31000
28000
3300 } core 28000 - 28023 Sludge

GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

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Property: Windflower Project No.: 224 Depth: 255.12m Date Began: June 14/1987

Hole No.: Win-69 Co ord.: ~~253N~~ 10247.00 N Horizontal Length: Date Completed: June 23/1987

Claim No.: ~~22E~~ 5022.42 E Core Size: NQ Drilled By: M&B Drilling

Grid No.: Angle & Grid Direction: -55° W Elevation: ~~2000.6~~ 1049.80 Logged By: W.S. Ferreira

SAME LOCATION AS WIN-34

INTERVAL [redacted]/ METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL [redacted]/ METRES	MINOR GEOLOGICAL CODE
0-2.44	CSG	Casing.		
2.44-10.84	AR QC	Light Grey Argillite and Quartz veins.		PY QV
		Overall contains about 50% light grey argillite, 40% quartz veins and 10% graphitic argillite; non magnetic; quartz veins contain carbonate; 5% fine-medium pyrite; CA @ 10.84 is 80°		
		2.66-3.35: White quartz-carbonate vein; 25% wall rock inclusions; 5% pyrite; CA @ 2.66 is <10°.		
		3.35-3.60: Cave? and lost core; contains rubble, 10cm of rubble which appears to be cave.		
		3.60-4.28: White quartz-carbonate vein; contains 25% wall rock inclusions; 2% pyrite; CA is 75°		
		4.28-4.88: Rubbly core; Contains 20% rusty quartz vein rubble, 80% graphitic argillite rubble.		
		4.88-5.16: Quartz-carbonate vein rubble.		
		5.16-5.71: Lost core.		
		6.04-6.47: Diffuse quartz-carbonate vein; contains 50% wall rock inclusions; 5% pyrite; CA is irregular.		
		6.47-7.65: Silicified argillite with 40% diffuse quartz-carbonate veins; 2% pyrite; CA @ 7.65 is 65°		
		8.27-9.00: Only contains 48 cm of rubble, longest piece of core in 7cm; 25cm lost core.		

10962-E43

16,753

GEOLOGICAL BRANCH
ASSESSMENT REPORT

FILMED

GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property ..... Project No. ..... Depth ..... Date Began .....
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INTERVAL [redacted] / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL [redacted] / METRES	MINOR GEOLOGICAL CODE
		9.00-9.37: White quartz-carbonate vein; 1% fine pyrite; CA is about 70°.		
		10.31-10.46: White quartz-carbonate vein with 20% pyrite; CA is 65°.		
10.84-37.50	GA, AR	Graphitic Argillite and Light Grey Argillite Interbedded. Overall contains about 50% graphitic Argillite, 40% light grey Argillite and 10% quartz-carbonate veins; ~~non~~ laminated; non magnetic; 2% pyrite; CA @	CB	PY
		19.92-21.46: Core is rubble and gravel, most core is <5 cm long; 24 cm lost core.		
		22.00-22.72: Rubble and gravel, no lost core.		
		* 22.72-23.09: Diffuse quartz-carbonate vein; 40% quartz vein; 3% pyrite; CA is irregular but about 65°.		
		* 24.43-25.15: Contains 50% diffuse white quartz-carbonate veins; 1% fine pyrite; CA's average 70°; longest vein is 8 cm long in core.		
		25.15-26.95: Contains only 47 cm of rubble; 33 cm of lost core in this interval.		
		27.43-28.32: White quartz-carbonate vein; 20% argillite inclusions; 10% pyrite @ @ 27.43 is 50°.		
		Down hole!		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property: Windflower | Project No.: 224 | Depth: | Date Began:

Hole No.: Win-69 | Co ord.: | Horizontal Length: | Date Completed:

Claim No.: | | Core Size: | Drilled By:

 | Grid No.: | Angle & Grid Direction: | Elevation: | Logged By:

INTERVAL [redacted] / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL [redacted] / METRES	MINOR GEOLOGICAL CODE
		28.32 - 30.09: Contains 25% diffuse white quartz - carbonate veins up to 8 cm wide; 3% pyrite; irregular CA of veins, appears folded.		
		30.09 - 30.14: Yellowish - carbonate - quartz vein; 15% pyrite; CA is 60°.		
43.24				
37.50 - 44.24	AR DO	Argillite interbedded with Dolomite.		
		Overall contains about 40% laminated light grey argillite, 40% massive thin to thick bedded dolomite, 15% graphitic argillite; 5% quartz veins; 2% pyrite; CA @ 44.24 is 60°.		PY
43.24 - 44.36	QC AR	Quartz - Galena veins in light grey Argillite.		PYGLTT
		Contains 50% white quartz - carbonate veins which locally contain pyrite, specs of galena and tetrahedrite?; quartz veins are listed below; 1% pyrite, <1% galena and tet?; <1% graphite; CA @ 45.36 is irregular and <20°.		
		43.24 - 43.38: Diffuse quartz - carbonate vein; 50% wall rock inclusions; <1% pyrite trace fine grey metallic sulphide argentite?, seems to smear.		
		43.38 - 43.60: light grey argillite		
		43.60 - 44.13: Quartz - carbonate, galena and tetrahedrite? vein; true width of vein is 3.5 cm; 1% fine pyrite, 1% galena and tet, disseminated and in stockwork habit near vein margins; CA of vein is 5°.		

GRANGES EXPLORATION LTD.
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INTERVAL FEET / [redacted]	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		44.13-44.36: Quartz-carbonate-pyrite-sphalerite vein; diffuse, irregular; 60% wall rock inclusions; 10% pyrite; 2% brownish sphalerite which is all in a cm sized patch @ the lower contact; CA is <20°, irregular.		
44.36-60.37	Ar GA DO	Argillite with minor Dolomite.	CB	PY
		Overall contains about 45% light grey argillite, 45% graphitic argillite, 5% dolomite, 5% quartz veins; argillite is laminated, dolomite appears massive; 2% pyrite; CA @ 60.37 is irregular average ≈ 40°.		
		48.80-48.96: Quartz-carbonate-pyrite vein; true width is 2cm true width; 15% pyrite; CA is 30°.		
		54.70-55.54: Lost Core; appears to be a fracture zone from 54-56 metres; rubbly gravel core		
		53.06-53.25: Quartz-carbonate vein; contains 70% carbonate; trace pyrite; CA is 25°.		
		56.70-60.37: Black graphitic argillite with 10% diffuse quartz veins.		
60.37-80.42	GA DO	Graphitic Argillite and Altered Dolomite.	CY FY	PY
		Overall contains about 65% black graphitic argillite 20% altered dolomite and 15% quartz veins, the frequency of quartz veins increases down hole; alteration in dolomite consists of bright green fuchsite 5-10%, carbonate and clay; laminated graphitic argillite shows minor folds which appear to have axial planar cleavage; 3% pyrite; CA @ 80.42 is 25°.		

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DIAMOND DRILL LOG

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INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		60.37 - 61.97: Altered Dolomite; 10% fuchsite.		
		61.97 - 62.12: Lost Core		
		63.87 - 64.13: Quartz - carbonate - pyrite vein; contains 10% pyrite mainly along vein margins; true width is 2cm; CA is 10°.		
		66.57 - 66.75: Lost Core.		
		67.41 - 68.33: Lost Core; appears to be a fracture zone.		
		68.88 - 69.50: Rubbly fracture zone, 21 cm missing core over this interval.		
		69.50 - 70.35: Redrilled core, tube didn't lock, this interval contains only 30 cm of core, 55 cm missing core.		
		70.35 - 70.60: Yellowish dolomite bed, carbonate alteration		
		72.93 - 73.68: Yellowish dolomite bed; no pyrite; CA is 60°.		
		70.60 - 75.85: The graphitic argillite contains numerous small folds.		
		75.85 - 76.80: Altered Dolomite, 10% fuchsite.		
		76.80 - 77.01: Quartz - carbonate vein; 2% pyrite; CA is 40°		
		77.39 - 77.52: White quartz - carbonate vein; no pyrite; CA is 60°.		

GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

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INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		77.52-79.96: Contains about 85% altered dolomite.		
		79.96-80.42: Diffuse quartz-carbonate veins in 50% graphitic argillite, 50% quartz-carbonate veins; 3% pyrite.		
80.42-85.57	QZSX	Quartz-Sulphide Vein Main East Zone.	CB	PYTTSL
		Overall contains about 15% fine-coarse pyrite, 5% coarse yellowish Fe-carbonate, which is restricted to certain areas, <1% brownish sphalerite, <1% fine grey sulphide tetrahedrite, <1%-trace argentite?, 5% graphitic inclusions, 1% cpy. 75% white quartz, bull quartz; pyrite appears to replace graphitic inclusions, Fe carbonate crystal margins are locally lined with tetrahedrite, brownish sphalerite, argentite and chalcopyrite; CA @ 85.57 is destroyed by coring.		
		80.42-80.88: Quartz vein with 25% comingled graphitic inclusions; 3% medium-fine pyrite; CA @ 80.88 is <10°.		
		* 80.88-81.33: Quartz-pyrite vein; 70% fine-coarse pyrite, 10% reticulated graphitic inclusions in pyrite; 20% white quartz; CA @ 81.33 is irregular.		
		81.33-81.85: Quartz-pyrite vein; contains 20% fine-coarse pyrite, 80% quartz, pyrite is disseminated; CA is irregular.		
		81.85-83.54: White quartz vein with 2% fine-coarse pyrite disseminated.		

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INTERVAL [redacted] / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		83.54-83.77: Quartz vein with a sphalerite veinlet 2mm true width and CA of 35°; 5% fine pyrite in grey veinlets and disseminated		
		83.77-84.04: Quartz vein with 6% fine pyrite in grey veinlets.		
		84.04-84.12: Quartz vein with <1% tetrahedrite - argentite in dendritic veinlets; 3% fine-coarse pyrite; 6% yellowish iron carbonate, irregular CA's.		
		Argentite?, tet?		
		84.12-84.37: Fe-carbonate-quartz vein with 1% tetrahedrite? in veinlets at carbonate crystal margins, <1% argentite with tetrahedrite, <1% fine chalcopyrite, 1% brownish sphalerite, 4% fine pyrite; irregular CA's; 60% Fe carbonate.		
		Argentite? (smears), tet? cpy, sph.		
		84.37-84.72: White quartz vein, no carbonate 1% pyrite		
		84.72-84.99: Quartz vein with 10% yellowish Fe-carbonate, 20% graphitic inclusions with 20% fine-medium pyrite along inclusion margins; trace sphalerite, trace chalcopyrite; CA is about 20°.		
		84.99-85.49: Quartz-pyrite vein; contains 60% fine-coarse pyrite and 10% graphitic wisps, pyrite appears to replace graphite; trace chalcopyrite, trace tetradrite or fine graphite wisps; CA @ 85.49 is destroyed.		

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INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		85.49-87.17: Only contains 130 cm of core, 38 cm of core missing; core was ground in 2 places @ 85.49 & 87.17, it appears more core was ground @ 87.17.		
		85.49-85.57: Lost Core.		
85.57-88.85	GA	Graphitic Argillite.	CB	
		Contorted argillite with 40% diffuse quartz-carbonate veins and rods, the largest vein area is 10cm long in core; 5% pyrite; CA @ 88.85 is destroyed.		
88.85-91.20	GADOFT	Fault zone.		
		Contains 2 seperate major faults listed below; The zone contains, fault gouge, fault breccia, graphitic argillite and dolomite, diffuse quartz veins; 1% pyrite; CA @ 91.20 is irregular and averages 70°.	CB GP	
		88.85-89.01: Fault gouge and rubble.		
		89.31-89.54: Quartz vein; 15% carbonate, 15% graphite; <1% pyrite; CAs irregular.		
		90.66-91.20: Spectacular fault breccia; contains 50% angular-rounded mm- to cm-sized graphitic fragments in a quartz-carbonate cement.		

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DIAMOND DRILL LOG

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INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
91.20 - 103.23	DO	Altered Dolomite.		
		Light grey; original bedding is difficult to distinguish; alteration consists of 5% fuchsite, 10% pyrite and carbonate; CA@ 103.23 is partially destroyed by veining appears to be about 80°.	CB FU	PY
		92.20 - 93.67: Highly altered; contains 15% fuchsite, 20% yellowish coarse carbonate, 10% fine pyrite.		
		96.06 - 96.52: Contains 20% fine pyrite in veinlets.		
		99.42 - 100.53: Contains 10% fuchsite, 5% pyrite		
		100.53 - 101.14: Contains 12% fine pyrite.		
		101.14 - 103.23: Contains 20% fine pyrite, 10 fuchsite, 15% carbonate.		
103.23 - 149.81	GA BK	Blocky Graphitic Argillite.		PY
		Laminated black graphitic argillite with 10% grey argillite and 15% diffuse quartz - carbonate veins; very blocky most of the core pieces are <10 cm long; bedding is highly contorted near the top of the unit; the lower quartz veins are listed below; 3% fine pyrite; CA@		
		105.90 - 106.68: Lost Core.		
		108.28 - 108.51: Lost Core.		
		108.85 - 109.12: Lost Core.		
		109.16 - 109.31: Quartz vein, diffuse, 25% graphite inclusions, 10% fine pyrite; CA is 75°. irregular average		

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INTERVAL [redacted] / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		109.75 - 110.03: Lost Core.		
		110.97 - 111.27: Diffuse quartz - carbonate vein; 60% graphitic argillite; trace brownish aphanite, 5% fine pyrite; irregular CA.		
		111.27 - 111.40: Lost Core.		
		111.40 - 112.15: Contains 60% diffuse carbonate - quartz veins; 2% pyrite; irregular CA's.		
		115.82 - 116.10: Gravel, no lost core though		
		117.93 - 118.77: Only contains 38 cm of gravel; 46 cm of lost core over this interval.		
		118.77 - 120.48: Contains 50% laminated light grey argillite; 50% graphitic arg.		
		120.48 - 120.70: Diffuse quartz - carbonate vein; 0% graphitic argillite inclusions; <1% brownish aphanite, 2% pyrite; CA is 65°.		
		124.83 - 125.28: Laminated light grey argillite		
		123.50 - 125.28: Several minor folds, appears to have a moderate spaced axial plan cleavage.		
		127.40 - 130.12: Contains 30% laminated light grey argillite, numerous small folds.		

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INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		132.77 - 132.89 : Diffuse quartz - carbonate vein; 40% graphitic argillite inclusions; <1% galena, 3% fine pyrite; CA is irregular and averages about 80°.		
		136.27 - 136.46 : Diffuse quartz - carbonate vein; 50% graphitic inclusions.		
		138.68 - 139.45 : Blocky gore, minor fault or fracture zone.		
		141.21 - 141.75 : Contains 15% quartz - carbonate veins which locally contain ophalerite; 1% pyrite, <1% brownish ophalerite; very irregular CA's.		
		144.30 - 145.30 : Diffuse quartz - carbonate vein; 25% graphitic argillite inclusions; 3% pyrite, <1% brownish ophalerite disseminated; CA is irregular, average 60°.		
		145.78 - 146.75 : Diffuse white quartz - carbonate vein; 1% pyrite, trace ophalerite; 20% graphitic argillite inclusions; CA is 70°, irregular CA's.		
		148.78 - 149.17 : Lost Core, blocky		
		149.17 - 149.32 : White quartz - carbonate vein; no pyrite; CA is 50°.		

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DIAMOND DRILL LOG

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INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
149.89 - 166.73	GA, AR	Graphitic Argillite interbedded with light Grey Argillite. Laminated light grey and graphitic argillite, interbedded; convoluted, folded beds; irregular CA's; 15% quartz-carbonate veinlets; 1% fine pyrite; CA @ about 85°; minor fault @ 166.60.	CB	PY
		151.78 - 152.34: Blocky zone, all core recovered.		
		153.73 - 154.23: Blocky zone.		
		157.11 - 157.20: Quartz-carbonate vein; <1% chalcopyrite, no pyrite; irregular CA, average 80°, vein is a pod, does not go through.		
		160.78 - 160.86: Minor fault; CA is about 65°.		
		163.32 - 163.49: Quartz - carbonate - pyrite vein; contains 15% medium pyrite; CA irregular average 60°.		
		164.25 - 164.35: Carbonate - quartz - aplaite vein; 70% carbonate, Fg carbonate, no pyrite; 2% brownish aplaite; CA is irregular, average 70°.		
		166.60 - 166.73: Minor fault with fault gouge and a carbonate - quartz - pyrite vein; 5% medium pyrite; CA of fault appears to be about 85°.		

GRANGES EXPLORATION LTD.

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INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
166·73-179·62	GA	Graphitic Argillite Consist of laminated, blocky graphitic argillite; 6% quartz-carbonate veins, the larger veins are listed below; non magnetic; 1% fine pyrite; CA @ 179·62 appears to be 75°. 168·02-168·34: Blocky white quartz vein with 15% graphitic inclusions; CA is partially destroyed by coring and is irregular; 2% fine pyrite. 168·34-179·62: Blocky ground, most core is <7cm long. 177·70-178·00: Lost core.		PY
179·62-182·12	GA FT	Major Fault. Consists of very blocky graphitic argillite and black graphitic fault gouge; 12% quartz-carbonate veins up to 10 cm long, in core; non magnetic; 1% pyrite; CA @ 182·12 is destroyed by coring 179·62-180·14: Only contains 30 cm of graphitic rubble, remains of core lost over the interval. 180·14-180·90: Only contains 50 cm of rubble, remainder missing core.	CB	PY
182·12-238·73	GA, AR	Graphitic Argillite and Minor light grey Argillite. Overall contains about 78% graphitic argillite, 15% light grey argillite, 5% quartz veins, 2% dolomite; non magnetic; 1% pyrite; CA @ 238·73 is partially destroyed by coring and is about 60°.	CB GP	PY

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INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		191.67 - 193.41: Very blocky only contains 1.20 metres of core, remainder is lost core.		
		196.04 - 196.54: White quartz - carbonate vein; 15% graphitic inclusions; 5% fine pyrite; diffuse irregular CA's.		
		196.69 - 196.90: Lost Core.		
		196.90 - 197.31: Contains 20 cm of gravel, 21 cm of lost core over this interval.		
		199.18 - 199.50: Quartz - carbonate vein; 40% graphitic inclusions; 5% fine pyrite; CA is 65°.		
		199.95 - 200.50: Rubble and gravel core		
		208.83 - 209.88: Quartz - carbonate vein, diffuse 60% graphitic inclusions; 3% fine pyrite; very irregular CA's.		
		219.76 - 220.29: Rubble, only contains 35 cm of core; 18 cm of lost core in this interval.		
		224.14 - 224.33: Diffuse quartz - carbonate vein; 50% graphitic inclusions; 3% pyrite; irregular CA.		
		222.65 - 223.00: Lost core.		
		228.26 - 228.42: Lost core.		
		232.18 - 232.47: Diffuse quartz - carbonate vein; 30% graphite inclusions; 1% pyrite; CA is about 70°.		

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INTERVAL METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		233.26-233.34: Quartz-carbonate vein; 15% fine wispy lite graphite inclusions; 15% fine pyrite; CA is about 50°.		
		236.17-236.51: Quartz-carbonate vein; 25% graphite inclusions; <1% fine pyrite; CA is about 45°.		
		237.36-237.44: White quartz-carbonate vein; 15% wispy graphitic inclusions; trace pyrite; CA is 70°.		
		238.04-238.30: Quartz-carbonate vein; 25% graphitic inclusions; 5% carbonate, 1% pyrite; irregular CA.		
238.73-239.03	QCVN	Quartz-carbonate-Sphalerite-tetrahedrite-galena-chalcopyrite Overall contains about 30% graphitic inclusions, 15% wallrock carbonate, 2% fine pyrite, <1% brownish sphalerite, trace fine tetrahedrite? a fine grey sulphide mineral, trace galena, trace fine chalcopyrite; CA @ 238.73 is partially destroyed by coring, CA is about 60°; CA @ 239.03 is destroyed by coring.	Vein	SLTTCP
239.03-248.46	DO	Altered Dolomite. Bedding planes cannot be distinguished; alteration consists of 3% bright green fuchsite, 10% carbonate, 15% quartz-carbonate veins; non magnetic; <1% pyrite; CA @ 248.46 is irregular average is 65°.	CBFU	
		239.03-239.81: Contains 40% irregular diffuse quartz-carbonate veins; <1% pyrite, very irregular		

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INTERVAL / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		246.13-246.98: Diffuse quartz-carbonate vein; 50% altered dolomite inclusions; <1% pyrite; very irregular CA's.		
		246.98-247.85: Contains 25% diffuse carbonate-quartz veins; 1% pyrite; irregular CA's.		
248.46-255.12	GA	Graphitic Argillite.		
		Overall contains about 10% dolomite and 30% diffuse quartz-carbonate veins; bedding is disrupted by quartz-carbonate veins; non magnetic; 2% fine pyrite.	CBGP	SLPY
		248.46-248.72: Diffuse quartz-carbonate vein; 60% graphitic inclusions and graphitic wisps; 1% pyrite; CA is about 75°.		
		250.22-250.42: Diffuse quartz-carbonate vein; 30% graphitic inclusions; 1% brownish ophiolite; <1% pyrite; very irregular CA.		
		253.90-254.66: Diffuse quartz-carbonate vein; 40% graphitic inclusions; <1% pyrite CA is about 20°.		
255.12.		End of Hole.		

GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Page 17 of 25

Property ..... Project No. ..... Depth ..... Date Began .....

Hole No. Win-69. Co ord. ..... Horizontal Length ..... Date Completed .....

Claim No. ..... Core Size ..... Drilled By .....

Grid No. ..... Angle & Grid Direction ..... Elevation ..... Logged By .....

INTERVAL [redacted] / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE

Core Axis Angels of Bedding & Veins.

depth	angel	depth	angel	depth	angel
5	80	60	irregular	160	60 folds
10	80	70	0-90 folds	170	60
15	75 cleavage ⊥ to bedding	80	30 folds	180	80
20	85	90	contourted	190	80
25	55	100	vague	200	75
30	0-60 folded	110	contourted	210	60
35	65	120	70	220	80
40	50	130	70 folds	230	65 folds
45	60	140	folds	240	vague
50	75	150	"	250	75 irregular

- Casing was pulled.
- The hole was cemented to the top.

