 15-20% small black to green augite					
293.6	299.1'	brown Mike Rock - looking contact is a dk fracture @ 23° TCA					
		- unit is a dull greyish green color with a fg texture & several scattered small 1" dark green well-rounded mafic looking clasts					
		- unit is non magnetic & contains fragments of basalt.					
299.1	309.3	Basic Intrusive - looking contact is a 1" calcite FRACTURE @ 23° TCA.					
		- moderately altered for first 0.4' then becomes increasingly brownish green in color with a few felsic veins in first 4' from					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-4

Footage From	Footage To	Description	From	To	Total	Sample No.	Ozs.
		Logged 303' dull greenish gray colored med grained textured basaltic.					
		- @ 309.3' a TIGHT 1" SHEARED CHLORITE SLIP/FRACTURE @ 57° TCA.					
309.3	314'	Tuff - ally/fracture zone looking contact.					
		- unit is pale blended to a light green color thru 313'					
		a 2" RUSTY FRAC/FLT @ 310.5' @ 22° TCA. Unsure with remnant dull white qtz veins. Tuff is strongly limonite fractured thru 312.6'					
		where a 3" QTZ/CARB/CHL TIGHT FLT is @ 23° TCA. Followed by a 1' dull green clotty fractured host. Tight but conspicuous.					
		between 312.7' - 314' greenish green dike material - unit is fg. with scattered ¼" dark green subrounded clasts.					
		Logged 314' intrusive to basaltic.					
314	317.4'	Basaltic dyke ± leading contact looks like a dk fracture @ 25° TCA.					
		- unit is a dull greenish gray color with an inconsistently med grained texture.					
		- a few coarse subrounded pyrite grains in last 2' of unit. Trailing contact drilled.					
317.4	319.6'	Tuff - natural looking contact @ 15° TCA.					
		- unit is dull brownish gray in color with a variable texture - non magnetic.					
319.6	321.1'	Lamprophyre dyke - leading contact @ 50° TCA.					
		- a light green fg. unit with some scattered rounded ¼ - 1" dk green clasts thru out unit. In fact 0.6' of unit a conc. of greenish clasts 1" min? Flakes? Overall non-magnetic unit.					
321.1	344.5'	Tuff - strong natural looking contact @ 37° TCA.					
		to between 321.7' - 322.7' - 1-2% coarse ¼ - 1" subrounded pyrite in variably BRECCIATED basaltic tuff. Trends @ 20° TCA					
		thru 327.1' dark gray colored sandy to salty textured tuff with a few scattered clasts. @ 327.9' a chert vein with a chert lens.					
		from 327.1' thru 344.5' down to greyish brown colored, variably textured tuff from fg ash thru coarse fragmental section including					
		intervals that appear BRECCIATED					
		@ 333.5' a ½" grayish qtz stringer @ 35° TCA will minor/pyl with clotted pyrite. Ubiquitous @ 337.8' & 338' another					
		thru ± ¼" pyritized grayish qtz stringer @ 35° TCA					
		- thru to end of unit down to gray colored, variably textured tuff - non magnetic					
344.5	95'	Basaltic dyke - natural looking contact @ 42° TCA					
		- strongly blended thru 346' with widely scattered dark green qtz pyrite phenocrysts in a brown fg matrix					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-4

Footage From	Footage To	Description	From	To	Total	Sample No.	Ozs.
		between 346 then 365.9' a dull greenish grey colored, fine to med grained textured unit with scattered 1-2.0' sections where					
		augite was blended to a pale green colour. Several scattered dull chalky white calc filled fractures mostly @ random core angles.					
		In here have a speck of chalcopyrite or pyrite within them.					
		362.7-369.4'- a 2-3" well fractured greyish qtz stringer @ 27° TCA. well min with subord ½° pyrite - min with ~1-2% pyrite					
		not min type qtz here.					
		@ 382' a few scattered ¼ of ½° dull white bullish qtz stringers @ 25° TCA.					
		between 376-378' scattered dull white qtz - calc filled fractures - mostly bullish looking.					
		@ 378.2' - a STRONG MYLONITIC SHR/FAULT @ 37° TCA - a tight 1½" mylonitic zone with some ½" white calc fractures filling					
		in this tight structure.					
		382.5 - 383.8' - locally bleached / calc & pyrite with a dusting of pyrite on a dull clay @ 30° TCA & ~1% fine bedded pyrite					
		min.					
		then 384.5' dark green/grey colored, med grained bt pyrite.					
		@ 386.9' a ½" STR CHL SLIP @ 25° TCA					
		386.9 - 389.5' - 20% dull chalky brown/grey micaceous qtz & some 5% dull white calc min with ~1% fine pyrite and minor					
		chalcopyrite. Core appears to be stained with green chlorite @ ~25° TCA.					
		- from 389.5 then 403.1' uniform dark greenish grey colored, ~~fine~~ fine to med grained textured bt pyrite with locally scattered dull					
		white calc filled bedding fractures.					
		- then 422.4' greyish brown colored, med grained textured massive bt pyrite with a few fabric rich.					
		@ 411.3' a 2" dull greyish white chalky qtz vein @ 50 & 37° TCA - brown looking except for 1 specks pyrite.					
		@ 412.1' a 0.4' BASAL BAND @ 25° TCA with angular wallrock cemented by dull greyish white chalky qtz. Brown looking.					
		between 420.1' - 421' then ½" dull greyish white chalky qtz stringers @ 15-20° TCA. Brown.					
		- @ 424.7' a 1½" FRAC/CARB/Si BAND @ 23° TCA - brown looking tight fracture.					
		- Then 441.5' med bleached greyish green colored, med grained textured fractured bt pyrite.					
		÷ @ 436.9' ½" CHL CARB SLIP @ 25° TCA.					
		- then 460.5' locally strongly bleached bt pyrite - appears that the stronger the bleaching the coarser grained the augite are.					
		@ 456' a 1½" CARB CHL FRACTURE @ 12° TCA. Very conspicuous tight fracture.					

LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-4

Footage From	Footage To	Description	From	To	Total	Sample No.	Ozs.
		- thru 469.6' locally Hbld'd basalte					
		@ 469.6' a 5" QTZ/CHL/CARB FAULT @ 23°TCA - a well laminated seam of dull gray qtz with white carb & green chlorite with a few mm sparkle pyrite - strong light structure.					
		470.8'- 474' CHERTY MYLONITE ZONE @ 27°TCA containing angular clasts of basalt & other fragments - a dull beige to olive colored cherty groundmass" cementing these angular fragments. Trace of pyrite mm but chl arranged conformably.					
		- thru 479.6' mod. Hbld, med grained basalte with a few scattered 1/2 brown fabric subs.					
		@ 475.1' a 1" BRECC CHL CARB FRACTURE @ 16°TCA. Dull white angular carb cement age in dark green chlorite. mix with ~1% fine pyrite mix. Chl arranged					
		- thru 499' 'continuation of medium grained massive good cong, mod Hbld basalte with a few 1-3" zones brown fg. fabric subs.					
		- between 499- 500' moderately BRECC basalte with white carb cementing angular wallrock fragments - conglomerate light orientation texture.					
		- thru 518.1' locally fresh but mostly bleached, med grained basalte - massive good cong.					
		@ 513.3' a 2-3" CRUSHED section followed by a 3/4" fractured grey/white qtz-carb vein @ 38°TCA. mix with a few sparkle of pyrite					
		thru 537.3' locally fresh to bleached medium grained basalte with bleached section generally being quite siliceous in nature. - several scattered 1/2 - 1" dark beige white cherty angular qtz stringers - mostly brittle in nature.					
		- thru 555' same as previous section					
		between 555 - 556' STRONG CHERTY MYLONITIC FAULT ZONE @ 43-50° TCA - strongly crushed & sheared basalte zone with a 1 1/2" cherty gray qtz band, a 0.4' brown sheared band and a 0.4' coarsely brecc band of carb cementing angular wallrock. a minor 1/4 - 3/8" grey/white vein-like qtz stringer adjacent to mylonite. Overall ~0.5% fine pyrite					
		logged to 556.7' Nov 15/93 L. Normand					
		- thru 575.8' generally medium grained, locally weakly fractured basalte with med bleached intervals.					
		@ 558.2' a 5" dull white CARB BAND @ 52°TCA					
		thru 595.3' locally med bleached, med grained massive basalte.					

LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-4

Footage From	Footage To	Description	From	To	Total	Sample No.	Ozs.
		- between 587.4 - 588.2' - mod FRACTURED biotite with several limonite chlorite filled fractures trending @ 25° TCA. a couple of small ½" reddish brown altered dacite/qtz apophyses within the fractured section.					
		between 597 - 599.5' moderately CRUSHED/MYLONITE ZONE - pervasive texture almost totally obliterated. section is dark brownish green/black in color. foliation is @ 33° TCA on this tight feature.					
		@ 604.2 - a CHL SLIP @ 28° TCA followed by 0.3' dull white clayey qtz-carb breccia. Broken looking					
		- from 614.4' locally mod bleached biotite - medium grained biotite with a broken core interval between 611 - 613.5' on very tight carb-chl coated fractures trending @ ~10° TCA.					
		- from 633' medium grained textured, locally moderately bleached biotite with several scattered ½ - 1½" dull dusty white qtz-carb filled fractures. some more prominent features are listed below:					
		@ Footage — Width — Core angle					
		615.2 — 3/8" — 13°					
		619.7 — 1" — 27°					
		620.7 — 1" — 55°					
		628 — 3/4" — 63°					
		632.6' — 1" — 47°					
		beyond 639' biotite gradually becomes increasingly altered - unit is medium grained thereafter 652'					
		@ 650.6' a 3-4" RUSTY FRACTURE @ 28° TCA. core is variably rotated for 6-8° along core - brown tight feature.					
		from 652' - from 671' greenish grey colored to reddish brown altered, uniform and grained locally fractured biotite					
		@ 652.8' - a 2" VUGGY RUSTY FRACTURE @ 57° TCA - tight conjugate feature.					
		to 671' a few scattered reddish brown colored 1-2" felsic veins					
		- @ 674.1' CHL SLIP @ 33° locally 2" @ another 2" carb & qtz vein respectively also @ 32° TCA. Trace of sulphide min. Unit remained to 674.7					
		@ 676.3' a 1" MYLONITIC BAND @ 38° - a dark green intensely laminated tight chlorite band core followed by a 0.5' grayish white clayey qtz stringer. min with ~1% fine pyrite min.					
		@ 678.2' a 2-3" section of ½ - ¼" dull white clayey qtz stringers Trending @ 55° TCA.					
		beyond 681' @ from 690.4' highly bleached, medium grained biotite with more frequent reddish brown felsic veining					

LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-4

Footage From	Footage To	Description	From	To	Total	Sample No.	Ozs.
		from 693-696' dark green colored, med grained hornfels.					
		@ 695.6' CHL SLIP @ 12° TCA with a partial ¼" grayish white qtz stringer adjacent to slip plane. ~1% coarse pyrite some within 1" of slip plane. Ctc unaltered.					
		- thru 709.6' moderately to strongly bleached, med grained massive good veining hornfels. a few scattered ¼ - ½" dull chalky white brown qtz stringers					
		- @ 702.6' a ¾" dull grayish white chalky qtz stringer @ 32° TCA.					
		from 709.6 thru 729' moderately to strongly altered, med grained hornfels					
		@ 710.2' a ½" dull white CARB BAND @ 13°					
		@ 710.6' a 1/16" CHL SLIP tight @ 28° TCA leads off a 0.3' section of dull grayish white chalky qtz - carb banding. Trace of sulph min					
		@ 714.4 a ¾" dull white brown chalky qtz stringer @ 63° - brown looking tight fracture					
		@ 717.1' a ¼" MYLONITIC SLIP @ 38° TCA - tight - leads off a 0.2' chalky grey qtz stringer min with 1% silvery white magnetic grains & < 0.5% fine pyrite. Ctc unaltered.					
		@ 720.1' a ½" CHL CARB SLIP @ 35° TCA.					
		@ 722.5' a ½" BRECC FRACTURE @ 33° TCA - tight conspicuous fracture					
		from 729' thru 748.2' a STRONGLY FRACTURED section of moderately altered / bleached hornfels. most fractures are filled with dull white chalky qtz with minor white carbonate. Ctc brown looking.					
		- thru 765.8' darker brown colored, med grained textured blocky and veining hornfels with fine hairline qtz - carb filled fractures.					
		@ 758.8' a ¾" BRECC CHL SLIP @ 38° TCA - a strong but tight twisted open fracture.					
		@ 764.8' broken core over 0.4' with crumbly chloritic surface - may be a MUDDY CHL FAULT in here @ ~27° TCA. a ¼-½" pinkish grey colored qtz - carb vein here. Preceding 1-2° of hornfels appears VUGGY.					
		from 776' thru 784.4' dull greenish grey colored, medium grained, moderately hairline carb filled fractured hornfels. a few reddish brown colored fabric ribs.					
		- thru 803.7' medium grained textured, massive good veining hornfels, moderately hairline fractured with white carb as fracture filling.					
		@ 799.6' a 2" section of irregular dull chalky white gouge, recovery a 0.3'					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-4

Footage From	Footage To	Description	From	To	Total	Sample No.	Ozs.
		@ 802' a ½" MYLONITIC SHR @ 25° TCA - a thinly laminated chloritic seam with a minor wedding angle.					
		-then 803.7' medium grained textured moderately foliated, massive hematite.					
		logged to 803.7' Nov 16/93 L.Maxwell					
		from 803.7 then 810.5' moderately to strongly silicified hematite with a few 1-3" CRACKLE CARB bands generally @ 25° TCA with green chlorite staining.					
		810.5 - 812.2' - Massive vein QTz bands @ 12° TCA & @ 42° TCA. dull white massive, fractured qtz with several angular wallrock fragments up to 1" across. Min with trace of sulph CHL covered.					
		then 815' decreasingly sericitic hematite with a few ¼ - ½" calcite quartz grains visible scattered then - out hematite to 819					
		from 816.4' then 821.4 quite fractured hematite with ½ - 1" dull white cherty qtz - carb fracture fillings. all brown looking.					
		@ 824.6' a 1" white QTZ CARB BAND @ 43° TCA followed by a CHL SHR @ 43° TCA - Conformable, tight, brown fracture.					
		826.2 - 827.6' - 70% dull white cherty massive fractured qtz with minor carbonate Terminating on a ¾" CHL MUD BREAK @ 55° TCA. Trace of sulph in this zone - a narrow but strong structural loss.					
		827.6 - 830.8' - 10-15% scattered blebs & stringers of dull white qtz/carb in med grained then crackled hematite. Trace of sulph min.					
		@ 830.8' a 1" CHL MUD BREAK @ 43° & 27° TCA. a 1" + interval of broken hematite qtz & weathering dk green chlorite. Stronger than Back @ 827.6'					
		from 831' then 841' highly fissile fractured dull brownish gray colored, fine to med grained textured hematite. most fractures are filled with white carbonate. Some then 860'					
		@ 855' a ½" STR CHL SHR @ 12° TCA with a parallel ½" white CARB BAND next to shr plane.					
		from 841' then 876.4' strongly fissile carb fracturing of dull brownish gray colored, fine to med grained textured hematite.					
		876.4 - 878.6' more fractured & altered hematite with a 0.9' section of 1-2" dull white qtz carb stringers @ 45° TCA. min with 2-3% coarse dotted chalcopyrite					
		880.1' - 881.4' - 10-15% dull blebby white qtz stringers @ 33° TCA with 1-2% coarse dotted pyrite chalcopyrite in relation to crackled textured hematite					
		then 887' decreasingly FRACTURED hematite					

LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-4

Footage From	Footage To	Description	From	To	Total	Sample No.	Ozs.
		from 887 thru 897.7' darker greenish gray colored, medium grained textured biotite with a few light reddish brown colored 2-3" felsic dikes @ approx thru. 909'					
		@ 907.2' a 2" crushed section with a ½" dull chalky white qtz carb BAND @ 55°					
		- from 909' thru 916.7' darker dull greenish gray colored, medium grained textured massive biotite - strongly magnetic					
		@ 923.5' a ¼" MUDDY CHL SLIP @ 50° TCA - preceded by a partial ¼" moderately crushed biotite host with minor green chl. chalcopyrite.					
		@ 925' a ¾" dull white chalky qtz carb BAND @ 57° TCA.					
		- thru to end of unit medium grained textured, moderately brittle fractured, greenish gray colored biotite.					
		@ 933.5' a 0.2' Dike Rock - dark gray colored, fg. non magnetic with slips on both contacts @ 27° TCA.					
935	945.5'	Felsic biotite - leading contact broken up - appears to have been natural.					
		- unit is brown to reddish brown in color with a 3-5% scattered augite phenocrysts.					
		- fine brittle fractured with carb as fracture filling.					
945.5	988.9'	Basic biotite - leading contact is gradational over ~1.0'					
		- by 946' positive dark greenish gray colored, med grained, brittle fractured biotite.					
		thru 974.3' moderately brittle fractured dull greenish gray colored, medium grained textured biotite.					
		@ 953' a ½" dull chalky white qtz - carb stringer @ 45° TCA.					
		beyond 975' basic biotite becomes increasingly fractured & dark greenish black color with a medium grained texture. locally brittle fractured with dull white carb fracture filling.					
		- last 0.9' of unit becomes increasingly bleached & sericitic					
988.9	990.3	Felsic biotite - natural leading contact @ 53° TCA					
		- unit is brown in color with a fg. texture. Fine brittle fractured. Massive gneissic unit.					
990.3	1752	Basic biotite - gradational leading contact over 0.2'					
		- returns to dull greenish gray colored, med grained textured, brittle fractured biotite.					
		- thru 1012.7' massive dark greenish black colored, medium grained biotite @ approx thru 1031.4'					
		@ 1036.3' a ¼" CARB CHL SLIP @ 33° TCA. a ¼" crumbly pink light green bx.					
		between 1041' - 1043' fine grained to crushed black biotite.					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK 93-4

Footage From	Footage To	Description	From	To	Total	Sample No.	Ozs.
		from 1043 thru 1050.1' dark greenish black colored, medium grained textured, locally choppy veining leucocrate.					
		beyond 1058' lighter grey colored & fine grained. leucocrate thru 1063.4					
		from 1063.4' thru 1088.5' more FRACTURED & locally moderately bleached medium grained basic syenite. Some calcite spots seemed in appearance.					
		logged to 1088.5' Nov 17/93 L. Renaud					
		from 1088.5' thru 1107.5' locally weakly bleached, medium grained Textured, basicic fractured leucocrate					
		@ 1108.3' a 5° CARB QTZ BAND @ 57° TCA & a ½" QTZ CARB Fracture @ 1108.6' @ 25° TCA. Both features are rich with 1% fine clotted dolomopyrite.					
		@ 1115' a ½° CARB/QTZ BAND @ 60° TCA - a ¼" dusty grey/qtz qtz bnd with a ¾" pinkish carb band. Two small clots of dolomopyrite within the qtz.					
		- thru 1126' dark grey colored, medium grained textured leucocrate					
		from 1126 thru 1144.6' medium grained, dark dull greenish grey colored massive good veining leucocrate. a few basicic carb filled fractures.					
		- between 1151 - 1153' and 1155 - 1157' mod. alt. syenitic & FRACTURED leucocrate with dark green chlorite fracture filling.					
		from 1157' thru 1163.9' dark greenish grey colored medium grained textured massive leucocrate					
		between 1174 - 1176' a ½ - ¾" dull greenish beige MYLONITIC / CARB BAND @ 5-10° TCA with moderately fractured syenitic grey/brown colored leucocrate. Brecciated looking.					
		- thru 1182.9' greenish grey colored fine thru med grained Textured leucocrate & some thru 1202.2'					
		from 1182.9 thru 1221.4' combination of med grained textured dark greenish grey colored massive leucocrate & some thru 1240.4' but with an increasing # of white carb filled basicic fractures.					
		from 1240.4' thru 1259.3' dull greenish grey colored, fine to med grained textured, moderately fractured leucocrate. Massive good veining brown weathered & some thru 1278.3'					
		@ 1262.4' a ¾" BRECC CARB FRACTURE @ 40° TCA. Dull white carb zone containing angular wallrock fragments. Competence Tight fracture.					
		- between 1289.3' - 1290.8' - 2% partially stringed dolomopyrite & pyrite over ch. fracture @ 5° ± TCA Chl. enveloped.					

LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-4

Footage From	Footage To	Description	From	To	Total	Sample No.	Ozs.
		from 1290.8' thru 1297.6' - medium to c.g. textured dark greenish grey to black massive hornblende.					
		@ 1299.4' a TIGHT MUDDY CHL SLIP @ 18° TCA with a partial ¼" orange carbonate band within 1" of slip plane.					
		from 1297.6' thru 1316.5' dark greenish grey colored medium to c.g. textured hornblende					
		@ 1311.5' a ⅜" orange-pink CARB BAND @ 53° TCA Tight conformable fracture.					
		from 1316.5' thru 1336' dark greenish grey colored, medium to coarse grained textured, locally boudin fractured hornblende					
		@ 1320.2 & 1320.6' ¼" CARB CHL SLIPS @ 38° & 43° TCA.					
		@ 1325.1' a ¼" CARB-CHL FRAC/SLIP @ 37° TCA.					
		logged to 1336. Nov 19/93 L. Bernard					
		@ 1343.6' a 1½" TIGHT BRECC BAND @ 30° & 43° TCA - intensely brown hued with dark green chlorite as fracture fills - unbroken fracture.					
		beyond 1344' hornblende is gradually increasingly bleached but with still a medium grained texture & an increasing # of dull white calc filled fractures.					
		- between 1353.8 - 1356.0 rock BRECC hornblende cemented by TIGHT CHL SLIP @ 1354.2' @ 13° TCA. Tight conformable fracture					
		- all hornblende terminates on a ¼" STRONG CHL-CARB SLIP @ 24° TCA @ 1356'					
		from 1356 thru					
		- thru 1373.8' darker colored, medium grained textured massive hornblende.					
		between 1381.4 - 1382.7' three dull white ¼ - ⅜" millish qtz stringers trending @ 63° quite brown looking but check assayed anyway.					
		from 1382.7 thru 1398' gradually increasing limbic FRACTURED weakly textured bleached hornblende - medium grained					
		from 1393' thru 1412.2' - STRONGLY BLEACH and grained textured to locally c.g. textured fractured hornblende. Several quartz phenocrysts are bleached on the rims while the centre is darker green in color. Small light brown colored unit.					
		@ 1416.2 - 1416.8' - a 0.4' cloudy grayish white Quartz Vein @ 40° TCA. a ¼" STRONG CHL SLIP within the vein @ 37° TCA. a well fractured vein with a few small wallrock fragments & traces of sulphide vein, may be brown/gold but - can only see thru 1431' continuation of strongly bleached, light grayish brown colored hornblende.					
		@ 1422.8' two ½" [illegible] of dull grayish white cloudy Quartz @ 18° TCA. vein with a trace of graphite. Calc veined.					
		- thru 1449.7' continuation of STRONGLY BLEACH hornblende with a generally med grained texture with a STRONG FRACTURED appearance.					
		@ 1434.2' a ¼ - ½" dull white QTZ CARB FRACTURE @ 10° TCA. Conformable light brown fracture.					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-4

Footage From	Footage To	Description	From	To	Total	Sample No.	Ozs.
		@ 1443.4' a 0.6' broken core on oblique core ends. Probably a TIGHT CHL FLT in bxe @ 67° TCA & @ 1444.3' a 1/2" soft dusty greenish qtz band also @ 67° TCA. Trace of visible min. Wide ore envy.					
		1445.6 - 1446.5' - STRONG CHLR FRACTURED bxgnite with a 1" chlorite wafer @ 75° TCA. Core breaks over min with 1-2% disst chalcopyrite & 1/2" calcite/pyrite (1%) Wide ore envy.					
		1451 - 1451.9' - a 0.4' section of STRONG CRSHNG/ @ 50 & 65° TCA. min with 1% fine pyrite dusting on broken core ends. Minor dull white qtz-carb veins with chlorite lamination. Tight fracture					
		- from 1468.7' HIGHLY BLCHD med grained Textured bxgnite.					
		from 1469.2' thru 1488.1' HIGHLY BLCHD fine to med grained massive bxgnite. Excellent envy. Light grey/beige colored int. bxgnite is moderately fractured with hairline thru 2" dull grayish qtz & dull white carb filled fractures.					
		Uranium sample Taken from 1478.1 - 1482.8' - @ 1481.1' a 1/2" white qtz stringer @ 40° TCA with several stks of chalcopyrite & specularite within the qtz.					
		from 1488.1' thru 1507.5' Intermittent of highly bleached med. grained bxgnite moderately hairline fractured with dull white qtz-carb as fracture filling.					
		1491.2' - 1492.2' a 0.3' STRONGLY BLCHD & CARB BXND @ 55° TCA & a 1" thick grey bullish qtz stringer @ 63° TCA. - bleached/carb bxgnite contains several stks of chalcopyrite but overall <1%					
		@ 1507.7' a 1/4" white qtz filled fracture @ 62° TCA with one 1/2" chalcopyrite stk					
		@ 1509.3' a parallel 2" dull dusty white qtz stringer @ 5-10° TCA. min with a few specks specularite specularite					
		- thru 1516.5' med fractured & bleached med grained bxgnite.					
		1516.5 - 1518.0' - HIGHLY FRACTURED bxgnite with a parallel 2" band of white fractured carb qtz @ 17° TCA in increasingly CARBD/MYLON bxgnite. min with < 0.5% fine botryoid pyrite.					
		@ 1514' a 1" STR CHLORITE CARB BREAK @ 13° TCA - a wavy/flaky black chlorite seam on this steep structure with a 2" dull white qtz vein structure adjacent to break plane.					
		from 1513 thru 1526.5' moderately bleached/fractured medium grained bxgnite & some thru 1536'					
		- from 1536' normal bxgnite gradually becomes darker greenish grey colored, medium grained Textured unit.					
		- logged thru 1546' Nov 19/93 S. Bernasconi					
		- thru 1565.2' medium to coarse Textured, moderately fractured with dull white qtz-carb fracture filling - brown flaking. down 1-3.0'					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-4

Footage From	Footage To	Description	From	To	Total	Sample No.	Oz/t.
		continue the ore material (banded & locally massive.					
		- from 1583.8' generally more banded grained brown colored, more massive basic aspect with a mod. to highly fractured appearance.					
		@ 1578.8' a 1" CHL CARB SLIP @ 7° TCA with several fine stats of chalcopyrite within the dull white matl - whole section chl.					
		from 1583.8 thru 1602.5' grained brown colored, medium grained textured basic aspect with a strongly to highly fractured appearance.					
		1592.1 - 1593.2' - highly fractured basic aspect with a ¼" qtz. carb stringer @ 50° TCA with several small stats of chalcopyrite. Last overall only ~ trace of sulph.					
		@ 1599' a 1" CARB BAND @ 80° TCA stringer with dark green chlorite - trace of sulph					
		@ 1600.5' a 1 ½" CARB BAND @ 58° TCA with dark grey colored chlorite & several specks chalcopyrite within the band.					
		@ 1601.1' a 1" dull white qtz stringer @ 57° with a few chalcopyrite stats. Chl assayed from 1604.8 - 1601.2 1598.8					
		- thru 1621.4' darker grayish brown colored, medium grained textured moderately to highly fractured & locally massive basic aspect.					
		@ 1614.1' a 2" dull pinkish white CARB BAND @ 63° TCA - min with a few stats of chalcopyrite. Chl assayed whole core					
		from 1621.4 thru 1641' dull grayish grey colored, moderately fractured basic aspect with white & pinkish carb as fracture filling. Matl is fine to medium grained textured.					
		@ 1622.9' a crystalline calcite filled fracture @ 37° TCA.					
		from 1641' thru 1659.8' grayish to brownish colored, medium grained basic aspect with occasional ½ - 2" white brown calcite filled fractures generally @ 45 - 60° TCA. Some thru 1678.5'					
		1669.4 - 1670.5' - @ 1669.7' a ½" dull white qtz stringer @ 45° TCA & @ 1670.5' a ½" grayish white vein type qtz stringer @ 47° TCA. Both stringers have a trace of sulph min but chl assayed					
		@ 1677.3' a 1" INTENSELY CHLHA/MYION BAND @ 33° TCA with dk green chlorite containing a few fine angular wallrock fragments. Band is min with 1 - 2% grayish white blebby qtz & 3 - 5% clotted up chalcopyrite. Band is tight & unbroken					
		@ 1679.5' a ½" dull white carb qtz carb vein @ 38° TCA - a few small chalcopyrite stats within the vein. Whole core chl assayed.					
		- thru 1698.6' grayish brown colored, medium grained textured weakly fractured basic aspect.					
		Beyond 1703' darker grayish grey colored, med grained textured, strongly banded fractured basic aspect					
		1706.1' - 1706.8' - a weak crushed / blebby section with a 1" section of dull white to grayish strongly qtz trending @ 55° TCA. Min with ~1% fine strongly chalcopyrite. Whole core chl assayed.					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-4

Footage From	Footage To	Description	From	To	Total	Sample No.	Oz.
		@ 1708' a ½" TIGHT CHL CARB SLIP @ 65° TCA.					
		1717.7' a ½" BRECC CHL FRAC/SLIP @ 25° TCA.					
		from 1716.8' thru 1736' brown bleached assimilite to darker green colored, medium grained textured, strongly limbic fractured hypabyssal					
		@ 1719.5' thru ½" grayish qtz stringers @ 48° TCA will run with fair chalcopyrite. Otz veinlets.					
		@ 1735.5' a 1-2" COARSE BRECC BAND @ 45°. Angular wallrock fragments cemented by dark green colored chlorite. Tight					
		unbroken fracture.					
		from 1736' thru 1752' continuation of strongly fractured locally moderately bleached dacitoids hypabyssals to darker greenish gray colored					
		matrix. Strong intersecting low angle planar veinlets which are quartz bleached regardless of surrounding matrix. A few scattered ½ - 1"					
		white to pinkish carb filled fractures a few of which have some minor chalcopyrite blebs.					
	1752	EOH Nov 21/93 S. Newcombe					
		Note: all core from ~950 - 1336' discarded due to poor massive shattered appearance & lack of storage space @					
		Macassa outside storage site. Other selected broken zones through to end of hole are listed below:					
		From To					
		1412 1431					
		1468.7 1526.5					
		1583.7 1602.5					
		1659.5 1678.5					
		1716.8 1752					

Lac Minerals Ltd. Macassa Division

Hole # CK 93-4

Date: Nov 20/93

Sperry-Sun Borehole Survey Data Sheet

Type of Survey: Sperry Sun magnetic multishot survey through the rods. Surveying from the bottom out. Hole @ 1752' - took 30' of rod out :- 1732' + 15' of Al Ssun rods = 1747'

Layout Dip: -60° Layout Azimuth:

Camera Time Interval: 4 min

~~Underground~~ Surface Survey Conducted By: G. Newcek

Film Developed By: L. Newcek Film Readings By: L. Newcek.

Depth	Time In	Time Out	Dip as Read on Sm	Dip Corrected	Azimuth as read on Sm	Azimuth Corrected for Declination	Rotated Azimuth for Borevu Plots
1747	35:00 9	48:00 11	32.5	57.5	N57°E/057	043.5	8.5
1647	57:00 15	09:00 15	32.	58	N52°E/052	038.5	3.5
1547	1:20:00 20	1:28:00 22	32	58	N52°E/052	038.5	3.5
1447	1:36:00 24	1:44:00 26	32	58	N52E/052	038.5	3.5
1347	1:52:00 28	2:00:00 30	31.5	58.5	N50E/050	036.5	1.5
1247	2:08:00 32	2:16:00 34	31.5	58.5	N51E/051	037.5	2.5
1147	2:24:00 36	2:32:00 38	31	59	N48E/048	034.5	359.5
1047	2:40:00 40	2:52:00 43	31	59	N50E/050	036.5	1.5
947	3:00:00 45	3:12:00 48	31	59	N52E/052	038.5	3.5
847	3:20:00 50	3:32:00 53	31	59	N47°E/047	033.5	358.5
747	3:44:00 56	3:52:00 58	31	59	N48E/048	034.5	359.4
647	4:00:00 60	4:12:00 63	30.5	59.5	N47°E/047	033.5	358.5
547	4:20:00 65	4:32:00 68	30.5	59.5	N43E/043	029.5	354.5
447	4:40:00 70	4:48:00 72	30.5	59.5	N40E/040	026.5	351.5
347	4:56:00 74	5:04:00 76	30.5	59.5	N43E/043	029.5	354.5
247	5:12:00 78	5:20:00 80	30	60	N43E/043	029.5	354.5
147	5:28:00 82	5:36:00 84	30	60	N40E/040	026.5	351.5
47	5:44:00 86	5:52:00 88	30	60	N42E/042	028.5	353.5
6:03=52 91							

LAC MINERALS LTD./MACASSA DIVISION

DIAMOND DRILL LOG

Hole No. CK93-6

Section	16/30 E / 16128.82	Depth	906	Remarks	h. Nov 29/93
Ref. Line	20 240 / 20238.36	Dip	-60° layout, -59°23' on casing		hole drilled above CK93-1
Elevation	1060.87	Core Size	BQ wireline		- casing left in hole & hole was
Azimuth	029° layout 30°19'25"	Purpose	Determining trend on		open hole Sperry Sun surveyed. Survey sheet attached
Location	center of L-2450		high grade zone above CK93-1 & to		- all core & sludge assayed @ Swastika
Northing	20238.36		west at S. 5m rock from wall/footwall		- survey sheet attached including assay sheet assaying
Easting	16128.82		to access underground. Don't want to move		for Ag, Cu, Pb &
Drill Contractor: Heath & Sherwood Drilling (1986) Inc.			drill so casings don't get broken		pulp & metallic assays for samples #'s 88023 → 88034
Core stored @ Macassa Mine Core Shack			off before holes are surveyed.		- collar surveyed by B. Larose

Factor

Dip Test @

20 sc E		
20 sc G		
100 sc P		
20 sc X		
20 sc L		
100 sc L		

all data in Imperial

drill sludges (over)

CORE

Footage From	Footage To	Description	From	TO	Total	Sample No.	Oz/T
0	16	Casing					
16	112.6'	Conglomerate - from 16' to 20' a green colored sandy textured gouge section					
		- from 20' thru 37.5' grayish green colored normal Timiskaming rounded pebble conglomerate.					
		@ 33.5' a 3" orange pink CARB BAND @ 25° TCA.					
		from 37.5' thru 56.6' conglomerate has more chlorite CARB FRACTURING both thru the matrix & thru the pebbles & some thru 76'					
		@ 65' a 1/8 - 3/16" CHL SHR @ 27° TCA - a 3/16" chlorite vein too - competent but tight.					
		- thru 95' continuation of small pebble conglomerate with several fragmental pebbles & including red jaspers. Some scattered white carb filled fractures					
		99.2' - 100.7' - a STRONG SHR/MYLONITIC ZONE @ 17° TCA. a greenish colored intensely chloritic laminated zone with several scattered angular wallrock fragments cemented with dull white streaky chlorite/carb. min with <1% fine disem pyrite. Whole core shrk assayed.					
		- thru to end of unit small pebble conglomerate with scattered white carb filled fractures.					
112.6'	118.6'	Porphyry - sharp natural looking contact @ 40° TCA					
		- a greenish brown colored variety with a locally moderately porphyritic texture & some green colored mafic xenoliths. does not look like fragmental porphyry as it looks the large subrnd 1/4 - 3/4" pinkish chunks? inh phenocrysts. Unit looks like normal K.L. crypto pyritic porphyry.					
		- last 1.0' of unit becomes increasingly bleached to a pale beige color by 118.6' - min. with <1.0% fine disem pyrite.					
118.6	567.2'	Conglomerate - natural looking contact @ 55° TCA					

LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-6

Footage From	Footage To	Description
		- continuation of small pebble Timiskaming conglomerate thru 151' & thru 171'
		@ 147.2' a moderately BLCHD BAND @ 48° TCA - ave 0.5' & trace of pebble min. Ub conrgd - blends ave.
		from 176.2' - 179.2' a green colored sandy textured gabbro section & another between 186.6 - 188.5'
		@ 177' bedding is @ 27° TCA.
		@ [illegible] or 197.7' a partial ½" dull white CARB FRACTURE @ 42° TCA - conspicuous tight fracture.
		- thru 208.5' normal conglomerate with white carb fracture fillings
		between 208.5' - 212.6' - another green colored, sandy gabbro textured section
		211.9-212.9' - Two ¼" dull white carb bands about 1" apart & trending @ 17° TCA. Surrounding 2-3" of groundmass is bleached to a light green color. ~1% fine clotted pyrite mostly within the carbonate. Ub bdy conrgd.
		- thru 223' continuation of greenish green colored small pebble conglomerate with several ⅛ - ½" calcite carb filled fractures.
		- some thru 247' & 266.6' & 296'
		@ 291.2' a ¼" CARB CHL FRACTURE/SLIP @ 23° TCA - dull white carb veins thinly stained with green chlorite.
		- thru 305' lighter greenish grey colored small pebble conglomerate.
		- beginning @ 306.7' & extending thru 312.6' conglomerate is HIGHLY BLCHD & CHLORITIZED giving core a pale green color with very small pebbles (<1" across). Zone occurs @ 32° TCA & bounded @ ~15° TCA. min with ~1% fine disseminated pyrite. Wbdy ave shale conrgd
		- thru 343' small pebble conglomerate with a greenish green color.
		@ 341.8' a tight 1/16" WBDY CHL SLIP @ 10° TCA.
		- beginning @ 351' conglomerate becomes increasingly bleached & SHEARED @ 28° TCA.
		357 - 359.1' - HIGHLY BLCHD/SHD light green colored strongly laminated zone @ 40° TCA with a pervasive TIGHT CHL FAULT @ 358.2' @ 42° TCA including a 1" dull white bullish qtz - carb vein. Interval to Ub conrgd increase of <0.5% fine disseminated pyrite.
		logged to 362.3' - normal Timiskaming conglomerate Nov 29/93 S. Hannah.
		@ 366' a BLCHD CARB CHL SLIP @ 23° TCA - a ⅛ - ½" pinkish white carb vein thinly stained with dark green chlorite - conspicuous tight fracture.

From	To	Total	Sample No.	Oz/t

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CM93-6

Footage From	Footage To	Description	From	To	Total	Sample No.	Ozs.
		- Thru 381.' lighter greenish grey colored, moderately fractured conglomerate with white carb fracture filling. ¢ core. Thru 399.7'					
		- from 399.7' thru 419' more massive & less fractured small pebble conglomerate. Seen thru 438'. Beyond 438'					
		conglomerate gradually becomes lighter greenish to brownish grey in color.					
		@ 458' a TIGHT but STRONG ½" CARB CHL SLIP @ 30° TCA - white carbonate laminated with dark green chlorite.					
		- thru 476' darker greenish grey colored small pebble conglomerate. Seen thru 495' - massive good coring unit.					
		between 502 - 503' - broken weakly chloritized conglomerate with core surfaces breaking @ 10-15° TCA. Tight insignificant					
		fractures in here.					
		@ 504.7' a ½" CARB CHL BRECC FAULT @ 17° TCA. - white carb cementing a few small angular wallrock fragments & some					
		greenish silicification plated thru section. Overall ~ 0.05% fine pyrite min. Wkly core shrk assayed. Some core ends					
		water a thin muddy white film.					
		- Thru 543.6' greenish grey colored, small pebble conglomerate					
		543.9 - 545' a moderately bleached section of conglomerate centered on a 0.4' STRONG GREY SILICIFIED CHERTY					
		ZONE @ 65 & 32° TCA. a dull white clotty cores with strong irregular greenish streaking thru-out.					
		Overall trace of pyrite min. Wkly core shk assayed.					
		- thru to end of unit increasingly larger pebble conglomerate					
567.2	606.6	Tuff - sharp natural bedding contact @ 37° TCA.					
		- abrupt change to a dk grey colored fg. textured, strongly magnetic tuff.					
		- between 568 - 572.7' - a coarse textured lithic tuff with average clast size ~ ½" across. Most clasts appear subrounded-ang					
		a conglomerate unit!					
		- thru 586.8' a greish green colored section of fg silt to fine sandy textured, strongly magnetic tuff.					
		@ 581' bedding & @ 45° TCA.					
		581 - 582.3' a 0.7' STRONG MYLONITIC ZONE @ 60° TCA - a variably crshd/myl'ed section with greenish					
		streaky chlorite & beige & white streaky carb. Trace small clots of chalcopyrite - wkly core shk assayed.					
		588-589' - STRONGLY CARBONATIZED/FRACTURED ZONE with bleached chlorite @ 45° TCA. Dull white carb streaked with green					
		chlorite - no single strong structural plane evident here					

LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK13-6

Footage From	Footage To	Description	From	To	Total	Sample No.	Oz/t.
		between 591 - 591.4' a STRONG CRSHD/MYLON ZONE @ 35° TCA - very tight - but conspicuous. - then 592.7' brownish grey coloured, variable textured tuff.					
		between 592.7 - 593.8' - a STRONG SHRD/MYLON ZONE @ 55-60° TCA - overall as lighter green coloured, strongly chloritic laminated section of mylon tuff with a 1½" dull greyish white clayey qtz vein @ 62° TCA & min with a few dissem dots chalcopyrite & Two quartzvelle speckes V.G.? both speckes submitted					
		from 593.8' then 604 tuff is variably CRSHD & locally FRACTURED					
		609.7 605.2' - a STRONG CRUSHED/SHR CORE ZONE @ 20° TCA - strongly chloritic laminated tuff with dull white clayey & fragmental carbonate & 1-2% pyrite min.					
606.6	646.7'	Basic hypabyssite - above natural loading contact @ 45° - first 0.5' of unit is STRONGLY BLCHD/CRSHD/FRAC & min with 1-2% fine pyrite min. - white greenish to grey/brown coloured with a fine texture. Fabric ill-defined dom core @ ~ 5-10° TCA. - moderately to strongly fractured with dull white carb & clayey qtz fracture filling. - then 643' brown to green coloured med to cg. textured massive hypabyssite with locally sericitic intervals. @ 639.4' a ½" white qtz stringer @ 20° TCA - minor fine dots of chalcopyrite within the qtz - White core dk coloured. Beyond 643' hypabyssite is more brown in color with a sericitic appearance.					
646.7	663.3	Porphyry - quite inconspicuous loading contact @ ~ 30° TCA. - unit is a dull brown color with a greenish tinge. a fine dense porphyritic texture. moderately fractured with dk green chlorite fracture filling. 651 - 652.8' - 8-10% white 1" qtz stringers trending @ ~ 13° TCA. min with ~1% fine pyrite. @ 652.8' a 1½" INTENSELY SHRD/MYLON BAND @ 10° TCA. Grades off a 1½-2" wide dull white qtz vein trending min. with galena (~ 5%) and ~ 2% chalcopyrite. One minor quartzvelle V.G. - localized in mylon from 654.9 then 656.5 dark green coloured porphyritic loading interval min with a few ½" dull white qtz stringers @ 45-50° TCA. - minor small dots of rolled chalcopyrite. @ 656.5' a sharp contact between massive green alt porphyry? and BRECCIATED fracture porphyry. contact is @ 25° TCA					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-6

Footage From	Footage To	Description	From	To	Total	Sample No.	Ozs
		- from 661.9' grades to brownish colored variably sericitized porphyry with several ¼ - ¾" dark grained Hole chlorite filled fractures generally Trending ∠ 30° TCA.					
663.3	694.9	Basic Intrusive - leading contact is a TIGHT ± CHL SLIP ∠ 10° TCA.					
		- from 666.8' a 1" dull chalky white qtz vein ∠ ~5° TCA and with three sparsely V.G. - 2 samples submitted					
		section is also rich with 1-2% netted textured fine chalcopyrite.					
		- Intrusive is generally med to locally coarse textured with blended angular phenocrysts.					
		∠ 671.6' & 672.3' ± ¼" dull white qtz stringers ~ 25° TCA with scattered specks of chalcopyrite (overall << 0.5% fine chalcopyrite					
		- from 680' coarse blended angular basaltic - gabbroic intrusive					
		680 - 684.5' - a section of 20-30% grayish white streaky qtz Trending ∠ 55° (broken) ∠ TIGHT MUDDY CHL SLIP ∠ 55° TCA. Trace of sulphide min.					
		Logged to 681' Nov 30/93 S. Newnham.					
		681 - 682.5' - 20% white qtz stringers ∠ 43-45° TCA in strongly sericitic green basic syenite. Qtz is min with some netted clots of galena ~ 3%, overall ~ 1% localized galena in qtz stringers					
		682.5 - 684.2' - 70% massive HIGH GRADE VEIN QTZ with ~10% chalcopyrite & 10-15% galena with 2-4 fine pinite & V.G. waste noted in this interval. Qtz is Trending ∠ 30° TCA					
		684.2 - 685.9' - 40% white qtz veins/stringers Trending ∠ 28 - 30° TCA. 1-2% scattered specks of chalcopyrite & galena in the veins. Basic syenite is fine to med grained and highly sericitic					
		685.9 - 690.4' - 20% white qtz stringers as ¼ - 1" wide veins generally ∠ 38° TCA. in ca. green syenite with highly blended angular - some stringers contain fine galena clots while overall ~1% galena. ~1% chalcopyrite/pinite total in section.					
		690.4 - 693.1' - 70% massive white & chalky gray colored qtz vein with ~3% chalcopyrite, 1-2% galena and sample V.G. - included in sample.					
		693.1' - 695.3' - 80% grayish massive chalky quartz with 2% galena & chalcopyrite & sample V.G. submitted					
		∠ 694.8' a 1½" STRONGLY BRECCIATED ZONE ∠ 67° TCA - several brecciated wallrock fragments cemented by					

LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-6

Footage From	Footage To	Description	From	To	Total	Sample No.	Oz/t.
		Grey chloritic qtz and feldspar lg a 2" greenish streaky chloritic section of qtz. Probably a fault here! FAULT → 1.1H 'F'					
		695.3 - 697.7' - 5-8% dull white c/ some greenish qtz stringers @ ca. ¼ - ½" stringers trending ± 50-55° TCA - <0.5% small galena clots in the qtz & ~1% combined chalcopyrite/pyrite also mostly in the qtz. Surrounding wallrock consists of dark green chloritic lg to small fragmental magnetic tuff.					
694.9	718.4	Tuff - leading contact is brown loose that is probably a fault running the entire between surrounding sericitic green biotite & pillowing green tuff.					
		- unit is lg to locally small fragmental & moderately magnetic.					
		697.7 - 700' - as previous sample.					
		700' - 702.4' ± 10-15% white qtz as ¼ - ¾" & one 3" stringer @ 45-50° TCA. <1% combined sulphide with a few minor specks galena & chalcopyrite in one of the qtz. Tuff host is the green in color with a fair silt to locally sandy texture.					
		Between 702.4 - 704' tuff has several scattered ½" white/green quartz - bleaching					
		- @ 704.3' bedding is @ 62° TCA.					
		- where tuff is more coarse sandy textured unit also appears quite sericitic.					
		702.4 - 705.5' - 3% dull white ¼ - ½" qtz stringers generally @ 30° TCA. in variable textured, sericitic tuff. Trace of sulphide min.					
		705.5 - 709' - 5-8% ¼ - ½" dull white qtz stringers in variable textured green sericitic tuff. min with <1% fine sulphide min.					
		709 - 711.4' - 5% dull white qtz stringers in variable textured dark green tuff. Trace of sulphide.					
		711.4 - 715.1' - as previous sample but with ~0.5% pyrite and galena & chalcopyrite in fine grained to well bedded tuff - some smeared chloritic pyrite on chloritic fractures near end of section @ ~15° TCA.					
		@ 714.5' bedding is @ 53° TCA.					
		715.1 - 718' - 2-3% dull white qtz stringers @ 53° TCA & trace of sulphide min. with tuff containing an increasing amount of ¼ - ½" rounded biotite clasts.					
		Between 718.2 - 718.4' STRONG BRECCIATION with mostly angular wallrock cemented by a dark greenish green fg. chlorite. - marks end of tuff unit.					

LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-6

Footage From	Footage To	Description	From	To	Total	Sample No.	Oz/t.
718.4		Basic hornfels - natural but brecciated looking contact @ 67° TCA.					
		- first 1' of unit is coarsely brec.					
		2' unit is banded & sericitic thru 719' where massive white qtz begins & continues to end of box @ 719.3'					
		718 - 719.3' ~30% qtz as stringers & massive pieces with ~1% galena & ~1% pyrite-chalcopyrite.					
		719.3 - 721.2' - 60% massive & some streaky stringer qtz with a 0.4' CRSHD/MYLON ZONE @ 50° TCA - a					
		0.2' section with lenses/fragments of white qtz/rock cemented by dk green chlorite & followed by 0.2' of strongly					
		sheared greenish chloritized rock. min with ~1% galena & 1-2% combined pyrite/chalcopyrite.					
		721.2 - 725.2' - 5-8% dull chalky white qtz - rock stringers @ 40 - 70° TCA. <1% fine pyrite min. surrounding					
		hornfels pyrite is fine to med grained & moderately sericitic.					
		Beyond 725.2' hornfels is overall moderately bleached, medium grained textured & pyrite sericitic with a few reddish brown					
		altered fabric veins.					
		731.1 - 732.6' - 8-10% dull bluish grey/white chalky qtz stringers @ ~50° TCA in bleached med grained, sericitic					
		hornfels with some fabric ribbing					
		@ 734.7' a 1" bullish dull chalky white qtz stringer @ 35° TCA					
		- thru 737.8' gradually harder more medium grained textured hornfels.					
		@ 743' a TIGHT 1/2" BRECC CHL FRACTURE/FLT @ 18° TCA - a 1" brec zone with angular wallrock cemented by					
		dark greenish black chlorite. This zone structure is followed by 1.9' of variably crushed/fractured bleached					
		hornfels with 3-5% dull beige/white chalky qtz stringers @ 50 - 55° TCA. Trace of sulphides min but					
		dk banded.					
		@ 759.7' a 1-3° STREAKY CRSHD/MYLON ZONE @ 43° TCA. - conspicuous but very tight fabric.					
		from 760' thru 773' moderately bleached, med to crs textured, sericitic hornfels. a few scattered 1/4 - 1/2" dull white bullish					
		qtz - rock fractures @ ~45° TCA.					
		logged to 773' Dec 1/93 S. Nemcek					
		@ 774.7' a 3/4" dull chalky white qtz stringer, chlorite & dk clay @ 65° TCA. Conspicuous brown looking fracture.					
		- thru 782.5' med grained green, sericitic hornfels with moderately bleached sericitic pebbles/augen.					

LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-6

Footage From	Footage To	Description
		782.5 - 783.5' STRONGLY MYLONITIC CHL FAULT ZONE @ 22° TCA - @ 0.3' intensely sulfidic deformed quartz vein with a ½" band pinkish, & some soft muddy chlorite on fault plane proper. a major structure - barren.
		@ 784.9' a 2" dull dusty grey colored qtz stringer @ 45° TCA. Barren looking.
		- from 789.3' medium grained textured, sericitic, green colored komatiite with some reddish oxidized fabric rilling.
		789.3 - 790.0' - 10% dull white qtz stringers @ 48° TCA with ~1% disstured fine pyrite including one part of chalcopyrite with a questionable sphalerite V.G.
		791 - 792.4' - @ 791.3' a 2" STRONGLY MYLONITIZED ZONE @ 62° TCA with ~5% very fine pyrite min. Followed by a 0.7' band of reddish brown colored, fine sericitic textured foliation rilling. @ 792.0' a ½" CHL SLIP @ 40° TCA. overall ~1% fine pyrite
		- from 809.3' medium grained textured, greyish green colored, locally pyrite sericitic komatiite.
		@ 809.3' a 0.6' fabric rich - reddish brown in color.
		from 809.9' thru 814' komatiite is moderately fractured with white carb & qtz fracture filling.
		from 814 thru 819.2' med to cg. textured green komatiite with pinkish augite.
819.2	824.0'	Fabric komatiite - above natural looking contact @ 27° TCA.
		- a greyish brown colored fg. unit with <5% fuchsite. Fine banding fractured with both white carb & dark green chlorite/talc as fracture filling.
		- beyond 823' unit increases fuchsite content to ~5%
824.0	828.2'	Porphyry - natural looking contact although first 0.4' of unit is HIGHLY CARBO/MYLON - looking contact is @ 53° TCA.
		- unit is greyish brown in color with a fine porphyritic texture & around ½" reddish brown fabric rilling - unsure if true porphyry or not.
		- a few smaller ~½" dk green colored chlorite - xenoliths? Not lineated & does not look like normal K.k. Comp xenolith porphyry.
		- non magnetic unit - fine banding fractured with white carb & green chlorite fracture filling.
828.2		Mafic komatiite - looking contact not applicable - looks gradational over ½ - ¾"
		from 830 - 831' - med to cg. textured green to brownish colored, moderately fractured and carb'd komatiite with dull white carb filled fractures.

From	To	Total	Sample No.	Ozs.

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-6

Footage From	Footage To	Description
		@ 834.6' a partial ½" dull chlty gray qtz stringer @ 45° TCA - barren looking.
		beyond 838' basaltic is darker gray green color with a med grained texture.
		beyond 847' basaltic is uniform dark greenish gray colored f.g. textured.
		- thru 866.2' good lenses of massive basaltic
		- between 863 - 866 occured ½" dull white
		@ 871.2' a STRONG 3/16" MYLONITIC CHLORITE SHR/FAULT @ 45° looks all strongly blended e.g. textured basaltic with greenish white granty stringers trending generally @ 45-50° TCA. surrounding basaltic is well mineralized with fine pyrite (~5-8%)
		870.9 - 873.8' 10-15% greenish white granty stringers with ~3-5% very f.g. sulphide min.
		873.8 - 874.9' - 60% dull massive chlty gray qtz flooding with ~10% very f.g. sulphides. QS ends abruptly on a ½" TIGHT CHLORITE SHR @ 40° TCA. One fair mineralized grade V.G. @ 874.3'
		874.9 - 876' - med to cg. blended basaltic with 1-2% fine pyrite min.
		from 926 thru 885.3' med to cg. moderately blended basaltic with scattered ± - 1" reddish brown colored fabric rich.
		@ 880.4' & @ 884.4' ¼ - ¾" dull white qtz stringers @ 55° TCA.
		@ 881.4' a ¾" MYLONITIC/CHLORITIC BAND @ 55° TCA - min with very f.g. sulph. over ¼"
		- @ 888.2' & 0.3' STRONG TIGHT MYLONITIC BAND @ ~ 40° TCA.
		890.7 - 893' - 15-20% greenish white qtz stringers & blebs around a STRONG ½" MURKY CHLORITE SHR @ 27° TCA.
		- qtz stringer zone starts @ 890.9' on a ½" dark green chlorite band @ 50° TCA. surrounding basaltic is strongly mineralized with ~10% fine pyrite. looks similar to sulph rich zone in CK93-1 beyond main vein.
		- from 893' thru 898.8' - med to cg. blebb'd locally fractured basaltic with dull white vein fracture filling.
		898.8 - 900.9' - strongly fractured & blebb'd basaltic with 15-20% greenish white qtz min as ¼ - 1½" stringers. B. basaltic is min with 3-5% very f.g. sulphides including the qtz. @ 900.4' a ½" CHL SHR @ 50° TCA seems to be one controlling slip.
		900.9 - 903.9' - cg. thru banded section of basaltic with fracturing & ~5% greenish white qtz filled fractures & flooding. min with 1-2% fine brecciated sulphides. @ 902.9' a ½" CHL/MOLY SHR @ 65° TCA.

From	To	Total	Sample No.	Ozs.

LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK 93-6

Footage From	Footage To	Description	From	To	Total	Sample No.	Oz/t.
		to end of hole and to cg. textured green hornfelsic with strongly blended margins					
		905 - 906 - 40% granitic to dusty white quartz stringers & veinlets mostly trending ± 63° TCA. in contact to cg. textured hornfelsic					
		- section is rich with ~3% fine pyrite mostly in the qtz.					
	906	EOH Dec 2/93 S. Neumann					
		- Lists of saved core 700 - 847, 866 - 906					

Lac Minerals Ltd. Macassa Division

Hole # CK93-6

Date: Nov /93

Sperry-Sun Borehole Survey Data Sheet

Type of Survey: Open hole S. Sun magnetic multi shot using wireline cable surveying top down Surveyed First & followed by immediate survey of CK 93-1

Layout Dip: -60° Layout Azimuth: 030

Camera Time Interval: 1 min

~~Surface~~ Underground Survey Conducted By: B. Nemcek

Film Developed By: B. Nemcek Film Readings By: B. Nemcek

Depth	Time In	Time Out	Dip as Read on film	Dip Corrected	Azimuth as read on film	Azimuth Corrected for Declination	Rotated Azimuth for Borsurv Plots
25	3:00	5:00	32	58	N42°E/042	029.5	
100	7:00	10:00	32°	58	N43°E/043	029.5	
200	12:00	15:00	32°	58	N43°E/043	029.5	
300	16:00	19:00	32°	58	N43°E/043	029.5	
400	21:00	25:00	32	58	N46°E/046	032.5	
500	27:00	30:00	33	57	N46°E/046	032.5	
600	31:00	34:00	33	57	N48E/048	034.5	
700	35:00	38:00	33	57	N48E/048	034.5	
800	40:00	43:00	33.5	56.5	N48E/048	034.5	
897 Sht	44:00	47:00	34	56	N52E/052	038.5	

Established 1936

Swastika Laboratories

A Division of TSL/Assayers Inc.

Assaying - Consulting - Representation

TELECOPIER TRANSMISSION

DATE: Dec 8/93

TO: Fax Minerals att'n S. Nancarrow

SUBJECT: To be added to Cert 3W-2921-RG1

Since we still had solutions - no charge

NO OF COPIES (including cover page) 3

COMMENTS:

per: S. Gilbert

P.O. Box 10, Swastika, Ontario P0K 1T0

Telephone (705) 642-3244 FAX (705) 642-3300

Established 1926

Swastika Laboratories

A Division of TSL / ASSAYERS INC.

Assaying - Consulting - Representation

Geochemical Analysis Certificate

3W-2921-RG1

Company: LAC MINERALS LTD (MACASSA DIV.)
Project: P O 30888
Attn: G NEMCSOK

Date: DEC-07-93

We hereby certify the following Geochemical Analysis of 32 CORE samples submitted DEC-03-93 by .

x.0101 = %

Sample Number			Au PPB	Au check PPB	Au check PPB	Ag PPM	Cu PPM	Pb PPM	Te PPM
88029			406			2.5	283	1060	1
88030	H.G.	*	23109	19920	23417	79.5	12900	25600	9
88031			231		2-3214 oPT	0.3	792	193	1
88032			63			0.3	65	120	1
88033	H.G.	*	494	639		3.8	626	636	1
88034	H.G.	*	3017	3086		14.0	860	611	2
88035			228		0.43 oPT	0.4	288	61	1
88036			202			0.4	194	98	1
88037			89			0.2	133	60	1
88038			50			0.3	125	38	1
88039			63			0.1	162	50	1
88040			26			0.1	100	31	1
88041			99			0.1	176	45	1
88042			39			0.1	95	15	1
88043			571	411		0.6	668	43	1
88044			254			0.8	83	151	1
88045			27			0.1	36	9	1
88046			21			0.1	25	11	1
88047			87			0.1	19	9	1
88048			27			0.1	89	6	1
88049			62			0.1	46	8	1
88050			1378			0.4	90	25	4
88051			7166	7749		2.8	81	36	9
88052			159			0.1	83	5	1
88053			1145	1097		0.4	111	10	3
88054			461			0.3	156	8	1
88055			435			0.1	175	7	1
88056			324			0.1	193	3	1
88057			33			0.1	55	4	1
88058			31			0.1	64	3	1

CK 03-6

Gold assayed using one assay ton portion.
*Indicates where the whole sample was pulverized

Certified by G. Leh

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Established 1928

Swastika Laboratories

A Division of TSL / ASSAYERS INC.

Assaying - Consulting - Representation

Geochemical Analysis Certificate

3W-2921-RG1

Company: LAC MINERALS LTD (MACASSA DIV.)
Project: P O 30888
Attn: G NEMCSOK

Date: DEC-07-93

We hereby certify the following Geochemical Analysis of 32 CORE samples submitted DEC-03-93 by .

Sample Number	Au PPB	Au check PPB	Au check PPB	Ag PPM	Cu PPM	Pb PPM	Te PPM
88059	12			0.1	70	2	1
88060	17			0.5	42	85	1

Gold assayed using one assay ton portion.
*Indicates where the whole sample was pulverized

Certified by G. Gibbs

P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 FAX (705) 642-3300

LAC MINERALS LTD./MACASSA DIVISION

DIAMOND DRILL LOG

Hole No. CK93-7

all data in bearings

Section 16000 E / 16000.51 Depth 902' Remarks h/hole Dec 2/93 Factor

Ref. Line 20200 N / 20197.09 Dip layout - 63° Casing left in hole (collar surveyed by B. Lacoste Macassa & Swastika) Dip Test @

Elevation 1057.48 Core Size BQ wireline sludges stored @ Macassa, core also @ Swastika

Azimuth 090° layout, 87°25'51" Purpose To explore for presence of - open hole Sperry Sun surveyed & survey

Location W/ center of cl L2450 N-S vein above 800'L where drift chart attached

Northing 20197.09 was turning to the N in area W of

Easting 16000.51 "STRONG BREAK @ 48° W"

Drill Contractor Heath & Sherwood Drilling (1986) Inc.

Core stored @ Macassa mine core shack

20 sc E		
20 sc G		
100 sc P		
20 sc X		
20 sc L		
100 sc L		

drill sludges (over)

CORE

Footage

From	To	Description	From	TO	Total	Sample No.	Ozs.
0	36	Casing					
36	454.7	Conglomerate - greenish grey matrix of 1-3" rounded pebble Timiskaming conglomerate.					
		between 56-58' much broken core as weakly chloritized & more strongly calcitized FRACTURE/FLT @ 23° TCA.					
		- very tight remnant fracture in the broken core.					
		- then 64' locally very choppy casing conglomerate.					
		@ 70.3' a 2" pinkish CARB/QTZ/CHL TIGHT FAULT @ 48° TCA. Strongly laminated tight seam.					
		from 72' then 91.3' more massive dk greenish grey colored conglomerate. Some then 110'					
		@ 108.3' a TIGHT QUARTZ FRACTURE @ 8° TCA.					
		- @ 118' a 1/8" STRONG MUDDY CHL SLIP @ 8° TCA.					
		- then 128.4' massive good casing conglomerate					
		@ 128.4' a 1" STRONG MUDDY CHLORITE FAULT @ 23° TCA. a flaky to muddy 1/4" seam here on this strong structure.					
		from 132.3-133' broken up core chips here but no slickensided surfaces - no structure in here.					
		@ 136' a 3/4" CARB BAND @ 70° TCA - a pinkish white carb seam thinly studded with chlorite. - TIGHT					
		- then 147.3' massive conglomerate.					
		- between 159.7-163.7'- a 1/4" MUDDY CARB/CHL FRACTURE trending along CA. Tight but conspicuous fracture.					
		beyond 166' a lighter grey colored more fractured conglomerate with dull white carb fracture filling.					
		179-180.9'- much broken core with a 0.3' dull pinkish white qtz-carb vein @ 55° TCA. Vein contains a few					
		small spots of grey galena & traces of chalcopyrite. Balance of section here - a fair showing of blebby MOLY					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-7

Footage From	Footage To	Description	From	To	Total	Sample No.	Oz/t.
		some zones uniform that appears to trend @ ~5° TCA. Overall ~ 1% fine pyrite mineralization. Whole core strong.					
		- from 197' a light brownish grey colored conglomerate.					
		- beginning @ 197' unit becomes increasingly SHEARED / BLCHD @ 62° TCA. Increasing pale greenish colored chlorite stringers.					
		@ 198.4' a 1½" BRECC QTZ VN @ 63° - late dull white bullish variety with strong green chlorite fracture fillg. Some banding with ⅛ - ¼" black chlorite alignment both sides of vein.					
		197 - 200.3' - increasingly BLEACHED/SHEARED conglomerate with trace pyrite. Whole core chl. crumbled.					
		@ 200.6' - a ¾" STRONG CHLORITE MUD BREAK @ 60° TCA - soft & hard flaky chlorite on this structure - major - brown looking - showing ¼" banding end log 202.7' - chl. crumbled over this interval - whole core.					
		Logged 206' gradually darker greenish grey colored conglomerate.					
		@ 208.6' a ⅜" dull white QTZ STRINGER @ 37° TCA. Some bullish white carb along margins of qtz - ¼ qty, has a few fine grains of pyrite. Chl. crumbled - whole core.					
		@ 216' a CHL FRACTURE @ 5-0° TCA with a thin film of pyrite on fracture - piece saved.					
		from 219.7' gradually darker green colored chlorite conglomerate.					
		Logged to 219.7' Dec 2/93 B. Newark.					
		- @ 228.4' a 0.2' partially CRUSHED section of strongly chloritized conglomerate with a ¼" bullish white qtz stringer @ 53° TCA - some minor brecciation in this interval.					
		- @ 234.1' a ¼" MYLONITIC BAND @ 73° TCA with another 2" TIGHT MUDDY CHL FRACTURE/FLT @ 234.2' @ 57° TCA.					
		- for 2-3" around mylonitic band & FRAC/FLT conglomerate has light greenish strongly chlorite.					
		from 235' thru 257' massive, good comp greenish grey colored pebble conglomerate.					
		beyond 257' darker greenish grey massive conglomerate thru 276' & thru 295' & thru 314' & thru 325.6'					
		from 325.6' thru 338.4' dark green colored sandy textured with a few scattered rounded pebble grains. To 337' a 1.0' section of small pebbles with a ¼" band of fine pyrite @ 72° TCA. Pebble size decreases down the hole - from to the East?? - less sorted					
		- grains has bedding @ 48° TCA @ 337'					
		- grains returns for ~ 2' to 338.4' where more visibly scattered pebbles re-appear thru to 343'					

LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-7

Footage From	Footage To	Description	From	To	Total	Sample No.	Oz/t
		from 343 thru 347' smaller dk green, sandy textured greywacke section with bedding @ 33° TCA.					
		from 352' thru 371' normal greenish grey colored conglomerate & coarse thru 390.4'					
		beyond 408' start of another greenish green colored sandy grabby section. Between 410-411.5' smaller small pebble conglomeratic section					
		- from 411.5' thru 417' greenish grey colored cross-bedded greywacke section.					
		from 417 thru 428.2' normal pebble conglomerate.					
		between 428.2' - 433' another greywacke section with unit becoming increasingly fine grained down the hole.					
		from 433 thru 447' smaller pebble Timiskaming conglomerate - uniform thru to end of unit.					
454.7	455.5'	Rhyodacite Porphyry - strong natural leading contact @ 63° TCA.					
		- unit is a pinkish brown color with an intensely CRACKLE/MYLON appearance - original texture is totally obliterated					
455.5	459.2'	Conglomerate - natural leading contact @ 50° TCA					
		- a small pebble phase of conglomerate with strongly bleached/altered pebbles @ 58° TCA.					
459.2	491.4'	Rhyodacite Porphyry - strong natural leading contact @ 37° TCA.					
		- a good porphyritic textured unit with a fine strong porphyritic texture appearance with normal scattered 1 - 3% pinkish qtz? - feldspar phenocrysts.					
		- thru 486' massive pinkish brown colored, good porphyritic textured rhyodacite porphyry unit.					
		- in the last 3-5' of unit porphyry is fractured with fuchsite white qtz-carb fracture filling.					
491.4	524.4'	Conglomerate - leading contact is a very TIGHT MYLONITIC BAND @ 48° TCA.					
		- return to greenish grey colored massive conglomerate with more sandy greywacke intervals than pebbly sections.					
		- beyond 506' return to more normal small pebble conglomerate - good unit thru 524'					
524.4	535.5'	Basic dyke - leading contact is a 1/2" TIGHT CHL FRACTURE @ 45° TCA.					
		- unit is reddish to greenish brownish color, strongly fractured with numerous 1/2 - 3" white qtz-carb filled fractures					
		- unit contains ~ 10-15% augite phenocrysts & in some sections would qualify as fabric augitite. Unit also contains					
		several 1/2 - 1" reddish brown colored fabric like					
535.5	539.5'	Conglomerate - strong natural leading contact @ 23° TCA					
		- return to greenish grey colored, small pebble conglomerate.					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-7

Footage From	Footage To	Description
539.5	811.3	Tuff - bedding contact is noted @ 42°TCA. - unit is green & sandy textured for 1st. foot then becomes more grey colored & ash textured beyond 541 @ 541' good bedding @ 60° TCA. - thru 562' good unit of massive grey colored well bedded fg. tuff with a few short granular sections including two 1.0' sections @ 555 & 557' containing up to 1" angular rip up clasts. Unit is non to strongly magnetic. thru 581' continuation of well bedded tuff gradually becoming more brown colored beyond 571' 581' thru 600' brown colored well bedded tuff @ 591' bedding is @ 72°TCA. beyond 596' increasing concentration of angular reddish brown lapilli? clasts in the tuff. - thru 619.3' - continuation of well bedded ash to locally sandy textured tuff mostly brown colored with short grey sections. - locally magnetic. - @ 617.2' a +/- "TIGHTCARB CHL SUP @ 7°TCA. @ 624.4' tuff abruptly becomes a more bright orange brown color on a "contact" @ 72°TCA with preceding brown tuff - orange brown colored phase remains fine grained & locally well bedded @ 70°TCA. - Non magnetic logged to 638.4' Dec 3/93 S. Maxwell. from 638.4 thru 657' variable colored & textured tuff from orange brown to greenish grey colored ash thrown short coarse fragmental section - where fg. unit is well bedded @ 649' bedding is @ 63°TCA. between 663-664' - two +/- 1/2" dull white qtz stringers @ 57°TCA in orange-brown altered fg. tuff - traces of sulphides are present but not visible core lost encountered. - thru 676' brown colored, generally fine grained textured, well bedded Tuff - non magnetic unit. from 676 thru 695' continuation of orange-brown colored, generally well bedded tuff @ 689' bedding is @ 56°TCA - tuff varies from sandy to coarse fragmental texture thru 714' greyish brown colored, sandy to ash textured massive good unit.

