## GM 63927

DIAMOND DRILL PROGRAM, ASSESSMENT REPORT, L'ESPERANCE PROPERTY



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# L'Espérance Property

## 2008 Diamond Drill Program

## Assessment Report

Lac Wachigabau, Quebec

Ressources naturelles et Faune, Québec 0 6 JAN. 2009

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**REÇU AU MRNF** 2 4 OCT. 2008 DIRECTION DES TITRES MINIERS

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May 5, 2008

062 # 1201

GM 63927

## **Table of Contents**

#### Summary

- Location and Access
- **Exploration Program**
- Analytical Results

Supervision

### Figures

- Figure 1: L'Espérance Property Location Map
- Figure 2: L'Espérance 2008 Drill Plan

## Appendices

- Appendix A: Drill Plan
- Appendix B: Drill Sections
- Appendix C: Diamond Drill Logs

#### SUMMARY

A diamond drill program was conducted on the L'Espérance Property, located near Desmaraisville, Quebec, between February 26, 2008 and April 5, 2008. The property is a joint venture between Superior Diamonds Inc., Matamec Explorations Inc., and IAMGOLD Corp. on which Superior Diamonds Inc. is currently actively exploring for diamonds. The drill program consisted of 4 holes totaling 694.54 m. The purpose of the drill program was to test potential kimberlite targets located at the head of kimberlite indicator mineral (KIM) dispersal trains.

#### LOCATION AND ACCESS

The property is located approximately 20 km east of the town of Desmaraisville and highway 113, approximately 90 km northeast of Lebel-Sur-Quevillon and 120 km southwest of Chapais (Figure 1). The drill sites were accessed via a logging road which branched off of Metanor's main haul at the 11km marker. The logging road terminates at Lac Wachigabau where a 4km ice road was constructed to the access the drill sites using snowmobiles and a Centaur. In mid-March when ice conditions worsened, drill moves were made using an A-star helicopter from Heli-Inter (Val-D'or, QC) and from Canadien Helicopters (Chibougamau, QC.).

#### EXPLORATION PROGRAM

The diamond drill program consisted of 2 AQ-sized holes totaling 275.71 m and 2 NQsized holes totaling 418.83 m (Figure 2; Appendix B). AQ-sized core was drilled by Summit Drilling Services of Hanmer, ON between February 25, 2008 and March 6, 2008. Performax Drilling Inc. of Val D'or, QC. was contracted to drill the NQ-sized core commencing on March 28, 2008 and finishing on April 5, 2008. Drill collars were situated at the surface of the lake, on ~30-36 inches of ice. Casing was pulled at each site upon completion of the hole.

The drill core was transported via snowmobile and sleigh to a truck where it was transported to Desmaraisville to be logged. Logging of the drill core by the author recorded variations in lithology, structures, alteration, and sulphide or oxide mineralization, and these logs are contained in Appendix C. Dykes resembling kimberlite were transported by Superior Diamonds Inc. to Overburden Drilling Management Inc. in Nepean, ON for an independent third-party interpretation of the lithology. Core that was not of immediate interest was neatly stacked in a secure location in Desmaraisville and covered with a polyweave tarp for future reference.

#### ANALYTICAL RESULTS

Biotite-bearing mafic to ultramafic dykes were intersected in 3 of the 4 drill holes were transported to Superior Diamonds Inc.'s Sudbury office for possible submission for petrographic examination. A 1.5m dyke from hole LS08-015 was classified as a kimberlite based on the observation of pyrope garnet during the detailed logging of the dyke. The dyke was described by S.A. Averill from ODM as;

Binocular Microscope Description of a 1.5 m Ultramafic Dyke in Diamond Drill Core from ~109.5 to 111 mm, Superior Diamonds' Hole LS08-15, Lesperance Project, Quebec, by S.A. Averill, March 13, 2008

KIMBERLITE. Dark green, massive but compositionally flow-banded, strongly magnetic hypabyssal facies consisting of abundant (average 10 percent; variable 1 to 50 percent in segregated flow bands), large (1.5-5 mm) rounded, wholly serpentinized olivine xenocrysts in an extremely phyric (70 percent wholly serpentinized olivine phenocrysts of 0.3-1 mm size) groundmass with 10 percent interstitial calcite, 5 percent interstitial phlogopite and 5-10 percent finely disseminated magnetite. Xenoliths are rare (only two observed; both in a flow band rich in olivine xenocrysts), small (~1 cm) and of deep provenance, one being a phlogopite-rich kimberlite autolith and the other, at ~109.9 m, of coarse-grained (2-3 mm) garnet peridotite consisting of several fresh olivine grains and one Cr-pyrope grain. Qualitative SEM analysis of a small (0.2 mm) unpolished specimen of the Cr-pyrope suggests a G10 composition.

#### SUPERVISON

The diamond drill overburden program were supervised by Superior Diamonds Inc. geologist Thomas Hart (Ordre des géologues du Québec, temporary permit 1201) and by geologist Scott R.G. Parsons.

Scott R.G. Parsons Northern Superior Resources Inc. 1988 Kingsway, Unit G Sudbury, ON P3B 4J8 T (705) 525-0992 F (705) 525-7701 FIGURES



Figure 1: L'Espérance property location map



Figure 2: Drill hole collar locations, black symbols are 2008 diamond drill holes.