- Tro-Pari Survey.

	CORRECTED:	GRID AZIMUTH	
@ surface, azimuth is 221½° uncorrected for declination	→ 242½°	273½°	-54°
@ 13.7 m, " did not work, dip is 54°	→		-54°
@ 91.4 m, " is 226½° uncorrected, dip 53°	→ 247½°	278½°	-53°

- Acid test @ 236.8 m is 51° dip.

The core will be placed on racks near 10,000N / 4950E.

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31007 - 31020 C
31043 - 31049 C
28000 - 28023 S

GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property ..... Project No. ..... Depth ..... Date Began .....

Hole No. Win 69 Co ord. ..... Horizontal Length ..... Date Completed .....

Claim No. ..... Core Size ..... Drilled By .....

 Grid No. ..... Angle & Grid Direction ..... Elevation ..... Logged By .....

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE

CORE SAMPLES

Sample #	from	to	width	ASSAYS Au g/t	Ag g/t	
31050	2.44	2.66	0.22	.108	.9	
51	2.66	3.35	0.69	.119	.4	
52	3.35	3.60	0.25	.64	.1	only contains 10 cm. of core
53	3.60	4.28	0.68	.24	.3	
54	4.28	4.88	0.60	.94	.6	
31055	4.88	5.16	0.28	.60	.4	
	5.16	5.71	0.55	—	—	lost core
56	5.71	6.04	0.33	.19	.3	
57	6.04	6.47	0.43	.104	.5	
58	6.47	7.00	0.53	.06	.1	
59	7.00	7.65	0.65	.15	.4	
31060	7.65	8.27	0.62	.18	.5	
61	8.27	9.00	0.73	.40	.6	only contains 48 cm. of core
62	9.00	9.37	0.37	.69	.2	
63	9.37	10.31	0.94	.13	.4	
64	10.31	10.46	0.15	.09	<.10	
31065	10.46	10.84	0.38	.13	.3	
66	10.84	11.84	1.00	.03	.4	
	11.84	22.00	10.16	—	—	WASTE
67	22.00	22.72	0.72	.03	.6	
68	22.72	23.09	0.37	.27	.4	
69	23.09	23.70	0.61	<.03	.6	
31070	23.70	24.43	0.73	.13	.5	
71	24.43	25.15	0.72	.08	.3	
72	25.15	26.15	1.00	.08	.5	
73	26.15	26.95	0.80	.19	.8	33 cm. of lost core in this interval
74	26.95	27.43	0.48	.08	.7	
31075	27.43	27.93	0.50	.16	.7	
76	27.93	28.32	0.39	.04	.3	
77	28.32	29.32	1.00	.19	1.0	
78	29.32	30.09	0.77	.18	2.2	
79	30.09	30.14	0.05	.11	0.9	
31080	30.14	31.14	1.00	.25	2.0	
	31.14	42.24	11.10	—	—	WASTE

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Page 19 of 25

Property ..... Project No. ..... Depth ..... Date Began .....

Hole No. WIN - 69 Co-ord. ..... Horizontal Length ..... Date Completed .....

Claim No. ..... Core Size ..... Drilled By .....

Grid No. ..... Angle & Grid Direction ..... Elevation ..... Logged By .....

INTERVAL [redacted] / METRES		MAJOR GEOLOGICAL CODE	DESCRIPTION			INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
			CORE SAMPLES				
Sample #	from	to	width	ASSAYS Au g/t	Ag g/t		
31081	42.24	42.74	0.50	0.08	.6		
82	42.74	43.24	0.50	.16	.6		
83	43.24	43.38	0.14	<.03	.6		
84	43.38	43.60	0.22	.04	.9		
31085	43.60	44.13	0.53	.05	1.1		
86	44.13	44.36	0.23	.03	1.2		
87	44.36	44.86	0.50	.04	.8		
88	44.86	45.36	0.50	<.03	.9		
	45.36	47.80	2.44	—	WASTE		
89	47.80	48.30	0.50	<.03	.9		
31090	48.30	48.80	0.50	.10	1.2		
91	48.80	48.96	0.16	.12	1.9		
92	48.96	49.46	0.50	.07	1.0		
93	49.46	49.96	0.50	.03	.9		
[redacted]	49.96	52.50	2.54	—	WASTE		
94	52.50	53.06	0.56	<.03	.7		
31095	53.06	53.25	0.19	<.03	.9		
96	53.25	53.75	0.50	<.03	.8		
	53.75	58.74	4.99	—	WASTE		
97	58.74	59.74	1.00	.05	1.6		
98	59.74	60.37	0.63	.06	1.6		
99	60.37	61.17	0.80	.87	1.1		
31000	61.17	61.97	0.80	.04	1.0		
	61.97	62.12	0.15	—	LOST CORE		
01	62.12	63.12	1.00	.03	1.0		
02	63.12	63.87	0.75	.06	1.6		
03	63.87	64.13	0.26	.14	1.2		
04	64.13	65.13	1.00	.11	2.0		
31005	65.13	66.13	1.00	.96	1.8		
06	66.13	66.57	0.44	.08	1.4		
	66.57	66.75	0.18	—	LOST CORE		
07	66.75	67.41	0.66				
	67.41	68.33	0.92	—	LOST CORE		
08	68.33	69.50	1.17		ONLY CONTAINS 21 Cm. OF CORE		

GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property ..... Project No. ..... Depth ..... Date Began .....

Hole No. WIN 69 ..... Co ord. ..... Horizontal Length ..... Date Completed .....

Claim No. .... Core Size ..... Drilled By .....

Page 20 of 25 ..... Grid No. ..... Angle & Grid Direction ..... Elevation ..... Logged By .....

CORE SAMPLES

Sample #	from	to	width	ASSAYS Au g/t	Ag g/t	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
31009	69.50	70.35	0.85			ONLY CONTAINS 30 cm. OF CORE		
31010	70.35	70.60	0.25					
11	70.60	71.60	1.00					
12	71.60	72.50	0.90					
13	72.50	72.93	0.43					
14	72.93	73.68	0.75					
31015	73.68	74.48	0.80					
16	74.48	75.20	0.72					
17	75.20	75.85	0.65					
18	75.85	76.80	1.05					
19	76.80	77.01	0.21					
310 20	77.01	77.39	0.38					
21	77.39	77.52	0.13					
22	77.52	78.52	1.00	.40	1.2	PRIORITY BEGIN		
23	78.52	79.32	0.80	~~.04~~ .08	.8			
24	79.32	79.96	0.64	.10	.9		g/t	g/t
310 25	79.96	80.42	0.46	1.04	1.4		1.37m 5.62 Au	10.13 Ag
26	80.42	80.88	0.46	.41	1.2			
27	80.88	81.33	0.5	15.65	28.2			
28	81.33	81.85	0.52	.32	1.0			
29	81.85	82.35	0.50	.11	.4			
310 30	82.35	82.85	0.50	.10	.1			
31	82.85	83.15	0.30	.09	.1			
32	83.15	83.54	0.39	.19	.2			
33	83.54	83.77	0.23	.07	.2			
34	83.77	84.04	0.27	.05	.1			
310 35	84.04	84.12	0.08	.28	10.8			
36	84.12	84.37	0.25	.21	52.9			
310 38	84.37	84.72	0.35	.06	.6			
39	84.72	84.99	0.27	.98	2.1		0.77m 8.44 Au	39.04 Ag
31040	84.99	85.49	0.50	12.47	59.0			
	85.49	85.57	0.08			LOST CORE		
41	85.57	86.07	0.50	.21	1.3			
42	86.07	86.87	0.80	.18	1.0	END PRIORITY		

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DIAMOND DRILL LOG

ZONE:

Property ..... Project No. ..... Depth ..... Date Began .....

Hole No. WIN 69 ..... Co ord. ..... Horizontal Length ..... Date Completed .....

Claim No. ..... Core Size ..... Drilled By .....

Grid No. ..... Angle & Grid Direction ..... Elevation ..... Logged By .....

CORE SAMPLES

SAMPLE #	FROM	TO	WIDTH	ASSAYS Au g/t	ASSAYS Ag g/t	DESCRIPTION
	86.87	87.17	0.30			LOST CORE
31043	87.17	88.17	1.00			
44	88.17	88.85	0.68			
31045	88.85	89.01	0.16			
46	89.01	89.31	0.30			
47	89.31	89.54	0.23			
48	89.54	90.66	1.12			
49	90.66	91.20	0.54			
28050	91.20	92.20	1.00	.018 .04	.8 .7	
51	92.20	93.00	0.80	.19 .04	.4 .8	
52	93.00	93.67	0.67	.04 .03	.1 .6	
53	93.67	94.17	0.50	.24 .09	.3 .9	
	94.17	95.56	1.39	.06	.8	WASTE
54	95.56	96.06	0.50	.04 .06	.6 .8	
28055	96.06	96.52	0.46	.60 .07	.4 .9	
56	96.52	97.02	0.50	.19 .07	.3 .6	
	97.02	99.00	1.98	— —	— —	WASTE
57	99.00	99.42	0.42	.04 .06	.5 .7	
58	99.42	100.53	1.11	.06 .08	.1 .8	
59	100.53	101.14	0.61	.15 .07	.4 .7	
28060	101.14	102.14	1.00	.18 .05	.5 .7	
61	102.14	102.64	0.50	.40 .06	.6 .9	
62	102.64	103.23	0.59	.07 .07	.2 .8	
63	103.23	104.23	1.00	.13 .15	.4 1.2	
	104.23	108.51	4.28	— —	— —	WASTE
64	108.51	108.85	0.34	.09	< .1	
	108.85	109.12	0.27	— —	.3 —	LOST CORE
28065	109.12	109.31	0.19	.13 .05	.3 .4	
66	109.31	109.75	0.44	.03 .06	.4 .7	
	109.75	110.03	0.28	— —	—	LOST CORE
67	110.03	110.97	0.94	.03 .06	.6 .5	
68	110.97	111.27	0.30	.27 .04	.4 .5	
	111.27	111.40	0.13	— —	—	LOST CORE
69	111.40	112.15	0.75	< .03 .05	.6 .6	

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property ..... Project No. ..... Depth ..... Date Began .....

Hole No. WIN-69 Co ord. ..... Horizontal Length ..... Date Completed .....

Claim No. ..... Core Size ..... Drilled By .....

 Grid No. ..... Angle & Grid Direction ..... Elevation ..... Logged By .....

INTERVAL FEET / METRES		MAJOR GEOLOGICAL CODE	DESCRIPTION					INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
			CORE SAMPLES						
Sample #	from	to	width	ASSAYS Au g/t		Ag g/t			
28070	112.15	112.65	0.50	.13	.06	.5	.7		
[redacted]	112.65	119.48	6.83	—	—	—	—		
71	119.48	120.48	1.00	.08	.09	.3	.8		
72	120.48	120.70	0.22	.08	.07	.5	1.6		
73	120.70	121.70	1.00	.19	.10	.8	1.2		
	121.70	131.77	10.07	—	—	—	—		WASTE
74	131.77	132.77	1.00	.04	.07	0.7	.7		
28075	132.77	132.89	0.12	.16	.10	.7	1.1		
76	132.89	133.89	1.00	.04	.13	.8	1.4		
	133.89	135.27	1.38	—	—	1.0	—		WASTE
77	135.27	136.27	1.00	.19	.07	2.2	.8		
78	136.27	136.46	0.19	.18	.06	0.9	.6		
79	136.46	137.46	1.00	.11	.06		.7		
	137.46	140.71	3.25	—	—	—	—		WASTE
28080	140.71	141.21	0.50	.25	.11	2.0	1.0		
81	141.21	141.75	0.54	.08	.10	.6	.7		
82	141.75	142.25	0.50	.16	.10	.6	.8		
	142.25	143.80	1.55	—	—	—	—		WASTE
83	143.80	144.30	0.50		.11		.9		
84	144.30	144.80	0.50	< .03	.07	.6	.8		
28085	144.80	145.30	0.50	.04	.09	.9	1.6		
86	145.30	145.78	0.48	.05	.12	1.1	1.3		
87	145.78	146.25	0.47	.03	.08	.2	.5		
88	146.25	146.75	0.50	.04	.09	.8	.7		
89	146.75	147.75	1.00	< 0.03	.11	.4	1.0		
28090	147.75	148.78	1.03	< 0.03	.11	.9	.8		
	148.78	149.17	0.39	—	—	—	—		LOST CORE
91	149.17	149.32	0.15	.12	.08	1.6	.4		
92	149.32	150.32	1.00	.07	.08	1.0	.4		
	150.32	156.61	6.29	—	—	—	—		WASTE
93	156.61	157.11	0.60	.03	.09	.9	.7		
94	157.11	157.20	0.09	< .03	.13	.7	.9		
28095	157.20	158.70	0.50	< .03	.12	.4	.9		
	158.70	162.32	3.62	—	—	—	—		WASTE

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property ..... Project No. ..... Depth ..... Date Began .....

Hole No. WIN-69 Co ord. ..... Horizontal Length ..... Date Completed .....

Clairn No. ..... Core Size ..... Drilled By .....

 Grid No. ..... Angle & Grid Direction ..... Elevation ..... Logged By .....

INTERVAL FEET / METRES		MAJOR GEOLOGICAL CODE		DESCRIPTION			INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
				CORE SAMPLES				
SAMPLE #	from	to	width	ASSAYS Au g/t		Ag g/t		
28096	162.32	163.32	1.00	.15		.9		
97	163.32	163.49	0.17	.04		.9		
98	163.49	164.25	0.76	.04		1.0		
99	164.25	164.35	0.10	.05		.6		
33100	164.35	165.35	1.00	< .03		.3		
01	165.35	166.00	0.65	< .03		.3		
02	166.00	166.60	0.60	.07		.6		
03	166.60	166.73	0.13	.88		.6		
04	166.73	167.52	0.79	.13		.8		
33105	167.52	168.02	0.50	.17		.4		
06	168.02	168.34	0.32	.07		.4		
07	168.34	169.34	1.00	.10		1.4		
	169.34	195.04	— waste —					
08	195.04	196.04	1.00	0.19		1.3		
09	196.04	196.54	0.50	.15		.5		
33110	196.54	196.69	0.15.	.20		.9		
	196.69	196.90	0.21 LOST CORE.					
11	196.90	197.31	0.41	.26		1.3	only contains 20 cm of core.	
	197.31	198.18	— waste —					
12	198.18	199.18	1.00.	.27		1.1		
13	199.18	199.50.	0.32	.13		.5		
14	199.50	199.95	0.45	.18		1.3		
33115	199.95	200.50	0.55	.09		.4		
16	200.50	201.50	1.00	.91		1.1		
	201.50	207.83	— waste —					
17	202.83	208.83	1.00.	.12		.5		
18.	208.83	209.88	1.05.	.13		.5		
19	209.88	210.88	1.00.	.15		.5		
	210.88	223.33	— waste —	.16		.6		
33120	223.33	224.14	0.81	.16		.6		
21	224.14	224.33	0.19	.16		.2		
22	224.33	225.33	1.00.	.17		.6		
	225.33	231.18	— waste —					
33123	231.18	232.18.	1.00.	.28		.9		

GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property ..... Project No. ..... Depth ..... Date Began .....

Hole No. Win-69 ..... Co ord. ..... Horizontal Length ..... Date Completed .....

Claim No. ..... Core Size ..... Drilled By .....

 Grid No ..... Angle & Grid Direction ..... Elevation ..... Logged By .....

INTERVAL / METRES		MAJOR GEOLOGICAL CODE	DESCRIPTION			INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
			Core.				
Sample#	from	to	width	A group. Au g/t.	Ag g/t.		
33124.	232.18	232.47	0.29	.27	.4		
33125	232.47	233.26	0.79.	.13	.6		
26	233.26	233.34	0.18.	.12	.4		
27	233.34	234.34	1.00	.26	.6		
28	234.34	235.34	1.00	.19	.6		
29.	235.34	236.17	0.83	.21	.3		
33130	236.17	236.51	0.24	.12	<.1		
31	236.51	237.36.	0.85	.14	.1		
32	237.36	237.44	0.08.	.08	.1		
33	237.44	238.04	0.60	.13	.4		
34	238.04	238.30	0.26.	.09	.3		
33135	238.30	238.73	0.43	.12	.5		
36	238.73	239.03.	0.30	.17	.3		
37	239.03	239.81.	0.78.	.12	.1		
38	239.81	240.81	1.00.	.10	.1		
39	240.81	241.81.	1.00	.08	.1		
	241.81	245.13	— waste —				
33140	245.13	246.13.	1.00	.12	<.1		
41	246.13	246.98	0.85	.11	<.1		
42	246.98	247.85	0.87	.09	<.1		
43	247.85	248.46	0.61	.10	<.1		
44	248.46	248.72.	0.26	.11	.1		
33145	248.72	249.42.	0.70	.20	.8		
46	249.42	250.22	0.80	.12	.5		
47	250.22	250.42	0.20	.09	.3		
48	250.42	251.42	1.00	.12	.5		
	251.42	252.90	— waste —				
33149	252.90	253.90	1.00.	.14	.3		
33200	253.90	254.66	0.76.	.24	.9		
33201	254.66	255.12.	0.46.	.07	.1		
	255.12	EOH.					

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Sample Record Sheet

GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN 69 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Page 25 of 25 Grid No. Angle & Grid Direction Elevation Logged By

INTERVAL / METRES		MAJOR GEOLOGICAL CODE	ASSAY		DESCRIPTION SLUDGES	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
Sample#	FROM	TO	WIDTH	Au			
28000-X	9.14	10.97	1.83	.24			
28001-X	10.97	14.02	3.05	.65			
28002-X	14.02	17.07	3.05	.10			
28003-X	17.07	20.12	3.05	.06			
28004-X	20.12	23.16	3.04	.08			
28005-X	23.16	26.21	3.05	.78			
28006-X	26.21	29.26	3.05	.45			
28007-X	29.26	32.31	3.05	.35			
28008-X	32.31	35.36	3.05	.09			
28009-X	35.36	38.40	3.04	.02			
28010-X	38.40	41.45	3.05	.02			
28011-X	41.45	44.50	3.05	.60			
28012-X	44.50	47.55	3.05	.55			
28013-X	47.55	50.60	3.05	.10			
28014-X	50.60	53.64	3.04	.12			
28015-X	53.64	56.69	3.05	.02			
28016-X	56.69	59.74	3.05	.02			
28017-X	59.74	62.79	3.05	.35			
28018-X	62.79	65.84	3.05	.35			
28019-X	65.84	68.88	3.04	.10			
28020-X	68.88	71.93	3.05	.02			
28021-X	71.93	74.98	3.05	.02			
28022-X	74.98	78.02	3.05	.44			
28023-X	78.02	81.08	3.06	.75			
	81.08				LOST WATER		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

SLUDGE 1 of 1

Property ..... Project No. ..... Depth ..... Date Began .....

Hole No. WIN 69 ..... Co ord. ..... Horizontal Length ..... Date Completed .....

Claim No. .... Core Size SLUDGES ..... Drilled By .....

Grid No. ..... Angle & Direction ..... Elevation ..... Logged By .....

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
9.14 - 10.97	28000	1.83																	
10.97 - 14.02	01	3.05																	
14.02 - 17.07	02	3.05																	
17.07 - 20.12	03	3.05																	
20.12 - 23.16	04	3.04																	
23.16 - 26.21	28005	3.05																	
26.21 - 29.26	06	3.05																	
29.26 - 32.31	07	3.05																	
32.31 - 35.36	08	3.05																	
35.36 - 38.40	09	3.04																	
38.40 - 41.45	28010	3.05																	
41.45 - 44.50	11	3.05																	
44.50 - 47.55	12	3.05																	
47.55 - 50.60	13	3.05																	
50.60 - 53.64	14	3.04																	
53.64 - 56.69	28015	3.05																	
56.69 - 59.74	16	3.05																	
59.74 - 62.79	17	3.05																	
62.79 - 65.84	18	3.05																	
65.84 - 68.88	19	3.04																	
68.88 - 71.93	28020	3.05																	
71.93 - 74.98	21	3.05																	
74.98 - 78.02	22	3.05																	
78.02 - 81.08	23	3.06																	
81.08	-																		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

P-1 of 6

Property WINDFLOWER Project No. 224 Depth 255.12 Date Began JUNE 14/87

Hole No. WIN-69 Co ord. 102534 Horizontal Length Date Completed JUNE 23/87

Claim No. 5022E Core Size N.Q Drilled By M&B Drilling

Grid No. Angle & Direction -55° W Elevation Logged By W.S. FERREIRA

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 2.44	CASING																		
2.44 - 2.66	31050	.22	.08	.9															
2.66 - 3.35	51	.69	.19	.4															
3.35 - 3.60	52	.25	.04	.1															
3.60 - 4.28	53	.68	.24	.3															
4.28 - 4.88	54	.60	.94	.6															
4.88 - 5.16	31055	.28	.60	.4															
5.16 - 5.71	WASTE	.55																	
5.71 - 6.04	56	.33	.19	.3															
6.04 - 6.47	57	.43	.04	.5															
6.47 - 7.00	58	.53	.06	.1															
7.00 - 7.65	59	.65	.15	.4															
7.65 - 8.27	31060	.62	.18	.5															
8.27 - 9.00	61	.73	.40	.6															
9.00 - 9.37	62	.37	.09	.2															
9.37 - 10.31	63	.94	.13	.4															
10.31 - 10.46	64	.15	.09	.1															
10.46 - 10.84	31065	.38	.13	.3															
10.84 - 11.84	66	1.00	.03	.4															
11.84 - 22.00	WASTE	10.16																	
22.00 - 22.72	67	.72	.03	.6															
22.72 - 23.09	68	.37	.27	.4															
23.09 - 23.70	69	.61	.03	.6															
23.70 - 24.43	31070	.73	.13	.5															
24.43 - 25.15	71	.72	.08	.3															
25.15 - 26.15	72	1.00	.08	.5															
26.15 - 26.95	73	.80	.19	.8															
26.95 - 27.43	74	.48	.08	.7															
27.43 - 27.93	31075	.50	.16	.7															
27.93 - 28.32	76	.39	.04	.3															
28.32 - 29.32	77	1.00	.19	1.0															
29.32 - 30.09	78	.77	.18	2.2															
30.09 - 30.14	79	.05	.11	.9															
30.14 - 31.14	31080	1.00	.25	2.0															
31.14 - 42.24	WASTE	11.10																	
42.24 - 42.74	31081	.50	.08	.6															
42.74 - 43.24	82	.50	.16	.6															
43.24 - 43.38	83	.14	.03	.6															
43.38 - 43.60	84	.22	.04	.9															
43.60 - 44.13	31085	.53	.05	1.1															

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

P. 2 of 6

Property ..... Project No. ..... Depth ..... Date Began .....