From	To	Total	Sample No.	Ozs.

LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-7

Footage From	Footage To	Description	From	To	Total	Sample No.	Ozs.
		@ 706' lobbly in @ 57° TCA.					
		from 714' thru 733' continuation of greenish brown colored, well bedded, variable textured tuff.					
		@ 729' good bedding @ 53° TCA.					
		from 733' thru 752' continuation of greenish brown colored, generally well bedded tuff. Some thru 771'					
		from 771' thru 778' greenish/brownish colored generally well bedded tuff					
		778 - 779.4' - greenish to brownish colored f.g. tuff with ~1% dull white lobbly qtz with a trace of chalcopyrite as small blebs. Included in sample is a ½" blueish grey MOLY COATED FRACTURE @ 779.4' @ 68° TCA. - all mud (only) submitted in sample.					
		779.4' - 783.4' - Massive Vein Quartz - leads off @ 68° TCA with vein becoming more stringer-like in nature by 782'. Sampled in 2 parts					
		779.4 - 781' - 70% massive white & some grainy fractured qtz with ~2% chalcopyrite, trace of galena and one definite & one questionable specks V.G. Qtz contains greenish angular wallrock fragments					
		781 - 783.4' - 30-40% qtz stringers and qtz flooding of greenish/brownish colored tuff. Qtz locally appears quite fractured with dk green fracture filling. Overall ~1% galena, 1% chalcopyrite					
		783.4 - 786.5' - 15 - 20% scattered ¼ - ⅝" white & some greenish qtz stringers trending @ ~60° TCA. Min with ~1% fine sulphides.					
		786.5 - 790' - 5% scattered ¼ - ¾" white qtz stringers @ 50-60° TCA. with a trace of pyrite/chalcopyrite min in light green bleached tuff					
		790 - 794' - light green colored f.g. tuff with 4, ½ - ½" dull white qtz stringers Trending @ 38-45° TCA. Stringers are min with bits of chalcopyrite but overall < 0.5% bearing chalcopyrite.					
		Note: Qtz zone is extremely hard coring with rare blebs					
		794 - 797.8' - 8-40% dull white stringers & blebby qtz in variably GREEN f.g. tuff - qtz trend is @ 43° TCA. min with ~1-2% fine sulph and galena mostly in qtz rich areas.					
		797.8 - 801' - as previous sample					
		801 - 803.6' - more pinkish altered siliceous f.g. tuff with 3-5% dull white stringer/blebby qtz min.					
		803.6 - 804.6' - STRONG ⅜ - ½" CHLORITE - MOLY MUD BREAK @ 45° TCA - a soft bluish green moly chlorite					

LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-7

Footage From	Footage To	Description	From	To	Total	Sample No.	Ozs.
		and some porcelain type 2" section of siliceous greenish tuff with dark greenish stringy Vein Type Quartz finely mix with ~ 3-5% pyrite. NOTE: this is an OCC type structure and "STRONG BREAK" on 800'L where drift was coming to the N appears to be one and the same feature.					
		804.6 - 807' - some coarse - brown colored aswell granular textured tuff with <1% dull white qtz stringers @ ~45° TCA - traces of pyrite mix.					
		- thru to end of unit tuff remains brown in color.					
		@ 810.5' a 3/8" TIGHT BRECC FRACTURE @ 48° TCA - some fine brecc with rock fragments laminated in with pale greenish chlorite - tight.					
811.3		Basic Syenite - sharp natural leading contact @ 43° TCA					
		- thru 814 unit is highly bleached to a pale green color with med grained aegirite.					
		beyond 817' syenite gradually becomes darker greenish gray colored but aegirite remains highly bleached - unit remains med grained textured.					
		between 829 - 836' syenite appears weakly altered @ 50° TCA					
		- beyond 839' syenite gradually becomes darker green gray in color & unit is fine to med grained textured & increasingly fractured fractured with white carb fracture filling.					
		@ 844.1' a 1/8" CARB-CHL SLIP @ 17° TCA.					
		@ 854.6' a 3/10" TIGHT CHL FAULT @ 10° TCA with an adjacent tight 1/2" intensely brecc zone - a competent but tight structure					
		from 855' thru 864.2' dark greenish gray colored, med grained syenite with sparse scattered 1/4 - 1/2" dull white carb - qtz filled fractures. some qtz filled fractures appear shatty. all tollish looking.					
		from 864.2 thru 884' fine to med grained massive basic syenite with a few scattered 1/8 - 1/2" dull white carb filled fractures and a few 1-2" reddish brown fg. felsic dikes. down thru to end of hole. Basic syenite appears to be more fractured with white carb fracture filling.					
	902	EOH Dec 4/93 B. Norwood					
		see over for list of retrieved footages of core from this hole.					

Lac Minerals Ltd. Macassa Division

Hole # CK93-7

Date: Dec 193

Sperry-Sun Borehole Survey Data Sheet

Type of Survey: Open hole Sperry Sun Magnetic multishot using overshot cable for survey. Camera was not shut off after surveying CK93-8 - surveying down the hole

Layout Dip: -63° Layout Azimuth: 090

Camera Time Interval: 1 min

Surface / ~~Underground~~ Survey Conducted By: S. Nemeth

Film Developed By: S. Nemeth Film Readings By: S. Nemeth

Depth	Time In	Time Out	Dip as Read on Bm	Dip Corrected	Azimuth as read on Bm	Azimuth Corrected for Declination	Rotated Azimuth for Sensurv Plots
100	46:00	48:00	29	61	S2°E /092	79	
200	51:00	53:00	29.5	60.5	S4°E /094	81	
300	55 00	57:00	30	60	S5°E /095	82	
400	57:00	1:02:00	30	60	S 7°E /097	84	
500	1:03:	1:06	31.5	58.5	S 9°E/099	86	
600	1:08	1:11	33	57	S 9°E /099	86	
700	1:13	1:17	34	56	S13°E /103	90	
756 800	1:18	1:21	34	56	S 16°E /106	93	
900							
Camera off	@ 1:28						

LAC MINERALS LTD./MACASSA DIVISION

DIAMOND DRILL LOG

Hole No. CK93-8

Section	16000 E / 16002.48	Depth	suspend to 1095'	Remarks	J. Renaud	Factor	
Ref. Line	20200 N / 20196.43	Dip	-45°0' on rods		Dec 6/93	Dip Test @	
Elevation	1059.91	Core Size	BQ wireline		- hole did not intersect significant qtz veining except for		
Azimuth	090 Lay out 86°56'50"	Purpose	hole above CK93-7 tie		a string break @ 764.7'		
Location	W centre of c/l 2450		test quartz zone at shallower horizon.		- casing left in hole and hole open hole Sperry Sun surveyed		
Northing	20196.43				- survey sheet attached - hole collar surveyed by A Lalonde		
Easting	16002.48				- all core / sludge assayed @ Swastika Lab.		

Drill Contractor Heath & Sherwood Drilling (1986) Inc.

Core stored @ Macassa Mine Core Shack

20 sc E		
20 sc G		
100 sc P		
20 sc X		
20 sc L		
100 sc L		

sludges (over)

CORE

Footage

From	To	Description	From	TO	Total	Sumple No.	Ozs.
0	28	Casing					
28	2389	Conglomerate - typical Timiskaming variety of greenish grey colored generally small pebble conglomerate.					
		@ 40.6' a 1/16 - 1/8" MUDDY CHL SHP @ 25° TCA. some mixing for 1' preceding This story tight structure.					
		@ 51.7' a 1/4" TIGHT CHL - CARB LAMINATED SHP/FLT @ 30° TCA. Conspicuous Tight structure.					
		@ 56.5' a 1/16 - 1/8" TIGHT CHL SHP @ 18° TCA.					
		- then 6½' greenish grey colored small pebble conglomerate.					
		@ 71.0' 1/16" TIGHT CHL SHP @ 20° TCA.					
		- then 84.7' massive small pebble conglomerate.					
		@ 89.8' a 3/8 - 1/2" CHL CARB FAULT @ 25° TCA - a story structure with minty coals laminated with chlorite.					
		@ 97.7' a 3/16 - 1/4" pinkish white CARB FRACTURE @ 18° TCA - conspicuous Tight feature.					
		- then 122.2' greenish green colored, Timiskaming rounded pebble conglomerate - good coring unit.					
		@ 111.8' a 3/8 - 1/2" CARB CHL FAULT @ 25° TCA - a pinkish coal seam attended with green chlorite - looks like a tight version of the Tyrone conglomerate					
		then 141.3' greenish grey colored, massive good coring conglomerate with numerous fine hairline white veinlet fractures both in the pebbles & the matrix.					
		@ 147.4' a 1/4" CHL CARB SHP @ 12° TCA.					
		- good pebbly conglomerate then 154'. From 154' then 162' a greenish green colored phase of sandy textured gneiss.					
		@ 164' a 1/2" CARB / CHL FRACTURE / FLT @ 5-40° TCA - a thin film of					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-8

Footage From	Footage To	Description	From	To	Total	Sample No.	Oz/t.
		between 164 – 165' some scattered small rounded pebbles, then grades into/ms then to 166.6'					
		from 166.6 – 174' – small pebble conglomerate					
		174' then 185' scattered grades into with a few short sections of some rounded small pebble concentrations.					
		from 185 then 193' more normal small pebble conglomerate with numerous bleaching white and filled fractures. Some then 288'					
		@ 219.5' a 3" CARB CHL FRAC/FLT @ 32° TCA – dull white and green thinly stringed with green chlorite and light flaky & muddy chlorite on chloritized surfaces.					
		– then 235.5' – grayish green colored small pebble conglomerate.					
238.3	240.8'	Porphyry – strong textural banding extent @ 80° + TCA – bleached for first 2-3". looks like normal K-L. some opaque porphyry with a light brown glass & a weak porphyritic texture and a few small scattered dk green mafic xenoliths. – very choppy core with them to end					
240.8		Conglomerate/Greywacke banding contact is a ½ – 5/8" varied MYLONITIC BAND @ 78°. Tight but strong structural line. – initially unit is a green colored, sandy textured greywacke with widely scattered small rounded pebbles. @ 243' a 1" CHLORITE MUD FAULT @ 15° TCA – a soft flaky chlorite mud seam line followed by 0.4' of broken core. – then 251.8' sandy textured, non magnetic greywacke with widely scattered rounded pebbles.					
		@ 251.8 a 0.7' broken core section on MUDDY CHL FRACTURES/SLIPS @ generally 35-40° TCA. beyond 253' conglomerate becomes increasingly CK&HP and BLCHP with stringers of light green chlorite then – out core. @ 253.2' a 0.3' section of dull white well fractured bedding ft with green chlorite fracture filling. Known looking – not observed. @ 257.5' a 1" STRONG CHL MUD FLT/BRK @ 23° TCA. a 3" flaky chlorite seam on this strong structure – probably the same break noted in CK93-7 but not as much brecciation in this hole. – then 264' a light grey bleached phase of sandy greywacke/conglomerate – @ 264' a ½" MUDDY CHL SLIP @ 30° TCA with an adjacent 2" dull white bedding ft and bleached white ft and bleached thinly stringed with pale green chlorite.					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-8

Footage From	Footage To	Description	From	To	Total	Sample No.	Ozs.
		thru 271.2' a greenish grey coloured, mostly sandy textured phase of greywacke with limited rounded pebble constituents.					
		@ 278' a 1/8" MUDDY CHLORITE SLIP @ 15° TCA.					
		@ 280.7' - a 1/16 - 1/8" MUDDY CHL SLIP @ 47° TCA					
		- thru 289.7' greish green coloured small pebble conglomerate.					
		between 292 - 294.6' a more sandy greywacke section of conglomerate					
		from 294.6 - 299' - a STRONG SHEARED ZONE @ 53° TCA veining over 0.3' CHLORITE/QTZ FRACTURE/FLT @ 296.9' @ 33° TCA dull greish white bullish qty fractured & stained with dark green chlorite. Upper to FLT contact rock is a pale greish grey colour & min with trace of sulph & ~ 5% dull white qty some not angular to FLT contact.					
		- sampled in 2 parts.					
		- section from 296.8' to 299' consists of variably fractured conglomerate with light green chloritic staining. < 1% fine pyrite min.					
		from 299' thru 304' gradually decreasingly fractured & chlorite stained conglomerate.					
		- beyond 305' returns to normal small pebble Timiskaming conglomerate.					
		from 309' thru 328' greish green coloured normal conglomerate - massive good comp. Same thru 347.2' and 366.5'					
		between 369 - 373' a dark greish sandy greywacke section with bedding trending @ 33° TCA.					
		from 378' thru 385.3' normal dark greish grey coloured small pebble conglomerate.					
		from 385.3 thru 405' greish grey coloured, massive small pebble conglomerate.					
		@ 403.4' a sharp contact with following greywacke @ 57° TCA					
		- thru 419' scattered small rounded pebbles in a greish grey coloured, sandy matrix.					
419	447.9'	Biotitic Porphyry - leading contact is a 1" CHL FRACTURE @ 70° TCA.					
		- unit is creamy brown in color with 10% a strong porphyritic texture including the typical 1/8 - 1/4" pinkish sub-euhedral phenocrysts					
		- thru 442.6' more pinkish colored, biotitic porphyry with some blocky veining sections.					
		@ 444.5' a 1-2" orange & white QTZ - CARB BAND @ 17° TCA. Fringe for ~ 1/2" exhibit CRUSHING/MYLON - strong tight fracture here.					
447.9'	453.2'	Fabic Intrusive? - sharp intrusive leading contact @ irregular angle TCA.					
		- an unusual phase of aggregate with ~5-10% black, hornblende? augite? phenocrysts scattered about in a fine grained brown colored					

LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-8

Footage From	Footage To	Description	From	To	Total	Sample No.	Oz/t.
		mafic with several ½ – 1" dark reddish brown veined felsic dikes. Both the host lamprophyre and felsic dikes appear to be concentrated near the centre of the unit.					
450		- a few scattered hairline to ½" white carb filled irregular fractures.					
453.2	530	Conglomerate – strong sericitized bedding contact @ 27° TCA					
		- first 0.5' of unit appears to be strongly bleached // to contact – not altered.					
		- thru 461.4' greyish green colored, small pebble conglomerate with scattered sandy greywacke sections. Some thru 480'					
		- thru 499.3' greenish grey colored, massive good sorting small pebble conglomerate.					
		between 509 – 512' a green colored, sandy greywacke interval with bedding @ 58° TCA.					
		- thru 519' massive conglomerate.					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-B

Footage From	Footage To	Description	From	To	Total	Sample No.	Oz/t.
		box #24 - from 518.7' thru 530' - normal small pebble Timiskaming conglomerate.					
530	769.7'	Tuff - strong natural banding @ 73° T/A - unit is medium brownish gray in color with a f.g., locally well bedded texture - non magnetic - @ 535' good bedding @ 63° T/A. beyond 541' tuff becomes more brownish in color between 545 - 546.2' scattered angular mud clasts up to 1½" within fine sandy textured tuff - thru 557.2' grayish brown colored fine silty thru coarse sandy textured tuff with sandy sections being 1-3' beds; containing numerous reddish brown ± ½" rounded & angular clasts. box #29 - from 557 thru 576.4' grayish brown colored, well bedded silty to locally fine ash textured tuff. Localized sections contain dark brown to black colored f.g. up to 1" angular clasts. - @ 563' a 2" beige f.g. mylonitic looking band @ 73° T/A - may just be an unusual thin bed in the tuff as it's // to bedding.					
		box 30 - 576.4' thru 595.7' brownish gray colored, generally well bedded tuff with bedding @ ~ 73-75° T/A. Textures varies from fine ash thru short coarse lapilli tuff strands. Non magnetic. from 595.7' thru 615.2' gray to brown colored, well bedded Tuff - @ 615' bedding is @ 62° T/A. between 607 - 610' some fine ± - ½" gray mottles seems in the brown tuff - from 615' thru 635' brown to grayish colored, locally well bedded tuff @ 624' bedding is @ 53° T/A. - thru 652" gradually lighter grayish brown colored sandy textured tuff with ~1' section containing sub-rounded translucent lenses.					

LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CM93-8

Footage From	Footage To	Description	From	To	Total	Sample No.	Oz/t.
		- beyond 652.-' -tuff quickly becomes more ash textured with a brownish to greenish color.					
		660.7 - 661.5' - a more reddened section of tuff with three ½ - ¾" white to greenish CARB SULPH BANDS @ 60-70° TCA.					
		Bands consist of ~ 2% galena & ~3% clustered pyrite - trace of chalcopyrite. Wall rock chlorite creep.					
		- thru 672.4' light brown colored tuff - generally well bedded.					
		- thru 691.3' greenish brown colored, generally well bedded, sandy to fine silty textured non magnetic tuff.					
		@ 694' bedding is @ 45° TCA.					
		thru 710' greenish brown colored sandy textured to locally fragmental textured tuff.					
		between 703.9 - 710.8' a section of greenish tuff? with abrupt contacts @ 63° & 40° respectively TCA - fg. non magnetic unit - may just be a different phase of tuff although no location in core to support bedding in this unit.					
		- thru 730' brown to greenish colored darker tuff. Generally well bedded and locally weakly magnetic on ½ - 1" dkish grey magnetite rich beds.					
		@ 722' bedding is @ 58° TCA.					
		from 730' thru 749' more greenish grey colored sandy to fine silty textured tuff generally well bedded					
		@ 745.4' a 1" locally PYRITIZED bed @ 66° TCA. Wall rock chlorite creep.					
		- thru 756.2' brown to grey colored generally well bedded tuff.					
		756.2' - 759.1' - brown to reddish brown colored, locally fine banded fractured tuff with structures noted below:					
		@ 756.4' a ½" greish BRECC FRAC/FLT @ 65° TCA - very tight looking feature					
		@ 757.7' a 1-2" dkish grey specularite feature @ 63° TCA - tight conspicuous feature.					
		@ 758.9' a ¼" dull grey white qtz stringer @ 68° TCA. - looks like a common one type stringer					
		- from 759.1' thru 764' greish to brownish colored, generally f.g. tuff with white carb banding filled fractures					
		@ 764.7' a 5" SOFT CHLORITE MUD BREAK @ 60° TCA. Very soft dk green with a minor dusting of pyrite. A few scattered ¼" pyrite grains for ~2" beyond break plane.					
		- thru 767.6' brownish grey colored, sandy textured tuff.					
769.7		Bleb pyrite - leading contact is a ¼" dull white CARB BAND @ 35° TCA - Tight unbroken feature.					
		- thru 776' unit is strongly blended to a beige color with finely scattered highly blended red to cg. angular pheno's.					
		beyond 777' is pyrite gradually becomes more and greater, greenish grey color with several scattered reddish brown fabric ish.					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-8

Footage From	Footage To	Description	From	To	Total	Sample No.	Oz/t
		@ 773.7' a 2" blush grey chalky bulbish qtz stringer @ 27° TCA - stringer with pyritic carbonate - Banded looking.					
		between 778 - 781' variably fractured & pyritic with white qtz fracture filling.					
		789 - 789.7' a 0.4' dull white QTZ CARB BAND @ 30° TCA weakly stringer with grey chlorite. Trace of pyrite min. - Wallrock are dark banded.					
		- @ 792.1' a ½" TIGHT STRONG CHLORITE SHR @ 58° TCA					
		@ 793.6' a ½" CARB CHLORITE FRACTURE/FLT @ 47° TCA & @ 794.6' a 1" dull chalky white QTZ-CARB BAND @ 23° TCA. Wallrock are dark grey & these fractures - trace of sulph min.					
		from 795' thru 805' fair hairline calcite carb filled fractures in ~~rock~~ medium grained, dark green colored basic pyroxenite.					
		between 816' ± 824' fair ½ - 1½" dull blush grey to white BULLISH CHERTY QTZ filled fracture Trending @ 40-45° TCA.					
		- to 825' medium grained textured, dark greenish grey colored basic pyroxenite with some green fabric veining.					
		- thru 845' med grained textured, greenish green colored massive pyroxenite with mildly scattered hairline to ½" white carb & qtz fractures.					
		@ 827.6' a ½ - 1" CRSHD/MYLON CARB FRACTURE @ 35° TCA - a dk green fgn pyroxenite band with an adjacent ½" white carb fracture - very tight fracture.					
		@ 846.4' a 1" STRONG TIGHT CHL SHR @ 55° TCA - leads off a HIGHLY FRACTURED and QUARTZ FLOODED zone - basic pyroxenite is min with a blush white chalky milky quartz fracture filling					
		846.4 - 849.5' - 30% chalky blush grey qtz flooding - general qtz trend appears to be @ 15-30° TCA. Trace of sulph.					
		849.5 - 852.2' - no pyroxenite sample but only 8-10% qtz min.					
		852.2 - 854.1' - ~30% dull white, locally chalky baby qtz flooding with ~5% coarse ½ - 2" clustered euhedral pyritic pyroxenite					
		854.1 - 855' - pyroxenite is flooded with ~40% chalky white qtz min with greenish stringy bay chlorite. Trace of sulph min. - hole is approaching a structure.					
	855	EOH Dec 7/93 S. Nowak					
		list of core saved from this hole 235.5 - 271.2, 289.2 - 309.1, 442.3 - 461.4, 748.2 - 767.6					
		844.8 - 855'					
		- hole dipped Dec 14-15/93					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-8