APPENDIX A

**Drill Plan** 

## **NUMÉRIQUE**

## PAGE(S) DE DIMENSION HORS STANDARD NUMÉRISÉE ET POSITIONNÉE À LA SUITE DES PRÉSENTES PAGES STANDARDS.

**APPENDIX B** 

**Drill Sections** 

## **NUMÉRIQUE**

## PAGE(S) DE DIMENSION HORS STANDARD NUMÉRISÉE ET POSITIONNÉE À LA SUITE DES PRÉSENTES PAGES STANDARDS.

APPENDIX C

**Diamond Drill Logs** 

### DETAILED LOG SUPERIOR DIAMONDS INC.

#### Hole Number: LS08-014

Units: METRIC

Project Name:	L'Esperance	Primary Coordinates Grid: I	UTM83-18	Destination Coordinates Grid: UTM83-17	Collar Dip:	-50.00
Project Number:	S82100	North: 5484737.00		North:	Collar Az:	156.00
Location:	Surface	East: 433837.00		East:	Length:	73.41
Claim Number:		Elev: 355.00		Elev:	Start Depth:	0.00
Date Started:	Feb 26, 2008	Collar Survey: N	Plugged: N	Contractor: SUMMIT DRILLING	Final Depth:	73.41
Date Completed:	Mar 01, 2008	Multishot Survey: N	Hole Size: AQ	Core Storage: Desmaraisville		
Logged By:	S. Parsons	Pulse EM Survey: N	Casing: Pulled			

Comments: hole terminated short of target depth. casing unlogded from bedrock when the rods were pulled and sagged through water column. Could not find orginal hole to re-enter with rods to continue drilling. Hole redrilled as LS08-015

#### Sample Averages

Detailed Lith	ology			A	Assay Data					
From	То	Lithology	Sample #	From	То	Length	Au_ppm	Ni_ppm	Mg_pct	Ti_pct
0	16.41	CAS, Casing				•	•		•	
		0-13.70 m: water								
		13.70-16.41m: overburden; medium to coarse grained gabbro boulders with sand and clay								
16.41	71.39	IMe, gabbro								
		Medium to coarse-grained, dark gray-green, gabbro. large pyroxene (likely cpx) and plagioclase feldspar crystals up to 7 mm in size. disseminated pyrite, pyrrhotite, and trace arsenopyrite (?), <5% in zones. Banded pyrite and chalcopyrite associated with weak foliation planes in zones. weakly magnetic.								
		Occasional zones of coarser grained pegmatitic gabbroic dykes throughout with large (>1cm) plagioclase and pyroxene (likely cpx) crystals (possible late stage). generally, grain size decreases from coarse grained at the top of hole to medium grained down hole.								
		33.0-33.16 quartz-vein with disseminated and banded pyrite-chalcopyrite, more abundant near edge of the vein.					- lu			
		Texture 16.41 - 71.39: Type: Coarse Grained 5-16mm : coarser near top of hole 16.41 - 71.39: Type: Medium Grained : crystal size decreases downhole to medium grained 16.41 - 71.39: Type: Pegmatitic : dykes throughout				/2	No. 10 States		$\geq$	
		Mineralization 16.41 - 71.39: Arsenopyrite ,: Disseminated : trace; possibly slightly altered pyrite 33.00 - 33.16: Pyrite minor chalcopyrite ,: Banded , 10% : 15% along edge; 5% within vein 16.41 - 71.39: Pyrite (+/- pyrrhotite, chalcopyrite) ,: Disseminated , 1% : trace to 2%				< <u>(</u>				
		Structure 16.41 - 71.39: Massive,								

## DETAILED LOG SUPERIOR DIAMONDS INC.

Page 2 of 2

#### Hole Number: LS08-014

Detailed Lith	ology				Assay Data					
From	To	Lithology	Sample #	From	То	Length	Au_ppm	Ni_ppm	Mg_pct	Ti_pct
71.39	73.40	CTsb, mafic schist Fine grained, dark gray-green, strongly foliated, non-magnetic, quartz rich, chlorite schist. Strongly foliated at 15 degrees TCA. The unit contains intense quartz-calcite veining ranging from <1 mm to 5 mm wide. The quartz-calcite veining is tightly folded. Disseminated/foliation associated pyrite and chalcopyrite (<5%) throughout.		-					•	
		Texture 71.39 - 73.40: Type: Fine Grained								
		Mineralization 71.39 - 73.40: Pyrite minor chalcopyrite ,: Bands/banded , 5% : banded and disseminated, along foliation planes								
		Alteration 71.39 - 73.40: Type: Chloritized, Style: Foliation, Intensity: Strong								
73.40	73.4	Structure 71.39 - 73.40: Schistose, 15 Deg to CA 71.39 - 73.40: Veins, : quartz-calcite veins throughout <1mm to .5cm EOH, End of Hole								

## DETAILED LOG SUPERIOR DIAMONDS INC.

Page 1 of 3

#### Hole Number: LS08-015

Units: METRIC

Project Name:	L'Esperance	Primary Coordinates Grid: UTM83-18	Destination Coordinates Grid: UTM83-17	Collar Dip:	-50.00
Project Number:	S82100	North: 5484737.00	North:	Collar Az:	156.00
Location:	Surface	East: 433837.00	East:	Length:	202.33
Claim Number:		Elev: 355.00	Elev:	Start Depth:	0.00
Date Started:	Mar 01, 2008	Collar Survey: N Plugged: N	Contractor: SUMMIT DRILLING	Final Depth:	202.33
Date Completed:	Mar 06, 2008	Multishot Survey: N Hole Size: AQ	Core Storage: Desmaraisville		
Logged By:	S.PARSONS	Pulse EM Survey: N Casing: Pulled			
Comments:					