Hole No. WIN-69 ..... Co ord. ..... Horizontal Length ..... Date Completed .....

Claim No. .... Core Size ..... Drilled By .....

Grid No. ..... Angle & Direction ..... Elevation ..... Logged By .....

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
44.13 - 44.36	86	.23	.03	1.2															
44.36 - 44.86	87	.50	.04	.8															
44.86 - 45.36	88	.50	.03	.9															
45.36 - 47.80	WASTE	2.44																	
47.80 - 48.30	89	.50	.03	.9															
48.30 - 48.80	31090	.50	.10	1.2															
48.80 - 48.96	91	.16	.12	1.9															
48.96 - 49.46	92	.50	.01	1.0															
49.46 - 49.96	93	.50	.03	.9															
49.96 - 52.50	WASTE	2.54																	
52.50 - 53.06	94	.56	.03	.7															
53.06 - 53.25	31095	.19	.03	.9															
53.25 - 53.75	96	.50	.03	.8															
53.75 - 58.74	WASTE	4.99																	
58.74 - 59.74	97	1.00	.05	1.6															
59.74 - 60.37	98	.63	.06	1.6															
60.37 - 61.17	99	.80	.87	1.1															
61.17 - 61.97	31000	.80	.04	1.0															
61.97 - 62.12	LOST	.15																	
62.12 - 63.12	01	1.00	.03	1.0															
63.12 - 63.87	02	.75	.06	1.6															
63.87 - 64.13	03	.26	.14	1.2															
64.13 - 65.13	04	1.00	.11	2.0															
65.13 - 66.13	31005	1.00	.96	1.8															
66.13 - 66.57	06	.44	.08	1.4															
66.57 - 66.75	LOST	.18																	
66.75 - 67.41	07	.66	.12	1.1															
67.41 - 68.33	LOST	.92	.11	1.0															
68.33 - 69.50	08	1.17	.10	1.0															
69.50 - 70.35	31009	.85	.10	1.1															
70.35 - 70.60	31010	.25	.07	.8															
70.60 - 71.60	11	1.00	.10	1.1															
71.60 - 72.50	12	.90	.09	.9															
72.50 - 72.93	13	.43	.15	1.0															
72.93 - 73.68	14	.75	.07	.8															
73.68 - 74.48	31015	.80	.14	1.3															
74.48 - 75.20	16	.72	.11	.8															
75.20 - 75.85	17	.65	.12	1.1															
75.85 - 76.80	18	1.05	.13	1.0															
76.80 - 77.01	19	.21	.14	.6															

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

P-3 of 6

Property ..... Project No. ..... Depth ..... Date Began .....

Hole No. WIN-69 Co ord. ..... Horizontal Length ..... Date Completed .....

Claim No. ..... Core Size ..... Drilled By .....

Grid No. ..... Angle & Direction ..... Elevation ..... Logged By .....

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES						
														WIDTH	Au.	Ag.	Cu.	Zn.		
77.01 - 77.39	31020	.38	.06	1.0																
77.39 - 77.52	21	.13	.39	.6																
77.52 - 78.52	22	1.00	.44	1.2																
78.52 - 79.32	23	.80	.08	.8																
79.32 - 79.96	24	.64	.10	.9																
79.96 - 80.42	31025	.46	1.04	1.4																
80.42 - 80.88	26	.46	.41	1.2																
80.88 - 81.33	27	.55	15.65	28.2										0.55	15.65	28.2				80.88 - 81.33
81.33 - 81.85	28	.52	.32	1.0																
81.85 - 82.35	29	.50	.11	.4																
82.35 - 82.85	31030	.50	.10	.1																
82.85 - 83.15	31	.30	.09	.1																
83.15 - 83.54	32	.39	.19	.7																
83.54 - 83.77	33	.23	.07	.7																
83.77 - 84.04	34	.27	.05	.1																
84.04 - 84.12	31035	.08	.28	10.8																
84.12 - 84.37	36	.25	.21	52.9										0.33						84.04 - 84.37
84.37 - 84.72	38	.35	.06	6																
84.72 - 84.99	39	.27	.98	7.1																
84.99 - 85.49	31040	.50	12.47	59.0										0.50	12.47					84.99 - 85.49
85.49 - 85.57	LOST	.08	.																	
85.57 - 86.07	41	.50	.21	1.3																
86.07 - 86.87	42	.80	.18	1.0																
86.87 - 87.17	LOST	.30																		
87.17 - 88.17	31043	1.00	.15	1.0																
88.17 - 88.85	44	.68	.17	1.2																
88.85 - 89.01	31045	.16	.37	5.4																
89.01 - 89.31	46	.30	.13	.4																
89.31 - 81.54	47	.23	.10	.7																
81.54 - 90.66	48	1.12	.13	.8																
90.66 - 91.20	49	.54	.09	1.2																
91.20 - 92.20	28050	1.00	.4	.7																
92.20 - 93.00	51	.80	.4	.8																
93.00 - 93.67	52	.67	.03	.6																
93.67 - 94.17	53	.50	.09	.9																
94.17 - 95.56	WASTE	1.39																		
95.56 - 96.06	54	.50	.06	.8																
96.06 - 96.52	28055	.46	.06	.9																
96.52 - 97.02	56	.50	.01	.6																

GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

Core P-4 of 6

Property ..... Project No. ..... Depth ..... Date Began .....

Hole No. Wm.69 ..... Co ord. ..... Horizontal Length ..... Date Completed .....

Claim No. .... Core Size ..... Drilled By .....

Grid No. ..... Angle & Direction ..... Elevation ..... Logged By .....

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
97.02 - 99.00	WASTE	1.98																	
99.00 - 99.42	57	.42	.06	.7															
99.42 - 100.53	58	1.11	.08	.8															
100.53 - 101.14	59	.61	.01	.7															
101.14 . 102.14	28060	1.00	.05	.7															
102.14 - 102.64	61	.50	.06	.9															
102.64 - 103.23	62	.59	.07	.8															
103.23 - 104.23	63	1.00	.15	1.7															
104.23 - 108.51	WASTE	4.28																	
108.51 - 108.85	64	.34	.07	.7															
108.85 - 109.12	LOST																		
109.12 - 109.31	28065	.19	.05	.4															
109.31 - 109.75	66	.44	.06	.7															
109.75 - 110.03	LOST																		
110.03 - 110.97	67	.94	.06	.5															
110.97 - 111.27	68	.30	.01	.5															
111.27 - 111.40	LOST	.13																	
111.40 - 112.15	69	.75	.05	.6															
112.15 - 112.65	28070	.50	.06	.7															
112.65 - 119.48	WASTE	6.83																	
119.48 - 120.48	71	1.00	.09	.8															
120.48 - 120.70	72	.22	.07	.6															
120.70 - 121.70	73	1.00	.10	1.7															
121.70 - 131.77	WASTE	10.07																	
131.77 - 132.77	74	1.00	.07	.7															
132.77 - 132.89	28075	.12	.10	1.1															
132.89 - 133.89	76	1.00	.13	1.4															
133.89 - 135.27	WASTE	1.38																	
135.27 - 136.27	77	1.00	.01	.8															
136.27 - 136.46	78	.19	.06	.6															
136.46 - 137.46	79	1.00	.06	.7															
137.46 - 140.71	WASTE	3.25																	
140.71 - 141.21	28080	.50	.11	1.0															
141.21 - 141.75	81	.54	.10	.7															
141.75 - 142.25	82	.50	.10	.8															
142.25 - 143.80	WASTE	1.55																	
143.80 - 144.30	83	.50	.11	.9															
144.30 - 144.80	84	.50	.07	.8															
144.80 - 145.30	28085	.50	.09	.8															
145.30 - 145.78	86	.48	.17	1.3															

GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

P-5 of 6

Property ..... Project No. ..... Depth ..... Date Began .....

Hole No. W.N.69 ..... Co ord. ..... Horizontal Length ..... Date Completed .....

Claim No. .... Core Size ..... Drilled By .....

Grid No. ..... Angle & Direction ..... Elevation ..... Logged By .....

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
145.78 - 146.25	87	.47	.08	.5															
146.25 - 146.75	88	.50	.09	.7															
146.75 - 147.75	89	1.00	.11	1.0															
147.75 - 148.78	28090	1.03	.11	.8															
148.78 - 149.17	LOST	.39																	
149.17 - 149.32	91	.15	.08	.3															
149.32 - 150.32	92	1.00	.08	.4															
150.32 - 156.61	WASTE	6.29																	
156.61 - 157.11	93	.60	.09	.7															
157.11 - 157.20	94	.09	.13	.9															
157.20 - 158.20	28095	.50	.17	.9															
158.20 - 162.32	WASTE	3.62																	
162.32 - 163.32	96	1.00	.12	.9															
163.32 - 163.49	97	.17	.15	.9															
163.49 - 164.25	98	.76	.04	1.0															
164.25 - 164.35	99	.10	.05	.6															
164.35 - 165.35	33100	1.00	.03	.3															
165.35 - 166.00	01	.65	.03	.3															
166.00 - 166.60	02	.60	.07	.6															
166.60 - 166.73	03	.13	.88	.6															
166.73 - 167.52	04	.79	.13	.8															
167.52 - 168.02	331.05	.50	.17	.4															
168.02 - 168.34	.06	.32	.07	.1															
168.34 - 169.34	.07	1.00	.10	1.4															
169.34 - 195.04	WASTE																		
195.04 - 196.04	08	1.00	.19	1.3															
196.04 - 196.54	09	.50	.15	.5															
196.54 - 196.69	33110	.15	.20	.9															
196.69 - 196.90	LOST	.21																	
196.90 - 197.31	11	.41	.26	1.3															
197.31 - 198.18	WASTE																		
198.18 - 199.18	12	1.06	.21																
199.18 - 199.50	13	.32	.13	.5															
199.50 - 199.95	14	.45	.18	.8															
199.95 - 200.50	33115	.55	.09	.6															
200.50 - 201.50	16	1.00	.91	1.1															
201.50 - 207.83	WASTE																		
207.83 - 208.83	17	1.00	.12	.5															
208.83 - 209.88	18	1.05	.13	.5															
209.88 - 210.88	19	1.00	.15	.5															

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DIAMOND DRILL RECORD

P-6 of 6

Property ..... Project No. ..... Depth ..... Date Began .....

Hole No. W.W. 69 Co ord. ..... Horizontal Length ..... Date Completed .....

Claim No. .... Core Size ..... Drilled By .....

Grid No. ..... Angle & Direction ..... Elevation ..... Logged By .....

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
210.88-223.33	WASTE																		
223.33-224.14	331.20	.81	.16	.6															
224.14-224.33	21	.19	.16	.2															
224.33-225.33	22	1.00	.17	.6															
225.53-231.18	WASTE																		
231.18-232.18	331 23	1.00	.28	.9															
232.18-232.47	24	.29	.27	.4															
232.47-232.76	25	.29	.13	.6															
232.76-233.34	26	.18	.12	.4															
233.34-234.34	27	1.00	.26	.6															
234.34-235.34	28	1.00	.19	.6															
235.34-236.17	29	.83	.21	.3															
236.17-236.51	33130	.34	.12	.1															
236.51-237.36	31	.85	.14	.1															
237.36-237.44	32	.08	.08	.1															
237.44-238.04	33	.60	.13	.4															
238.04-238.30	34	.26	.09	.3															
238.30-238.73	33135	.43	.12	.5															
238.73-239.03	36	.30	.17	.3															
239.03-239.81	37	.78	.12	.1															
239.81-240.81	38	1.00	.10	.1															
240.81-241.81	39	1.00	.08	.1															
241.81-245.13	WASTE																		
245.13-246.13	33140	1.00	.12	2.1															
246.13-246.98	41	.85	.11	2.1															
246.98-247.85	42	.87	.09	2.1															
247.85-248.46	43	.61	.10	2.1															
248.46-248.72	44	.26	.11	.1															
248.72-249.42	33145	.70	.20	.8															
249.42-250.22	46	.80	.12	.5															
250.22-250.42	47	.20	.09	.3															
250.42-251.42	48	1.00	.12	.5															
251.42-252.90	WASTE																		
252.90 253.90	33149	1.00	.14	.3															
253.90-254.66	332.00	.76	.24	.9															
254.66-255.12	332 01	.46	.07	.1															
255.12-EOH																			

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DIAMOND DRILL RECORD

P-6 or 6

Property ..... Project No. ..... Depth ..... Date Began .....

Hole No. W.W. 69 Co ord. ..... Horizontal Length ..... Date Completed .....

Claim No. .... Core Size ..... Drilled By .....

Grid No. ..... Angle & Direction ..... Elevation ..... Logged By .....

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
210.88 - 223.33	WASTE																		
223.33 - 224.14	331.20	.81	.16	.6															
224.14 - 224.33	21	.19	.16	.2															
224.33 - 225.33	22	1.00	.17	.6															
225.53 - 231.18	WASTE																		
231.18 - 232.18	331.23	1.00	.28	.9															
232.18 - 232.47	24	.29	.27	.4															
232.47 - 232.26	25	.79	.13	.6															
233.26 - 233.34	26	.18	.12	.1															
233.34 - 234.34	27	1.00	.26	.6															
234.34 - 235.34	28	1.00	.19	.6															
235.34 - 236.17	29	.83	.21	.3															
236.17 - 236.51	33130	.34	.17	.1															
236.51 - 237.36	31	.85	.14	.1															
237.36 - 237.44	32	.08	.08	.1															
237.44 - 238.04	33	.60	.13	.4															
238.04 - 238.30	34	.26	.09	.3															
238.30 - 238.73	33135	.43	.12	.5															
238.73 - 239.03	36	.30	.17	.3															
239.03 - 239.81	37	.78	.12	.1															
239.81 - 240.81	38	1.00	.10	.1															
240.81 - 241.81	39	1.00	.08	.1															
241.81 - 245.13	WASTE																		
245.13 - 246.13	33140	1.00	.12	<.1															
246.13 - 246.98	41	.85	.18	<.1															
246.98 - 247.85	42	.87	.09	<.1															
247.85 - 248.46	43	.61	.10	<.1															
248.46 - 248.72	44	.26	.11	.1															
248.72 - 249.42	33145	.70	.20	.8															
249.42 - 250.22	46	.80	.12	.5															
250.22 - 250.42	47	.20	.09	.3															
250.42 - 251.42	48	1.00	.12	.5															
251.42 - 252.90	WASTE																		
252.90 253.90	33149	1.00	.14	.3															
253.90 - 254.66	33200	.76	.24	.9															
254.66 - 255.12	33201	.46	.07	.1															
255.12 - EOH																			

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Sludge
ATION LTD.
LL LOG

Property WINDFLOWER Project No. 224 Depth 120.09 Date Began June 23/87
Hole No. WIN-70 Co ord. ~~10284 N~~ 10277.13 N Horizontal Length Date Completed June 26/87
Claim No. L-12480 ~~5049 E~~ 5051.15 E Core Size H.Q. Drilled By M & B DRILLING
Page 1 Grid No. Angle & Grid Direction -48° West GRID Elevation ~~2013.70~~ 1061.00 Logged By P.J. DeJong & Scott Weeks.

SAME LOCATION AS 40

DESCRIPTION	~~INTERVAL FEET/METRES~~ AFTER ATTEN	MINOR GEOLOGICAL ~~CODE~~
CASING START OF CORE = 1.37		MINERAL
SILICIFIED GREY PHYLLITE and ARGILLITE scattered qtz veinlets and stringers partly oxidized Trace PYRITE, calcareous.	SI OX CB	QS
GREY PHYLLITE and ARGILLITE Sections silicified and calcareous. scattered qtz stringers and veinlets. odd narrow Dolomite Section.	SI LM	QS
18.53 – 19.63 scattered qtz veining & veinlets.		
EAST ZONE – QUARTZ – IRON CARBONATE (ANKERITE) VEINING and PHYLLITE – ARGILLITE INTERLAYERED.	AN	
25.30 – 25.75 – 24.6 cm qtz carbonate veinlet nearly parallel to core with smears & blebs sphalerite, galena, & TRACE Pyrite		SL, GL PY
26.39 – 26.67 grey qtz vein & ANKERITE – ARGILLITE	AN	
27.12 – 28.43 white to grey qtz vein. TRACE Pyrite. 27.12 – 27.43 TRACE Pb – Zn.		PY SL GL
28.95 – 29.62 White – grey qtz vein with ANKERITE TR. Pb – Zn.	CB	GL SL
30.02 – 30.23 qtz – carbonate vein TRACE Pyrite.		PY
30.23 – 31.09 qtz – carbonate veinlets – PHYLLITE – ARGILLITE TRACE PYRITE with VISIBLE GOLD @ 30.36.		VG
GREY PHYLLITE with ARGILLACEOUS SECTIONS. scattered qtz stringers, veinlets & veining – TRACE PYRITE		QS, GL SL
31.82 – 32.15 grey – white qtz vein with CARBONATE @ 32.03 – 21.3 cm stringer qtz – carbonate with TR Pb – Zn – Py	CB	GL SL
32.98 – 33.53 qtz veinlets.		

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,753

33202 - 33333 Core
30500 - 30531 Sludge

GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property WINDFLOWER Project No. 224 Depth 120.09 Date Began June 23/87

Hole No. WIN-70 Co ord. ~~10284N~~ 10277.13N Horizontal Length Date Completed June 26/87

Claim No. L-12480 ~~5049E~~ 5051.15E Core Size H.Q. Drilled By M & B DRILLING

Page 1 Grid No. Angle & Grid Direction -48° West GRID Elevation ~~3213.70~~ 1061.00 Logged By P.J. DeJonk & Scott Weeks.

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
~~0 - 2.44~~ 1.37	CSG	CASING START OF CORE = 1.37		MINERAL
1.37 - 8.01	PHAR	SILICIFIED GREY PHYLLITE and ARGILLITE scattered qtz veinlets and stringers partly oxidized Trace PYRITE, calcareous.	SI OX CB	QS
8.01 - 25.30	PHAR	GREY PHYLLITE and ARGILLITE Sections silicified and calcareous. scattered qtz stringers and veinlets. odd narrow Dolomite Section.	SILM	QS
	QV	18.53 - 19.63 scattered qtz veining & veinlets.		
25.30 - 31.09	QCVN	EAST ZONE - QUARTZ - IRON CARBONATE (ANKERITE) VEINING and PHYLLITE - ARGILLITE INTERLAYERED.	AN	
	QC	25.30 - 25.75 - 24.6 cm qtz carbonate veinlet nearly Parallel to Core with smeared blebs Sphalerite, Galena, & Trace Pyrite		SL, GL PY
	QVAR	26.39 - 26.67 grey qtz vein & ANKERITE - ARGILLITE	AN	
	QV	27.12 - 28.43 white to grey qtz vein. Trace Pyrite. 27.12 - 27.43 Trace Pb - Zn.		PY SL GL
	QV	28.95 - 29.62 white - grey qtz vein with ANKERITE Tr. Pb - Zn.	CB	GL SL
	QC	30.02 - 30.23 qtz - Carbonate vein Trace Pyrite.		PY
*	QC	30.23 - 31.09 qtz - Carbonate veinlets - PHYLLITE - ARGILLITE Trace Pyrite with VISIBLE GOLD @ 30.36.		VG
31.09 - 36.15	PHAR	GREY PHYLLITE with ARGILLACEOUS SECTIONS. scattered qtz stringers, veinlets & veining - TRACE PYRITE		QS, GL SL
	QVQC	31.82 - 32.15 grey - white qtz vein with CARBONATE @ 32.03 - 21.3 cm stringer qtz - carbonate with Tr Pb - Zn - Py 32.98 - 33.53 qtz stringers.	CB	GL SL

GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE: Page 2

Property: Project No. 224 Depth: Date Began:

Hole No. WIN-224 Co ord. Horizontal Length: Date Completed:

Claim No. Core Size: Drilled By:

Grid No. Angle & Grid Direction: Elevation: Logged By:

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
36.15 – 39.86	QV QC /	WHITE QUARTZ and CARBONATE VEINS with NARROW Sections ARGILLITE (EAST ZONE) TRACE to 2% PYRITE TRACE LEAD @ 36.92, 37.06, 37.18, 39.50		QV PY GL
39.86 – 41.54	DO	DOLOMITE TRACE PYRITE		
41.54 – 45.11	QV	EAST ZONE – WHITE QUARTZ VEIN with the odd NARROW Section DOLOMITE NARROW Section CONTAINING TR to 2% PYRITE, TR Pb. VISIBLE GOLD @ 44.16, 44.26		VG PY GL
45.11 – 50.78	DOAR	SILICEOUS DOLOMITE & SILICEOUS ARGILLITE Scattered q.t.z Veinlets & Stringers. CALCAREOUS.	SI CB	QS
50.78 – 52.12	QV	EAST ZONE – GREY to WHITE QUARTZ VEIN TRACE to 2% PYRITE 51.66 – 52.12 TRACE GALENA.		PY GL
52.12 – 70.14	DO	DOLOMITE with NARROW ARGILLACEOUS SECTIONS Scattered q.t.z Stringers & Veinlets		QS
		52.82 – 53.03 8.2cm q.t.z Carbonate Stringer with 1-2% Pb-Zn PY & TR CPY.	CB	GL SL PY CP
		@56.69 – 2.58 cm band with Pebbles		
		56.66 – 58.21 Scattered q.t.z Veinlets, & Carbonate – TR PY.	CB	PY
		58.32 – 58.96 1% Pyrite		PY
		66.17 – 66.93 brecciated, q.t.z Stringers.		QS
		68.31 – 69.27 SILICIFIED MASSIVE DOLOMITE – q.t.z – Carbonate Stringers	SI	QS

GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE: Page 3

Property ..... Project No. ..... Depth ..... Date Began .....