Footage From	Footage To	Description	From	To	Total	Sample No.	Oz/t.
		- hole deepened to replace qtz-plg-feldspar basalt intrusive.					
		855-858' - broken up core on a ± ". STRONG MUDDY CHL FLT ZONE trending down <5° TCA. Adjacent wallrock is crushed basaltic unit with ~10% stringy & blebby dull white qtz vns. Trace of sulph vns.					
		858- 862.6' - 40% dull blueish gray colored chalky qtz flooding in dk greenish gray colored, fg. textured basaltic. Trace of sulph vns.					
		862.6- 865.2' - 15-20% dull blueish gray colored chalky qtz flooding in dk fg. basaltic - trace of sulph vns.					
		from 865.2' thru 872.7' fair to locally mod grained greenish/brownish basaltic.					
		from 872.7 thru 892' dark greenish gray colored fair to mod grained, basaltic moderately fractured with upto ± " dull white calcite filled fractures. Some thru 904'					
		between 904- 905' several ± - ± " reddish brown clayey fabric zones.					
908.2	909.1'	Fabric basaltic - sharp natural leading contact @ 43° TCA					
		- reddish brown fg. unit - probably just an exceptionally wide fabric zone in the main basaltic.					
909.1	920.9'	Massive basaltic - sharp natural leading contact @ 27° TCA.					
		- unit is dark green in color with a fg. to mod grained texture.					
		@ 912.8' a ± " white CARB BAND on a ± " CHL SLIP @ 38° TCA.					
		@ 918.4' a 0.2' CRUSHED/SILICIFIED BAND @ 38° TCA adjacent to a chloritic slip. Trace of sulph stgr.					
		from 914 thru 916.6' mod grained weakly blueish greenish gray colored basaltic.					
		@ 916.6' a ± "MYLONITIC CHL SLIP @ <5° TCA leads off a grey to brownish colored chalky qtz flooded section extending thru to 920' - @ 919.3' a 0.4' broken zone intersected with evidence of a ± " STRONG CHL SLIP/FLT @ about 30° TCA. A concentration of blebby chalky dull white qtz around this broken structure.					
		from 920 to 920.6' fair grained mod blebd basaltic					
		@ 920.6' a 2-3" dull chalky brown qtz stringer Trending @ 27° TCA. <0.5% fine pyrite vns.					
920.9	922.7'	Fabric basaltic - leading contact is an irregular chalky qtz					
		- a dull brown colored generally fg. unit					
		- locally flooded with ~ 15% dull chalky white qtz and ~ 1% large ± " subrounded pyritic grains					

LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-9

Footage From	Footage To	Description
922-7	977'	Basic hypabyssite - strong internal banding intact @ 52° TCA.
		- unit is greenish grey in color with a med grained texture and thru 930.6' numerous reddish brown felsic inclusions up to 0.5' across cutting thru hypabyssite unit.
		- scattered felsic ribbing with light reddish brown color & fg. textures extend thru 936'
		- from 936' thru 948.8'
		@ 937' a ¼" BRECCIATED CHLORITE FAULT @ 43° TCA. Some soft mostly chloritic material making up part of ¼" zone containing angular wallrock fragments. An adjacent 2" dull grey strongly shatty qtz vein with a trace of sulphide min. Wallrock was also sheared.
		- thru 939' 1 hypabyssite appears generally fractured with both chlorite and dull white carb fracture filling.
		from 939' thru 951.3' - dark greenish black colored, medium grained textured basic hypabyssite
		- beginning @ 951.3' unit becomes increasingly CRUSHED thru to a max @ 952' where a ½" STRONG CHLORITE MUD FLT/BRK is @ 48° TCA. a 2" broken, heavily chloritized fracture structure.
		- thru 968.3' dark green to greenish brown colored, med grained textured, locally fractured hypabyssite with dull white carbonate fracture filling.
		- to end of unit greenish brown colored, medium grained textured very blocky basic hypabyssite with a few 1-2" dull chalky white bulbish ep-carb fracture fillings.
977	980.3'	Felsic hypabyssite - gradational leading contact over 1"
		- unit is bright reddish brown in color & fg. textured with an intensely CRUSHED/FRACTURED appearance. Unit has two ½" brown felsic dikes near start of unit.
980.3		Basic hypabyssite - leading contact is a 1" CHLORITE MUD BREAK @ 43° TCA - a very strong structure with 1" mud & ½" broken chloritized wallrock structure marks end of reddish alteration of preceding basic & felsic hypabyssite and change to a dark greenish grey colored phase of med grained, strongly fractured hypabyssite with white carb fracture filling.
		- basic hypabyssite remains moderately fractured thru to 993'
		- from 993 thru 1005.2' dark greenish black colored, less basic fractured hypabyssite, medium grained textured.
		@ 990' a ¼" CARB CHL FRAC/SLIP @ 45° TCA - tight fracture.

From	To	Total	Sample No.	Oz/t

Lac Minerals Ltd. Macassa Division

Hole # CK93-8

Date: Dec /93

Sperry-Sun Borehole Survey Data Sheet

Type of Survey: Open hole Sperry Sun magnetic multishot using overshot cable for survey. Camera was left running to survey CK93-7 - surveying bottom out

Layout Dip: -45° Layout Azimuth: 090

Camera Time Interval: 1 min

Surface Underground Survey Conducted By: L. Nemeth

Film Developed By: L. Nemeth Film Readings By: L. Nemeth

Depth		Time In	Time Out	Dip as Read on film	Dip Corrected	Azimuth as read on film	Azimuth Corrected for Declination	Rotated Azimuth for Sonsurv Plots
0	686	7:00	11:00	55.5	34.5	58°E /098	85	
100	586	14:00	17:00	54	36	56°E /096	83	
200	486	20:00	22:00	53	37	54°E /094	81	
300	386	24:00	26:00	52.5	37.5	53°E /093	80	
400	286	28:00	30:00	52	38	53°E /093	80	
500	186	33:00	36:00	50	40	E /090	77	
600	86	38:00	40:00	49	41	E /090	77	
686 700		41:00 out of hole						
800								

LAC MINERALS LTD./MACASSA DIVISION

DIAMOND DRILL LOG

Hole No. CK93-9
all entered in Borcom

Section 15,955 E/15448.77 Depth 1207
Ref. Line 20725 / 20719.82 Dip -90° Inc
Elevation ~~1068.43~~ 1068.43 Core Size BQ wireline
Azimuth 090 Inc ~~24°54'40"~~ 24°54'17" Purpose drilling beneath the
Location NW corner L 2450 485'L exploring the lower extn of the
Northing N-S striking ~50° W dipping "vein zone".
Easting

Contractor Heath & Sherwood Drilling (1986) Inc
* NOTE: casing bent off before survey

Remarks L. Normark Dec 8/93
Wings to 900'L was probably sunk on Qtz veining assoc. with a fault? @ 1040.3' mineralized with chalcopyrite. This zone may be the north faulted extension of the N-S striking Pb-Zn-Cu-Fe-Se rich veining north of the Az 060° fault drifted on the 800'L
- sludges assayed @ Macassa New mill Lab location
- survey sheet attached for hand calculation down the hole sperry sun survey
- collar surveyed by B. Larose
- sludges assayed @ Macassa New mill 'attic lab' for Au @ swastika

Factor

Dip Test @

20 sc E		
20 sc G		
100 sc P		
20 sc X		
20 sc L		
100 sc L		

drill sludge (over)

Footage Core stored @ Macassa Mine Core Shack

CORE

From	To	Description	From	TO	Total	Sample No.	Oz [redacted]
0	10	Casing					
10		Bimodal Porphyry - Typical pinkish brown colored unit with a good porphyritic texture with both 1 - 3/5" pinkish and 1/4" dull white feldspar phenocrysts. Some of the larger phenocrysts exhibit good twinning from - gouty @ 14' a 2" vuggy section @ 47° TCA - Thin 1/10 - 1/5" wavy seams in the unit. - unit contains a few pale green 1 - 3" inclusions. - then 43' pinkish brown colored porphyritic textured bimodal porphyry. between 43 - 44.6' a concentration of small 1/4" subhedral dark green amphibole? making up about 5% of unit. @ 45.3' a pretty good ~~GRAB~~ CHL BAND? - no core angle available on which but generally core set is @ 63° TCA. - beginning abruptly @ 45.7' unit is strongly altered to a light green color. The small feldspar phenocrysts are also green alt while the large qtz phenocrysts become more orange brown in color. @ 45.9' a 1/4° dull white qtz stringer @ 48° & containing a 1/10" grain of galena & from 49 - 1/2" bullish white qtz stringer @ 30 - 50° TCA - small trace of sulph in the sampled section. - granite altered pebble zone abruptly @ 48.8' - from 44 thru 67.2' pinkish brown colored bimodal porphyry. @ 64' a 1" wavy dull greyish white qtz stringer @ 65° TCA - trace of sulph min wet white core lite smudged. - then 80' brown to pinkish colored, porphyritic porphyry - moderately fractured with dull white coating on fracture faces. - from 80' thru 84.9' more broken core with some cemented ~~FRAC~~/breccia sections with white coating with angular wallrock fragments and minor blackish grey fragments of gouge. One smoky galena noted in the @ 84.9' a 1/4 - 1/2" STRONG BRECC CHL FAULT @ 43° TCA - a 1/5" flaky chlorite seam with adjacent 1/2" brec					

BIP - Brecciated Porphyry

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-9

Footage From	Footage To	Description	From	To	Total	Sample No.	Ozs.
		moderately altered brecciated zone. A strong but tight structure due to being in the brecciation.					
		- core is broken up to 86.5' where another TIGHT 3/16" CHL FAULT @ 40° TCA. Marks end of broken core interval.					
		between 87 - 89.7' - 1-2% dull grayish specularite & minor galena? quartz - very fg-with no crystalline texture. Whole zone clearly recovered.					
		~~Dec 8/93 L. Nemeth~~					
		- then 123.6' pinkish brown colored porphyritic textured brecciated porphyry.					
		@ 126.4' a 1" grayish dkritic brecciated band @ 27° TCA - moderate tight fabric					
		- then 142' pinkish brown massive brecciated porphyry					
		@ 142.3' a STRONG BRECCIATED CHL FAULT @ 12° TCA. a 1/2" COARSELY BRECC seam next to a 1/8 - 1/4" flaky pale green dkritic zone. Strong tight tight fabric structure.					
		- the BIP texture appears moderately evident to 144'					
		from 144' - then 161.3' pinkish brown colored good porphyritic textured porphyry with more frequent mottling scatterings of darker green colored mafic xenoliths.					
		- then 180.8' continuation of massive BIP with a few widely scattered white 1/8 - 1/4" bulbish qtz - carb filled fractures.					
		from 180.8 to 196' more pinkish colored massive BIP with a strong porphyritic texture.					
		beginning @ 196' BIP becomes more crushed then to a zone @ 196.9' where a TIGHT 1/8" CHL SLIP @ 15° TCA.					
		- then 199.5' massive pinkish brown colored, porphyritic BIP					
		Logged to 199.5' Dec 8/93 L. Nemeth					
		between 204 - 205' slight grayish alteration around 1/4" dull white bulbish qtz stringers @ 77° TCA & 60° TCA.					
		- then 219.4' good pinkish brown colored BIP.					
		219 - 220.1' Quartz Vein Zone @ 50° TCA - a strong 0.5' white qtz vein whose center 1" is visibly over from fracturing. vein vein is preceded by a 1/2" thick white vein @ 72° TCA. Zone does not have any visible vein. ~~Core appears~~					
		vein is altered light grayish then to 223'					
		from 223 then 229' more pinkish brown colored massive BIP. but the unit becomes more grayish again by 229'					
		- @ 229.6' a 1/8" QTZ CHL SLIP @ 33° TCA followed by a parallel irregular 1/2" white bulbish qtz stringer.					

Page No. 3

LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-9

Footage From	Footage To	Description	From	To	Total	Sample No.	Oz/t.
		@ 232.4' a 2" white qtz stringer @ 42° TCA with another ½" adjacent stringer. Trace amt dk grey vein material in the qtz. a few stringers hosted in chlorite					
		- from 237.2' greenish altered, good porphyritic textured BIP.					
		- to 248' greenish to light brownish altered BIP.					
		245.7 - 247.4' - a 1½" white qtz vein zone @ 65-70° TCA. Preceded by a few ¼ - ½" qtz veinlets with qtz stringers. All qtz in veining is stained or contained in milky brown carbonate? Trace of sulphide min.					
		from 248' to 274' pinkish brown altered massive BIP.					
		@ 280.7', 281.2' ¼" CHL SLIPS @ 38° & 27° TCA					
		@ 283.4' a 1' 0.2' section of broken core on a chloritized slip? @ 43° TCA					
		from 285' to 293' very blocky core BIP with thin films of chlorite on some core ends - no single strong structure evident.					
		from 293' to 312' pinkish to greenish brown altered, good porphyritic textured BIP. Choppy core with Some to 330.4' - BIP unit has small ≤ 1" green mafic xenoliths, mildly altered throughout unit.					
		@ 337.4' a ¼" CHL SLIP @ 43° & surrounded by 2-3" CRUSHED & ALT BIP - broken looking					
		from 342' to 353' choppy core BIP with scattered ¼ - ½" quartz healed white qtz stringers and fracture fillings.					
		- logged to 349.3' (box #18) S. Alexander Dec 9/93					
		- from 367' pinkish brown to brown altered, good porphyritic textured BIP					
		- between 373 - 375' - broken core on weakly chloritized fractures @ 15-55° TCA - no major structure evident here					
		- from 384.6' pinkish brown altered, porphyritic BIP.					
		between 395.8 - 397.4' fine grained to crushed BIP with some minor greenish chlorite staining @ 28° TCA. Trace of fine sulphide min. which are recrystd.					
		- from 403.4' pinkish brown altered, good porphyritic textured BIP. Some to 413.1'					
		@ 413.1' a STRONG CHLORITE ZONE @ 37° TCA - a ½" chlorite filled vein with an adjacent ¾" crushed band with some blueish grey healed chlorite filling qtz throughout the crushed & broken section.					
		- broken back off a MODERATELY FRACTURED to locally brecciated BIP with localized concentrations of stringers to stringer qtz to healed with qtz. Beyond 419' BIP becomes moderately greenish altered, overall no sulphide min and nothing expected to many here - box sealed					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. C-K93-9

Footage From	Footage To	Description	From	To	Total	Sample No.	Oz.
		- thru 425' BIF is STRONGLY FRACTURED and was BRECCIATED between 420-425' with dark green chlorite fracture filling.					
		@ 427.6' BRECCIATION increases to a max @ 428' where a 0.2' broken weakly chloritized interval of core is present. Following zone remains BIF but has an irregular ~1" dark green band of diabase? - fg, non magnetic					
		- thru 428.5' locally fractured BIF with a ½" CHL-CARB FRACTURE/FLT @ 433.7' @ 40° TCA. BIF is generally chloritized for ½ - 1" on either side of this feature.					
		@ 444.2' a ¾" - 1" STRONGLY MYLONITIZED BAND @ 43° TCA. Consists of a ½" green chloritized zone with an adjacent crushed/rusty section of BIF. Competence, Tight feature with no subsidiaries.					
		thru 453' gradual brown-black, good porphyritic textured BIF					
		between 453-454' broken core intensely with thinly chloritized zones/veins - no strong structure evident here.					
		@ 455.7' - a 1½" greenish grey colored, fg non magnetic dike with sharp contacts & trends @ 25° TCA.					
		@ 456.7' a ¾" greenish QTZ-CHLORITE FAULT @ 33° greenish/blackish qtz vein with chloritized zones and dk green strongly chloritic					
		456.2 - 457.1' - dk green alt structure rich with minor sulphides.					
		- fault leads off a weakly BRECCIATED section of weakly greenish altered BIF - fractures are filled with dark green chlorite - brecciation increases to a max @ 468.4' on a ½" BRECC ZONE @ 23° TCA - broken very tight to be considered to be a fault although brecciation decreases substantially beyond this feature.					
		- thru 475.4' generally brown-black BIF with scattered 1-2.0' moderately brecciated intervals with dark green chlorite fracture filling					
		- BRECCIATION begins again @ 476' & increases to a max @ 477.2' where a 0.5' MYLONITIC/GRIND ZONE trends @ 63° TCA - a dull olive greenish chloritized zone with ~3% scattered blebby qtz - dull white brownish qtz bxs. mylon/crushed zone is followed by a 0.4' INTENSE BRECCIATION zone ~½" TIGHT CHL SLIP @ 23° TCA.					
		- thru 493.8' BIF is weakly BRECCIATED with a 1" thick CHERTY MYLON BAND @ 37° TCA follows @ 493.9' & followed by 1-2.0' strongly brecciated BIF interval.					
		@ 487.6' a ¼" BRECC CHL FAULT @ 33° with a 1-2" brecc zone on either side of this tight structure					
		- beyond 498' BIF is less brecciated than 493.8'					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-9

Footage From	Footage To	Description	From	To	Total	Sample No.	Oss.
		- ftom 510.7' grenish to pinkish brown colored, good porphyritic textured BIP with scattered sections of moderate BRECCIATION					
		between 494.6-498' a few bullish white ¼ - ½" qtz stringers in light brown colored BIP trace of sulphide - whole core dark overall.					
		@ 501.4' a ⅛" STRONG MUDDY CHL SHR @ 28° TCA.					
		- between 502-505' a few ¼" strongly BRECC BANDS @ 35-55° TCA.					
		@ 509' a 1-2" BRECC BAND @ 42° TCA.					
		- @ 511.1 a ½" STRONG CHL SHR @ 23° TCA. a hard dk green chloritic wafer on the strong structure.					
		- ftom 520' BIP is brownish in color with a good porphyritic texture					
		beyond 520' unit is INCREASINGLY BRECCIATED ftom to a zone @ 523' where a STRONG BRECCIATED CHL BREAK is @ 27° TCA. a 1.4' zone of intensely brecciated & chloritized BIP with pitching 65° along plane of break - measured relative TCA. An 0.5' soft black chlorite seam on this strong structure - known looking with no sulphide mineralization.					
		- BIP continues to be strongly brecciated ftom 523' beyond which unit is moderately fractured ftom 528.9'					
		- ftom 547' pinkish brown colored gradually decreasingly porphyritic textured BIP.					
		539 - 541.9' a few ¼ - ½" grenish & dull white qtz stringers generally @ ~25° TCA - Trace of sulphide mineralization - whole core dk overall. at 539' a ½" MUDDY CHL SHR @ 20° actually leads off stringer section					
		@ 544.7' a 2" TIGHT MYLONITIC CHL/CARB FAULT @ 30° TCA. Strongly laminated mylonitic zone with a pinkish ½" white carbonate band with irregular intensely brecciated qtz veins in form of mylonitized band. A few coarse ¼ - ¾" subdural pyrite grains within the mylonitic section - whole core dark as overall.					
		- ftom 565' pinkish brown colored, moderately porphyritic textured BIP.					
		@ 563.2' a ½" VUGGY CARB/CHL FAULT @ 22° TCA - a ⅜" muddy chlorite zone and a ⅜" white vuggy carb zone, a narrow but strong structure here. Known looking.					
		@ 568.8' a ½" dull white QTZ/CHLORITE FRACTURE @ 75° TCA - conspicuous light brown feature.					
		@ 572.5' a ½" CHL SHR @ 25° TCA - several qtz veins exposed pyrite along shear planes seen. & followed by a ½" white bullish qtz stringer. Section is whole core dark overall.					
		ftom 574' core brown colored, porphyritic textured BIP.					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-9

Footage From	Footage To	Description	From	To	Total	Sample No.	Oz/t.
		from 584' thru 603' darker brown colored, good porphyritic textured massive BIF. a few widely scattered 1-3° green mafic xenoliths.					
		@ 604.7' a $\frac{3}{4}$" dull white bulbish qtz stringer @ 47° TCA No sulphides noted but whole core check assayed.					
		@ 607.4' a $\frac{1}{4}$" BASAL CHL BAND @ 63° TCA - unbroken dk green chloritized core with small angular wallrock fragments.					
		@ 610.8' a $\frac{1}{2}$" dull white qtz stringer @ 42° TCA - barren but whole core check assayed.					
		- thru 622' massive jasperoid brown colored BIF. Some thru 637'					
		beyond 637' BIF becomes more orange brown altered					
		637 - 638.3' - altered orange brown BIF with ~ 1% fine $\frac{1}{16}$" subtotal pyrite. Whole core dk assayed.					
639.3	639.6	@ 639.3' a 0.3' Green Dike Rock - sharp angular leading contact - a dull olive green colored fine grained unit with a few irregular $\frac{1}{16}$" small pearly altered amphibole phenocrysts of? Non magnetic unit.					
639.6		Bimodal Faulting - sharp angular leading contact					
		- continuation of jasperoid brown colored BIF.					
		- thru 639.6' jasperoid brown to brown colored, porphyritic textured BIF					
		@ 647.1' an unbroken $\frac{3}{4}$" BASAL CHL BAND @ 25° TCA.					
		beginning @ 663.5' BIF becomes increasingly bleached to a $\frac{1}{2}$" MYLONITIC QTZ/CHL FLT @ 664.6' @ 15° TCA. Some dull grayish stringy qtz vein over a $\frac{1}{4}$" width. Barren looking.					
		- bleaching extends thru to 668' with dull grayish qtz stringer stringering. Entire bleached interval dk assayed. Barren looking.					
		from 668' thru 676' darker brown colored BIF					
		- beginning @ 676' unit becomes increasingly BLEACHED/CRUMB to a max @ 676.8' over a $\frac{1}{4}$" TIGHT MYLONITIC & PYRITIZED SHR @ 18° TCA. Some dull brassy zoned pyrite on shr plane.					
		- shr looks off a HIGHLY BLCHD/CHERTY SILICIFIED/CRUMB section of BIF? thru 678.4'. Dull beige looking interval with a trace of sulphide.					
		between 678.4' thru 697.6' VARIABLY CRUMB grayish brown colored BIF with grayish chlorite? stringers cutting core @ 20-30° TCA. Trace of sulphide - last evening this interval sawed. Crushy and bleaching continues thru to 699.6' where a 1.3' STRONG SHR/MYLONITIC ZONE is @ 48° TCA - an intensely chl/sericitized section with stringy limonites @ 45-50° TCA & min with 1% scattered blebby pyrite and chalcopyrite.					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-9