#### Sample Averages

Detailed Lith	ology			ŀ	Assay Data					
From	То	Lithology	Sample #	From	То	Length	Au_ppm	Ni_ppm	Mg_pct	Ti_pct
0	17.39	CAS, Casing 0-17.27m: water				•	•		•	
17.39	70.98	17.27-19.39m: overburden - medium-coarse and pegmatitic gabbro, monzogabbro boulders .5m IMe, gabbro								
		Medium to coarse-grained, dark gray-green, intermediate intrusive gabbro. large pyroxene (likely cpx) and plagioclase feldspar crystals up to 7 mm in size. disseminated pyrite, pyrrhotite, and trace arsenopyrite (?), <5% in zones. Banded pyrite and chalcopyrite associated with weak foliation planes in zones. weakly magnetic. zones of coarser grained pegmatitic gabbroic dykes throughout with large (>1cm) plagioclase and pyroxene (likely cpx) crystals (possible late stage). generally, grain size decreases from coarse grained at the top of hole to medium grained down hole. quartz-vein <15cm wide with disseminated and banded pyrite-chalcopyrite,common near outer contacts of the veins.								
		56.51-57.27 m: quartz-plagioclase-pyroxene pegmatitic dyke (<1.5cm crystalm size) with disseminated euhedral pyrite and chalcopyrite with possible pyrrhotite <5% sulphides.								
		31.39-32.07m: quartz vein with disseminated and banded pyrite-chalcopyrite (<15% at edge, <5% whole-vein) concentrated along the vein contacts								
		Mineralization 31.39 - 32.07: Pyrite miπor chalcopyrite ,: Banded , 5% : up to 15% along edge and 5% in the vein 17.39 - 70.98: Pyrite/Pyrrhotite ,: Disseminated : trace to 1%								
70.98	72.97	CTsb, mafic schist Fine grained, dark gray-green, strongly foliated, non-magnetic, quartz rich, chlorite schist. Strongly foliated at 15 degrees TCA. The unit contains intense quartz-calcite veining ranging from <1 mm to 1cm wide. The quartz-calcite veining is strongly folded. disseminated/foliation associated pyrite and chalcopyrite (<5%) throughout.								

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## DETAILED LOG SUPERIOR DIAMONDS INC.

Page 2 of 3

#### Hole Number: LS08-015

Detailed Lithe	ology				Assay Data					
From	То	Lithology	Sample #	From	То	Length	Au_ppm	Ni_ppm	Mg_pct	Ti_pct
72.97	109.44	<ul> <li>IMe, gabbro</li> <li>Medium to coarse-grained, dark gray-green, gabbro-quartz-gabbro with gradual contact with tonalite down-hole (with increasing qtz %) large pyroxene (likely cpx), plagioclase feldspar and quartz crystals up to 7 mm in size. disseminated pyrite and pyrrhotite, up to 5% in zones. Banded pyrite and chalcopyrite associated with weak foliation planes in zones. Weakly magnetic.</li> <li>Zones of coarser grained pegmatitic gabbroic dykes throughout with large (&gt;1cm) plagioclase and pyroxene (likely cpx) crystals (possible late stage). Generally, grain size decreases from coarse grained at the top of hole to medium grained down hole.</li> <li>Mineralization</li> </ul>			· · ·					
		72.97 - 109.44: Pyrite - chalcopyrite ,: Fracture Filling : trace to 5%								
109.44	111.35	KM, Kimberlite Greyish-black, moderate to strongly magnetic kimberlite dyke composed primarly of two phases of olivine; large serpentinized olivine xenocrysts (<2cm) in a fine-grained partly serpentinized olivine groundmass. Dyke is ~90% olivine. Macro- and micro- crystic ilmenite (upto 5mm) are common as well as a 4mm macrocrystic purple pyrope garnet within a fresh olivine xenolith 1.5cm in diametre. Garnet confirmed by ODM as a pyrope garnet plotting on boundary between G9/G10 fields. Carbonate mineralization occurs along cooling planes of the dyke (<5mm wide). The contacts between the dyke and host rock are sharp with a thin shistose/carbonate zone (<2.5cm) at the lower contact.								
111.35	144.53	ILHm, Tonalite         ILHm, Tonalite         Tonalite with quartz content increasing and mafic mineral content decreasing down-hole. weakly foliated in zones. disseminated pyrite, pyrhotite, <5% in zones. Banded pyrite and chalcopyrite associated with foliation planes in zones. weakly magnetic. fine-grained felsic dykes <50cm wide are common, composed of quartz>k-feldspar>hornblende with sharp contacts.         137.36-140.71 m: chlorite schist; fine grained, dark grey-green, strongly foliated, non-magnetitc, quartz-rich.         Structure         137.36 - 140.41: Foliated, 45 Deg to CA : strong								
144.53	153.26	ILHo, Granite pink-gray medium-coarse grained monzo/syeno-granite. k-feld>plag, 30% qtz %. weakly foliated @ 20TCA. very fractured in zones, RQD >30%. 152.86-153.0 m: Greyish-green-black, serpentinized mafic lamprophyre dyke (possibly kimberlitic/evoloved kimberlite) with two phases of olivine; serpentinized and non-serpentized olivine phenocrysts, (up to 3 mm) in a fine-grained olivine groundmass which is weakly to strongly serpentinized in zones. ilmenite (upto 3 mm) are common. moderate calcite veining throughout <5mm wide. sharp upper and lower contacts.								