Hole No. ..... Co ord. ..... Horizontal Length ..... Date Completed .....

Claim No. ..... Core Size ..... Drilled By .....

Grid No. ..... Angle & Grid Direction ..... Elevation ..... Logged By .....

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		@ 69.52 1 cm qtz-carb Veinlet – 60% Pyrite		
70.14 – 71.15	DOMx	MASSIVE DOLOMITE – SILICIFIED, Tr. Pyrite.	SI	
71.15 – 80.34	DOAR	INTERBEDDED DOLOMITE – ARGILLITE – SILICIFIED – qtz stringers – Pyrite. Tr–1% Limy.	SI	QS, PY
	QV	72.32 – 72.72 Qtz Vein, Tr Calcite Tr Pyrite.		
		72.72 – 75.68 30% blebs and Stringers. Tr Py, cPy, Pb.		QS, cPy
	QV	75.23 – 76.37 qtz Vein minor Calcite.		
	QV	76.37 – 77.23 5 cm qtz Vein 20° Core Angle.		
	QVBx	77.57 – 78.00 qtz vein – brecciated – minor Calcite.		
		79.61 – 80.34 qtz flooding – Tr Py, calcite.		
80.34 – 81.70	DO	SILICIFIED DOLOMITE – qtz Calcite Stringers.	SI	QSCA
81.70 – 85.22	AR	ARGILLITE Intensely deformed many small qtz stringers, minor brecciation. limy Veinlets, Trace Pyrite. 84.27 – 84.50 Carbonate Veinlets – Vuggy.		
85.22 – 87.91	DO	DOLOMITE – SILICIFIED, qtz Carbonate stringers. – Tr to 1% Pyrite. – MARKEDLY ALTERATION.	SIMP	QS

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE: Page 4

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN-70 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Grid Direction Elevation Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
87.91 - 95.45	QVSX	QUARTZ VEIN & SULPHIDE ZONE (MAIN ZONE)		PYAR
		87.91 - 89.32 1% ARGENTITE, 1-5% PYRITE FINE & COARSE GRAINED		
		89.32 - 90.20 30% PYRITE, TRACE GRAPHITE		
		90.20 - 95.45 BULL white qtz with 1.5 cm sections of MASSIVE PYRITE		
95.45 - 103.09	ARSH	ARGILLITE SHEARED with qtz augen, limey sections. MANY small qtz sections. 1-3% PYRITE.	LM	PY
103.09 - 106.38	DOAR	INTERBEDDED DOLOMITE / ARGILLITE INTENSELY deformed with zones of qtz flooding. MINOR CALCITE TR see to 2% PYRITE.		PY
106.38 - 107.90	ARBN	ARGILLITE well banded - MINOR graphite, broken up.		
107.90 - 128.1	DOMX	DOLOMITE MASSIVE, SILICIFIED with MARIPSIC.	SIMP	
	QV	112.67 - 112.90 QTZ VEIN, barren		
E.O.H.	QV	113.22 - 113.41 QTZ VEIN, barren.		

GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE: Page 5

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN-70 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Grid Direction Elevation Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		SUMMARY OF MINERALIZATION.		
25.30 - 31.09	QVQCPH	EAST ZONE - Qtz - Iron Carbonate Veining with Phyllite / Argillite Interlayered tr Py, Pb, Zn. Visible Gold @ 30.36		VG PY GL SL
36.15 - 39.86	QVQC	EAST ZONE - White Qtz & Carbonate Veins with narrow sections Argillite. Trace to 2% Pyrite, tr. Pb.		PY
44.54 - 45.11	QV	EAST ZONE - White Qtz Vein with Narrow bands Dolomite. Narrow sections containing tr - 2% Pyrite. Trace lead. Visible Gold @ 44.60, 44.76		VG PY
50.76 - 52.12	QV	EAST ZONE - Grey to White Quartz Vein Trace to 2% Pyrite, tr Pb.		PY GL
87.91 - 95.45	QVSX	MAIN ZONE - Qtz Vein & Sulphide Zone	GP	PYAG
		87.91 - 89.32 1% Argentite, 1-5% Py fn & coarse.		
		89.32 - 90.20 30% Py. tr Graphite.		
		90.20 - 95.45 White qtz with 1.5 cm sections massive Py.		
112.67 - 112.90	QV	qtz Vein - barren		
113.22 - 113.41	QV	" " "		
		ACID TEST @ 91.44 = 45° 45'		
		HOLE CEMENTED (30 BAGS) TOP to BOTTOM.		
		CASING PULLED.		

10500-30531 5

GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

Property: WINDFLOWER | Project No.: 224 | Depth: 120.09 | Date Began: JUNE 23/87

Hole No.: WW-70 | Co ord.: ~~10284N~~ 10277.13 | Horizontal Length: | Date Completed: JUNE 26/87

Claim No.: L-12480 | ~~5049E~~ 5051.15 | Core Size: N.Q. | Drilled By: M & B. DRILLING

Grid No.: | Angle & Direction: -48° W GRID | Elevation: ~~2013.70~~ 1061.00 | Logged By: P. J. DeJong & Scott Weeks

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.	Boron	Cowley
0 - 2.44	CASING	2.44	START OF CORE 1.52																	
0 - 1.52	WASTE	1.52	—																	
1.52 - 1.98	33202	0.46	.09	.1																
1.98 - 3.05	33203	1.07	.09	.1																
3.05 - 3.66	WASTE	0.61	—																	
3.66 - 4.27	33204	0.61	.33	<.1																
4.27 - 5.09	waste	0.82																		
5.09 - 5.79	33205	0.70	.10	.3																
5.79 - 6.19	WASTE	0.40	—																	
6.19 - 6.92	33206	0.73	.07	.1																
6.92 - 7.18	WASTE	0.26																		
7.18 - 7.62	33207	0.44	.08	<.1																
7.62 - 11.89	WASTE	4.27	—																	
11.89 - 12.34	33208	0.45	.45	.4																
12.34 - 13.72	WASTE	1.38	—																	
13.72 - 14.02	33209	0.30	0.0	<.1																
14.02 - 16.79	WASTE	2.77	—																	
16.76 - 16.98	33210	0.22	.12	<.1																
16.98 - 18.53	WST	1.55	—																	
18.53 - 18.90	33211	0.37	.08	<.1																
18.90 - 19.23	33212	0.33	.07	<.1																
19.23 - 19.63	33213	0.40	.08	.1																
19.63 - 24.99	WST	5.36	—																	
24.99 - 25.30	33214	0.31	.41	1.6																
25.30 - 25.76	33215	0.46	.52	1.3																
25.76 - 26.06	33216	0.30	.12	.1																
26.06 - 26.36	33217	0.30	.25	.4																
26.36 - 26.39	WST	0.03	—																	
26.39 - 26.67	33218	0.28	.17	<.1																
26.67 - 27.13	33219	0.46	.19	.8																
27.13 - 27.43	WST	0.30	—																	
27.43 - 27.74	33220	0.31	.71	.4																
27.74 - 27.95	33221	0.21	.37	.3																
27.95 - 28.49	33222	0.54	.10	<.1																
28.49 - 29.26	33223	0.77	.10	<.1																
29.26 - 29.63	33224	0.37	.22	<.1																
29.63 - 30.02	33225	0.39	.09	.2																
30.02 - 30.30	33226	0.28	.11	.8																
30.30 - 30.48	33227	0.18	.28	.4																
30.48 - 30.78	33228	0.30	.31	.5																

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PAGE 2

GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

Property: WINDFLOWER | Project No.: 224 | Depth: | Date Began: JUNE 23/87
Hole No.: WIN 70 | Co ord.: 10.284 N | Horizontal Length: | Date Completed: JUNG 26/87
Claim No.: L-12480 | 5049 E | Core Size: NQ | Drilled By: M&B DRILLING
Grid No.: | Angle & Direction: -48°W GRID | Elevation: 2013.70 | Logged By: P.S. Deveaux & WEEKS.

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY	AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.	
30.78 - 31.24	33229	0.46	1.42	.7										
31.24 - 31.76	32230	0.52	.26	.7										
31.76 - 32.09	33231	0.33	.13	.7										
32.09 - 32.61	33232	0.52	.12	8.6										
32.61 - 33.29	33233	0.68	.10	.3										
33.29 - 33.53	33234	0.24	.64	.4										
33.53 - 34.14	33235	0.61	.28	.7										
34.14 - 34.75	33236	0.61	.10	.2										
34.75 - 35.36	33237	0.61	.36	.8										
35.36 - 35.69	33238	0.33	.07	.4										
35.69 - 36.15	33239	0.46	.16	.6					0.67m	1.18				
36.15 - 36.61	33240	0.46	1.17	.9										
36.61 - 36.82	33241	0.21	1.19	1.0										
36.82 - 37.50	33242	0.68	.60	.4										
37.50 - 38.01	33243	0.51	.84	1.0										
38.01 - 38.34	33244	0.33	.27	.4										
38.34 - 38.89	33245	0.55	.35	.6										
38.89 - 39.32	33246	0.43	1.31	.5										
39.32 - 39.72	33247	0.40	.39	1.1										
39.72 - 39.97	33248	0.25	.11	.1										
39.97 - 40.54	33249	0.57	.76	.5										
40.54 - 41.15	33250	0.61	.21	.3										
41.15 - 41.54	33251	0.39	.24	.5										
41.54 - 42.26	33252	0.72	.19	.3										
42.26 - 42.67	33253	0.41	.14	.2										
42.67 - 43.18	33254	0.51	.29	.6										
43.18 - 43.49	33255	0.31	1.55	.6					1.20m	4.89				43.18 - 44.38
43.49 - 44.07	33256	0.58	.20	.4										
44.07 - 44.38	33257	0.31	17.02	1.4										
44.38 - 44.59	33258	0.21	.92	1.0										
44.59 - 45.11	33259	0.52	.56	.6										
45.11 - 45.72	33260	0.61	.92	.8										
45.72 - 46.33	33261	0.61	.69	.6										
46.33 - 48.10	WSS	1.77	—	—										
48.10 - 48.55	33262	0.45	.75	2.7										
48.55 - 49.77	WSS	1.27	—	—										
49.77 - 50.47	33263	0.70	.15	.5										
50.47 - 50.78	33264	0.31	3.54	2.2					0.30m	2.35				50.47 - 51.27
50.78 - 51.27	33265	0.49	1.60	.9										
51.27 - 51.66	33266	0.39	.50	.8										

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

Property ..... Project No. 224 Depth ..... Date Began .....

Hole No. WIN 70 Co ord. ..... Horizontal Length ..... Date Completed .....

Claim No. .... Core Size ..... Drilled By .....

Grid No. ..... Angle & Direction ..... Elevation ..... Logged By .....

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
51.66 - 52.12	33267	0.46	0.80	1.1															
52.12 - 52.73	33268	0.61	.11	.5															
52.73 - 52.82	33269	0.09	.11	.7															
52.82 - 53.03	33270	0.09	.09	5.4															
53.03 - 53.34	33271	0.31	.07	.1															
53.34 - 55.01	WST	1.67	—	.															
55.01 - 55.23	33272	0.22	.12	.5															
55.23 - 56.66	WST	1.43	—																
56.66 - 57.15	33273	0.49	.09	.5															
57.15 - 57.61	33274	0.46	.26	.4															
57.61 - 57.91	33275	0.30	.06	.3															
57.91 - 58.46	33276	0.55	.09	.2															
58.46 - 60.85	WST	2.39	—																
60.85 - 64.13	33277	0.28	.24	.3															
64.13 - 66.07	WST	1.94	—																
66.07 - 66.33	33278	0.26	.09	.4															
66.33 - 66.93	33279	0.60	.05	.4															
66.93 - 67.90	33280	0.97	.08	.3															
67.90 - 68.31	33281	0.41	.08	.3															
68.31 - 69.27	33282	0.96	.06	.4															
69.27 - 70.14	33283	0.87	.06	.3															
70.14 - 71.15	WST	1.01	—																
71.15 - 71.99	33284	0.84	.09	.5															
71.99 - 72.32	33285	0.33	.09	.4															
72.32 - 72.72	33286	0.40	.21	.2															
72.72 - 73.22	33287	0.50	.06	.4															
73.22 - 73.79	WST	0.57	—																
73.79 - 74.29	33288	0.50	.07	.5															
74.25 - 75.01	33289	0.76	.09	.5															
75.01 - 75.68	33290	0.67	.06	.4															
75.68 - 76.37	33291	0.69	.08	.4															
76.37 - 76.81	33292	0.44	.10	.3															
76.81 - 77.23	33293	0.42	.07	.4															
77.23 - 77.57	WST	0.34	—																
77.57 - 78.00	33294	0.43	.09	.5															
78.00 - 78.57	33295	0.57	.08	.2															
78.57 - 78.88	33296	0.31	.04	.2															
78.88 - 79.61	33297	0.27	.14	.3															
79.61 - 80.34	33298	0.73	.10	.2															
80.34 - 80.77	33299	0.43	.11	.2															

GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

PAGE 4

Property ..... Project No. 224 Depth ..... Date Began .....

Hole No. WIN 70 Co ord. ..... Horizontal Length ..... Date Completed .....

Claim No. .... Core Size ..... Drilled By .....

Grid No. ..... Angle & Direction ..... Elevation ..... Logged By .....

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.	
80.77 - 81.17	33300	0.40	.27	.3			
81.17 - 84.27	WST	3.10	—				
84.27 - 84.51	33301	0.24	.08	.2			
84.51 - 86.20	WST	1.69	—				
86.20 - 86.66	33302	0.44	.09	.9			
86.66 - 87.48	33303	0.82	.15	.2			
87.48 - 88.02	33304	0.56	1.00 - 1.1#				
88.02 - 88.68	33305	0.66	.84	1.9			
88.68 - 89.21	33306	0.53	8.83	12.0			
89.21 - 89.71	33307	0.50	26.82	27.1			
89.71 - 90.23	33308	0.52	55.15	25.3			
90.23 - 90.74	33309	0.51	.72	2.1			
90.74 - 91.17	33310	0.43	.53	2.0			
91.17 - 91.89	33311	0.72	12.18	23.9			
91.89 - 92.27	33312	0.38	3.38	9.9			
92.27 - 92.85	33313	0.58	2.33	14.5			
92.85 - 93.23	33314	0.38	1.22	2.3			
93.23 - 93.74	33315	0.51	3.55	14.9			
93.74 - 94.24	33316	0.50	1.13	2.2			
94.24 - 94.74	33317	0.50	4.24	9.9			
94.74 - 95.24	33318	0.50	16.45	32.3			
95.24 - 95.50	33319	0.26	3.81	5.4			
95.50 - 95.93	33320	0.43	1.53	4.9			
95.93 - 96.43	33321	0.50	.70	1.2			
96.43 - 97.02	33322	0.59	.65	1.0			
97.02 - 98.38	33323	1.36	.17	.3			
98.38 - 99.06	33324	0.68	.69	.8			
99.06 - 99.59	33325	0.53	1.29	2.2			
99.59 - 100.09	33326	0.50	.20	.6			
100.09 - 100.39	33327	0.30	.12	.1			
100.39 - 100.77	WST	0.38					
100.77 - 101.24	33328	0.47	.14	.2			
101.24 - 101.65	33329	0.41	.69	.3			
101.65 - 102.58	33330	0.93	.18	.4			
102.58 - 103.21	33331	0.63	.20	.4			
103.21 - 107.18	WST	3.97					
107.18 - 107.86	33332	0.68	.13	.3			
107.86 - 108.33	33333	0.47	.26	.4			
108.33 - 116.32	WST	7.99	—				
116.32 - 116.62	33334	0.30	.23	.3			

WIDTH X ASSAY

AVERAGES

WIDTH	Au.	Ag.	Cu.	Zn.		
	UNCUT		Cu+			
	73.661					
7.25m	10.15					88.68 - 95.93
	72.94		62.08			
6.82	10.695		9.10			88.68 - 95.50

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

PAGE 5

Property ..... Project No. 224 ..... Depth ..... Date Began .....

Hole No. WIN 70 ..... Co ord. ..... Horizontal Length ..... Date Completed .....

Claim No. ..... Core Size ..... Drilled By .....

Grid No. ..... Angle & Direction ..... Elevation ..... Logged By .....

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
116.32 - 116.58	WST	0.50	—																
116.88 - 117.10	33335	0.22	.15	.4															
117.10 - 120.09	waste	2.99	—																
F.O.H.																			
			ACID TEST @ 91.44 =					45°45'											
			HOLE CEMENTED TOP to BOTTOM (30 BAGS)																
			CASING PULLED.																

GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

SLUDGE P-1 OF 1

Property WINDFLOWER Project No. 224 Depth 120.09 Date Began JUNE 23/87

Hole No. WIN-70 Coord. 10 284 N Horizontal Length Date Completed JUNE 26/87

Claim No. L-12480 50 49 E Core Size N Q Drilled By H & B DRILLING

Grid No. Angle & Direction -48° W GRID Elevation 2013.70 Logged By P.J. Deveaux Scott Weeks Byron Couley

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
1.22 - 3.35	30500	2.13	.02																
3.35 - 6.40	30501	3.05	.02																
6.40 - 10.67	N.S.S.	4.27	~~NE~~																
10.67 - 13.72	30503	3.05	.02																
13.72 - 16.76	30504	3.03	.02																
16.76 - 19.81	30505	3.05	.02																
19.81 - 22.80	30506	2.99	.02																
22.86 - 25.91	30507	3.05	.08																
25.91 - 28.96	30508	3.05	.10																
28.96 - 32.00	30509	3.04	.80																
32.00 - 35.05	30510	3.05	.85																
35.05 - 38.10	30511	3.05	.95																
38.10 - 41.15	30512	3.05	1.05																
41.15 - 44.20	30513	3.05	1.95																
44.20 - 47.24	30514	3.04	5.84																
47.24 - 50.29	30515	3.05	1.36																
50.29 - 53.34	30516	3.05	1.42																
53.34 - 56.39	30517	3.05	.69																
56.39 - 59.44	30518	3.05	.51																
59.44 - 62.48	30519	3.04	.36																
62.48 - 65.53	30520	3.05	.32																
65.53 - 68.58	30521	3.05	.19																
68.58 - 71.63	30522	3.05	.06																
71.63 - 74.68	30523	3.05	.28																
74.68 - 77.73	30524	3.05	.07																
77.73 - 80.78	30525	3.05	.16																
80.78 - 83.83	30526	3.05	.29																
83.83 - 86.88	30527	3.05	.31																
86.88 - 89.92	30528	3.04	5.26																
89.92 - 92.96	30529	3.04	10.92																
92.96 - 96.01	30530	3.05	3.95																
96.01 - 99.06	30531	3.05	2.05																
99.06 - 120.09	No Sludge	21.03																	
E.O.H.																			