Footage From	Footage To	Description	From	To	Total	Sample No.	Oz/t.
		mylonitic section is followed by a 1.0' average brown CRSHD/ALT section of BIP? - all original texture lost. Ubk zoned from 699.6' - 702'					
		- more alteration tapers off by 703' but then 717' BIP remains dark brown in color and coarsely fractured with a weak porphyritic texture. Generally vuggy appearance overall.					
		from 717 then 721' COARSELY BRECCIATED BIP with thin dark greenish grey chlorite fracture fillings.					
		- then 732.7' brown colored, moderately porphyritic textured BIP - moderately fractured with dull white qtz - carb as fracture filling.					
		between 732.7 - 734' an INTENSELY CRSHD/BLCHD section of BIP with a dull beige color and granular texture. Zone ends abruptly @ 734' on a ± 1" greenish mylonitic band @ 18° TCA.					
		@ 736.2' a 0.3' CRSHD BAND @ 47° TCA - bounded by tight chloritized fractures					
		- @ 738.5' a ± 1/2" CRSHD/MYLON BAND @ 18° TCA dull beige band low - barren looking, tight fracturing fractures					
		- @ 740.6' a ± 1/2" CRSHD/MYLON BAND @ 28° TCA.					
		then 754.4' brown to darker brown colored locally moderately porphyritic textured BIP					
		@ 749' a 1" bleached siliceous band on a fracture @ 37° TCA. Fracture surfaces have a fine dusting of minor black mafic? and extremely fine pyrite. Whole core check assayed					
		then 772' locally crushed BIP with variably crushed sections and overall weak porphyritic texture - brown color.					
		@ 754.6' then 1/2" fragments of white qtz - generally bullish looking fracture @ 35° TCA. Whole core check assayed.					
		@ 779-1' a 1/16" CHL SLIP @ 37° TCA with a 2-3" adjacent dull beige white chalky/crushed section					
		- beyond 780' BIP is fairly porphyritic textured to locally crushed then to 785'					
		between 785-786' - broken core interval with some pieces exhibiting some brecciation with dk green chlorite fracture filling. Some core pieces appear vuggy with fine qtz crystal development. Possibly a fault in the last no recovery evident.					
		@ 785.9' a 1/16" CHL SLIP @ 45° TCA. Back off a bright orange altered phase of locally crushed BIP extending then to 787.4' where a 1" MYLONITIC BAND is @ 42° TCA that terminates the orange alt. orange alt section is check assayed - whole core.					
		- from 787.5' then 791-3' variably CRSHD BIP with <1% bleached small 1/8" qtz/mafic grains. Whole core chk assayed.					
		@ 792.5' a 1/4" MYLONITIC SLIP @ 24° with a weakly chloritic slip surface - mylonitic zone has been flooded by bluish grey chlorite					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-7

Footage From	Footage To	Description	From	To	Total	Sample No.	Oz/t
		a Tight but conspicuous structure here.					
		- Thru 809.7' pinkish brown colored, moderately porphyritic textured BIF - locally appears to be crushed / replaced.					
		- from 809.7' thru 825' pinkish brown colored locally good porphyritic BIF with a few widely scattered ¼ - ½" bullish white qtz stringers @ ±35° TCA.					
		@ 826.2' a CHL FRACTURE @ 33° TCA with a few slats of pyrite - white qtz chl. arranged.					
		from 826.8' thru 829' BIF is HIGHLY CRUSH / BLCHD - brown looking but white qtz chl arranged. Some thru 836'					
		from 836' thru 847.8' more porphyritic textured pinkish brown colored BIF.					
		from 847.8' thru 867' grayish to pinkish brown colored moderately porphyritic textured BIF with a few scattered bullish ¼ - ½" white qtz - chl filled fractures.					
		- @ 857.2' a ½" MYLONITIC TIGHT SLIP @ 30° TCA.					
		@ 859.5' a 2" MYLONITIC BAND @ 28° TCA. Conspicuous Tight feature.					
		thru 885.8' grayish to pinkish brown colored strongly porphyritic textured, massive BIF, Appears to be gradually more blended.					
		- @ 873' TIGHT CHL SLIP @ 12° TCA.					
		@ 878.4' a 1" section of bullish white qtz stringer Tuning @ 53° TCA. Bullish brown looking - not massive.					
		thru 904.6' good porphyritic textured BIF - Some thru 923.7'					
		- @ 906.4' a ½" CHL SLIP @ 63° TCA.					
		thru 935' brown colored, porphyritic textured BIF. Beyond 935' unit becomes more beige in color to 941'					
		941' thru 962' brown colored, good porphyritic textured BIF - massive good ore unit.					
		from 961.8' thru 980.6' grayish to grayish brown colored, variable textured BIF.					
		Intervals 962 - 964 and 965.5 - 966.2' dull grayish colored MYLONITIC ZONES with primary texture obliterated. Some thru from 967 - 968.3'					
		- from 969' thru 990.6' more porphyritic textured, brown colored BIF.					
		- thru 992-4 porphyritic textured BIF					
		992-4 - 993.4' a 0.4' TW. Massive white Qtz vein leading off on a "MUDDY CHL/MOLY" SLIP @ 15° TCA. Min					
		with ~1% localized large slats of chalcopyrite					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-9

Footage From	Footage To	Description	From	To	Total	Sample No.	Oz.
		993.4 - 995.9' - 5-8% white $\frac{1}{16}$ - $\frac{1}{4}$" qtz stringers @ 25-35° TCA. Trace of sulfide min.					
		@ 1002' a TIGHT CHLORITE FRACTURE @ 28° TCA looks off a 0.9' section of greenish altered BIF containing a few partial $\frac{1}{2}$" bullish white qtz stringers.					
		- from 1006.5' greenish brown colored, moderately fractured BIF with dull white bullish qtz fracture fillings.					
1006.5	1008.0'	Iron Mike Rock - probably just a highly altered phase of BIF - looks exactly like Highway Rock/Iron Mike Rock but called Twisted. Looks intact along @ 17° TCA. Unit is min with scattered dark dusky green chl/sericite unit is very magnetic, can be scattered with a rod - salt and is min with ~2% very f.g. pyrite.					
		@ 1007.2' a $\frac{1}{16}$" MUDDY CHL FLT @ 30° with some wispy qtz veins for 1" past the section.					
1008.0	1044	Bimodal Complex - always intrusive looking contact					
		- a greenish brown colored unit with scattered $\frac{1}{16}$" pinkish subbed feldspars and some subdued qtz grains.					
		@ 1010.5' a $\frac{1}{2}$" white qtz stringer @ 58° TCA followed by 2" green alt/sericite BIF min with 1-2% fine pyrite. Ubs removed.					
		- from 1019' greenish colored BIF					
		@ 1018.7' - a 2" dark green alt band around a $\frac{1}{2}$" dull white qtz - calc stringer @ 47° TCA. section is strongly min with 3-5% fine pyrite.					
		from 1019 from 1032.5' greenish brown colored moderately fractured BIF with $\frac{1}{16}$ - $\frac{1}{8}$" dull white qtz - calc fracture fillings.					
		1032.5 - 1035.6' - 5-10% $\frac{1}{16}$ - $\frac{3}{8}$" dull white qtz stringers @ 55-60° TCA with <0.5% fine pyrite in greenish brown BIF.					
		Logged 1035.6' BIF quickly becomes more brown in color with Till a locally crushed appearance.					
		Logged to 1037.4' Dec 14/93 S.Nemeth.					
		1037.4 - 1040.3' increasingly fractured BIF with ~5% dull white $\frac{1}{16}$ - $\frac{1}{4}$" qtz stringers and trace of sulfide min. in increasingly reddish altered fairly pyritic BIF.					
		1040.3 - 1042.5' - 60% Massive Vein Quartz @ 38° TCA. Dull dusty greenish white variety intensely stockwork with pale greenish chlorite & minor veining at about 10% of section. Qtz is min with ~2% locally coarse $\frac{1}{4}$" clots of chalcopyrite. Qtz is well fractured.					
		1042.5 - 1045' - 40% scattered $\frac{1}{16}$" thin massive grey & white dusty qtz following a possible FAULT? @ 1042.5' trending @ ~38° TCA. Much broken core here with chloritized surfaces suggestive of a fault and also a change to					

LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-9

Footage From	Footage To	Description	From	To	Total	Sample No.	Oz/t.
		last 0.6' next to fault is greyish clotty qtz, followed by more wk qtz - locally min with 8-10% fine aspirite min but overall ~ 2-3% sulph.					
		@ 1044' a ½" TIGHT STR CHL SLIP @ 45° TCA.					
		- beyond 1044' a dull dark greenish grey colored, highly sericitic phase of tuff present - generally f.g. Textured.					
1044	1207'	Tuff - looking contact may have been fault @ 1042.5'					
		- unit is a dull greenish grey color with a f.g. texture - weakly magnetic.					
		1045 - 1046.3' - greenish grey colored tuff with ~1% dull greyish white clotty qtz stringers & blebs. Trace of sulph min.					
		- to 1048' fractured tuff with several ¼ - 3" dull white qtz filled fractures.					
		1050.5' - 1053.6' - locally clotty qtz flooded, green to brownish colored sericitic tuff min with 2-3% chalcopyrite min.					
		Thru 1063.3' greenish brown colored, generally f.g. Textured tuff.					
		1063.3 - 1066.2' - 3-5% dull greyish white qtz stringers trending generally @ 30° TCA. Locally min with 1-3% fine sulph min.					
		Beyond 1066.5' tuff abruptly becomes more greenish colored - still f.g. sub Textured with scattered limonite fractures filled with dark green chlorite and a few ¼ - ¾" dull white qtz - qtz fractures @ 20-45° TCA to thru 1074'					
		- beyond 1074' tuff quickly becomes darker grey - mauve color with a fine silt to sub Texture. Locally weakly magnetic & unit.					
		beyond 1077' unit locally has good looking intervals @ 63° TCA.					
		@ 1090.9' a 1" TIGHT MYLONITIC CARB CHL FLT @ 55° TCA. - a 2-3" strongly chlorite stringer magnetite section with some fine pyrite min within 1" of flt plane - a strong tight structure. Wallrock cm chlorite arranged.					
		- thru 1093.5' grey - mauve f.g. locally well bedded tuff.					
		from 1093.5' - 1102.9' - brown colored to locally greenish colored, locally well bedded tuff					
		@ 1100.8' a TIGHT ½" CHL SLIP @ 40° TCA surrounded on both sides by 0.6' of greenish alt tuff.					
		@ 1109.4' a 1" MYLONITIC CHL SLIP @ 53° TCA - a 1" strongly laminated zone followed by about 0.8' discernably greenish altered tuff.					
		@ 1112' bedding is @ 43° TCA.					
		from 1112.9' thru 1132' greyish to greenish colored, generally f.g. tuff and locally well bedded. Scattered limonite to ¼" dull white qtz fractures filling thru - out the unit.					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-9

Footage From	Footage To	Description	From	To	Total	Sample No.	Oz/t
		between 1132 - 1136' more coarse sandy textured unit.					
		beyond 1137' Tuff becomes more brownish in color with a sandy fine ash textured phase with good bedding intervals.					
		@ 1148' good bedding @ 38° TCA					
		beginning @ 1150' a coarse fragmental phase of tuff appears & extends thru 1156.5' - averaged +/- 3" angular to subrounded					
		lapilli set in a coarse textured sandy matrix with an orange brown color.					
		@ 1156.5' a contact between preceeding coarse fragmental and fine silty textured greenish brown tuff @ 13° TCA					
		1156.5' thru 1169.6' greenish brown colored, fine silty textured, locally well bedded, sericitic tuff.					
		@ 1163' bedding @ @ 42° TCA.					
		from 1169.6' thru 1189' light brown colored, generally sandy textured, locally well bedded tuff.					
		- thru 1207' sandy textured, locally greenish colored tuff					
		@ 1195.9' a 5" greenish MYLONITIC FRACTURE @ 43° TCA - greenish alt extends for 1-2" on either side of mylonitic band.					
		- band contains a few subdued ± " pyrite grains. Lower cont sharp.					
	1207'	EOH. Dec 15/93 S. Nemeseh					
		- End of core retained from this hole					
		29.2 - 48.3, 67 - 86.3, 218.4 - 256.5, 403.3 - 428.5, 456.2 - 493.8, 510.5 - 528.3,					
		659.6 - 717, 828.4 - 847.7, 961.8 - 1074.5, 1151 - 1169.6'					

Lac Minerals Ltd. Macassa Division

Hole # CK93-9

Date: Dec. 13/93

Sperry-Sun Borehole Survey Data Sheet

Type of Survey: Open hole Sperry Sun magnetic multishot using wireline cable - surveying down the hole.

Layout Dip: -80° Layout Azimuth: 090°

Camera Time Interval: 1 min

Surface / Underground Survey Conducted By: Ken R.

* - 3 or 4 From before start

Film Developed By: J. Ramsook Film Readings By: J. Ramsook

Depth	Time In *	Time Out	Dip as Read on film	Dip Corrected	Azimuth as read on film	Azimuth Corrected for Declination	Rotated Azimuth for Borehole Plots
	0:00:00						
20'(GOW)	5:35:00	8:35:00	10.5	79.5	S78E/ 102	089	
100'	9:25	12:25	11	79	S75°E/105	092	
202'	13:00	16:00	11	79	S75°E/105	092	
303'	16:40	19:40	10.5	79.5	S74°E/106	093	
403'	20:20	23:20	11.5	78.5	S73°E/ 107	094	
503'	23:50	26:50	12	78	S72°E/ 108	095	
604'	27:20	30:30	12.5	77.5	S70°E/ 110	097	
708	30:55	33:55	13	77	S71°E/ 109	096	
815	34:20	37:20	13	77	S70°E/110	097	
912	37:50	40:50	13.5	76.5	S70°E/ 110	097	
1012	41:15	44:15	14	76	S70°E/110	097	
1113	44:50	47:50	14	76	S69°E 111	098	
1139	48:50	51:50	14	76	S68°E 112°	099	
		56:20					

LAC MINERALS LTD./MACASSA DIVISION

DIAMOND DRILL LOG

Hole No. GK 93-10

Section 15,900E / 15895.93 | Depth 765' | Remarks Surge Nemeth Dec 16/93 | Factor

Ref. Line 18,700N / 18706.09 | Dip -40° layout | - holes appears to be mostly in tuff | Dip Test @

Elevation 1074.50 | Core Size BQ wireline | except for 1 seam at ± 98'. On surface |

Azimuth 0° layout, 3° 06' 48" | Purpose Exploring contacts of Bimodal | mapped as tuff + wacke but in retrospect was probably

Location SW part of 2480 | Porphyry unit for Au as projected | mostly tuff here.

Northing | E From claim L 2377 where May 1/35 | - Casing left in hole - Sperry Sun surveyed thru the rods.

Easting | letter from H. Reinecke to R.A. Boyce | - some major breaks in this hole comparable to the OA & main break structures in the west end of the camp.

Drill Contractor Heath & Sherwood Drilling (1986) | Incementioned values on a "fracture... striking N 67°E... dipping abt 80° south..." showed samples #71 - #120... extremely rich in tellurides and free gold"

survey sheet attached

20 uc E		
20 uc G		
100 uc P		
20 uc X		
20 uc L		
100 uc L		

all stored in drawers

Core stored @ Macassa Mine Core Shack

drill sludges assayed @ Macassa CORE New mill Lab site (over) "old lab"

Footage From	To	Description	From	TO	Total	Sample No.	O[redacted]
0	12	Casing					
12	97.5	Tuff - unit is grey to dark grey, weak to locally strongly magnetic					
		- texture is variable from fine ash thru chert coarse fragmental section with clasts up to ½" across.					
		- thru 30' generally gentle choppy coring rate					
		@ 24' a 1" broken weakly mylonitized section with limonitic fracturing @ 68° TCA. Tight conspicuous feature.					
		@ 26' a 0.3' section of weak greenish alt around some mylonitic stringers @ 60° TCA & cut by later ± dull white carb.					
		- thru 48.3' dark grey to grey colored, generally fine ash textured tuff.					
		@ 43.1' a tight ½" sooty fracture @ 15° TCA.					
		@ 52.7' a ½" RUSTY CHL SLIP @ 47° TCA - a ½" sooty bleached colored envelope around this tight feature.					
		½ foot each side total host rock was dark coloured.					
		- thru 67' grey colored, silt to ash textured tuff with short localized more fragmental sections.					
		beginning @ 69' tuff becomes INCREASINGLY FRAC/GREENISH ALT & SERICITIC to a max @ 72.7' where a					
		½ - ½" TIGHT BRECC CHL FAULT is @ 53° TCA - an intensely brec ½" seam with small angular wallrock					
		fragments cemented by dk green chlorite. Fracturing, greenish alt & sericitization persists thru 75' where another					
		0.5' CRUSH/MYLONITIC ZONE is @ ~65° TCA. Zone is strongly stringer with light greenish chlorite.					
		- generally poor broken ground but core saved over this interval. Fractures are filled with dull white carbonate.					
		- @ 80' good bedding @ 65° TCA.					
		between 87.5 - 88.6' a section of scattered small rounded pebbles including a large 2" bright red jasper					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-10

Footage From	Footage To	Description	From	To	Total	Sample No.	Oz.
		- as a result section from 87.5 - 88.6 considered as conglomerate.					
87.5	88.6	Conglomerate - no deformable contacts, just the presence of small pebbles including gangue.					
88.6	219.3	Tuff - no change during contact					
		- Thru 105' grayish brown to brown colored, generally well bedded tuff. Several sections with densely scattered small to ¼" reddish brown colored fragments. Limits clasts.					
		@ 107.1' a ¼ - ¾" BRECC CARB CHL FLT @ 43°, 10° - a very tight structure with fractures filled with dk green chlorite - a ½" dull white carb band adjacent to lft plane. Following tuff for 0.7' is rock altered reddish brown with ~2% fine pyrite min. Whole core zone sampled.					
		- thru 124.1' brown to grayish colored ash thru small fragmental textured tuff with numerous ½ - ¾" rusty oxide reddish brown limits? clasts.					
		from 124.1 thru 146.7 grayish to brownish colored silt to ash textured tuff.					
		@ 125' good bedding @ 73° TCA - weak to locally strongly magnetic section.					
		143.4 - 144.6' - grayish orange alt fg. tuff with 2% fine pyrite min.					
		@ 147.1' a < ½" MUDDY CHL SLIP @ 47° TCA. Thru 156.8' brownish / grayish colored fg. tuff.					
		- thru @ 157.8' a visually grayish alt and CRUSHD / MYLONITIZED section of tuff with some bleach / pervasive silicification - clasts stranked with grayish chlorite @ 68° TCA. Traces of calcite min but whole core chunks sampled.					
		- thru 182' grayish to brownish colored, fine silty to ash textured tuff with scattered more fragmental sections.					
		@ 171.6' a ½" VUG with small qtz & dolomite crystals - orig is @ 14° TCA					
		- @ 180.4' a ½" STRONG CHL SLIP @ 17° TCA.					
		from 182' thru 201' brown to grayish colored, mostly silt to ash textured tuff with bedding thickness of ½ - ¾" bleached zones within the unit					
		@ 197.5' a 0.5' section of some ½" orange-white carbonate filled fractures @ 25° TCA					
		- @ 200.9' a ½" TIGHT CHL SLIP @ 13° TCA.					
		- thru 219' brown to dark grey colored, locally well bedded tuff.					
		@ 213.6' a TIGHT MUDDY CHL SLIPS @ 5° & 32° TCA - a 0.3' broken core interval lies on this tight fracture					
		@ 217.6' a 1" QTZ-CARB FAULT @ 80° TCA - dull white qtz, carb with dull white carb stringers thru-out unit.					

LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-10

Footage From	Footage To	Description
		seam is rich with ~5% disturbed pyrite - Wkbk ore dark arrayed.
219.3'	228.3'	Bimodal Porphyry - strong natural leading contact @ 55° TCA. - unit is pinkish brown in color with a good porphyritic Texture.
228.3	259.8'	Tuff - leading contact is natural @ ~80° TCA but some partial ⅛" white qtz filled fracturing including on thin films of arsenical pyrite on fracture surfaces Wkbk ore dk arrayed. - thru 238.2' gray to brown colored, locally well bedded fg. to small fragmental textured tuff. from 240' thru 257' tuff is STRONGLY FRACTURED with several dk green chlorite & pinkish white qtz filled fractures @ 243.3' a 1 3/16" BRECC MUDDY CHL FLT @ 40° TCA - surrounding 1" of tuff is intensely brecciated with dark green chlorite fracture filling and for 0.6' beyond flt plane tuff is bleached to a light brown color & strong structure with several 1/8" white qtz for 2" beyond flt plane - Wkbk ore dark arrayed. Barren looking. - last ½" of unit is weakly MYLONITIZED
259.8	507.8	Bimodal Porphyry - leading contact is a tight CHL FRACTURE @ 28° TCA. - unit is pinkish brown in color with a good porphyritic texture @ 261' a ½" dark grained black BRECC CHL BAND @ 5-10° TCA. @ 267' thru ½" dull white qtz stringers @ 50° TCA - Trace of sulph min. Wkbk ore dk arrayed. between 267.5 - 269.5' some broken core here with some core ends exhibiting thin films of chlorite - possible FAULT in here @ 45° TCA - no evidence of chlorite or other remnant evidence. 271.7 - 272.9' 10% white qtz stringers @ ½ - ¾" stringers @ 45° TCA - Trace of sulph min in pinkish brown colored BIP thru 275.5' pinkish brown colored, good porphyritic textured BIP. logged to 275.5' DH 16/93 J. Renwick. @ 276.1' a ⅛" TIGHT CHL SLIP @ 32° TCA @ 284.2' a ⅛" TIGHT CHL SLIP @ 17° TCA with some ½" irregular shall white stocky qtz and several ⅛" grains of sulphurd pyrite Wkbk ore dark arrayed. 286 - 289' - Three partial ⅜ - ½" dull white qtz stringers @ ~57° TCA in porphyritic pinkish brown porphyry - Trace of sulph

From	To	Total	Sample No.	Oz/t

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-10

Footage From	Footage To	Description	From	To	Total	Sample No.	Oz.
		284 - 299.8' - a 1/16 - 1/8" TIGHT CHL FRACTURE @ 17° TCA with with a few pyrite dusting on fracture surfaces and a few coarse 3/16" euhedral pyrite grains. May be a weak tight ore structure. Whole core chalk coloured.					
		@ 290.2' a 1/8" TIGHT BRECC SLIP @ 63° TCA.					
		- Thru 294.8' pinkish brown colour, porphyritic textured BIP with a few scattered 1/4 - 3/8" subhedral white qtz-carb stringers.					
		@ 301' a 1/8" CRUMB & weakly fractured local @ 45° TCA. Whole core chalk coloured.					
		- Thru 313.8' pinkish brown colour, good porphyritic textured, blocky casing BIP.					
		- @ 310.1' a 1/16" TIGHT CHL SLIP @ 38° TCA.					
		313.8' thru 331.4' pinkish brown colour, generally STRONGLY FRACTURED BIP with dull white qtz-carb fracture filling. @ 325-2' a 3/8" dull white fractured qtz stringer @ 40° followed by a 1/8" CHL SLIP @ 73° TCA with an adjacent 3/8" MYLONITIC BAND - both qtz and mylonitic bands are rimmed with ~1% disseminated fine pyrite.					
		- from 331 thru 350' pinkish brown colour, good porphyritic textured BIP @ 338.8' a 1 1/2" rubble with matrix on Two 1/8" CHL SLIPS @ 60° TCA. Weakly stacked with generally subhorizontal dipping slip planes.					
		from 350' thru 369' massive good casing, pinkish brown colour, porphyritic BIP. Same thru 336.5' but with a few 1/4 - 1/2" subrounded white qtz-carb filled fractures.					
		- @ 370.4' a 1/8" Tight MUDDY CHL SLIP @ 58° TCA.					
		- Thru 405.3' continuation of massive good casing BIP					
		@ 404.7' a 1/8" STRONG MUDDY CHL SLIP @ 65° TCA.					
		- @ 406.5' a 2" TIGHTLY BRECC FRACTURE / SLIP @ 65° TCA. with some both coarse hard and soft flaky chlorite fracture filling. - a Tight brown structure.					
		@ 410' a 1/16 - 1/8" CHL - QTZ FRACTURE / SLIP @ ~50° TCA causing broken core for ~2'					
		- Thru 422.7' now massive pinkish brown colour, porphyritic textured BIP.					
		422.7 to 440.3' pinkish brown colour, good porphyritic textured BIP with a few widely scattered 1-2" greenish fg. xenoliths. - This interval is VERY BLOCKY CORING with most core ends covered with a thin film of dk green chlorite.					

LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-10

Footage From	Footage To	Description	From	To	Total	Sample No.	Orig.
		@ 442.4' a ½" ALT / MYLONITIC BRECC FAULT @ 67° TCA - ½" seam of intensely brecciated / mylon. angular wallrock cemented by soft dark green chlorite. a strong known structural loss.					
		443' thru 457.8' pinkish brown colored moderately porphyritic textured BIP.					
		@ 452.8' a 0.7' STRONG BRECC CHL BREAK ZONE @ 30° TCA. a ½" large porphyritic band followed by 0.6' of hard & soft dark green chlorite stringing and fracture filling fine angular wallrock fragments - min and seen contain a fine dusting of pyrite and may even assay a little. some minor matty bullish white qtz stringers throughout broken zone					
		- thru 458.7' pinkish brown colored, porphyritic textured BIP					
		Logged to 458.7' Dec 17/93 S. Normand.					
		core saved from 67 - 105', 313 - 331.4, 440.2 - 458.7'					
		from 458.7' thru 476.5' pinkish brown colored, good porphyritic textured BIP. Very blocky core thru 465'					
		@ 486.4' a ½" dull white qtz stringer @ 72° - bullish looking					
		@ 492.5' a ⅛" TIGHT MUDDY CHL SLIP @ 27° TCA.					
		494.3 - 495' - a 0.2' section of CRUSHED / HIGHLY BIP with stringers to brecciated qtz stringers @ 60° TCA & a TIGHT MUDDY CHL SLIP / FLT @ 32°. looks like an ore type structure but poorly mix with trace of sulphur min. Chl. mixed.					
		- thru 505' pinkish brown colored, porphyritic textured BIP.					
		Intervals 505 - 505.8' broken core with chloritized surfaces - no strong structural loss.					
		- thru 507.8' pinkish to reddish brown colored, moderately porphyritic textured BIP.					
		@ 507.8' a ground BRECC CHL FAULT @ 70° TCA looks off a HIGHLY CRUSHED / ALT and brecciated section of Tuff? - all primary textures distorted.					
507.8	547.6	Tuff - lower contact is broken at 45° TCA.					
		507.8 - 509.5' - highly crushed, altered and 5-8% min with quartz & some chlorite stringers and blebby ore type of fractured quartz. about 1% scattered small pyrite min.					
		@ 509.5' a ⅜" TIGHT BRECC QTZ CHL BREAK @ 53° TCA. Intensely broken zone cemented by chl, dull white qtz & qtz - marks end of highly crushed alt & sil Tuff.					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-10

Footage From	Footage To	Description	From	To	Total	Sample No.	Oz.
		from 509.5' thru 513.2' lower to very lower colored, strongly fractured, generally fg. tuff					
		from 513.2 thru 525.5' lower to grayish lower colored sandy textured fractured tuff with numerous small ½" reddish					
		dematic grains					
		@ 525.6' a ⅜" STRONG MUDDY CHLORITE FAULT @ 27°TCA. Some pinkish carb & dull white qtz, flooding thru - out the altered					
		area.					
		- lighter colored @ 526.8' tuff lower more grayish ALTERED & SHD @ 35-45°TCA.					
		526.8 - 528.6' - grayish crushed / altered tuff with those of reddish min.					
		- @ 528.6' a ½" CHLORITE MUD BREAK @ 57° TCA - soft mud seam and surrounded by ½' of strongly chloritized tuff.					
		- followed by' a 1.3' section of highly CRUSHD/SHD/SILICIFIED tuff with ~ 20% dull white cherty qtz, min cpy ~1% pyrite and					
		chalcopyrite min.					
		- @ 530' a 0.4' section of broken chloritized core - a STRONG ½" CAL MUD FAULT in here @ 63°TCA.					
		from 530.4 thru 531.5' lower colored, sandy textured tuff. Some thru 535.4'					
		@ 535.4' a ½" BREAK FRACTURE @ 65° TCA - the chlorite surrounding fairly loose wallrock fragments. Ml is min with					
		fine pyrite < 0.5% Ch. merged.					
		- from 535 thru to end of unit, tuff is lower to grayish in color with a variable texture - locally included @ 543' @					
		58° TCA.					
		- tuff lower more variably fragmental beyond 543' thru to end of unit.					
		-					
547.6		Rhyolite - lower contact is a tight chlorite fracture @ 40°TCA					
		- unit is HIGHLY REDDISH ALT & FRACTURED thru 554' with numerous dull white carb - qtz filled fractures					
		all hydrothermal fracture fillings.					
		from 556 thru 558' rhyolite is more reddened again with several ½ - 1" dull white mostly hydrothermal qtz stringers @ ~55°					
		TCA.					
		@ 563.6' & 563.8' two ½" CHL SEAMS @ 62° TCA with a ⅜" dull white hydrothermal qtz stringer in between the					
		chl seams also @ 62° TCA.					
		from 564' thru 567.5' fine thru med grained - layered locally crushed & fractured lower rhyolite.					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-10

Footage From	Footage To	Description	From	To	Total	Sample No.	Oz/t
		from 567.5' thru 586' dull brownish grey colored, fine to locally med grained Textured, locally fair banding fractured dark brown argillite.					
		- strongly magnetic.					
		between 589 - 592.5' several Tight Int MUDDY CHL SLIPS @ generally 45° TCA. No single strong slip here.					
		from 593 thru 604.7' more massive dark greenish black colored, fine to med grained Textured basaltic Some thru 622.8'					
		- @ 615.5' a ½" CARB-CHL FRACTURE/SLIP @ 18° TCA - dull white carb seam coated with dk green chlorite.					
		- from 622.8' thru 642' dark greenish grey colored, fine to med grained Textured, locally blocky cming basaltic. Some thru 661'					
		- @ 652.2' a ¼" TIGHT CHL SLIP @ 7° TCA.					
		- thru 679.4' dark greenish grey colored, fg. Textured massive basaltic.					
		- logged to 679.4', Box #26, Dec 18/93 B. Bernard					
		from 679.4' thru 698' dark greenish grey colored, fg. to med grained Textured locally very choppy cming basaltic argillite.					
		between 681' - 692' basaltic appears fg. to coarse in appearance with a weakly blocked appearance - brown looking.					
		@ 692.8' a 1" section of dull white strongly qtz silicification including fractured white carb fracture filling. Trace of chalcopyrite min. dk oxidized.					
		- thru 706' dark greenish black colored, fine to med grained Textured more massive basaltic.					
706	725.4	Felsic basalt - gradational leading contact over ~0.2'					
		- core becomes a dull brown color with ~5% black augite / hornblende phenocrysts.					
		706.4 - 707.4' - 30-40% dull dirty grey qtz stringers @ 65° with trace of chalcopyrite in dull brown colored massive felsic augite.					
		- unit is locally fractured with pinkish white carb and greenish chlorite - calcite stringers - generally quite magnetic with some reddish brown colored, thin fg. felsic dikes.					
		- massive dark brown colored, good cmg unit thru 725.4					
725.4		Basic basalt - gradational leading contact over 1-2"					
		- return to dark greenish black colored, medium grained Textured, locally blocky cming basaltic argillite.					
		@ 735' a ¼" TIGHT MUDDY CHL SLIP @ 37° TCA.					

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LAC MINERALS LTD./MACASSA DIV.
DIAMOND DRILL LOG

Hole No. CK93-10

Footage From	Footage To	Description	From	To	Total	Sample No.	Oxi.
		from 736' thru 753.5' - generally fine to med grained textured, dark greenish grey colored basic syenite with fine banding with ank filled fractures thru-out interval.					
		beyond 754' basaltic lavas were medium grained to coarse grained textured.					
	765	EOH Dec 20/93 J. Newcomb					
		list of cored core intervals. 476.5 - 567.5, 692 - 715.6'					

Lac Minerals Ltd. Macassa Division

Hole # CK 93-10

Date: Dec 18 /93

Sperry-Sun Borehole Survey Data Sheet

Type of Survey: Sperry Sun magnetic multi-shot survey thru the rods
- surveying from bottom out.

Layout Dip: -40° Layout Azimuth: 0°

Camera Time Interval: 2 min

~~Underground~~ Surface Survey Conducted By: B. Nemesh

Film Developed By: B. Nemesh Film Readings By: B. Nemesh

Depth	Time In	Time Out	Dip as Read on film	Dip Corrected	Azimuth as read on film	Azimuth Corrected for Declination	Rotated Azimuth for Surv Plots
0 735	8:00	20:00	51.5	38.5	N18°E 018	005	
100 635	28:00	34:00	51.5	38.5	N18 E 018	005	
200 535	40:00	46:00	52	38	N16°E 016	003	
300 435	54:00	1:08:00	52	38	N16°E 016	003	
400 335	1:10:00	1:16:00	51.5	38.5	N15°E 015	002	
500 235	1:24:00	1:32:00	51.5	38.5	N13 E 013	000	
600 135	1:36:00	1:44:00	51	39	N13°E 013	000	
700 35	45 2:00	2:02:00	50	40	N14°E 014	001	
800							
900							
camera off	@ 2:10						

AFRO

Ministry of Northern Development and Mines
Ontario

Report of Work Conducted After Recording Claim

Mining Act

DOCUMENT NO.
Transaction Number
W 9480 • 00329

Personal information collected on this form is obtained under the authority of the I
this collection should be directed to the Provincial Manager, Mining Lands, Mi
Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.

[redacted]
32D04NW0117 W9480-00329 LEBEL

900

Instructions:
- Please type or print and submit in duplicate.
- Refer to the Mining Act and Regulations for requirements of filing assessment work or consult the Mining Recorder.
- A separate copy of this form must be completed for each Work Group.
- Technical reports and maps must accompany this form in duplicate.
- A sketch, showing the claims the work is assigned to, must accompany this form.

Recorded Holder(s)		Client No.
~~Lac North America Ltd~~ Lac Minerals Ltd		155133
Address		Telephone No.
P.O. Box 670, 6 Al Wende Ave., Kirkland Lake, Ont. P2N3K2		567 2117
Mining Division	Township/Area	M or G Plan No.
Larder Lake	Lebel	
Dates Work Performed From: November 10, 1993	To: December 18, 1993	

Work Performed (Check One Work Group Only)

	Work Group	Type
	Geotechnical Survey	
	Physical Work, Including Drilling	Surface Diamond Drilling
	Rehabilitation	
	Other Authorized Work	
	Assays	
	Assignment from Reserve	

Ontario Geological Survey
MINES LIBRARY
JUN 24 1994
RECEIVED

Total Assessment Work Claimed on the Attached Statement of Costs $ 102 974.00

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
George Nemcsok	12 Summit Ave., Kirkland Lake, ont. P2N 1M5
Heath & Sherwood Drilling (1986) Inc	P.O. Box 99B, 34 Duncan Ave.N., Kirkland Lake, Ont. P2N 3L3

(attach a schedule if necessary)

Certification of Beneficial Interest * See Note No. 1 on reverse side

	Date	Recorded Holder or Agent (Signature)
I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	April 21/94	George Nemcsok

Certification of Work Report

I certify that I have a personal knowledge of the facts set forth in this Work report, having performed the work or witnessed same during and/or after its completion and annexed report is true.

Name and Address of Person Certifying
George Nemcsok 12 Summit Ave, Kirkland Lake, ont. P2N 1M5

Telepone No.	Date	Certified By (Signature)
567 3814	April 21/94	George Nemcsok

For Office Use Only

Total Value Cr. Recorded	Date Recorded	Mining Recorder	Received Stamp
RESERVE $ 96574 APPLIED $ 6400	MAY 26/94	Acting Ron J. Stoll	RECEIVED 94 MAY 26 PM 3 26
	Deemed Approval Date: AUG 24/94	Date Approved: JUNE 22/94	
	Date Notice for Amendments Sent		

0241 (03/91)

Work Report Number for Applying Reserve	Claim Number (see Note 2)	Number of Claim Units	Value of Assessment Work Done on this Claim	Value Applied to this Claim	Value Assigned from this Claim	Reserve: Work to be Claimed at a Future Date
	L111 8630	2	0	4000-	—	—
	L101 4645	1	0	400	—	—
	L101 4644	1	0	400	—	—
	L101 4634	1	0	400	—	—
	L101 4633	1	0	400	—	—
	L101 4632	1	0	400	—	—
	L101 4631	1	0	400	—	—
Leased by Lac Minerals Ltd.	L 2450	1	64,107.20	—	—	64,107.20
	L 2257	1	20,392.60	—	—	20,392.60
	L 2490	1	8,428.00	—	6400	2028.00
	L 2452	1	10,047.40	—	—	10,047.40
	11		102 974.00	6400	6400	96574.00
	Total Number of Claims		Total Value Work Done	Total Value Work Applied	Total Assigned From	Total Reserve

0241 (03/91)

Credits you are claiming in this report may be cut back. In order to minimize the adverse effects of such deletions, please indicate from which claims you wish to priorize the deletion of credits. Please mark (✓) one of the following:

1. ☐ Credits are to be cut back starting with the claim listed last, working backwards.
2. ☐ Credits are to be cut back equally over all claims contained in this report of work.
3. ☐ Credits are to be cut back as priorized on the attached appendix.

In the event that you have not specified your choice of priority, option one will be implemented.

Note 1: Examples of beneficial interest are unrecorded transfers, option agreements, memorandum of agreements, etc., with respect to the mining claims.

Note 2: If work has been performed on patented or leased land, please complete the following:

I certify that the recorded holder had a beneficial interest in the patented or leased land at the time the work was performed.

Signature: Serge Ilmoel

Date: April 21/94

Ontario

Ministry of Northern Development and Mines

Ministère du Développement du Nord et des mines

Statement of Costs for Assessment Credit

État des coûts aux fins du crédit d'évaluation

Mining Act/Loi sur les mines

Transaction No./N° de transaction

DOCUMENT No.

W 9480 00329

Personal information collected on this form is obtained under the authority of the **Mining Act**. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Minings Lands, Ministry of Northern Development and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario P3E 6A5, telephone (705) 670-7264.

Les renseignements personnels contenus dans la présente formule sont recueillis en vertu de la **Loi sur les mines** et serviront à tenir à jour un registre des concessions minières. Adresser toute quesiton sur la collece de ces renseignements au chef provincial des terrains miniers, ministère du Développement du Nord et des Mines, 159, rue Cedar, 4e étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 670-7264.

1. Direct Costs/Coûts directs

Type	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre		
	Field Supervision Supervision sur le terrain		
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert-conseil	Type: Diamond Drilling	102,974.00	
			102,974.
Supplies Used Fournitures utilisées	Type		
Equipment Rental Location de matériel	Type		
	Total Direct Costs Total des coûts directs		102,974.

2. Indirect Costs/Coûts indirects

** **Note:** When claiming Rehabilitation work Indirect costs are not allowable as assessment work.
Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type		
Food and Lodging Nourriture et hébergement			
Mobilization and Demobilization Mobilisation et démobilisation			
	Sub Total of Indirect Costs Total partiel des coûts indirects		
	Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)		
	Total Value of Assessment Credit (Total of Direct and Allowable Indirect costs) / **Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles)**		

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note : Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

Filing Discounts

1. Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.
2. Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

Total Value of Assessment Credit	Total Assessment Claimed
× 0.50 =	

Remises pour dépôt

1. Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.
2. Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Valeur totale du crédit d'évaluation	Évaluation totale demandée
× 0,50 =	

Certification Verifying Statement of Costs

I hereby certify:
that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form.

that as _____ I am authorized
(Recorded Holder, Agent, Position in Company)

to make this certification

Attestation de l'état des coûts

J'atteste par la présente :
que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

Et qu'à titre de _____ je suis autorisé
(titulaire enregistré, représentant, poste occupé dans la compagnie)

à faire cette attestation.

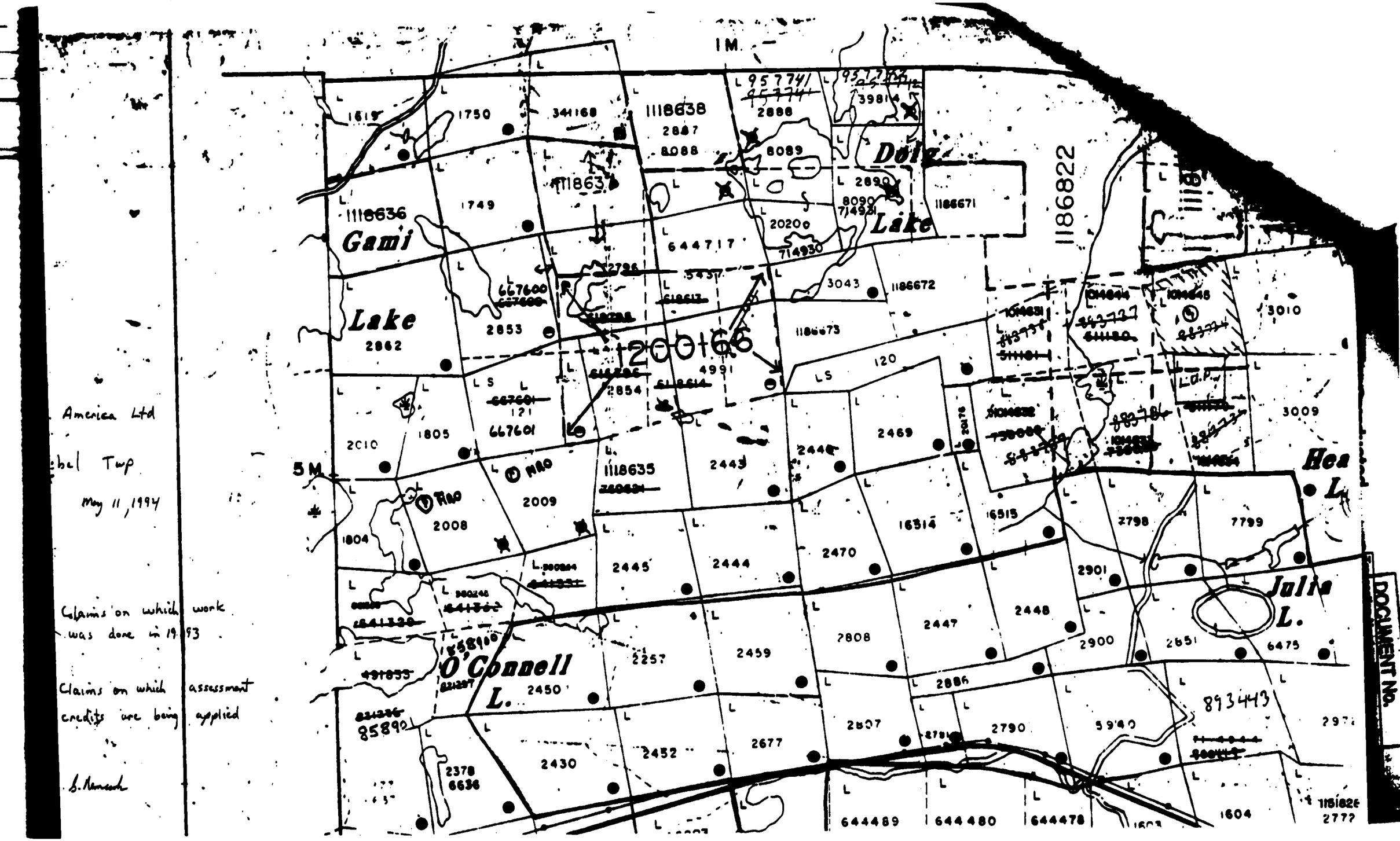
Signature	Date
George Nemeth	May 26, 1994

0212 (04/91)

Nota : Dans cette formule, lorsqu'il désigne des personnes, le masculin est utilisé au sens neutre.