### DETAILED LOG SUPERIOR DIAMONDS INC.

Page 3 of 3

#### Hole Number: LS08-015

Detailed Lithe	ology				Assay Data				•••••	
From	То	Lithology	Sample #	From	То	Length	Au_ppm	Ni_ppm	Mg_pct	Ti_pct
153.26	157.56	<ul> <li>ICa, calcite carbonatite</li> <li>Greyish-green carbonatite dyke (possibly kimberlitic, evoloved kimberlite) 50% of the dyke is composed of carbonate - veining + groundmass. Altered moderate to intense calcite veining in zones with pyrite mineralization and oxidized zones (veins &lt;1cm wide).</li> <li>154.18-154.58, 154.96-155.64 m: chlorite-epidote altered granitewithin the dyke.</li> </ul>		4	• · ·					
		The contacts between the dyke and host rock are sharp with a thin carbonate zone (<2cm) at the lower contact.								
157.56	202.33	ILHn, Granodiorite								
		greyish-white medium to coarse-grained granodiorite. plag>qtz>k-feld. weakly foliated 40TCA, moderatly foliated in zones. RQD=100. 157.56-167.56 m: quartz vein with upto 10% disseminated pyrite-chalcopyrite throughout. Sharp upper and lower contacts Structure								
		157.56 - 202.33: Foliated, 40 Deg to CA : weak								

## DETAILED LOG SUPERIOR DIAMONDS INC.

Page 1 of 4

#### Hole Number: LS08-016

Units: METRIC

Project Name:	L'Esperance	Primary Coordinates Grid: NAD83:	Destination Coordinates Grid: UTM83-17	Collar Dip:	-50.00
Project Number:	S82100	North: 5484742.00	North:	Collar Az:	179.00
Location:	Surface	East: 433942.00	East:	Length:	217.83
Claim Number:		Elev: 355.00	Elev:	Start Depth:	0.00
Date Started:	Mar 28, 2008	Collar Survey: N Plugged: N	Contractor: MISC	Final Depth:	217.83
Date Completed:	Apr 01, 2008	Multishot Survey: N Hole Size: NQ	Core Storage: Desmaraisville		
Logged By:	S. Parsons	Pulse EM Survey: N Casing: Pulled			
Comments: Perfor	rmax Drilling				

#### Sample Averages

Detailed Lith	ology				Assay Data					
From	То	Lithology	Sample #	From	То	Length	Au_ppm	Ni_ppm	Mg_pct	Ti_pct
0	21.9	CAS, Casing					· · · · · · · · · · · · · · · · · · ·			
		Drilled from lake surface - boulders encountered at 19.83m (granite - granodiorite)								
21.95	48.20	ILHn, Granodiorite								
		greyish medium-grained granodiorite. hornblende-qtz-plag-(minor k-feldspar). weakly foliated @ 50TCA. RQD=100, however, very fractured 46.15-48.20m.								
		45.54-45.57 m: biotite-bearing lamprophyre dyke possibly kimberlitic								
		Structure								
		21.95 - 48.20: Foliated, 50 Deg to CA : weak								
			-							
48.20	49.7 <i>°</i>	I IMLa, bio-dio-aug-or-pl lamprophyre								
		Greyish-black, moderate to strongly magnetic kimberlite dyke (possibly lamprophyre) composed primarly of two phases of olivine; large serpentinized olivine xenocrysts (<1.5cm) in a fine-grained partly serpentinized olivine groundmass. Dyke is ~90% olivine; 10-15% carbonate alteration within the groundmass. Macro- and micro- crystic ilmenite (upto 5mm) are common. Carbonate mineralization occurs along cooling planes of the dyke (<5mm wide); Narrow fracture associated carbonate veining throughout. The contacts between the dyke and host rock are sharp with a thin carbonate cone (<0.5cm)								

### DETAILED LOG SUPERIOR DIAMONDS INC.

Page 2 of 4

#### Hole Number: LS08-016

Detailed Lith	ology			Α	ssay Data					
From	То	Lithology	Sample #	From	То	Length	Au_ppm	Ni_ppm	Mg_pct	Ti_pct
49.71	124.12	ILHn, Granodiorite         greyish medium-grained granodiorite to monzogranite (with gradually increasing k-feldspar % down-hole).         hornblende-qtz-plag-(minor k-feldspar, increasing down-hole)         threfdspar).       weakly foliated @ 50TCA.         RQD=80.       extremely fractured zones.       during transport of core from drill to         landing the sled broke and core from 93-114m was dumped on the lake by drill contractor.       core was pieced together         best as possible.       49.71 - 59.71 m: Diorite greenish-grey intermediate sheared diorite dyke with porphyritic anhedral to subhedral (rare         euhedral) plagioclase feldspar phenocrysts <5mm.	Sample #	FIGH		Lengin			ivig_pci	
		<ul> <li>hornblende and feldspar as revealed through examination under mircroscope at 40x. sharp upper and lower contacts. RQD=70, extremely fractured in zones</li> <li>113.56 - 115.27 m: Felsic to Mafic Granitoids</li> <li>115.27 - 116.98 m: Carbonatite Greyish-green-red sheared (@25TCA) carbonatite dyke (possibly kimberlitic, evolved kimberlite). 50% of the dyke is composed of carbonate - veining + groundmass. Carbonate altered with moderate to intense calcite veining in zones with pyrite mineralization and oxidized zones (veins &lt;1cm wide). Carbonate banding common (&lt;1cm wide) parallel to shear planes. Fe-alteration throughout The contacts between the dyke and host rock are sharp. RQD=75</li> <li>Structure</li> <li>49.71 - 124.12: Foliated, 50 Deg to CA : weak</li> <li>69.95 - 72.29: Shear, 20 Deg to CA : moderate to strong</li> <li>74.12 - 76.96: Shear, 25 Deg to CA</li> </ul>								