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30532 - 30578 Shudya Complete

GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

Page 1 of 4

Property: WINDFLOWER
Project No.: 224
Depth: 148.74
Date Began: JUNE 27/87
Hole No.: WIN-71
Co ord.: ~~10284N~~ 10277.13N ~~5049E~~ 5051.15E
Horizontal Length:
Date Completed: JUNE 30/87
Claim No.: L 12480
Core Size: N.Q.
Drilled By: M & B DRILLING, P.J. DEVEAU &
Grid No.:
Angle & Direction: -62° W GRID
Elevation: ~~2013.70~~ 1061.00
Logged By: B. Cowley, M. Cantwell

SAME LOCATION AS WIN-40

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 1.22	CASING	1.22																	
1.22 - 3.16	WASTE	1.84	—																
3.16 - 3.76	33336	0.60	.09	.5															
3.76 - 5.03	33337	1.27	.07	.5															
5.03 - 5.55	WASTE	0.52	—																
5.55 - 6.16	33338	0.61	.08	.2															
6.16 - 6.86	33339	0.70	.10	.4															
6.86 - 23.83	WASTE	16.97	—																
23.83 - 24.23	33340	0.40	.10	.3															
24.23 - 24.80	WASTE	0.57	—																
24.80 - 25.05	33341	0.25	.13	.5															
25.05 - 28.95	WASTE	3.90	—																
28.95 - 29.06	33342	0.11	.11	.9															
29.05 - 30.23	WASTE	1.18	—																
30.23 - 30.54	33343	0.31	.46	.7															
30.54 - 30.93	33344	0.39	.71	1.2															
30.93 - 31.36	33345	0.43	.62	.5															
31.36 - 31.64	33346	0.28	1.10	.9															
31.64 - 32.05	33347	0.41	.39	.8															
32.05 - 32.16	33348	0.11	.49	1.6															
32.16 - 32.44	33349	0.28	1.88	1.3															
32.44 - 32.82	33350	0.38	.78	1.3															
32.82 - 33.36	33351	0.54	.43	.7															
33.36 - 33.83	33352	0.47	1.48	1.6															
33.83 - 34.28	33353	0.45	.16	.4															
34.28 - 34.67	33354	0.39	.21	.5															
34.67 - 34.93	33355	0.26	.18	.5															
34.93 - 35.36	33356	0.43	.60	1.0															
35.36 - 35.96	33357	0.60	.41	.8															
35.96 - 36.32	33358	0.36	.11	.8															
36.32 - 36.79	33359	0.47	.26	.6															
36.79 - 37.07	33360	0.28	2.62	2.1															
37.07 - 37.55	33361	0.48	.28	.8															
37.55 - 39.40	WASTE	1.85	—																
39.40 - 39.70	33362	0.30	.84	1.1															
39.70 - 40.20	33363	0.50	8.59	4.5	9.87			4.293											
40.20 - 40.75	33364	0.55	2.95	.9				1.623											
40.75 - 41.17	33365	0.42	.25	.5				.105											
41.17 - 41.45	33366	0.28	1.35	.9				.378											
41.45 - 41.65	33367	0.20	100.4	31.6				20.08											

103.80

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,753

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

Page 2 of 4

Property: WINDFLOWER | Project No.: 224 | Depth: | Date Began:

Hole No.: WIN-71 | Co ord.: | Horizontal Length: | Date Completed:

Claim No.: | | Core Size: | Drilled By:

Grid No.: | Angle & Direction: | Elevation: | Logged By:

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
41.65 - 41.80	33368	0.15	348 K	119.2	347.6 c			52.2											
41.80 - 42.08	33369	0.28	9.24	3.7															
42.08 - 42.50	33370	0.42	.25	.2				.15						3.45 K	33.76				
42.50 - 42.76	333 71	0.26	9.52	.5															
42.76 - 42.90	333 72	0.14	235 K	142.5	234.5 c			32.9											
42.90 - 43.15	333 73	0.25	1.71	.6															
43.15 - 43.65	333 74	0.50	.38	.3															
43.65 - 44.15	333 75	0.50	.59	1.3															
44.15 - 44.50	333 76	0.35	.98	.9															
44.50 - 45.18	33377	0.68	.87	1.2															
45.18 - 46.39	WASTE	1.21	—	—															
46.39 - 46.55	33378	0.16	.34	1.3															
46.55 - 48.53	WASTE	1.98	—	—															
48.53 - 48.90	33379	0.37	1.11	1.4															
48.90 - 53.11	WASTE	4.21	—	—															
53.11 - 53.64	33380	0.53	.124	1.0															
53.64 - 54.77	WASTE	1.13	—	—															
54.77 - 55.42	33381	0.65	.39	.9															
55.42 - 55.99	WASTE	0.57	—	—															
55.99 - 56.58	33382	0.59	.19	.7															
56.58 - 57.77	WASTE	1.19	—	—															
57.77 - 58.10	33383	0.33	.16	.3															
58.10 - 59.50	WASTE	1.40	—	—															
59.50 - 60.10	33384	0.60	.18	.4															
60.10 - 66.66	WASTE	6.56	—	—															
66.66 - 66.91	33385	0.25	.21	.6															
66.91 - 70.26	WASTE	3.35	—	—															
70.26 - 70.68	33386	0.42	.23	.3															
70.68 - 71.20	WASTE	0.52	—	—															
71.20 - 71.74	33387	0.54	.29	.3															
71.74 - 87.22	WASTE	15.48	—	—															
87.22 - 88.39	33388	1.17	.18	.2															
88.39 - 92.67	WASTE	4.28	—	—															
92.67 - 92.95	33389	0.28	.23	1.1															
92.95 - 106.98	WASTE	14.03	—	—															
106.98 - 107.26	33390	0.28	.29	.5															
107.26 - 107.59	33391	0.33	.19	1.0															
107.59 - 107.89	33392	0.30	.20	.6															
107.89 - 108.88	33393	0.99	.26	1.3															
108.88 - 109.22	33394	0.34	.67	1.8															

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN - 71 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Direction Elevation Logged By

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.		
109.22 - 109.94	33395	0.72	.18	.6																
109.94 - 110.26	LOST CORE	0.32	—	—																
110.26 - 111.20	WASTE	0.94	—	—																
111.20 - 111.78	33396	0.58	.120	1.3																
111.78 - 112.48	33397	0.70	.18	1.0																
112.48 - 113.09	33398	0.61	.16	.7																
113.09 - 113.53	33399	0.44	.25	1.3																
113.53 - 116.78	WASTE	3.25	—	—																
116.78 - 117.28	33400	0.50	.15	.9																
117.28 - 117.65	33401	0.37	.16	.7																
117.65 - 118.11	33402	0.46	.19	1.0																
118.11 - 119.16	WASTE	1.05	—	—																
119.16 - 119.56	33403	0.40	.16	1.1																
119.56 - 121.15	WASTE	1.59	—	—																
121.15 - 121.35	33404	0.20	.15	.6																
121.35 - 123.20	WASTE	1.85	—	—																
123.20 - 123.41	33405	0.21	.13	1.2																
123.41 - 124.97	WASTE	1.56	—	—																
124.97 - 125.58	33406	0.61	.120	.9																
* 125.58 - 126.05	WASTE	0.47	—	—																
126.05 - 126.69	33407	0.63	.22	.8																
126.69 - 127.36	33408	0.67	.16	1.0																
127.36 - 129.01	WASTE	1.65	—	—																
129.01 - 129.68	33409	0.67	.19	1.1																
129.68 - 132.21	WASTE	2.53	—	—																
132.21 - 132.33	33410	0.12	.22	1.3																
132.33 - 134.41	WASTE	2.08	—	—																
134.41 - 134.71	33411	0.30	.23	1.4																
134.71 - 136.05	WASTE	1.34	—	—																
136.05 - 136.43	33412	0.38	.44	1.7																
136.43 - 137.00	33413	0.57	.69	2.3																
137.00 - 137.37	33414	0.37	.31	2.9																
137.37 - 137.89	33415	0.52	18.48	15.1																
137.89 - 138.23	33416	0.34	18.84	51.9																
138.23 - 138.76	33417	0.53	33.81	48.9										3.23m (10.6 FT	14.38g/T 0.419oz/T)					137.00 - 140.60
138.76 - 139.27	33418	0.51	18.44	23.1																
139.27 - 139.66	33419	0.39	11.14	8.2																
139.66 - 140.10	33420	0.44	5.22	10.0																
140.10 - 140.60	33421	0.50	1.23	2.1																
140.60 - 141.12	33422	0.52	.22	1.5																

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

Page 4 of 4

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN-71 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Direction Elevation Logged By

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
141.21 - 141.61	33423	0.40	.17	1.8															
141.61 - 142.90	WASTE	1.29	—	—															
142.90 - 143.43	33424	0.53	.123	1.0															
143.43 - 144.51	WASTE	1.08	—	—															
144.51 - 144.76	33425	0.25	.25	1.6															
144.76 - 145.47	WASTE	0.71	—	—															
145.47 - 145.81	33426	0.34	.28	1.3															
145.81 - 148.74	WASTE	2.93	—	—															
													GRID AZIMUTH						
			TROPARI @ 9.14 = 224° @ -62°										276°	-62°					
			TREPANI @ 145.1 = 225.5° @ -59°										277°	-59°					
			ACID @ 148.13 = 58° 30'																
			HOLE CEMENTED TOP to BOTTOM																
			CASING LESS SHOE LEFT IN HOLE																

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

SLUDGE

Property WINDFLOWER | Project No. 224 | Depth 174.14 | Date Began JUNE 27/87
Hole No. WIN-71 | Co ord. 10284 N | Horizontal Length | Date Completed JUNE 30/87
Claim No. L12480 | 5049E | Core Size N.Q | Drilled By M & B DRILLING
Grid No. | Angle & Direction -62° W GRID | Elevation 2013.70 | Logged By P.J. Deveaux B. Cooley, M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
4.88 - 7.92	30532	3.04	.02																
7.92 - 10.97	30533	3.05	.03																
10.97 - 14.02	30534	3.05	.07																
14.02 - 17.07	30535	3.05	.18																
17.07 - 20.12	30536	3.05	.31																
20.12 - 23.17	30537	3.05	.10																
23.17 - 26.22	30538	3.05	.09																
26.22 - 29.26	30539	3.04	.12																
29.26 - 32.31	30540	3.05	1.10																
32.31 - 35.36	30541	3.05	2.81																
35.36 - 38.41	30542	3.05	2.64																
38.41 - 41.45	30543	3.04	29.40																
41.45 - 44.50	30544	3.05	71.10																
44.50 - 47.55	30545	3.05	2.85																
47.55 - 50.60	30546	3.05	5.56																
50.60 - 53.65	30547	3.05	2.20																
53.65 - 56.70	30548	3.05	4.95																
56.70 - 59.74	30549	3.04	3.93																
59.74 - 62.79	30550	3.05	4.01																
62.79 - 65.84	30551	3.05	3.90																
65.84 - 68.89	30552	3.04	2.58																
68.89 - 71.93	30553	3.04	1.99																
71.93 - 74.98	30554	3.05	1.51																
74.98 - 78.02	30555	3.04	1.32																
78.02 - 81.07	No Sludge	-	—																
81.07 - 84.12	30557	3.05	.82																
84.12 - 87.17	30558	3.05	.73																
87.17 - 90.22	30559	3.05	1.03																
90.22 - 93.27	30560	3.05	.87																
93.27 - 96.32	30561	3.05	1.07																
96.32 - 99.36	30562	3.04	.43																
99.36 - 102.41	30563	3.05	.66																
102.41 - 105.46	30564	3.05	.42																
105.46 - 108.51	30565	3.05	.98																
108.51 - 111.57	30566	3.06	.96																
111.57 - 114.60	30567	3.03	.64																
114.60 - 117.65	30568	3.05	1.07																
117.65 - 120.70	30569	3.05	.61																
120.70 - 123.75	30570	3.05	.45																
123.75 - 126.80	30571	3.05	.40																

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DIAMOND DRILL RECORD

PAGE 2 of 2

Property ..... Project No. 224 ..... Depth ..... Date Began .....

Hole No. WIN 71 ..... Co ord. ..... Horizontal Length ..... Date Completed .....

Claim No. .... Core Size ..... Drilled By .....

Grid No. ..... Angle & Direction ..... Elevation ..... Logged By .....

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
126.80 – 129.84	30572	3.04	.34																
129.84 – 132.89	30573	3.05	1.25																
132.89 – 135.94	30574	last Rtn	—																
135.94 – 138.99	30575	"	—																
138.99 – 142.03	30576	"	—																
142.03 – 145.08	30577	"	—																
145.08 – 148.13	30578	"	—																
Tag 30579 + 30580	Not Used																		

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DIAMOND DRILL LOG

ZONE:

Property WINDFLOWER Project No. 224 Depth 52.12 Date Began June 27/87

Hole No. W1U-72 Co ord. 10 206N Horizontal Length Date Completed June 30/87

Claim No. L 12481 5039.5W ? 4960.5N Core Size N. Q. Drilled By M & B. Drilling

Page Grid No. Angle & Grid Direction -47° H41°E GRID Elevation 1996 Logged By P.J. DeJoux

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,755

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
0 – 4.87	CSG	CASING		
4.87 – 20.40	DO	DOLOMITE Scattered qtz blebs & stringers, TRACE PYRITE. and very narrow Section of ARGILLITE		
	QV	6.21 – 6.4 qtz veining.		
20.40 – 39.93	DOBR	BADLY BROKEN DOLOMITE with SILICEOUS SECTIONS. TRACE PYRITE.	SI	
	QV	27.0 – 27.4 qtz veining with Carbonate Stringers.	CB	
* 39.93 – 46.4	QCSX	MAIN ZONE – QUARTZ – CARBONATE VEIN and SULPHIDE ZONE	AN	VG FY CP
		TRACE to SOLID SULPHIDE		
		42.07 – 43.48 IRON CARBONATE (ANKERITE) VEIN – TRACE PYRITE.	AN	VG PY
		(42.07 – 42.34 HIGH GRADE GOLD) TR. CPY.		
		43.64 – 45.48 NEAR SOLID – SOLID SULPHIDE PYRITE		PY
46.4 – 48.3	QVAR	QUARTZ VEIN and ARGILLITE TRACE PYRITE.		
48.3 – 50.6	DO	DOLOMITE TRACE PYRITE.		
50.				
50.6 – 52.12	GABX	PYRITIZED GRAPHITIC ARGILLITE	LM	PY
		Limy & Brecciated with Dolomite Sections.		
E.O.H.				
		AC10 @ 52.12 = 45° 30'		
		RODS, BIT SWIVEL Lost in HOLE		

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28100 – 28119 [illegible]
NO SLUDGE SHEET

GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

Property: WINDFLOWER | Project No.: 224 | Depth: 52.12 | Date Began: June 27/87
Hole No.: WIN – 72 | Co ord.: 10206N | Horizontal Length: | Date Completed: June 30/87
Claim No.: L 12481 | 5039.5W ? 4960.50N | Core Size: N.Q. | Drilled By: M & B Drilling
Grid No.: | Angle & Direction: -47° N41°E GRID | Elevation: 1990.1 1038.3 ? | Logged By: P.J. DeJent, B. Cowley, M. Caltwell

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.		
0 – 4.87	CASING	4.87	—	—																
4.87 – 6.21	waste	1.39	—	—																
6.21 – 6.40	28100	0.19	.33	.7																
6.40 – 39.53	WASTE	33.13	—	—																
39.53 – 39.93	28101	0.40	.65	1.6																
39.93 – 40.43	28102	0.53	12.50	24.5																
40.43 – 40.99	28103	0.56	25.90	24.6																
40.99 – 41.35	28104	0.36	14.00	11.1																
41.35 – 42.07	28105	0.72	17.40	34.4																
42.07 – 42.36	28106	0.29	1270.00	182.3																
42.36 – 42.77	28107	0.41	4.25	5.9										5.55m	85.11					39.93 – 45.48
42.77 – 43.39	28108	0.62	3.91	2.3										(18.21FT	2.48 oz/T)					
43.39 – 43.80	28109	0.41	18.60	28.5																
43.80 – 44.24	28110	0.44	19.40	54.1																
44.24 – 44.64	28111	0.40	12.20	34.8																
44.64 – 44.92	28112	0.28	74.70	265.0																
44.92 – 45.48	28113	0.56	34.40	49.5																
45.48 – 46.00	28114	0.52	1.46	5.5																
46.00 – 46.40	28115	0.40	1.18	2.1										6.47m	73.20					39.93 – 46.40
46.40 – 46.74	WASTE	0.34	—	—										(21.23FT	2.135	oz/T)				
46.74 – 47.09	28116	0.35	.73	.8																
47.09 – 47.45	28117	0.36	.23	.9																
47.45 – 48.30	28118	0.85	.64	.8																
48.30 – 49.04	28119	0.74	.92	.6																
49.04 – 52.12	waste	3.08	—	—																
E.O.H.																				
				ACID @	52.12 = 45° 30'															
					RODS, BIT, SHELL LOST IN HOLE															

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

Property: WINDFLOWER | Project No.: [illegible] | Depth: 52.12 | Date Began: June 27/87

Hole No.: WIN - 72 | Co ord.: 10206N | Horizontal Length: | Date Completed: June 30/87

Claim No.: L 12481 | 5039.5W | Core Size: N-Q | Drilled By: M & B Drilling

Grid No.: | Angle & Direction: -47° N41°E GRID | Elevation: 1990.1 | Logged By: P.J. DeJent, B. Cowley, M. Caltwell

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.		
0 - 4.87	CASING	4.87																		
4.87 - 6.21	waste	1.39																		
6.21 - 6.40	28100	0.19	.33																	
6.40 - 39.53	WASTE	33.13	—																	
39.53 - 39.93	28101	0.40	.65																	
39.93 - 40.43	28102	0.53	11.9					6.307												
40.43 - 40.99	28103	0.56	26.38					14.7725												
40.99 - 41.35	28104	0.36	14.36					5.1696												
41.35 - 42.07	28105	0.72	16.97					12.2184												
42.07 - 42.36	28106	0.29	1020.00					295.80												
42.36 - 42.77	28107	0.41	4.25					1.7425						6.47m	61.55					39.93 - 46.40
42.77 - 43.39	28108	0.62	3.91					2.4242						(21.22FT	1.795g/T)					
43.39 - 43.80	28109	0.41	18.2					7.462												
43.80 - 44.24	28110	0.44	16.43					7.2292						5.55m	71.53					
44.24 - 44.64	28111	0.40	10.77					4.308						(18.21FT	2.086g/T)					39.93 - 45.48
44.64 - 44.92	28112	0.28	80.4					22.512												
44.92 - 45.48	28113	0.56	30.48					17.0688												
45.48 - 46.00	28114	0.52	1.46					.7592												
46.00 - 46.40	28115	0.40	1.18					.472												
46.40 - 46.74	WASTE	0.34	—																	
46.74 - 47.09	28116	0.35						398.2457												
47.09 - 47.45	28117	0.36																		
47.45 - 48.30	28118	0.85																		
48.30 - 49.04	28119	0.74						397.0145		- 39.93m TO 45.48m										
49.04 - 52.12	waste	3.08	—																	
														5.55m	17.70g/t	CUT	TO 1	g/T		
E.O.H.																				
				ACID @		52.12 = 45° 30'														
						RODS, BIT, SHELL LOST IN HOLE														

PRELIMINARY

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31400 - 31448 complete

CORE

GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

1/3

Property WINFLOWER Project No. 224 Depth 154.53 Date Began June 30/87

Hole No. WIN-73 Co ord. 10 390 N Horizontal Length Date Completed July 4/87

Claim No. L 12480 5050 E Core Size N.Q. Drilled By H & B Drilling

Grid No. Angle & Direction -67° W GRID Elevation 1071.41 (20232) Logged By P.J.D. & M.C.

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.	
0 — 6.09	casing	6.09	—	—			
6.09 — 7.77	waste	1.68	—	—			
7.77 — 8.15	33427	0.38	.15	.3			
8.15 — 9.97	waste	1.82	—	—			
9.97 — 10.37	33428	0.40	.15	.4			
10.37 — 10.44	waste	0.10	—	—			
10.44 — 11.19	33429	0.75	.08	.3			
11.19 — 13.70	waste	2.51	—	—			
13.70 — 14.12	33430	0.42	<.03	.3			
14.12 — 23.38	waste	9.26	—	—			
23.38 — 24.24	33431	0.86	.12	.5			
24.24 — 24.84	waste	0.60	—	—			
24.84 — 25.34	33432	0.50	.03	.4			
25.34 — 27.06	waste	1.72	—	—			
27.06 — 27.44	33433	0.38	.06	.5			
27.44 — 27.92	waste	0.48	—	—			
27.92 — 28.26	33434	0.34	<.03	.3			
28.26 — 28.60	waste	0.34	—	—			
28.60 — 29.69	33435	1.09	.04	.6			
29.69 — 37.40	waste	7.71	—	—			
37.40 — 38.12	33436	0.72	.09	.4			
38.12 — 46.67	waste	8.55	—	—			
46.67 — 46.94	33437	0.27	.04	.3			
46.94 — 48.02	waste	1.08	—	—			
48.02 — 48.20	33438	0.18	.03	.5			
48.20 — 49.56	waste	1.46	—	—			
49.56 — 50.01	33439	0.44	.10	.2			
50.01 — 56.51	waste	6.50	—	—			
56.51 — 56.96	33440	0.45	<.03	.2			
56.96 — 57.42	33441	0.46	.03	.4			
57.42 — 59.41	waste	1.99	—	—			
59.41 — 59.66	33442	0.25	.17	.5			
59.66 — 65.39	waste	5.73	—	—			
65.39 — 65.59	33443	0.20	1.04	1.0			
65.59 — 66.72	waste	1.13	—	—			
66.72 — 66.94	33444	0.22	.13	.6			
66.94 — 81.08	waste	14.14	—	—			
81.08 — 81.73	33445	0.65	1.01	1.6			
81.73 — 82.19	33446	0.46	.59	1.0			
82.19 — 82.86	33447	0.67	.73	1.7			

WIDTH X ASSAY

AVERAGES

WIDTH	Au.	Ag.	Cu.	Zn.	

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,753

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE 2/3

Property WINDFLOWER Project No. 224 Depth Date Began JULY

Hole No. WIN -73 Co ord. Horizontal Length Date Completed JULY

Claim No. Core Size N.Q. Drilled By M & B.