Lac North America Ltd.
SIS (Continental Kirkland) Property - Lebel Township
Diamond Drill Log Abbreviation Index

Abbreviation			Abbreviation		
CHL	-	chlorite	TCA	-	to core axis
CARB	-	carbonate	CHK	-	check
ALT	-	altered	THRU	-	through
BLCHD	-	bleached	MIN	-	mineralized
MOLY	-	molybdenite	FG	-	fine grained
SIL	-	silicified	med grnd	-	medium grained
QTZ	-	quartz	CG	-	coarse grained
STR	-	strong or stringer	Conc	-	concentration
VG	-	visible gold	EOH	-	end of hole
BRECC	-	brecciated	GWK	-	grey wacke
CRSHD	-	crushed	POR	-	porphyry
FLT	-	fault	BSyn	-	basic syenite
BRK	-	break	cong	-	conglomerate
FRAC	-	fracture			
SHD	-	sheared			
MYL	-	mylonitic/mylonitized			



America Ltd

ebel Twp

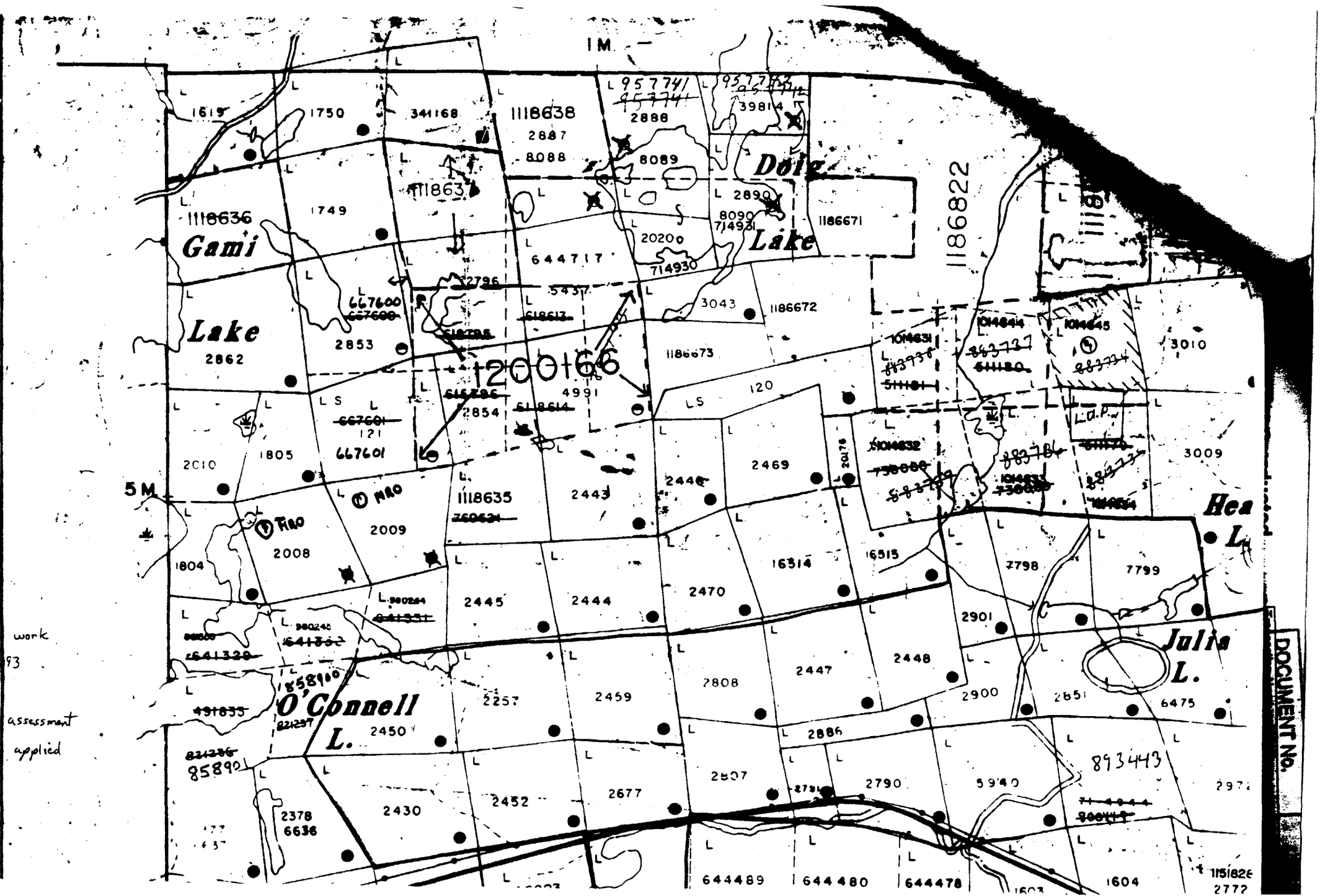
May 11, 1994

Claims on which work was done in 1993

Claims on which assessment credits are being applied

S. Nemesh

DOCUMENT No.



America Ltd

bel Twp

May 11, 1994

Claims on which work was done in 1993

Claims on which assessment credits are being applied

S. Hancock

REFERENCES

MORRISETTE TP.

TECK TP.

GAUTHIER TP.

BOSTON TP.

Gami Lake

Doig Lake

Heart L.

Julia L.

O'Connell L.

Lake

Gull

King L.

Mud L.

Crystal Lake

Victoria Lake

McTavish Lake

Turtle Lake

Jordan L.

Long Lake

Parsons L.

McMurtry Lake

Bostebel L.

Conroyal L.

KIRKLAND TOWNSITE

1200166

1200773

1200840

RW 345

CLM 282

COPY OF THIS MAP ARCHIVED APR. 22, 1994

ARCHIVED APR. 22, 1994

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON

NOTICE OF FORESTRY ACTIVITY

THIS TOWNSHIP / AREA FALLS WITHIN THE TIMISKAMING MANAGEMENT UNIT

AN AREA MAY BE SUBJECT TO FORESTRY OPERATIONS. THE MNR UNIT FORESTER FOR THIS AREA CAN BE CONTACTED AT: P.O. BOX 129 SWASTIKA, ONT. P0K 1T0 705-642-3222

REFERENCES

TOPOGRAPHY

SURVEYS

HIGHWAYS

HIGHWAYS THROUGH CROWN LANDS FROM MIN. OF TRANSPORTATION AND COMMUNICATIONS SURVEY PLANS AS NOTED

AREAS WITHDRAWN FROM DISPOSITION

SR – SURFACE RIGHTS M.R. – MINING RIGHTS

	Description	Order No	Date	Disposition	File
(1)			20/11/69	SR	165484
(2)	MPG-6182 MR 106/82 OPEN W...		7/1/82	MRO	
(3)	CROWN RES				164586

SAND AND GRAVEL

(1) GRAVEL FILE 38581
(2) GRAVEL FILE 9816
(3) MTC GRAVEL PIT No 513
(4) GRAVEL FILE ...35
(5) GRAVEL FILE ...5
(6) GRAVEL FILE 105110

(7) ...

(8) MINING and SURFACE RIGHTS WITHDRAWN ... ORDERS W-9/86 and W-50/86 (except L 548487)
Reopened by Orders: 0-64/86 NR
0-39/87 NR
0-19/89 L

(9) MINING and SURFACE RIGHTS WITHDRAWN ... ORDER W-22/86
Reopened by Order 1/89

(10) MINING AND SURFACE RIGHTS WITHDRAWN FROM ... ORDER ... 69/93

LEGEND

- HWAY ...
- OTHER ...
- R...
- SUR...
- IRON MOUNTAIN ...
- CABIN ...
- POST ...
- MINE ...
- RAILWAY, ABANDONED RIGHT-OF-WAY
- POWER LINES
- INTERNATIONAL BOUNDARY
- PROVINCIAL BOUNDARIES
- SUBDIVISION OR COMPOSITE PLAN
- TRIG. STATION
- ORIGINAL WITNESS
- MASONRY MOUND
- MINE
- PROVINCE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, LEASE, MINING RIGHTS	
LEASE, RIGHTS ONLY	
SURFACE RIGHTS ONLY	
MINING RIGHTS ONLY	
LICENCE OF OCCUPATION	
ORDER IN COUNCIL	
RESERVATION	
SETTLEMENT	
SALE	

NOTE: ...

SCALE: 1 inch 20 chains

TOWNSHIP

LEBEL

M.N.R. ADMINISTRATIVE DISTRICT
KIRKLAND LAKE

MINING DIVISION
LARDER LAKE

LAND TITLES / REGISTRY DIVISION
TIMISKAMING

Ministry of Natural Resources
Ontario

Land Management Branch

Date MARCH 1982

G-639

32D04NW0117 W9480-00339 LEBEL

16000E

16500E

20200N

CK93-08
CK93-07

1200

1000

500

0

CASING

1/2" CHL

1/2" CHL

1/2" CARB CHL FLT @ 25

1/2" CARB/CHL FRAC/FLT @ 5-10

1/4" STR MUDDY FLT @ 23

3/8" CARB/CHL FRAC FLT @ 35

1/4" CHL MUD FLT @ 15

1/4" STR CHL MUD FLT/BREAK @ 23

1/4" STR MUD ZONE @ 33

3/4" STR CHL MUD BREAK @

1/4" KYLUM @ 3/16" CHL FRAC/FLT

1/4" STR CHL MUD BREAK @

1/2" CHL/MOLY MUD BREAK-QRTZ-CORE STRUCT @ 40

3/16" TRMT CHL FLT + 1/2" BRECC @ 10

982.00 ft.
CK93-07

1095.00 ft.
CK93-08

FEET

0 50 100

Tuff (TUF)

Spotted Trachyte (SPT)

Conglomerate (CON)

Greywacke (GWK)

Basic Syenite (BSY)

Felsic Syenite (FSY)

Feldspar Porphyry (POR)

Bimodal Porphyry (BIP)

Diabase Dike (DIA)

Biotite Lamprophyre (BLD)

LAC NORTH AMERICA LTD- EXPLORATION

SIS (CONTINENTAL KIRKLAND) PROPERTY

CROSS SECTION LOOKING Az 0

PROPERTY GRID

16, 000 E & 20, 200 N

Mining Claim L 2450-Lebel Twp

MAY 5, 1994 | SCALE: 1" = 50'

32D04NW0117 W9480-00329 LEBEL

16000E

16500E

~~0N~~ 20720 N

CK93-09

~~0N~~ 20720 N

1200

1200

1000

1000

CASING

1/2" STR BRECC CHL FLT @ 12

0.8" STR QTZ VEIN @ 50-NO SULPH

5/8" STR CHL BRK @ 37

3/4" CHL CARB FRAC/FLT @ 40

3/8" QTZ CHL FLT @ 23

1.4' STR BRECC CHL BRK @ 27

3/4" TIGHT NYLON CHL/CARB FLT @ 50

1/2" QTZ/CHL FRAC @ 75

500

500

GREEN DIKE ROCK

1/2" NYLON QTZ/CHL FLT @ 15

0.4' VEIN QTZ @ 15 @ 1.5 CHLCD

GREEN DIKE ROCK INCL 2% PY

1" TIGHT NYLON CARB CHL FLT @ 55

0

0

16000E

16500E

FEET

0 50 100

Tuff (TUF)

Spotted Trachyte (SPT)

Conglomerate (CON)

Greywacke (GWK)

Basic Syenite (BSY)

Felsic Syenite (FSY)

Feldspar Porphyry (POR)

Bimodal Porphyry (BIP)

Diabase Dike (DIA)

Biotite Lamprophyre (BLD)

LAC NORTH AMERICA LTD- EXPLORATION

SIS (CONTINENTAL KIRKLAND) PROPERTY

CROSS SECTION LOOKING Az 0

PROPERTY GRID

15950 E & 20720 N

Mining Claim L 2450-Lebel Twp

MAY 5, 1994 | SCALE 1" = 50 FT.

32D04NW0117 W9480-00329 LEBEL

19000N

18500N

15900E

15900E

CK93-10

1200

1200

1000

1000

500

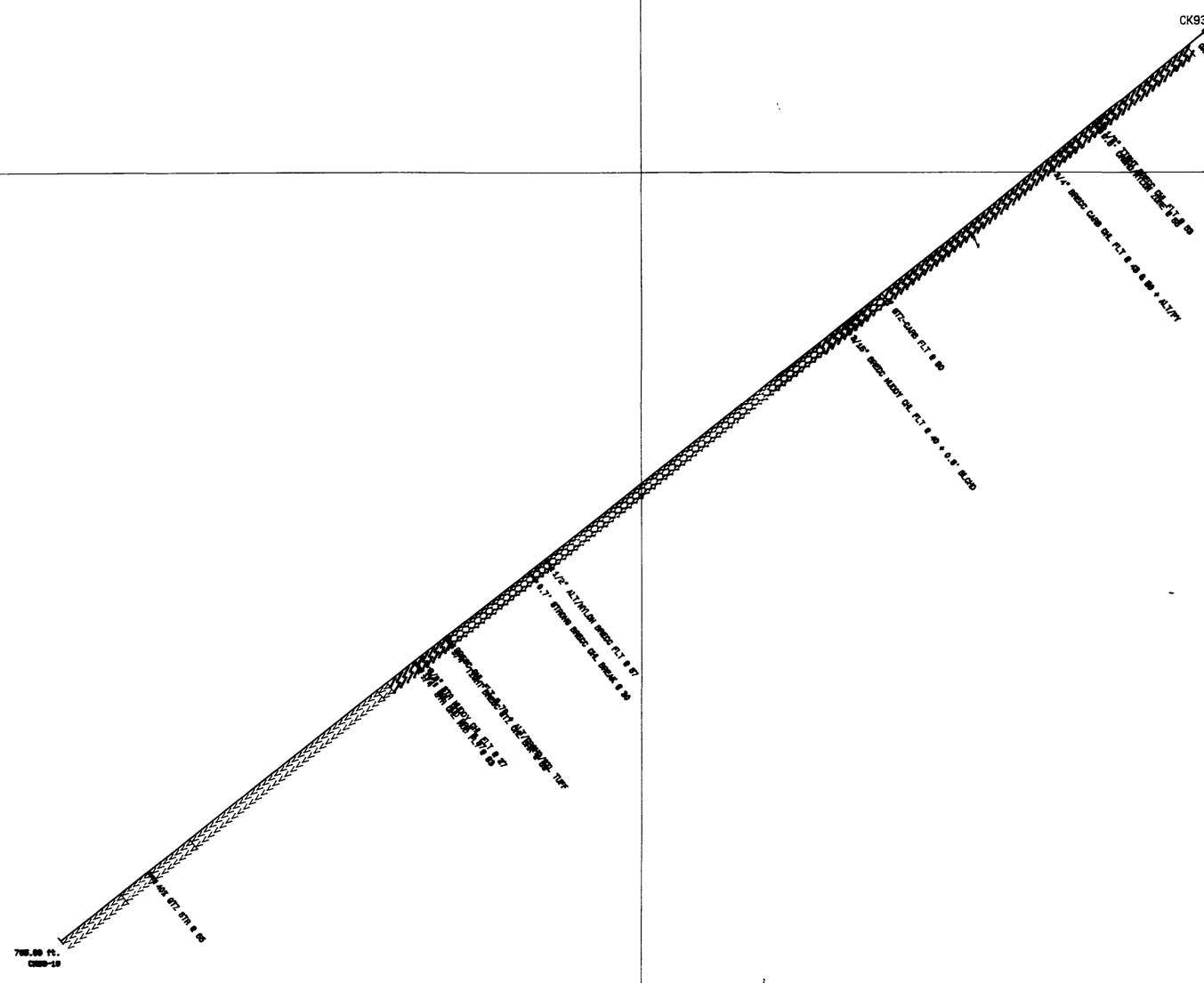
500

0

0

19000N

18500N



FEET

0 50 100

Tuff (TUF)

Spotted Trachyte (SPT)

Conglomerate (CON)

Greywacke (GWK)

Basic Syenite (BSY)

Felsic Syenite (FSY)

Feldspar Porphyry (POR)

Bimodal Porphyry (BIP)

Diabase Dike (DIA)

Biotite Lamprophyre (BLD)

LAC NORTH AMERICA LTD- EXPLORATION

SIS (CONTINENTAL KIRKLAND) PROPERTY

SECTION LOOKING Az 090

PROPERTY GRID

15885 E & 18705 N

Mining Claim L 2430-Lebel Twp

MAY 5, 1994 | SCALE: 1" = 50'

32D04NW0117 W9480-00329 LEBEL

20000N

19500N

17300E

CK93-02

17300E

1200

1200

1000

1000

500

500

0

0

20000N

19500N



FEET

0 50 100

Tuff (TUF)

Spotted Trachyte (SPT)

Conglomerate (CON)

Greywacke (GWK)

Basic Syenite (BSY)

Felsic Syenite (FSY)

Feldspar Porphyry (POR)

Bimodal Porphyry (BIP)

Diabase Dike (DIA)

Biotite Lamprophyre (BLD)

LAC NORTH AMERICA LTD- EXPLORATION

SIS (CONTINENTAL KIRKLAND) PROPERTY

SECTION LOOKING Az 090

PROPERTY GRID

17,310 E & 19,600 N

Mining Claim L 2452-Lebel Twp

MAY 5, 1994 | SCALE: 1" = 50'

32D04NW0117 W9480-00329 LEBEL

21500N

21000N

0E

0E

CASING

CK93-04

1000

1000

1/4" STR CAL SLIP/FLT @ 17

GREEN DIKE @ 23

GREEN DIKE @ 30

1.5" STR NYLON SLIP/FLT @ 37

1.5" STR CHERTY NYLON ZONE @ 27

1.0" STR CHERTY NYLON FLT ZONE @ 43-50

2.5" MOD CRBND/NYLON ZONE @ 33

500

500

0.4" BROKEN CORE ON FLT @ 277

7" VEIN QTZ @ 37 & 42

3/4" STR MOD FRAC @ 25

LOST WATER RETURN

GREY DIKE @ 27

0

0

1" STR CAL CARB BREAK @ 13

1" INTENSELY CRBND/NYLON BAND @ 33

2" COARSE BRECC BAND @ 45

1752.00 ft.
CK93-04

21500N

21000N

FEET

0 50 100

Tuff (TUF)

Spotted Trachyte (SPT)

Conglomerate (CON)

Greywacke (GWK)

Basic Syenite (BSY)

Felsic Syenite (FSY)

Feldspar Porphyry (POR)

Bimodal Porphyry (BIP)

Diabase Dike (DIA)

Biotite Lamprophyre (BLD)

LAC NORTH AMERICA LTD- EXPLORATION

SIS (CONTINENTAL KIRKLAND) PROPERTY

SECTION LOOKING Az 120

PROPERTY GRID

17,800 E & 19750 N

Mining Claim L 2257-Lebel Twp

MAY 5, 1994 | SCALE 1" = 50 FT.

32D04NW0117 W9480-00329 LEBEL

20500N

20000N

16150E

16150E

910

910

500

500

0

0

-500

-500

20500N

20000N

EASTING
NORTHING

CK93-06
CK93-01

1.7' STR CHL/NYLON ZONE @ 47

1/8" SOFT MOLY MUD FLT @ 47

1.5" TIGHT BRECC CHL FLT @ 53

1/2" STR CHL FLT & 0.3' QTZ-END OF SILCHD/SHD ZONE

4" BRECC CHL SLIP @ 23

1/2" CARB CHL BRECC FLT @ 47

0.7' STR NYLON ZONE @ 60

1.1' STR SHD/NYLON ZONE @ 65-80 & VG?

1.5" INTENSELY SHD/NYLON BAND @ 15 + VG?

HIGH GRADE VN @ 39-24 PTS VG

0.1' CHSHD/NYLON BAND @ 86

1/2" BRECC CHL FRAC/FLT @ 18

0.3' STR NYLON CHL FLT ZONE @ 22

0.2' STR NYLON ZONE @ 63

3/16" STR NYLON CHL SLIP/FLT @ 45

906.00 ft.
CK93-06

SILCHD & QTZ STR @ 65-69
0.3' CHSHD/NYLON BAND @ 30

1/8" STR MUDDY CHL SLIP @ 40

3/8" CARB CHL FLT @ 15

1/4" STR CHL FLT @ 43

1/2" INTENSELY BRECC QTZ BAND @ 15

1" TIGHT STR NYLON FLT @ 39

1/8" TIGHT MUDDY CHL SLIP @ 43

3/16" STR MUDDY CHL SLIP @ 18

2" STR NYLON BAND @ 33

1/8" STR MUDDY CHL SLIP @ 18 ENDS QTZ VCH

1" BRECC CARB CHL FLT @ 35

0.3' CHSHD/NYLON FLT @ 28

1/2" TIGHT CHL NYLON FLT ZONE @ 30

1" STR CHL MOD BREAK ZONE @ 18

1500.00 ft.
CK93-01

FEET
0 50 100

Tuff (TUF)

Spotted Trachyte (SPT)

Conglomerate (CON)

Greywacke (GWK)

Basic Syenite (BSY)

Felsic Syenite (FSY)

Feldspar Porphyry (POR)

Bimodal Porphyry (BIP)

Diabase Dike (DIA)

Biotite Lamprophyre (BLD)

LAC NORTH AMERICA LTD- EXPLORATION

SIS (CONTINENTAL KIRKLAND) PROPERTY

SECTION LOOKING Az 120

PROPERTY GRID

16, 100 E & 20, 250 N

Mining Claim L 2450-Lebel Twp

MAY 5, 1994 | SCALE 1" = 50 FT.

32D04NW0117 W9480-00329 LEBEL

15000E
16000E
17000E
18000E
21000N
20000N
19000N

L-2570
L-2450

L-2445
L-2257

L-2450
L-2430

L-2257
L-2452

Federal Kirkland
Lac Minerals Ltd (SIS Property)

CK93-09
-80°

CK93-09
1207'

CK93-06
904'

CK93-01
1604'

CK93-06 -64°
CK93-01 -77°

CK93-08
1032'

CK93-08 -42°
CK93-07 -43°

CK93-07
904'

CK93-02
904'

CK93-02
-66°

CK93-04
-64°

CK93-10
-48°
768'

1721'

No. 1 Shaft

20,000 N

Tuff (TUF)
Spotted Trachyte Lava (SPT)
Augite Trachyte (TRA)
Conglomerate (CON)
Greywacke (GWK)
Basic Syenite (BSY)
Felsic Syenite (FSY)
Feldspar Porphyry (POR)
Bimodal Porphyry (BIP)
Diabase Dyke (DIA)
Biotite Lamprophyre Dyke (BLD)

LAC NORTH AMERICA LTD-EXPLN DIV.
PLAN OF SURFACE DRILLING-1993
SIS PROPERTY-LEBEL TWP

SCALE: 1" = 100 FT.
DATE Dec 20/93

0 100 200
SCALE IN FEET

SISP1

32D04NW0117 W9440-00329 LEBEL