## DETAILED LOG SUPERIOR DIAMONDS INC.

Page 3 of 4

#### Hole Number: LS08-016

From			Assay Data							
	To	Lithology	Sample #	From	То	Length	Au_ppm	Ni_ppm	Mg_pct	Ti_pct
124.12	129.99	IMf, diorite greenish-grey sheared diorite dyke with porphyritic anhedral to subhedral (rare euhedral) plagioclase feldspar phenocrysts <5mm. Epdiote and carbonate fracture and shear plane associated veins throughout. mod. to strongly sheared in zones @ 20TCA. RQD=90 Structure 124.12 - 129.99: Shear 20 Deg to CA : in zones		•		+				
129.99	136.61	ILHn, Granodiorite greyish medium-grained granodiorite to monzogranite (zones of increased k-feldspar %). hornblende-qtz-plag-(minor k-feldspar, increasing down-hole) zones/dykes of granitic composition (increased gtz + k-feldspar). weakly foliated								
		@ 45TCA. RQD=90. Structure 129.99 - 136.61: Foliated, 45 Deg to CA : weak								
136.61	141.74	IMLa, bio-dio-aug-or-pl lamprophyre Greyish-black, moderate to strongly magnetic lamprophyre dyke (possibly kimberlite). composed primarly of two phases of olivine; large serpentinized olivine xenocrysts (<1.5cm) in a fine-grained partly serpentinized olivine groundmass. Dyke is ~90% olivine; 10-15% carbonate alteration within the groundmass. Macro- and micro- crystic ilmenite (upto 3mm) are common. Carbonate mineralization occurs along cooling planes of the dyke (<5mm wide); Narrow fracture associated carbonate veining throughout. Xenoliths of altered granodiorite near edges dyke and separating smaller dykes at the upper contact. The contacts between the dyke and host rock are sharp with a thin carbonate zone (<2mm).								
141.74	145.71	ILHn, Granodiorite greyish medium-grained granodiorite to monzogranite (zones of increased k-feldspar %). hornblende-qtz-plag-(minor k-feldspar, increasing down-hole)., zones/dykes of granitic composition (increased qtz + k-feldspar). weakly foliated @ 45TCA. RQD=90.								
		Structure 141.74 - 145.71: Foliated, 45 Deg to CA : weak								

## DETAILED LOG SUPERIOR DIAMONDS INC.

Page 4 of 4

#### Hole Number: LS08-016

Detailed Litho	ology			/	Assay Data					
From	То	Lithology	Sample #	From	То	Length	Au_ppm	Ni_ppm	Mg_pct	Ti_pct
145.71	156.46	IMf, diorite greenish-grey diorite dyke. Porphyritic anhedral to subhedral alkali-feldspar phenocrysts <5mm in an aphanitic dark groundmass. Groundmass consists of extremely fine-grained quartz, hornblende and feldspar as revealed through examination under mircroscope at 40x. Sharp upper and lower contacts. RQD=60, extremely fractured in zones.								
156.46	217.82	<ul> <li>ILHn, Granodiorite greyish medium to coarse grained granodiorite. to monzogranite in zones. hornblende-qtz-plag-(minor k-feldspar). weakly foliated @ 40TCA. RQD=100. Increasing qtz % down-hole.</li> <li>171.08 - 171.54 m: Diorite greenish-grey intermediate aphanitic diorite dyke. Groundmass consists of extremely fine-grained quartz, hornblende and feldspar as revealed through examination under mircroscope at 40x. Sharp upper and lower contacts. RQD=100.</li> <li>183.69 - 183.9 m: Diorite greenish-grey intermediate diorite dyke. Porphyritic anhedral to subhedral alkali-feldspar phenocrysts &lt;5mm in an aphanitic dark groundmass. groundmass consists of extremely fine-grained quartz. hornblende and feldspar as revealed through examination under mircroscope at 40x. sharp upper and lower contacts. RQD=100</li> <li>208.79 - 209.14 m: Diorite greenish-grey intermediate diorite dyke. Porphyritic anhedral to subhedral alkali-feldspar phenocrysts &lt;5mm in an aphanitic dark groundmass. Groundmass consists of extremely fine-grained quartz, hornblende and feldspar as revealed through examination under mircroscope at 40x. sharp upper and lower contacts. RQD=100</li> <li>208.79 - 209.14 m: Diorite greenish-grey intermediate diorite dyke. Porphyritic anhedral to subhedral alkali-feldspar phenocrysts &lt;5mm in an aphanitic dark groundmass. Groundmass consists of extremely fine-grained quartz, hornblende and feldspar as revealed through examination under mircroscope at 40x. sharp upper and lower contacts. RQD=100.</li> <li>Structure 156.46 - 217.82: Foliated, 40 Deg to CA : weak</li> </ul>								
217.82	217.83	EOH, End of Hole								

## DETAILED LOG SUPERIOR DIAMONDS INC.

#### Hole Number: LS08-017

Units: METRIC

Project Name: L'Esperance	Primary Coordinates Grid: NAD83:	Destination Coordinates Grid: UTM83-17	Collar Dip: -50.00
Project Number: S82100	North: 5484742.00	North:	Collar Az: 45.00
Location: Surface	East: 433942.00	East:	Length: 201.00
Claim Number:	Elev: 355.00	Elev:	Start Depth: 0.00
Date Started: Apr 02, 2008	Collar Survey: N Plugged: N	Contractor: MISC	Final Depth: 201.00
Date Completed: Apr 08, 2008	Multishot Survey: N Hole Size: NQ	Core Storage: Desmaraisville	
Logged By: T. Hart and M. Sooley	Pulse EM Survey: N Casing: Pulled		
Comments: Performax Drilling			

#### Sample Averages

Detailed Lit	hology		Assay Data							
From	То	Lithology	Sample #	From	То	Length	Au_ppm	Ni_ppm	Mg_pct	Ti_pct
0	23.45	CAS, Casing		•					•	
		combination of lake and overburden								