Grid No. Angle & Direction -62° W GRID Elevation Logged By

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
82.86 - 83.12	53448	0.26	.31	2.8															
83.12 - 94.77	waste	11.65	—	—															
94.77 - 95.27	33449	0.50	.105	1.4															
95.27 - 96.82	31400	1.55	.17	<.1															
96.82 - 97.25	31401	0.43	.13	<.1															
97.25 - 97.84	31402	0.59	.16	<.1															
97.84 - 97.97	31403	0.13	.13	<.1															
97.97 - 98.10	31404	0.13	.114	<.1															
98.10 - 98.38	31405	0.28	.13	<.1															
98.38 - 98.79	31406	0.41	.16	<.1															
98.79 - 99.20	31407	0.41	.17	<.1															
99.20 - 99.41	31408	6.21	.22	.2															
99.41 - 100.10	31409	0.69	.16	<.1															
100.10 - 100.75	31410	0.65	.19	.1															
100.75 - 100.96	31411	0.21	.122	<.1															
100.96 - 101.76	31412	0.80	.17	<.1															
101.76 - 102.49	waste	0.73	—	—															
102.49 - 103.08	31413	0.59	.26	.8															
103.08 - 103.40	31414	0.32	.30	.2															
103.40 - 103.88	31415	0.48	.33	1.4															
103.88 - 104.20	31416	0.32	.34	1.5															
104.20 - 104.76	31417	0.56	.153	.3															
104.76 - 105.88	31418	1.12	.126	.1															
105.88 - 106.79	waste	0.89	—	—															
106.79 - 107.52	31419	0.73	.128	.1															
107.52 - 111.51	waste	3.99	—	—															
111.51 - 111.71	31420	0.20	.23	.1															
111.71 - 114.25	waste	2.54	—	—															
114.25 - 114.76	31421	0.51	.35	.3															
114.76 - 115.39	waste	0.63	—	—															
115.39 - 115.68	31422	0.29	.33	<.1															
115.68 - 122.70	waste	7.02	—	—															
122.70 - 123.00	31423	0.30	.125	.1															
123.00 - 125.47	waste	2.47	—	—															
125.47 - 125.80	31424	0.43	.136	.6															
125.80 - 126.42	waste	0.62	—	—															
126.42 - 126.80	31425	0.38	.75	.8															
126.80 - 128.23	waste	1.43	—	—															
128.23 - 128.82	31426	0.59	.47	.1															
128.82 - 129.62	waste	0.80	—	—															

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE

3 of 3

Property: WINDFLOWER | Project No.: 224 | Depth: | Date Began: JULY

Hole No.: WIN-73 | Co ord.: | Horizontal Length: | Date Completed: JULY

Claim No.: | | Core Size: N.Q. | Drilled By: M & B

Grid No.: | Angle & Direction: -62° W GRID | Elevation: | Logged By:

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
129.62 - 130.25	31427	0.63	.22	.4															
130.25 - 130.54	31428	0.29	.29	<.1															
130.54 - 131.38	waste	0.84	—	—															
131.38 - 132.06	31429	0.68	.25	<.1															
132.06 - 134.83	waste	2.77	—	—															
134.83 - 135.24	31430	0.41	.33	<.1															
135.24 - 135.66	31431	0.42	<.03	.8															
135.66 - 135.94	31432	0.28	.09	.2															
135.94 - 136.48	31433	0.54	1.53	1.1															
136.48 - 136.61	waste	0.13	—	—															
136.61 - 136.86	31434	0.25	.11	.7															
136.86 - 136.94	31435	0.08	2.00	2.2															
136.94 - 140.14	waste	3.20	—	—															
140.14 - 140.29	31436	0.15	.10	.9															
140.29 - 140.58	waste	0.29	—	—															
140.58 - 140.80	31437	0.22	.04	.7															
140.80 - 141.05	waste	0.25	—	—															
141.05 - 141.50	31438	0.45	.07	.3															
141.50 - 142.71	waste	1.21	—	—															
142.71 - 143.28	31439	0.57	<.03	.4															
143.28 - 143.62	31440	0.34	<.03	.5															
143.62 - 144.20	31441	0.58	<.03	.6															
144.20 - 147.16	waste	2.96	—	—															
147.16 - 147.48	31442	0.32	<.03	.5															
147.48 - 149.53	waste	2.05	—	—															
149.53 - 150.13	31443	0.60	.12	.6															
150.13 - 151.33	waste	1.20	—	—															
151.33 - 151.50	31444	0.17	1.03	.6															
151.50 - 151.79	31445	0.29	1.34	.9															
151.79 - 152.19	31446	0.40	.30	.8															
152.19 - 152.70	31447	0.51	.14	.8															
152.70 - 154.29	waste	1.59	—	—															
154.29 - 154.50	31448	0.21	.15	1.0															
154.50 - 154.53	waste	0.03	—	—															
E.O.H.				NO CEMENT AVAILABLE - HOLE to be CEMENTED AT LATER DATE															
				CASING LEFT - WILL BE PULLED @ LATER DATE															
				AC 10 TEST @ 12.12 = 66° 45' @ 49M = 63° 30'															

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

SLUDGE 1/2

Property WINDFLOWER Project No. 224 Depth 154.33 Date Began June 30/87

Hole No. WIN-73 Co ord. 10390N Horizontal Length N.Q. Date Completed July 4/87

Claim No. L 12480 5050E Core Size Drilled By M & B Drilling

Grid No. Angle & Direction -67° W SUB Elevation 2023.21 Logged By T. LAFAVOR

INTERVAL FEET/METRES	NUMBER	WIDTH	Au g/t	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 4.57	CASING	4.57	—																
4.57 - 7.92	30582	3.35	.06																
7.92 - 10.97	30583	3.05	.04																
10.97 - 14.02	30584	3.05	.03																
14.02 - 17.07	30585	3.05	.04																
17.07 - 20.12	30586	3.05	.03																
20.12 - 23.16	30587	3.05	.06																
23.16 - 26.21	30588	3.06	.04																
26.21 - 29.26	30589	3.05	.11																
29.26 - 32.31	30600	3.05	.56																
32.31 - 35.36	NO SLUDGE	3.05	—																
35.36 - 38.40	30602	3.05	.28																
38.40 - 41.45	30603	3.05	.76																
41.45 - 44.50	30604	3.05	.11																
44.50 - 47.55	NO SLUDGE	3.05	—																
47.55 - 50.29	30590	2.74	.43																
50.29 - 53.34	30591	3.06	.37																
53.34 - 56.39	30592	3.05	.50																
56.39 - 59.44	30593	3.05	.05																
59.44 - 62.48	30594	3.05	.06																
62.48 - 65.53	30595	3.05	.16																
65.53 - 68.58	30596	3.05	.49																
68.58 - 71.63	30597	3.05	.39																
71.63 - 74.98	30598	3.35	.20																
74.98 - 78.03	30599	3.05	.12																
78.03 - 81.08	30605	3.05	.43																
81.08 - 84.12	30606	3.05	1.15																
84.12 - 87.17	30607	3.05	1.12																
87.17 - 90.22	30608	3.05	1.19																
90.22 - 93.27	30609	3.05	1.23																
93.27 - 96.32	30610	3.05	.93																
96.32 - 99.36	30611	3.05	1.07																
99.36 - 102.41	30612	3.05	1.42																
102.41 - 105.46	30613	3.05	1.02																
105.46 - 108.51	30614	3.05	.43																
108.51 - 111.56	30615	3.05	.55																
111.56 114.60	30616	3.05	.98																
114.60 - 117.65	30617	3.05	1.59																
117.65 - 120.70	30618	3.05	.65																
120.70 - 123.75	30619	3.05	.69																

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DIAMOND DRILL RECORD

SLUDGE 2/2

Property: WINN FLOWAR | Project No. 224 | Depth 154.33 | Date Began June 30/87

Hole No. WIN-73 | Co ord. 10390 N | Horizontal Length N.Q. | Date Completed July 4/87

Claim No. L12480 | 5050 E | Core Size | Drilled By M&B Drilling

Grid No. | Angle & Direction -67°W OMD | Elevation 2023.21 | Logged By T. LA FAVOR

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.		
123.75-126.80	30620	3.05	1.22																	
126.80-129.84	30621	3.05	2.25																	
129.84-132.89	30622	3.05	1.35																	
132.89-135.94	30623	3.05	1.81																	
135.94-138.99	30624	3.05	.86										slugs							
138.99-142.04	30625	3.05	1.22											30.5m	1.21					123.75-154.[illegible]
142.04-145.08	30626	3.05	.76																	
145.08-148.13	30627	3.05	.82																	
148.13-151.18	30628	3.05	.76																	
151.18-154.23	30629	3.05	1.06																	
E.O.H.																				

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33427 – 33449 } CORE
31400 – 31448 } CORE
30582 – 30629 sludge
COMPLETE

GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property WINDFLOWER Project No. 224 Depth 154.53 Date Began June 30/87
Hole No. WIN-73 Co ord. 10 390N Horizontal Length Date Completed July 4/87
Claim No. L 12480 5050E Core Size N.Q. Drilled By M & B Drilling
Page 1 of 2 Grid No. Angle & Grid Direction -67° W GRID Elevation 1071.41 (2023.24) Logged By P.J.D. & M.C.

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
0 – 6.09	CSG	CASING		
6.09 – 68.88	DO	SILICEOUS DOLOMITE	SI	QS
		Scattered quartz Stringers & Veinlets.		
	QVQC	49.56 – 50.01 qtz - carbonate Vein Trace Pyrite		
	QV	56.51 – 57.42 grey qtz Vein Tr. Pyrite, Carbonate.	CB	
68.88 – 82.85	DOAR	ARGILLACEOUS DOLOMITE to LIMY ARGILLITE	LM	
	QV	81.08 – 82.85 grey-white qtz Vein Trace to 1% Pyrite		PY
82.85 – 84.12	GA	GRAPHITIC ARGILLITE	SI CB	
		SILICEOUS, CALCAREOUS, TRACE PYRITE		
84.12 – 96.58	DO	MASSIVE GREY DOLOMITE		
		Brecciation, Trace Pyrite		
	QV GA	95.28 – 95.73 qtz Veining and SILICEOUS GRAPHITIC ARGILLITE	SI	
	GA	96.58 – 97.8 SILICEOUS GRAPHITIC ARGILLITE with qtz stringers & Veinlets.	SI	QS
96.58 –				
96.58 – 102.41	DO	SILICEOUS FUCUSITIC DOLOMITE	FU SI	QS PY
		Altered (yellow) in Parts – Scattered qtz Stringers & Veinlets.		
		99.36 – 100.10 5 – 10% PYRITE		
102.41 – 104.24	GA	CALCAREACEOUS GRAPHITIC ARGILLITE	LM SI	QS
		SILICEOUS Scatted qtz Stringers Trace Pyrite		
104.24 – 107.54	DO QV	SILICEOUS DOLOMITE and QUARTZ VEINING Tr. Py.	SI	

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DIAMOND DRILL LOG

ZONE:

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN - 73 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

 Grid No. Angle & Grid Direction Elevation Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
107.54 - 144.23	DO	DOLOMITE	SI	QS
		SILICIFIED, ARGILLACEOUS SECTIONS		
		Scattered qtz stringers & Veinlets		
	QV	130.26 - 130.53 qtz Vein		
	QV	131.54 - 132.06 " grey qtz Vein		
	QV	136.61 - 136.85 " " "		
	QV PO	142.70 - 144.23 " " " and DOLOMITE		
144.23 - 147.12	GA DO	LIMY GRAPHITIC ARGILLITE and DOLOMITE		
147.12 - 151.79	DO	DOLOMITE with NARROW LIMY ARGILLACEOUS SECTIONS	LM	QS. PY
		SCATTERED qtz STRINGERS and VEINLETS TRACE PYRITE		
151.79 - 152.70	QV GA	GREY QUARTZ VEIN and GRAPHITIC ARGILLITE		
	QV	151.79 - 152.16 grey qtz vein		
152.70 - 154.53	GA	LIMY GRAPHITIC ARGILLITE	LM CL	
	FT	153.95 - 154.07 FAULT Gouge - MUD		
F.O.H.		154.07 - 154.23 2.54 cm qtz Stringers @ 40° to Core		
		ACID TEST @ 12.12 = 66° 45'		
		@ 140.51 = 63° 30'		
		HOLE CEMENTED TOP to BOTTOM 15 BAGS		
		CASING REMOVED.		

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28120 - 28139 core } complete
30017 - 30040 sludge }

GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

Property WINDFLOWER Project No. 224 Depth 87.17 Date Began JULY 1/87
Hole No. WIN-74 Co ord. 10 236 N Horizontal Length Date Completed JULY 10/87
Claim No. L 12481 4916 E Core Size N.Q. Drilled By M & B. DRILLING
ZONE: Page 1 OF Grid No. Angle & Grid Direction -72° S 82°E GRID Elevation 1067.51 (2019.31) Logged By P.J.D.

1057.51

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
0 - 10.06	CSG	CASING		
10.06 - 52.12	DO	DOLOMITE - with odd Narrow Sections of ARGILLITE		
		Widely Scattered qtz Stringers & Veinlets.		
	QV	30.78 - 30.92 QUARTZ VEIN		
	QV DO	30.92 - 34.96 QUARTZ Veining & ARGILLACEOUS DOLOMITE		
	QV	36.09 - 36.42 QUARTZ Veining - carbonate.		
	QV	36.88 - 38.55 Scattered qtz Veining & Veinlets.		
	LC.	38.55 - 39.47 Lost Core		
	QV	39.47 - 40.75 qtz Veinlets.		
52.12 - 69.34	AR	CALCAREOUS ARGILLITE with Dolomite Sections.	LM	QS
		Scattered qtz stringers & Veinlets Trace Pb Zn.		
	GAFT	66.96 - 67.36 FAULT ZONE - Broken graphitic Argillite & qtz		
		67.97 - 69.03 Brown graphitic Argillite and qtz.		
69.34 - 78.33	DOSH	STRONGLY SHEARED DOLOMITE		
		Core Broken & Shattered.		
78.33 - 82.90	DO	MASSIVE DOLOMITE		
	LC	81.99 - 82.90 Lost Core (qtz - Dolomite - Argillite Rubble) CAVE		
82.90 - 84.79	DO GA	STRONGLY SILICIFIED DOLOMITE & GRAPHITIC ARGILLITE	SI	PY GL SL
		Irregular qtz Veining Trace Pb, Zn, Py in qtz		
	QV	84.43 - 84.79 grey qtz Vein with carbonate	CB	
84.79 - 87.17	GA	CALCAREOUS GRAPHITIC ARGILLITE	LM	
Hole Lost.		Core L = 0° (Parallel to Core) Hole Lost in Cave		
		Rods - Complete Core Barrel - Bit Lost		

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,753

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30017 - 30040 Study ? COMPLETE

GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE 1 of 1

Property WINDFLOWER Project No. 224 Depth 87.17 Date Began July 1/87

Hole No. WIN-74 Co ord. 10 236 N Horizontal Length Date Completed July 10/87

Claim No. L 12481 49.16 E Core Size ? N.Q. Drilled By M & B

Grid No. Angle & Direction -72 582°E GRID Elevation 1067.51 (2019.31) Logged By P.J.D. & M.C.

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						1057.51 AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 10.06	casing	10.06																	
10.06 - 28.33	waste	18.27	—																
28.33 - 29.09	28120	0.86	.10	.8															
29.09 - 30.71	waste	1.62	—																
30.71 - 30.92	28121	0.21	.107	.5															
30.92 - 34.66	waste	3.74	—																
34.66 - 34.96	28122	0.30	.112	.5															
34.96 - 36.08	waste	1.12	—																
36.08 - 36.57	28123	0.49	.06	.6															
36.57 - 36.90	waste	0.33	—																
36.90 - 37.08	28124	0.18	.04	.5															
37.08 - 39.47	28125	2.39	.15	.5															
39.47 - 40.23	waste	0.76	—																
40.23 - 40.75	28126	0.52	.08	.5															
40.75 - 45.17	waste	4.42	—																
45.17 - 45.48	28127	0.31	.12	.6															
45.48 - 46.61	waste	1.13	—																
46.61 - 46.88	28128	0.27	.13	.6															
46.88 - 47.55	waste	0.67	—																
47.55 - 48.52	28129	0.97	.08	.4															
48.52 - 49.22	waste	0.70	—																
49.22 - 49.47	28130	0.25	.09	.5															
49.47 - 50.78	waste	1.31	—																
50.78 - 51.20	28131	0.42	.10	.5															
51.20 - 55.33	waste	4.13	—																
55.33 - 55.65	28132	0.29	.05	.8															
55.65 - 66.92	waste	11.27	—																
66.92 - 67.36	28133	0.44	.13	.8															
67.36 - 68.00	waste	0.64	—																
68.00 - 68.45	28134	0.45	.20	1.0															
68.45 - 68.87	28135	0.42	.18	1.0															
68.87 - 82.77	waste	3.90	—																
82.77 - 83.22	28136	0.45	.29	.6															
83.22 - 83.82	28137	0.60	.15	.4															
83.82 - 84.16	waste	0.34	—																
84.16 - 84.46	28138	0.30	.18	.8															
84.46 - 84.80	28139	0.34	.13	.6															
			HOLE LOST DUE TO CAVE																

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DIAMOND DRILL RECORD

SLUDGE

Property WINDFLOWER Project No. 224 Depth 87.17 Date Began 11 87 JULY

Hole No. WIN 74 Co ord. 10236 N Horizontal Length Date Completed 10 / 87 JULY

Claim No. L12481 4916 E Core Size N.Q. Drilled By M&B

Grid No. Angle & Direction -72582° E GRID Elevation 2019.31 (1067.51) Logged By P.J., D.F. & T.L

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 9.45	CASING	9.45	—																
9.45 - 12.19	30017	2.74	.16																
12.19 - 15.54	30018	3.36	.21																
15.54 - 18.59	30019	3.05	.17																
18.59 - 21.64	30020	3.05	.04																
21.64 - 24.69	30021	3.05	.105																
24.69 - 27.74	30022	3.05	.31																
27.74 - 30.78	30023	3.05	.14																
30.78 - 33.83	30024	3.05	.109																
33.83 - 36.58	30025	2.75	.105																
36.58 - 39.93	30026	3.35	.105																
39.93 - 42.98	30027	3.05	.107																
42.98 - 46.02	30028	3.05	.104																
46.02 - 49.07	30029	3.05	.02																
49.07 - 52.12	30030	3.05	.08																
52.12 - 55.17	30031	3.05	.06																
55.17 - 58.22	30032	3.05	.06																
58.22 - 61.26	30033	3.05	.103																
61.26 - 64.31	30034	3.05	.02																
64.31 - 67.36	30035	3.05	.06																
67.36 - 70.41	30036	3.05	.02																
70.41 - 73.46	30037	3.05	.02																
73.46 - 79.55	30038	3.05	.02																
79.55 - 82.91	30040	3.36	.02																
			HOLE LOST DUE TO CAVE																

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property WINDFLOWER Project No. 224 Depth 238.05 Date Began JULY 4/87

Hole No. WIN-75 Co ord. 10431.6N Horizontal Length Date Completed JULY 11/87

Claim No. L12480 5080E Core Size N.Q. Drilled By M & B.

Page 1 Grid No. Angle & Grid Direction -62° GRID WEST Elevation 1080.55 (2032.44) Logged By P.J.D.

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
0 - 1.52	CSG	CASING		
1.52 - 8.23	DO AR	SILICEOUS GREY DOLOMITE to LIMY GREY ARGILLITE	SI LM	QS, PY
		Numerous qtz stringers & veinlets. Trace Pyrite		
8.23 - 37.8	DO	LIGHT GREEN CHLORITIC DOLOMITE - SILICIFIED	CH SI	QS, PY
		Numerous qtz stringers, & veinlets. Trace Pyrite.		
	QV	23.46 - 23.77 qtz vein - Tr. Py. 92cm.		PY GA
37.8 - 38.55	DO	DARK GREEN ARGILLACEOUS DOLOMITE	AL	
38.55 - 40.69	DO	GREY DOLOMITE SILICIFIED.	SI	
	DO	39.77 - 40.08 SILICIFIED & CHLORITIZED.	CH SI	
	QV	40.44 - 40.69 grey qtz vein		
40.69 - 50.59	DO	LIGHT GREEN SILICIFIED CHLORITIC DOLOMITE	CH SI	QS
		Scattered qtz stringers & veinlets. Trace Pyrite.		
	LC	43.13 - 43.43 Lost Core.		
	QV	46.63 - 46.78 qtz veinlets Trace Pyrite.		PY
	QV	47.24 - 47.85 qtz veinlets.		
	LC	48.16 - 48.46 Lost Core.		
50.59 - 59.43	DO	LIGHT GREEN STRONGLY SILICIFIED CHLORITIC DOLOMITE	SI CH	QS
		Numerous qtz stringers & veinlets.		
	QV	51.45 - 51.63 chloritic qtz vein Trace Pyrite Tetrahedrite.		PY TT
	QV	56.66 - 57.15 " " " vein		

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,753

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

Property: WINDFLOWER | Project No.: 224 | Depth | Date Began
Hole No.: WIN - 75 | Co ord. | Horizontal Length | Date Completed
Claim No. | Core Size | Drilled By
ZONE: | Page 2 | Grid No. | Angle & Grid Direction | Elevation | Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
50.59 - 59.43 (CONTINUED)	QV	58.21 - 58.52 chloritized qtz Vein	CH	
	LC	59.43 - 59.74 Lost Core.		
59.43 - 90.83	DO	WEAKLY SILICEOUS DOLOMITE widly scattered qtz stringers & Veinlets.	SI, CH	QS
	QV	65.32 - 65.83 qtz stringers & Veinlets.		
	QV	67.21 - 67.36 chloritized qtz Veinlets	CH	
	QV	68.58 - 69.74 qtz Veining & chloritic Dolomite - Schistose.	CH	
	QV	75.98 - 76.56 chloritized qtz Veining		
	QV	76.96 - 77.72 qtz Veining.		
	QV	79.55 - 80.92 Strongly Siliceous with qtz Veinlets.	SI	
	QV	82.75 - 83.42 qtz Veinlets.		
	QV	87.17 - 87.73 " "		
	QV	88.54 - 89.03 qtz Veining		
90.83 - 91.44	DO	SILICEOUS Light Grey DOLOMITE	SI	
	QV	90.89 - 91.04 qtz Veining		
	QC	91.04 - 91.44 Irregular qtz - carbonate Veinlets.		
91.44 - 110.43	DO	GREY DOLOMITE scattered qtz Stringers.		QS
	QV	100.18 - 100.43 qtz Veinlets.		
	QC QV	103.78 - 104.24 Irregular qtz - carbonate Veining (103.78 - 103.93 1% sphaleric, Trace Galena, in 2.54 cm wide stringer parallel to Core.)		SL GL
	QV	106.37 - 107.74 Irregular qtz Veinlets.		
	QV	109.57 - 110.43 " " " and Veining (2 sets of qtz Veins - one parallel to Core)		
* 110.43 - 111.55	QV	MAIN ZONE - WHITE QUARTZ VEIN	GP FU	PY
		110.43 - 110.52 30% PYRITE		1
	QV	110.52 - 111.55 white qtz Vein - graphite, Trace Pyrite, Fuchsite.	GR FU	

GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE: Page 3

Property: WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN - 75 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Grid Direction Elevation Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
111.55 - 115.82	GA	CALCAREOUS GRAPHITIC ARGILLITE minor qtz blebs.	LM	
		(INCOMPETENT ROCK)		
115.82 - 116.95	DO	MINERALIZED DOLOMITE - 5% PYRITE.		PY
116.95 - 117.95	DO GA	BLACK SILICEOUS DOLOMITE - LIMY SILICEOUS GRAPHITIC ARGILLITE	SI LM	PY SL QS
		Scattered qtz Stringers & Blebs. TRACE PYRITE, SPHALERITE.		
117.95 - 119.33	DOMV	MASSIVE DOLOMITE		
	DOAR	118.41 - 118.72 Strongly silicified Black Dolomite & graphitic Argillite	SI GP	
119.33 - 121.92	GA	SILICEOUS LIMY GRAPHITIC ARGILLITE	SI	PY
		Narrow qtz Stringers & Veinlets TR to 1% Pyrite.		
121.92 - 127.56	DO	MASSIVE DOLOMITE with Narrow bands of GRAPHITIC ARGILLITE Interlayered.		QS
		Scattered qtz Stringers		
	GA	126.34 - 126.83 Limy Graphitic Argillite.	LM	
127.56 - 135.69	GADO	CALCAREOUS GRAPHITIC ARGILLITE	LM	
		narrow bands of Dolomite Interlayered		QS
		Scattered qtz Stringers.		
135.69 - 144.53	DO	GREY - YELLOW DOLOMITE	LM	
		with Scattered Narrow Sections of Limy Argillite & Black Dolomite Interlayered.		
144.5 - 145.54	QV	WHITE - GREY QUARTZ VEIN		
	QV	144.5 - 145.0E qtz Vein & Dolomite Fragments.		
	QV	145.0E - 145.54 qtz Vein & GRAPHITIC WISPS with TRACE PYRITE.	GP	PY