## DETAILED LOG SUPERIOR DIAMONDS INC.

Page 2 of 7

#### Hole Number: LS08-017

Detailed Lithology					Assay Data					
From	To	Lithology	Sample #	From	То	Length	Au ppm	Ni ppm	Ma pct	Ti pct
23.45	194.10	10s, Granite		<b>.</b>	<b>.</b>	<u> </u>				
		massive hornblende-biotite granite with variable epidote alteration, generally weak, moderate over 10-20 cm intervals, occasional quartz vein and mafic diorite dykes with porphyritic feldspar.								
		28.28 - 28.58 m: Diorite fine to medium grained feldspar porphyritic with moderate epidote alteration of feldspar, trace disseminated fine grained pyroxene								
		35.3 - 35.57 m: Diorite fine-grained massive, biotitic, with fine to medium grained feldspar phenocrysts, weak chlorite alteration, sharp contacts.								
		39.67 - 39.9 m: Diorite same as previous units, fine-grained feldspar porphyritic diorite with biotitic and chlorite								
		45 - 45.88 m: Diorite fine-grained massive to weakly foliated feldspar-chlorite porphyritic diorite, chlorite after hornblende?								
		58.9 - 59.68 m: Diorite fine-grained massive to weakly foliated feldspar-chlorite porphyritic diorite								
		64.97 - 65.8 m Diorite fine-grained massive to weakly foliated feldspar-chlorite porphyritic diorite, 1 suspended granite xenoliths longer than core diameter. Quartz/carbonate veinlets at various angles TCA.								
		91.32 - 91.53 m: Diorite fine-grained massive to weakly foliated feldspar-chlorite porphyritic diorite								
		113 - 115.26 m: Diorite fine-grained massive to weakly foliated feldspar-chlorite porphyritic diorite; Carbonate filled hairline fractures at various angle TCA.								
		118.75 - 118.93 m: Diorite fine-grained massive to weakly foliated feldspar-chlorite porphyritic diorite;								
		119.26 - 120.19 m: Diorite fine-grained massive to weakly foliated feldspar-chlorite porphyritic diorite; epidote-chlorite alteration in fractures at high angles TCA.								
		124.28 - 124.81m: Diorite fine-grained massive to weakly foliated feldspar-chlorite porphyritic diorite; epidote is visble in ground mass and more abundant in fractures.								
		125.18 - 125.57 m: Diorite fine-grained massive to weakly foliated feldspar-chlorite porphyritic diorite; epidote in hairline fractures at high angles TCA.								
		129.9 - 130.31 m: Diorite moderatly foliated chlorite altered diorite; foliations and fractures are carbonated filled. upper contact with granite is broken ground.								
1		137.26 - 137.74 m: Diorite fine-grained foliated feldspar-chlorite porphyritic diorite; upper contact is brecciated. Dorite fragments are bleached with zoning and silicified. Matrix of the breccia is strongly altered with chlorite. Fractures are silicified and carbonate filled, trace pyrite								
		138.44 - 139.72 m: Diorite fine-grained foliated feldspar-chlorite porphyritic diorite; upper contact is brecciated. Dorite fragments are bleached with zoning and silicified. Matrix of the breccia is strongly altered with chlorite. Fractures are carbonate filled with minor epidote.								
		145.23 - 146.03 m: Diorite fine-grained foliated feldspar-chlorite porphyritic diorite; foliations and fractures are carbonate filled with lesser epidote								
		148.89 - 149.28 m: Diorite fine-grained massive chlorite-feldspar diorite								
		150 71 - 152 23 m <sup>-</sup> Diorite fine-grained massive to weakly foliated feldsnar-chlorite norphyritic diorite: atz-carb filled								

## DETAILED LOG SUPERIOR DIAMONDS INC.

Page 3 of 7

#### Hole Number: LS08-017

Detailed Lit	hology	fractures			Assay Data	1				
From	То	153.64 - 154.2 m: Diorite fine-grained stassive to weakly foliated feldspar-chlorite porphyritic diorite. feldspar	Sample #	From	То	Length	Au_ppm	Ni_ppm	Mg_pct	Ti_pct
		phenocrysts are euhedral up to 5mm in size fractures are filled with carbonate and minor hematite.					•	•		
		158.53 - 161.15 m: Diorite fine-grained massive to weakly foliated feldpsar-chlorite porphyritic diorite. At 159.82 m broken ground with chlorite on slips up to 1% blochy pyrite. Trace carbonate filled hairline fractures.								
		162.27 - 163.93 m: Diorite fine-grained massive to weakly foliated feldspar-chlorite porphyritic diorite. Feldspar phenocrysts up to 5mm in size with trace blotchy chlorite up to 8mm in size. Carbonate/chlorite filled fractures at 50 degrees TCA.								
		168.58 - 169.3 m: Diorite fine-grained massive to weakly foliated diorite. Trace feldspar phenocrysts plus trace blochy chlorite. Trace carbonate/chlorite filled fractures.								
		181.98 - 183.9 m: Diorite fine-grained massive to weakly foliated feldspar-chlorite porphyritic diortie. 35% feldpsar phenocrysts up to 6mm in size blochy chlorite plus epidote. < 1% carbonate fracture filling, chlorite alteration on slips								
		184.54 - 185.5 m: Diorite fine-grained massive to weakly foliated feldspar-chlorite porphyritic diortie. 20% feldpsar phenocrysts up to 4mm. Carbonate fracture filling with chlorite on slips								
		190.46 - 192.04 m: Diorite fine-grained massive to weakly foliated feldspar-chlorite porphyritic diortie. 10% feldspar phenocrysts up to 4mm less abundant closer to contacts and smaller in size. 1% carbonate filled fractures with chlorite on slips.								
		Mineralization								
		31.45 - 31.46: Pyrite ,: Disseminated , 0% : trace in carbonate veinlet								
		36.72 - 36.73: Quartz vein/pod ,: Veins : trace very fine-grained tourmaline								
		124.81 - 125.00: Pyrite ,: Disseminated : trace in quartz veinlet								
		Alteration 27.45 - 27.55: Type: Epidote, Style: Fracture Controlled, Intensity: Moderate								
		30.00 - 30.40: Type: Epidote, Style: Fracture Controlled, Intensity: Moderate								
		33.80 - 34.20: Type: Epidote, Style: Fracture Controlled, Intensity: Moderate								
		34.40 - 34.50: Type: Chloritized, Style: Fracture Controlled, Intensity: Strong : halo to fracture filling								
		31.40 - 31.60: Type: Chloritized, Style: Fracture Controlled, Intensity: Strong								
		41.55 - 41.79: Type: Chloritized, Style: Fracture Controlled, Intensity: Strong : halo to two carbonate fracture fillings								
		41.00 - 41.24: Type: Chloritized, Style: Fracture Controlled, Intensity: Strong : surrounding fracture								
		51.30 - 51.79: Type: Chloritized, Style: Fracture Controlled, Intensity: Moderate : possibly minor epidote								
		53.38 - 53.39: Type: Chloritized, Style: Fracture Controlled, Intensity: Moderate : halo to fracture								
		54.20 - 54.21: Type: Chloritized, Style: Fracture Controlled, Intensity: Strong : fracture halo								
		69.82 - 70.10: Type: Epidote, Style: Fracture Controlled, Intensity: Weak								
		75.63 - 77.10: Type: Epidote-hematite, Style: Pervasive, Intensity: Intense : with quartz								
		138.00 - 138.12: Type: Chloritized, Style: Fracture Controlled, Intensity: Moderate : with quartz								
		155.59 - 155.76: Type: Calcite-Epidote, Style: Fracture Controlled, Intensity: Moderate								
		168.50 - 168.58: Type: Silicified, Style: Fracture Controlled, Intensity: Moderate-Strong : plus epidote lesser chlorite								