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Page 4

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN-75 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Grid Direction Elevation Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
145.54 - 159.10	DO	BLACK to GREY DOLOMITE with GRAPHITIC ARGILLITE Sections	GP	QS GA PY
		SILICEOUS SECTIONS, Scatted qtz Stringers & Veinlets.		
		@ 145.64 - 2.54 cm qtz-Carbonate Stringer with TR. Pb - Py.		
		@ 146.0 - 5.08 cm qtz Stringer.		
159.10 - 181.05	DO	GREY DOLOMITE with Narrow Black Argillaceous Sections	AR	QS
		Scatted qtz Veinlets.		
	QV	159.41 - 159.56 qtz Vein.		
	QV	162.85 - 163.07 qtz Veining - CHLORITIZED.	CH	
	QV	165.66 - 165.84 qtz Veining		
	QV	172.51 - 172.70 qtz Veinlets and ARGILLITE		
	QV AR DO	175.01 - 175.69 Irregular qtz Veinlets and Limy ARGILLITE & Dolomite	LM	PY
		Pyrite Cubes (1%)		
	QV DO	176.02 - 176.96 qtz Veining & Dolomite		
	QV DO	177.57 - 178.91 qtz Veining & Dolomite (grey to Black)		
	QV	180.29 - 181.05 qtz Veining		
181.05 - 181.66	FT	FAULT ZONE - Gouge - Mud & Rubble - Dolomite - ARGILLITE & qtz Pebbles	MU	
	LC	181.35 - 181.66 Lost Core		
181.66 - 184.25	AR FD	FINELY LAMINATED LIMY ARGILLITE	LM	
		FOLDED & CONTORTED		
184.25 - 184.65	QV DO	Grey qtz Vein & SILICEOUS DOLOMITE	SI	
184.65 - 188.18	DO	MASSIVE COARSE GRAINED DOLOMITE to STRONGLY SHEARED DOLOMITE		
	DO SH	185.16 - 187.45 Strongly Sheared TR to 1% Py (Vuggy)		PY

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE: Page 5

Property WILDFLOWER Project No. 224 Depth Date Began

Hole No. WIN-75 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Grid Direction Elevation Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
188.1E - 190.41	DOMX	SILICEOUS FINE GRAINED MASSIVE DOLOMITE (yellow) to SILICEOUS BLACK DOLOMITE to SILICEOUS ARGILLITE.	SI	
190.41 - 199.21	DOSH	SHEARED DOLOMITE (COARSE GRAINED) to BLACK FINE GRAINED DOLOMITE WITH LIMY GRAPHITIC ARGILLITE SECTIONS.	LM GP	
	DOSH	190.41 - 191.41 Sheared & coarse grained Dolomite with 3-5% Pyrite		PY
	DOBR	195.E3 - 196.44 Broken & shattered Dolomite - FAULT ZONE?		
	QVGA	198.27 - 199.21 Irregular qtz vein - GRAPHITIC ARGILLITE - FUCHSITE DOLOMITE. FU Trace Pyrite in qtz		
199.21 - 204.82	FTSH	FAULT CONTACT ? BROKEN & SHEARED		
	GARR	199.21 - 199.40 BROKEN GRAPHITIC ARGILLITE & qtz stringers.		QS
204.E2 - 205.6E	DOSH	SHEARED COARSE GRAINED DOLOMITE		
205.6E - 206.86	GADO	BLACK LIMY GRAPHITIC ARGILLITE - BLACK DOLOMITE (FINE GRAINED & SILICIFIED) Trace Pyrite.	LM SI	
206.86 - 209.39	GA	BLACK LIMY GRAPHITIC ARGILLITE	LM	
209.39 - 214.8E	GASH	BROKEN & SHEARED GRAPHITIC ARGILLITE with scattered qtz veinlets. (FAULT ZONE ??)		
	QV	210.67 - 210.95 qtz vein Trace Pb, Tetrahedrite? CPY.		GA CP
	QV	213.8E - 214.27 qtz vein & GRAPHITE, Trace SPHALERITE.	GP	SL
214.88 - 231.65	GA	BLACK LIMY GRAPHITIC ARGILLITE scattered qtz stringers & veinlets.	LM	QS
231.65 - 232.56	QV	GREY TO WHITE QTZ VEIN with CARBONATE & GRAPHITIC ARGILLITE FRAGMENTS.	CB	

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN-75 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Page 6 Grid No. Angle & Grid Direction Elevation Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
232.56 - 238.05	GA	BLACK LIMY GRAPHITIC ARGILLITE with Veinlets of Light Grey ARGILLITE.	LM	
E.O.H.		ACID TEST @ 91.4 = 58° 45'		
		@ 181.6 = 55° 30'		
		@ 235.6 = 55° 30'		
		CASING and SHOE LEFT IN HOLE NOT CEMENTED.		
		ROCK MECHANICS:		
		HANGING WALL ROCKS		
		106.95 - 108.10 CALCAREOUS GRAPHITIC ARGILLITE - MINOR qtz - Carbonate Stringers 18 FRACTURES		
		108.10 - 109.64 MASS. DOLOMITE - 5 FRACTURES		
		109.64 - 110.52 SIL. DOL - Irregular qtz - Carb str - 3 FRAC.		
		ORE ZONE - MAIN ZONE - WHITE QUARTZ VEIN 1-30% Py, GRAPHITE		
		110.52 111.5 - 4 FRACTURES		
		FOOTWALL ROCKS:		
		111.5 - 112.5 - 13 FRACTURES		
		112.5 - 113.0 - 8 "		
		113.0 - 113.5 - 7 "		
		113.5 - 114.5 - 2 "		
		114.5 - 115.82 - 3 "		

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(31350 - 31349 30630 - 30688 sludge

GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

complete

Property WINFLOWER Project No. 224 Depth 238.05 Date Began July 4 / 67

Hole No. W1U-75 Co ord. 10 431.6N Horizontal Length Date Completed July 11 / 67

Claim No. L 12480 5080E Core Size N.Q. Drilled By M & B Drilling

Grid No. Angle & Direction -62° W S210 Elevation 1080.55 (2032.44) Logged By P.J.D. & M.C.

CORE 1/5

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 1.52	casing	1.52																	
1.52 - 1.61	waste	0.09	—																
1.61 - 1.96	31449	0.35	.10	.4															
1.96 - 2.77	waste	0.81	—																
2.77 - 3.77	31450	1.00	.10	.4															
3.77 - 7.99	waste	4.22	—																
7.99 - 8.16	31451	0.17	.08	.3															
8.16 - 9.27	waste	1.11	—																
9.27 - 9.98	31452	0.71	.11	.3															
9.98 - 10.39	waste	0.41	—																
10.39 - 10.95	31453	0.56	.15	.4															
10.95 - 11.74	waste	0.79	—																
11.74 - 12.74	31454	1.00	.07	<.1															
12.74 - 12.98	waste	0.24	—																
12.98 - 13.36	31455	0.38	.05	<.1															
1336 - 14.04	waste	0.68																	
14.04 - 15.00	31456	0.96	.09	<.1															
1500 - 15.40	waste	0.40	—																
15.40 - 15.76	31457	0.36	.03	<.1															
15.76 - 16.44	waste	0.68	—																
16.44 - 17.07	31458	0.63	.06	<.1															
17.07 - 17.90	waste	0.83	—																
17.90 - 18.97	31459	1.07	.10	<.1															
18.97 - 20.91	waste	1.94	—																
20.91 - 21.04	31460	0.13	.17	<.1															
21.04 - 22.67	waste	1.63	—																
22.67 - 23.03	31461	0.36	.08	<.1															
23.03 - 23.47	waste	0.44	—																
23.47 - 23.81	31462	0.34	.11	<.1															
23.81 - 24.04	waste	0.23	—																
24.04 - 24.90	31463	0.86	.21	<.1															
24.90 - 26.96	waste	2.06	—																
26.96 - 27.35	31464	0.39	.18	<.1															
27.35 - 27.71	31465	0.36	.17	.5															
27.71 - 28.05	waste	0.34	—																
28.05 - 28.33	31466	0.28	.14	<.1															
28.33 - 28.85	31467	0.52	.16	<.1															
28.85 - 29.20	31468	0.35	.13	<.1															
29.20 - 29.98	waste	0.78	—																
29.98 - 30.28	31469	0.30	.17	<.1															

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GRANGES EXPLORATION LTD. Core
DIAMOND DRILL RECORD

Property WINDFLOWER Project No. 224 Depth Date Began JULY 4/67

Hole No. WIN-75 Coord 10431.6N Horizontal Length Date Completed JULY 11/67

Claim No. 5080.E Core Size N.Q Drilled By H&B

Grid No. Angle & Direction -62° W GRID Elevation Logged By P.J.D. & M.C.

CORE 1 1/5

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
30.28 - 30.63	waste	0.35	—																
30.63 - 30.78	31470	0.15	.18	<.1															
30.78 - 32.30	waste	1.52	—																
32.30 - 32.91	31471	0.61	.16	<.1															
32.91 - 35.00	waste	2.09	—																
35.00 - 35.42	31472	0.42	.13	<.1															
35.42 - 40.40	waste	4.98	—																
40.40 - 40.70	31473	0.30	.17	<.1															
40.70 - 41.99	waste	1.29	—																
41.99 - 42.27	31474	0.28	.16	<.1															
42.27 - 44.79	waste	2.52	—																
44.79 - 45.23	31475	0.44	.16	<.1															
45.23 - 46.79	waste	1.56	—																
46.79 - 46.95	31476	0.16	.17	<.1															
46.95 - 47.42	waste	0.47	—																
47.42 - 48.10	31477	0.68	.14	<.1															
48.10 - 50.70	waste	2.60	—																
50.70 - 51.45	31478	0.75	.12	<.1															
51.45 - 51.62	31479	0.17	.14	<.1															
51.62 - 52.10	31480	0.48	.14	<.1															
52.10 - 52.68	waste	0.58	—																
52.68 - 53.30	31481	0.62	.10	<.1															
53.30 - 53.95	31482	0.65	.11	<.1															
53.95 - 54.57	waste	0.62	—																
54.57 - 54.98	31483	0.41	.15	<.1															
54.98 - 55.42	31484	0.44	.11	<.1															
55.42 - 55.79	31485	0.37	.18	<.1															
55.79 - 56.40	31486	0.61	.14	<.1															
56.40 - 56.83	31487	0.43	.18	<.1															
56.83 - 57.21	31488	0.38	.19	<.1															
57.21 - 57.82	31489	0.61	.17	<.1															
57.82 - 58.19	31490	0.37	.17	<.1															
58.19 - 58.80	31491	0.61	.24	<.1															
58.80 - 59.18	31492	0.38	.20	<.1															
59.18 - 64.07	waste	4.89	—																
64.07 - 64.22	31493	0.15	.15	<.1															
64.22 - 65.34	waste	1.12	—																
65.34 - 65.84	31494	0.50	.18	<.1															
65.84 - 66.69	waste	0.85	—																
66.69 - 67.18	31495	0.49	.16	<.1															

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE 3/5

Property WINDFLOWER Project No. 224 Depth Date Began JULY

Hole No. WIN-75 Co ord. 10431.6N Horizontal Length Date Completed JULY

Claim No. 5080E Core Size N.Q. Drilled By M & B

Grid No. Angle & Direction -62° W GRID Elevation Logged By

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
67.18 - 67.36	waste	0.18	—																
67.36 - 67.54	31496	0.18	.16	<.1															
67.54 - 6848	waste	0.94	—																
68.48 - 69.42	31497	0.94	.18	<.1															
69.42 - 76.32	waste	6.90	—																
76.32 - 76.50	31498	0.18	.19	15															
76.50 - 76.92	waste	0.42	—																
76.92 - 77.26	31499	0.34	.19	<.1															
77.26 - 77.53	31350	0.27	.15	<.1															
77.53 - 77.93	31351	0.40	.03	.1															
77.93 - 79.65	waste	1.72	—																
79.65 - 80.45	31352	0.80	.03	<.1															
80.45 - 80.88	31353	0.43	.05	<.1															
80.88 - 81.47	waste	0.59	—																
81.47 - 81.70	31354	0.23	.05	<.1															
81.70 - 82.86	waste	1.16	—																
82.86 - 83.40	31355	0.54	.07	<.1															
83.40 - 84.20	waste	0.80	—																
84.20 - 84.51	31356	0.31	.08	<.1															
84.51 - 85.60	waste	1.09	—																
8560 - 86.10	31357	0.50	.04	.3															
86.10 - 87.30	waste	1.20	—																
87.30 - 87.78	31358	0.48	.04	.3															
87.78 - 88.42	waste	0.64	—																
88.42 - 88.91	31359	0.49	.04	.2															
88.91 - 90.90	waste	1.99	—																
90.90 - 91.20	31360	0.30	.04	<.1															
91.20 - 91.60	31361	0.40	.09	.1															
91.60 - 100.16	waste	0.56	—																
100.16 - 100.32	31362	0.16	.08	.3															
100.32 - 101.41	waste	1.09	—																
101.41 - 101.55	31363	0.14	.05	.3															
101.55 - 103.83	waste	2.28	—																
103.83 - 104.35	31364	0.52	.13	.8															
104.35 - 104.85	31365	0.50	.13	.5															
104.85 - 105.10	31366	0.25	.18	.7															
105.10 - 106.95	waste	1.85	—																
106.95 - 107.70	31367	0.75	.14	.7															
107.70 - 108.10	31368	0.40	.41	.6															
108.10 - 109.64	WASTE	1.54	.21	1.4															

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

4/5

Property WINDFLOWER Project No. 224 Depth Date Began July

Hole No. WIN-75 Co ord. 10431.6N Horizontal Length Date Completed July

Claim No. 5080.6 Core Size N.Q. Drilled By M & B

Grid No. Angle & Direction -62 W GRID Elevation Logged By

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY	AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.	
109.64 - 110.06	31369	0.42	.21	1.4										
110.06 - 110.55	31370	0.49	.19	.9										
110.55 - 110.80	31371	0.25	13.50	7.3					0.72m	6.42	4.49			110.55 - 110.8
110.80 - 111.27	31372	0.47	2.66	3.0										
111.27 - 111.56	31373	0.29	.22	.6										
111.56 - 111.79	31374	0.23	.18	.9										
111.79 - 115.91	waste	4.12	—											
115.91 - 116.07	31375	0.16	.11	.7										
116.07 - 116.40	waste	0.33	—											
116.40 - 116.71	31376	0.31	.12	.7										
116.71 - 117.11	31377	0.40	.17	1.2										
117.11 - 117.26	31378	0.15	.11	.6										
117.26 - 117.30	waste	0.04	—											
117.30 - 117.85	31379	0.55	.16	.5										
117.85 - 118.42	waste	0.57	—											
118.42 - 118.75	31380	0.33	.12	.4										
118.75 - 120.07	waste	1.32	—											
120.07 - 120.73	31381	0.66	.15	.4										
120.73 - 121.08	31382	0.35	.15	.3										
121.08 - 144.51	waste	23.43	—											
144.51 - 146.00	31383	1.49	1.39	2.5					1.96m	1.70				144.51 - 146.4
146.00 - 146.47	31384	0.47	2.69	<.1										
146.47 - 146.76	31385	0.29	.24	1.1										
146.76 - 147.01	31386	0.25	.22	.5										
147.01 - 148.76	waste	1.75	—											
148.76 - 149.11	31387	0.35	1.25	.7										
149.11 - 150.90	waste	1.79	—											
150.90 - 151.10	31388	0.20	1.05	.9										
151.10 - 159.38	waste	8.28	—											
159.38 - 159.55	31389	0.17	.11	<.1										
159.55 - 162.85	waste	3.30	—											
162.85 - 163.03	31390	0.18	.12	.2										
163.03 - 165.58	waste	2.55	—											
165.58 - 165.81	31391	0.23	.12	<.1										
165.81 - 172.62	waste	6.81	—											
172.62 - 172.76	31392	0.14	.13	.3										
172.76 - 175.03	waste	2.27	—											
175.03 - 175.68	31393	0.65	.11	.3										
175.68 - 175.99	waste	0.31	—											
175.99 - 176.96	31394	0.97	.17	<.1										

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

5/5

Property WIN DELOWER Project No. 224 Depth Date Began JULY

Hole No. WIN-75 Co ord. 10431.6N Horizontal Length Date Completed JULY

Claim No. 50.80 E Core Size N.Q. Drilled By H & B

Grid No. Angle & Direction -62 W GRID Elevation Logged By

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
176.96 - 177.57	waste	0.61	—																
177.57 - 178.36	31395	0.79	.16	<.1															
178.36 - 179.98	31396	1.62	.15	.3															
179.98 - 180.12	waste	0.14	—																
180.12 - 181.00	31397	0.88	.23	.3															
181.00 - 184.22	waste	3.22	—																
184.22 - 184.71	31398	0.49	.15	.5															
184.71 - 185.14	waste	0.43	—																
185.14 - 185.71	31399	0.57	.09	.5															
185.71 - 186.12	waste	0.41	—																
186.12 - 186.61	31150	0.49	.14	.4															
186.61 - 190.55	waste	3.94	—																
190.55 - 191.48	31151	0.93	.10	.5															
191.48 - 198.29	waste	0.81	—																
198.29 - 198.64	31152	0.35	.11	.1															
198.64 - 199.10	31153	0.46	.11	.4															
199.10 - 199.20	31154	0.10	.06	.4															
199.20 - 199.43	31155	0.23	.13	<.1															
199.43 - 204.06	waste	4.63	—																
204.06 - 204.40	31156	0.34	.07	.7															
204.40 - 209.34	waste	4.94	—																
209.34 - 210.14	31157	0.80	.07	.7															
210.14 - 210.39	31158	0.25	.03	.8															
210.39 - 210.95	31159	0.56	.08	.7															
210.95 - 211.09	31160	0.14	.06	.6															
211.09 - 211.49	31161	0.40	.11	.7															
211.49 - 213.30	waste	1.81	—																
213.30 - 213.83	31162	0.53	.14	1.1															
213.83 - 214.27	31163	0.44	.06	.7															
214.27 - 214.80	31164	0.53	.06	.7															
214.80 - 224.41	waste	9.61	—																
224.41 - 224.64	31165	0.23	.09	.2															
224.64 - 231.50	waste	6.86	—																
231.50 - 231.87	31166	0.37	.19	.2															
231.87 - 232.32	31167	0.45	.14	.2															
232.32 - 232.63	31168	0.31	.37	.6															
232.63 - 238.05 E.O.S.	waste	5.42	—																
			ACID	Test @	91.4	=	58° 45',	@ 181.6	= 55° 30'	@ 235.6	= 55° 30'			CASING LEFT IN HOLE + SHOE					
														HOLE NOT CEMENTED.					

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

SLUDGE 1/2

Property WINDFLOWER Project No. 224 Depth 236.05 Date Began JULY 4 / 87

Hole No. WIN-75 Co ord. 10 431.6N Horizontal Length Date Completed JULY 11 / 87

Claim No. L 12480 5080E Core Size N.Q. Drilled By M & B. DRILLING

Grid No. Angle & Direction -62° W GRID Elevation 1080.55 (2032.44) Logged By P.J.D. & T.L.