## DETAILED LOG SUPERIOR DIAMONDS INC.

Page 4 of 7

#### Hole Number: LS08-017

Detailed Lit	hology				Assay Data					
From	То	Lithology	Sample #	From	То	Length	Au_ppm	Ni_ppm	Mg_pct	Ti_pct
		Alteration			-					
		169.30 - 169.32: Type: Chloritized, Style: Fracture Filling, Intensity: Moderate-Strong								
		137.26 - 137.74: Type: Chloritized, Style: Fracture Controlled, Intensity: Moderate-Strong : lesser epidote								
		138.44 - 139.72: Type: Chlorite / Epidote, Style: Pervasive, Intensity: Moderate								
		150.71 - 152.23: Type: Chlorite / Epidote, Style: Pervasive, Intensity: Moderate								
		Structure								
		23.45 - 25.60: Foliated, 40 Deg to CA : weakly chlorite altered								
		27.40 - 27.57: Shear, 20 Deg to CA : 1-2 cm thick chlorite shear								
		28.28 - 28.29: contact, 60 Deg to CA								
		28.57 - 28.58: contact, 80 Deg to CA								
		31.45 - 31.46: Veins, 45 Deg to CA : 0.5 cm carbonate								
		35.30 - 35.31: contact, 60 Deg to CA								
		35.56 - 35.57: contact, 65 Deg to CA								
		36.72 - 36.73: Veins, 65 Deg to CA : grey with trace very fine-grained tourmaline								
		39.67 - 39.68: contact, 35 Deg to CA								
		39.89 - 39.90: contact, 40 Deg to CA								
		41.55 - 41.79: Fractured, 20 Deg to CA : two 0.1 cm carbonate fractures								
		43.00 - 43.01: Veins, 20 Deg to CA : grey quartz								
		43.10 - 43.11: Veins, 35 Deg to CA : grey quartz								
		43.93 - 44.08: Veins, 10 Deg to CA : grey quartz								
		44.15 - 44.40: Veins, 20 Deg to CA : grey quartz, with irregular lower zone								
		45.00 - 45.01: contact, 60 Deg to CA								
		45.87 - 45.88: contact, 65 Deg to CA								
		53.38 - 53.39: Fractured, 20 Deg to CA								
		54.20 - 54.21: Fractured, 15 Deg to CA								
		162.27 - 163.93: Fractured, 50 Deg to CA : carbonate-chlorite filling								
		Minor Interval:	ĺ							
		28.28 - 28.58 10n, Diorite								
		f-mg eldspar porphyritic with moderate epid alteration of feldspar, trac diss fg py								
		Mineralization								
		28.28 - 28.58: Pyrite ,: Disseminated : trace fg								
			1							

## DETAILED LOG SUPERIOR DIAMONDS INC.

#### Hole Number: LS08-017

Detailed Lit	hology				Assay Data			- <u>-</u> -,		
From	То	Lithology	Sample #	From	То	Length	Au_ppm	Ni_ppm	Mg_pct	Ti_pct
		MINOR INTERVALS:								
		Minor Interval:								
		35.3 - 35.57 10n, Diorite								
		fg massive, biotitic, with f-mg feldspar phenocrysts, wk chlr alteration								
		Structure								
		35.30 - 35.31: contact, 60 Deg to CA								
		35.56 - 35.57: contact, 65 Deg to CA								
		Minor Interval:	]							
		39.67 - 39.9 10n, Diorite								
		same as previous units, fg feldspar porphyritic diorite with biotite and chlorite								
		Structure								
		39.67 - 39.68: contact, 35 Deg to CA								
		39.89 - 39.90: contact, 40 Deg to CA								
		Minor Interval:								
		45 - 45.88 10n. Diorite								
		fg massive to weakly foliated feldspar-chlorite porphyritic diorite, chlorite after hornblende?								
		Structure								
		45.00 - 45.01: contact, 60 Deg to CA								
		45.87 - 45.88; contact, 65 Deg to CA								
		Minor Interval:								
		58.9 - 59.68 10n, Diorite								
		fg massive to weakly foliated feldspar-chlorite porphyritic diorite Minor Interval:								
		64.97 - 65.8 10n, Diorite								
		fg massive to weakly foliated feldspar-chlorite porphyritic diorite, 1 suspended granite xenolith longer than core diameter. Quartz/carbonate veilets at various angles TCA. Minor Interval:								
		91.32 - 91.53 10n, Diorite								
		fg massive to weakly foliated feldspar-chlorite porphyritic diorite Minor Interval:								
		113 - 115.26 10n, Diorite								
		fg massive to weakly foliated feldspar-chlorite porphyritic diorite; Carbonate filled hairline fractues at various angle TCA.								
		Minor Interval:								
		118.75 - 118.93 10n, Diorite								
		fg massive to weakly foliated feldspar-chlorite porphyritic diorite;								
		Minor Interval:								
		119.20 - 120.19 TUN, Diorite In measive to use ship to disting foldered ship the personality of the state o								
		TG massive to weakly foliated feldspar-chlorite porphyritic diorite; epidote-chlorite alteration in fractures at high angles TCA.								
		124.28 - 124.81 10n Diorite								
		fg massive to weakly foliated feldspar-chlorite porphyritic diorite; epidote is visble in ground mass and more abundant in fractures.								

## DETAILED LOG SUPERIOR DIAMONDS INC.

#### Hole Number: LS08-017

Detailed Lit	hology		Assay Data							
From	То	Lithology	Sample #	From	То	Length	Au_ppm	Ni_ppm	Mg_pct	Ti_pct
		MINOR INTERVALS:		* · · · ·						
		Minor Interval:								
		125.18 - 125.57 10n, Diorite								
		fg massive to weakly foliated feldspar-chlorite porphyritic diorite; epidote in hairline fractures at high angles TCA Minor Interval:								
		129.9 - 130.31 10n, Diorite								
		moderatly foliated chlorite altered diorite; foliations and fractures are carbonated filled. upper contact with granite is broken ground. Minor Interval:								
		137.26 - 137.74 10n, Diorite								
		fg foliated feldspar-chlorite porphyritic diorite; upper contact is brecciated. Dorite fragments are bleached with zoning and silicified. Matrix of the breccia is strongly altered with chlorite. Fractures are silicified and carbonate filled, trace pyrite								
		Alteration 137.26 - 137.74: Type: Chloritized, Style: Fracture Controlled, Intensity: Moderate-Strong : lesser epidote								
		Minor Interval:								
		138.44 - 139.72 10n, Diorite								
		fg foliated feldspar-chlorite porphyritic diorite; upper contact is brecciated. Dorite fragments are bleached with zoning and silicified. Matrix of the breccia is strongly altered with chlorite. Fractures are carbonate filled with minor epidote.								
		Alteration 138.44 - 139.72: Type: Chlorite / Epidote, Style: Pervasive, Intensity: Moderate								
		Minor Interval:								
		145.23 - 146.03 10n, Diorite								
		fg foliated feldspar-chlorite porphyritic diorite; foliations and fractures are carbonate filled with lesser epidote Minor Interval:								
		148.89 - 149.28 10n, Diorite								
		fg_massive chlorite-feldpsar diorite								
		Minor Interval:								
		150.71 - 152.23 10n, Diorite								
		ing massive to weakly tollated feldspar-chlorite porphyritic diorite; dtz-carb filled fractures								
		Alteration 150.71 - 152.23: Type: Chlorite / Epidote, Style: Pervasive, Intensity: Moderate								
		Minor Interval:								
		153.64 - 154.2 10n, Diorite								
		fg massive to weakly foliated feldspar-chlorite porphyritic diorite. feldspar phenocrysts are euhedral up to 5mm in size fractures are filled with carbonate and minor hematite. Minor Interval:								
		158.53 - 161.15 10n, Diorite								
		fg massive to weakly foliated feldpsar-chlorite porphyritic diorite. At 159.82 m broken ground with chlorite on slips up to 1% blochy pyrite. Trace carbonate filled hairline fractures. Minor Interval:								
		162.27 - 163.93 10n, Diorite								
		fg massive to weakly foliated feldspar-chlorite porphyritic diorite. Feldspar phenocrysts up to 5mm in size with trace blochy chlorite up to 8mm in size. Carbonate/chlorite filled fractures at 50 degrees TCA.								

## DETAILED LOG SUPERIOR DIAMONDS INC.

Page 7 of 7

#### Hole Number: LS08-017

Detailed Lithology				Assay Data					
From To	Lithology	Sample # From To Length Au_ppm Ni_ppm Mg_pct							Ti_pct
194.10 201.00	MiNOR INTERVALS: Minor Interval: 168.58 - 169.3 10n, Diorite fg massive to weakly foliated diorite. Trace feldspar phenocrysts plus trace blochy chlorite. Trace carbonate/chlorite filled fractures. Minor Interval: 181.98 - 183.9 10n, Diorite fg massive to weakly foliated feldspar-chlorite porphyritic diorite. 35% feldpsar phenocrysts up to 6mm in size blochy chlorite plus epidote. < 1% carbonate fracture filling, chlorite alteration on slips Minor Interval: 184.54 - 185.5 10n, Diorite fg massive to weakly foliated feldspar-chlorite porphyritic diorite. 20% feldpsar phenocrysts up to 4mm. Carbonate fracture filling with chlorite on slips Minor Interval: 190.46 - 192.04 10n, Diorite fg massive to weakly foliated feldspar-chlorite porphyritic diorite. 10% feldpsar phenocrysts up to 4mm less abundant closer to contacts and smaller in size. 1% carbonate filled fractures with chlorite on slips. IMf, diorite fine-grained massive feldspar-chlorite porphyritic diorite. fractures with chlorite on slips. IMf, diorite End of hole at 201 m. Alteration 197.28 - 197.80: Type: Epidote, Style: Fracture Controlled, Intensity: Weak Structure 194.10 - 201.00: Fractured, 20 Deg to CA								