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 1.52	CASING	1.52																	
1.52 - 4.88	306 30	3.36	.04																
4.88 - 7.92	306 31	3.05	.07																
7.92 - 10.97	306 32	3.05	.02																
10.97 - 14.02	306 33	3.05	.02																
14.02 - 17.07	306 34	3.05	.08																
17.07 - 20.12	306 35	3.05	.05																
20.12 - 23.16	306 36	3.05	.03																
23.16 - 26.21	306 37	3.05	.02																
26.21 - 29.26	306 38	3.05	.02																
29.26 - 32.31	306 39	3.05	.02																
32.31 - 35.36	306 40	3.05	.02																
35.36 - 38.40	306 41	3.05	.02																
38.40 - 41.45	306 42	3.05	.02																
41.45 - 44.50	306 43	3.05	.02																
44.50 - 47.55	306 44	3.05	.02																
47.55 - 50.60	306 45	3.05	.02																
50.60 - 53.64	306 46	3.05	.02																
53.64 - 56.69	306 47	3.05	.02																
56.69 - 59.74	306 48	3.05	.01																
59.74 - 62.79	306 49	3.05	.03																
62.79 - 65.84	306 50	3.05	.02																
65.84 - 68.88	306 51	3.05	.02																
68.88 - 71.93	306 52	3.05	.06																
71.93 - 74.98	306 53	3.05	.06																
74.98 - 78.03	306 54	3.05	.02																
78.03 - 81.08	306 55	3.05	.02																
81.08 - 84.12	306 56	3.05	.05																
84.12 - 87.17	306 57	3.05	.04																
87.17 - 90.22	306 58	3.05	.02																
90.22 - 93.27	306 59	3.05	.03																
93.27 - 96.32	306 60	3.05	.02																
96.32 - 99.36	306 61	3.05	.10																
99.36 - 102.41	306 62	3.05	.09																
102.41 - 105.46	306 63	3.05	.12																
105.46 - 108.51	306 65	3.05	.15																
108.51 - 111.56	306 64	3.05	.18																
111.56 - 114.60	306 66	3.05	.13																
114.60 - 123.75	306 67	9.15	.20																
123.75 - 126.80	306 68	3.05	.12																

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PAGE 2 of 2

GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

SLUDGE

Property: WINDFLOWER | Project No.: 224 | Depth: 238.05 | Date Began: July 4 /87

Hole No.: WIN-75 | Co ord.: 10431.6N | Horizontal Length: | Date Completed: July 11 /87

Claim No.: L12480 | 5080 E | Core Size: N.Q. | Drilled By: M&B DRILLING

Grid No.: | Angle & Direction: -62° W GRID | Elevation: | Logged By: P.J.D. ETL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.	
126.80-129.84	30669	3.05	.28																
129.84-132.89	70	3.05	.24																
132.89-135.94	71	3.05	.10																
135.94-138.99	72	3.05	.05																
138.99-142.04	73	3.05	.32																
142.04-145.08	74	3.05	.20																
145.08-148.13	No sludge	3.05																	
148.13-196.90	30676		.32																
196.90-199.95	30677	3.05	.12																
199.95-203.00	30678	3.05	.38																
203.00-206.04	30679	3.05	.22																
206.04-209.09	30680	3.05	.56																
209.09-212.14	30681	3.05	.32																
212.14-215.19	30682	3.05	.39																
215.19-218.24	30683	3.05	.36																
218.24-221.28	30684	3.05	.35																
221.28-224.33	30685	3.05	.45																
224.33-227.38	30686	3.05	.42																
227.38-230.43	30687	3.05	.10																
230.43-233.48	30688	3.05	.09																
233.48-238.05																			
E.O.H																			

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S 30041 - 30089 COMPLETE

GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE P-1 of 5

Property WINDFLOWER Project No. 224 Depth 278.23 Date Began JULY 11/87

Hole No. WIN-76 Co ord. 10,243N Horizontal Length Date Completed JULY 24/87

Claim No. L-12481 4,916E Core Size N.Q. Drilled By M&B Drilling

Grid No. Angle & Direction -79° 582°E (G210) Elevation ~~2019.31~~ Logged By

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY
0 - 12.19	C1S146'	12.19	—	—	Start of Core			11.27
12.54 - 15.54	WASTE	3.00	—	—				
15.54 - 16.66	28140	(80 c.c) 1.12	.10	.4				
16.66 - 17.68	28141	(61 c.c) 1.02	.08	.4				
17.68 - 20.27	WASTE	2.59	—	—				
20.27 - 20.56	28142	0.29	.03	.2				
20.56 - 23.46	WASTE	2.90	—	—				
23.46 - 23.70	28143	0.24	.07	.4				
23.70 - 24.38	WASTE	(15 c.c) 0.68	—	—				
24.38 - 24.99	28144	0.61	.04	.2				
24.99 - 25.95	WASTE	0.96	—	—				
25.95 - 26.21	28145	0.26	.06	.4				
26.21 - 26.82	28146	0.61	.08	.2				
26.82 - 27.43	28147	(31 c.c) 0.61	.07	.2				
27.43 - 33.60	WASTE	6.17	—	—				
33.60 - 34.17	28148	0.57	.10	.3				
34.17 - 37.19	WASTE	3.02	—	—				
37.19 - 37.50	28149	0.31	.10	.4				
37.50 - 38.59	WASTE	1.09	—	—				
38.59 - 39.17	28150	0.58	.08	.3				
39.17 - 43.59	WASTE	4.42	—	—				
43.59 - 44.50	28151	(46 c.c) 0.91	.08	.2				
44.50 - 45.11	28152	(30 c.c) 0.61	.20	.7				
45.11 - 46.02	28153	(36 c.c) 0.91	.07	.8				
46.02 - 69.50	WASTE	23.48	—	—				
69.50 - 69.67	28154	0.17	.06	.3				
69.67 - 70.10	WASTE	0.43	—	—				
70.10 - 70.71	28155	0.61	.09	.5				
70.71 - 71.02	28156	0.31	.09	.3				
71.02 - 76.81	WASTE	5.79	—	—				
76.81 - 77.31	28157	0.50	.03	.3				
77.31 - 77.81	28158	0.50	.03	.2				
77.81 - 77.98	28159	0.17	.07	.5				
77.98 - 78.35	28160	0.37	.08	.4				
78.35 - 78.68	28161	0.33	.09	.2				
78.68 - 79.17	28162	0.49	.06	.3				
79.17 - 79.54	28163	0.37	.11	.2				
79.54 - 80.00	28164	0.46	.09	.2				
80.00 - 80.40	28165	0.40	.06	.1				
80.40 - 93.13	WASTE	12.73	—	—				

1057.51 AVERAGES

WIDTH	Au.	Ag.	Cu.	Zn.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,753

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DIAMOND DRILL RECORD

CORE 2/5

Property WINDFLOWER Project No. 224 Depth 278.23 Date Began JULY 11/87

Hole No. WIN-76 Co ord. 10,243 N Horizontal Length Date Completed JULY 24/87

Claim No. L-1 2481 4,916 E Core Size N.Q Drilled By M & B DRILLING

Grid No. Angle & Direction -79° S82°E GRID Elevation 2019.31 Logged By M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
93.13-94.23	28166	1.10	.08	<.1															
94.23-94.49	28167	0.26	.06	<.1															
94.49-95.10	28168	0.61	.10	<.1															
95.10-95.35	28169	0.25	.09	<.1															
95.35-95.70	28170	0.45	.04	<.1															
95.70-96.25	28171	0.55	<.03	<.1															
96.25-96.62	28172	0.37	.07	<.1															
96.62-97.20	28173	0.58	.12	.3															
97.20-97.90	28174	0.70	.16	.7															
97.90-98.22	28175	0.32	.12	.5															
98.22-98.77	28176	0.55	.11	.6															
98.77-99.67	28177	0.90	.09	.7															
99.67-100.17	28178	0.50	.08	.9															
100.17-100.51	28179	0.34	.13	.7															
100.51-100.72	28180	0.21	<.03	.4															
100.72-101.24	28181	0.52	.16	.7															
101.24-101.96	28182	0.72	.20	.4															
101.96-102.37	28183	0.41	.10	.3															
102.37-102.72	28184	0.35	.17	.5															
102.72-103.54	28185	0.82	.14	1.1															
103.54-103.92	28186	0.38	.11	.9															
103.92-104.24	28187	0.32	.20	.7															
104.24-104.60	28188	0.36	.12	1.1															
104.60-105.30	28189	0.70	.14	1.3															
105.30-105.91	28190	0.61	.11	.9															
105.91-106.57	28191	0.66	.16	1.0															
106.57-106.90	28192	0.33	.15	1.0															
106.90-107.30	28193	0.40	.15	.9															
107.30-107.70	28194	0.40	.13	.8															
107.70-108.16	28195	0.46	.12	.7															
108.16-108.66	28196	0.40	.13	.8															
108.66-109.27	28197	0.61	.14	1.0															
109.27-110.14	28198	0.87	.09	.6															
110.14-111.59	28199	1.45	.05	.5															
111.59-113.40	WASTE	1.81	—	—															
113.40-114.06	28200	0.66	.09	.9															
114.06-114.70	28201	0.64	.08	.8															
114.70-118.28	WASTE	3.58	—	—															
118.28-118.77	28202	0.49	.05	.3															
118.77-123.64	WASTE	4.87	—	—															

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DIAMOND DRILL RECORD

CORE 3/5

Property: WINDFLOWER | Project No. | Depth | Date Began

Hole No.: WIN-76 | Co ord. | Horizontal Length | Date Completed

Claim No. | | Core Size | Drilled By

Grid No. | Angle & Direction | Elevation | Logged By

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.	
123.64 – 124.24	28203	0.60	<.03	.4															
124.24 – 124.81	28204	0.57	.06	.7															
124.81 – 125.32	28205	0.51	.05	.5															
125.32 – 125.77	28206	0.45	<.03	.2															
125.77 – 126.00	28207	0.33	<.03	.3															
126.00 – 126.50	28208	0.50	<.03	.2															
126.50 – 126.93	28209	0.43	.07	.3															
126.93 – 127.45	28210	0.52	.05	.5															
127.45 – 128.04	28211	0.69	.04	.2															
128.04 – 128.63	28212	0.59	<.03	.2															
128.63 – 129.25	28213	0.62	<.03	.4															
129.25 – 129.55	28214	0.30	<.03	.4															
129.55 – 130.13	28215	0.58	.05	.7															
130.13 – 130.95	WASTE	0.82	—	—															
130.95 – 131.50	28216	0.55	.10	.9															
131.50 – 132.10	28217	0.60	.08	.8															
132.10 – 132.75	28218	0.65	.11	.8															
132.75 – 132.98	28219	0.23	.07	1.0															
132.98 – 133.45	28220	0.47	.07	.8															
133.45 – 134.08	28221	0.63	.06	.7															
134.08 – 139.80	WASTE	5.72	—	—															
139.80 – 140.10	28222	0.30	.06	.4															
140.10 – 142.85	WASTE	2.75	—	—															
142.85 – 143.25	28223	0.40	.06	.4															
143.25 – 143.75	28224	0.50	.07	.2															
143.75 – 144.27	28225	0.52	.06	.4															
144.27 – 144.90	28226	0.63	.05	.5															
144.90 – 145.22	28227	0.32	.04	.2															
145.22 – 145.50	28228	0.28	.06	.4															
145.50 – 146.61	28229	1.11	.07	.4															
146.61 – 147.11	28230	0.50	.06	.4															
147.11 – 147.45	28231	0.34	.07	.1															
147.45 – 148.00	28232	0.55	.06	.3															
148.00 – 148.48	28233	0.48	.07	.3															
148.48 – 148.82	28234	0.34	.05	.4															
148.82 – 149.19	28235	0.37	<.03	<.1															
149.19 – 149.55	28236	0.36	.14	.8															
149.55 – 149.88	28237	0.33	.15	.5															
149.88 – 150.50	28238	0.68	.14	.4															
150.50 – 150.93	28239	0.43	.13	.5															

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE 4/5

Property WINDFLOWER Project No. Depth Date Began

Hole No. WIN-76 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Direction Elevation Logged By

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
150.93-151.65	28240	0.72	.12	.3															
151.65-152.45	28241	0.80	.08	.5															
152.45-153.10	28242	0.65	.09	.2															
153.10-153.32	28243	0.22	.13	.5															
153.32-153.90	28244	0.58	.12	.4															
153.90-154.23	28245	0.33	.10	.7															
154.23-155.75	WASTE	1.52	—	—															
155.75-155.96	28246	0.21	.14	.8															
155.96-156.28	28247	0.32	.05	.2															
156.28-161.12	WASTE	4.84	—	—															
161.12-161.50	28248	0.38	.08	.2															
161.50-162.26	28249	0.76	.10	.5															
162.26-163.36	WASTE	1.10	—	—															
163.36-163.68	28250	0.32	<.03	.3															
163.68-171.15	WASTE	7.47	—	—															
171.15-171.43	28251	0.28	.02	.5															
171.43-171.88	28252	0.45	.06	.9															
171.88-172.12	28253	0.24	<.03	.4															
172.12-173.05	WASTE	0.93	—	—															
173.05-173.60	28254	0.55	<.03	.4															
173.60-173.74	WASTE	0.14	<.03	.3															
173.74-174.34	28255	0.60	<.03	.4															
174.34-175.15	28256	0.81																	
175.15-178.00	WASTE	2.85	—	—															
178.00-178.51	28257	0.51	<.03	.4															
178.51-178.90	28258	0.39	<.03	.3															
178.90-186.46	WASTE	7.56	—	—															
186.46-186.76	28259	0.30	<.03	.5															
186.76-191.83	WASTE	5.07	—	—															
191.83-192.15	28260	0.32	<.03	.2															
192.15-192.85	WASTE	0.70	—	—															
192.85-193.31	28261	0.46	.11	.6															
193.31-193.77	28262	0.46	.01	.2															
193.77-194.10	28263	0.33	.08	.8															
194.10-194.45	28264	0.35	.06	.5															
194.45-194.66	WASTE	0.21	—	—															
194.66-194.99	28265	0.33	.05	.4															
194.99-195.52	28266	0.53	.06	.5															
195.52-195.70	28267	0.18	.07	1.0															
195.70-196.44	28268	0.74	.15	.6															

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE 5/5

Property: WINDFLOWER | Project No. | Depth | Date Began

Hole No: WIN-76 | Co ord. | Horizontal Length | Date Completed

Claim No. | Core Size | Drilled By

Grid No. | Angle & Direction | Elevation | Logged By

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.	
196.44 - 197.43	WASTE	0.99	—	—			
197.43 - 197.69	28269	0.26	.10	.5			
197.69 - 198.73	28270	1.04	.08	.4			
198.73 - 199.10	WASTE	0.33	—	—			
199.10 - 199.42	28271	0.32	.21	1.5			
199.42 - 200.13	28272	0.71	.23	1.1			
200.13 - 200.60	28273	0.47	.41	1.1			
200.60 - 201.40	28274	0.80	.37	1.1			
201.40 - 201.78	28275	0.38	.31	1.5			
201.78 - 202.12	28276	0.34	.22	.9			
202.12 - 202.50	WASTE	0.38	—	—			
202.50 - 202.75	28277	0.25	.17	.8			
202.75 - 203.15	28278	0.40	.15	1.1			
203.15 - 203.33	28279	0.18	.30	.8			
203.33 - 203.67	28280	0.34	.29	1.0			
203.67 - 204.50	WASTE	0.83	—	—			
204.50 - 204.85	28281	0.35	.16	1.0			
204.85 - 215.55	WASTE	10.70	—	—			
215.55 - 216.20	28282	0.65	.12	.9			
216.20 - 218.23	WASTE	2.03	—	—			
E.O.H							

WIDTH X ASSAY						

AVERAGES					
WIDTH	Au.	Ag.	Cu.	Zn.	

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

SLUDGE 1/2

Property WINDY-LOWER Project No. 224 Depth 278.23 Date Began July 11/87
Hole No. WIN-76 Co ord. 10,243 N Horizontal Length Date Completed July 24/87
Claim No. L-12481 4,916 E Core Size N.Q. Drilled By M & B DRILLING
Grid No. Angle & Direction -79° S 82° E GRID Elevation 2019.31 Logged By MARK CANTWELL

INTERVAL FEET/METRES SLUDGE	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.	WIDTH X ASSAY	AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.
0 - 14.33	NO RETURN	14.33	—									
14.33 - 17.68	30041	3.35	.08									
17.68 - 20.73	30042	3.05	.06									
20.73 - 23.77	30043	3.04	.05									
23.77 - 26.82	30044	3.05	.04									
26.82 - 29.87	30045	3.05	.70									
29.87 - 32.92	30046	3.05	.06									
32.92 - 35.97	30047	3.05	.05									
35.97 - 39.01	30048	3.04	.08									
39.01 - 42.06	30049	3.05	.07									
42.06 - 45.11	30060	3.05	.09									
45.11 - 48.16	30051	3.05	.06									
48.16 - 51.21	30052	3.05	.05									
51.21 - 54.25	30053	3.05	.05									
54.25 - 57.30	30054	3.05	.07									
57.30 - 60.35	30055	3.05	.06									
60.35 - 63.40	30056	3.05	.05									
63.40 - 66.45	30057	3.05	.12									
66.45 - 69.49	30058	3.04	.07									
69.49 - 72.54	30059	3.05	.05									
72.54 - 75.59	NO RETURN	3.05	—									
75.59 - 78.64	30060	3.05	.06									
78.64 - 130.15	30061	51.51	.02									
130.15 - 133.20	30062	3.05	.02									
133.20 - 136.25	30063	3.05	.02									
136.25 - 139.29	30064	3.04	.02									
139.29 - 142.34	30065	3.05	.06									
142.34 - 145.39	30066	3.05	.02									
145.39 - 148.44	30067	3.05	.02									
148.44 - 151.79	30068	3.35	.02									
151.79 - 154.53	30069	2.74	.02									
154.53 - 157.58	30070	3.05	.09									
157.58 - 160.63	30071	3.05	.06									
160.63 - 163.68	30072	3.05	.02									
163.68 - 166.73	30073	3.05	.08									
166.73 - 169.77	30074	3.04	.09									
169.77 - 172.82	30075	3.05	.08									
172.82 - 175.87	30076	3.05	.02									
175.87 - 185.32	30077	9.45	.06									
185.32 - 188.36	30078	3.05	.08									

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

SLUDGE 2/2

Property WINDFLOWER Project No. 664 Depth Date Began

Hole No. WIN-76 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Direction Elevation Logged By

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
188.36 - 191.41	30079	3.05	.03																
191.41 - 193.85	30080	2.44	.02																
193.85 - 197.51	30081	3.66	.05																
197.51 - 200.56	30082	3.05	.02																
200.56 - 203.61	30083	3.05	.02																
203.61 - 206.65	30084	3.04	.06																
206.65 - 209.70	30085	3.05	.02																
209.70 - 212.75	30086	3.05	.02																
212.75 - 215.80	30087	3.05	.02																
215.80 - 218.23	30088	2.43	.02																
E.O.H.																			

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property: WINDFLOWER | Project No.: 224 | Depth: 218.23 | Date Began: JULY 11/87

Hole No.: WIN-76 | Co ord.: 10,243N | Horizontal Length: | Date Completed: JULY 24/87

Claim No.: L-12481 | 4916E | Core Size: N.Q. | Drilled By: M & B DRILLING

Page: 1 of 6 | Grid No.: | Angle & Grid Direction: -79° S 82° E 6610 | Elevation: 2019.31 | Logged By: P.J. DeVreck

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
0 – 12.19	CASING	Start of Core 11:27		
11.27 – 15.54	DOBR	BADLY BROKEN SILICEOUS DOLOMITE with qtz Stringers & Veinlets	S1	
	LC	11.27 – 14.32 – 2.13m Lost Core		
	LC	14.32 – 15.54 – 0.61m " "		
		15.54 –		
15.54 – 16.45	LC	Lost Core		
16.45 – 17.06	QV	GREY QUARTZ VEIN TRACE PYRITE		
17.06 – 18.89	LC	Lost Core		
18.89 – 19.05	DO	DOLOMITE PEBBLES		
19.05 – 19.66	LC	Lost Core		
19.66 – 20.42	DO	DOLOMITE FRAGMENTS – Some qtz		
20.42 – 20.88	DOBR	BROKEN SILICEOUS DOLOMITE with ARGILLACEOUS Sections	AR	
20.88 – 22.86	LC	Lost Core		
22.86 – 23.47	DOBR	BADLY BROKEN DOLOMITE (Fragments & Pebbles)		
23.47 – 24.38	DOBR	BROKEN SILICEOUS DOLOMITE		
24.38 – 24.84	QVBR	BADLY BROKEN GREY QUARTZ VEIN – TR. PYRITE		
24.84 – 24.99	LC	Lost Core		
24.99 – 25.45	BR	BADLY BROKEN		
25.45 – 25.60	LC	LOST CORE		
25.60 – 26.82	QVBR	BROKEN GREY QUARTZ VEIN TR. PYRITE, SPHALERITE		SL
		25.60 – 26.21 Badly Broken.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

Property WINDFLOWER | Project No. 224 | Depth | Date Began
Hole No. WIN-76 | Co ord. | Horizontal Length | Date Completed
Claim No. | Core Size | Drilled By
ZONE: | Page 2 of 6 | Grid No. | Angle & Grid Direction | Elevation | Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
26.82 - 27.12	LC	Lost Core		
27.12 - 28.5	DO BR	Broken Dolomite		
	LC	27.56 - 28.04 Lost Core		
	LC	28.04 - 28.43 Lost Core		
28.5 - 36.27	AR.DO	Light to Dark Grey CALCAREOUS ARGILLITE to SILICEOUS Dolomite	LM SI	QS
		Scattered qtz Stringers & Veinlets.		
36.27 - 44.5	DOSH	MAINLY SHEARED & ALTERED SILICEOUS DOLOMITE with GRAPHITIC ARGILLITE Sections. (Core Broken up)	SI	
		37.18 - 37.34 qtz Vein Core ∠ 5°-10°		
		42.36 - 44.50 Badly Broken Core		
		43.43 - 43.58 Lost Core.		
		44.04 - 44.5 Lost Core.		
44.5 - 44.8	QV	Grey QUARTZ VEIN - Trace Pyrite, Carbonate (40% Lost Core).	QB	
44.8 - 45.11	LC	Lost Core.		
45.11 - 45.72	QV BR	Broken Grey qtz Vein 20% Lost Core TR PY.		
45.72 - 49.83	AR	BLACK to Grey Limy ARGILLITE with GRAPHITIC Sections. Core ∠ = 5°	LM GP	
49.83 - 51.20	DO	ARGILLACEOUS DOLOMITE	AR	
51.20 - 64.92	DOSH	STRONGLY SHEARED DOLOMITE Sections with FUCHSITE. Core ∠ 0 to 20°	FU	
64.92 - 76.08	GASH	SHEARED CALCAREOUS GRAPHITIC ARGILLITE Scattered Sections with qtz Stringers TR. PYRITE.	LM	
	QC	70.10 - 71.02 qtz - Carbonate Stringers 1-2% Pyrite		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Page 3 of 6

Property: WINDFLOWER | Project No.: 224 | Depth: | Date Began:
Hole No.: WIN - 76 | Co'ord.: | Horizontal Length: | Date Completed:
Claim No.: | Core Size: | Drilled By:
Grid No.: | Angle & Grid Direction: | Elevation: | Logged By:

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
76.08 - 76.81	DOMX	Massive Coarse Grained Dolomite		
76.81 - 78.94	QCVN	grey-white Quartz-Carbonate Vein with Graphitic Wisps. Trace to 1% Pyrite.	GP	PY
		Core ∠ = 5°		
		76.81 - 76.99 Trace Pb - Zn		PY
	GAQV	77.87 - 78.33 Graphitic Argillite & qtz Veining		
	GA	78.79 - 78.94 Graphitic Argillite		
78.94 - 79.79	DOQV	Siliceous Dolomite & Quartz Veining - Tr. PY.	SI	
79.79 - 93.11	DOFO	Well Foliated Altered Dolomite. Siliceous & Slightly Sheared, Calcareous, Some Fuchsite.	SI FU	
		Core ∠ @ 91.44 = 50°		
93.11 - 99.67	GA	Strongly Siliceous & Calcareous Graphitic Argillite. Numerous qtz stringers - Tr to 5% Pyrite in pads associated with qtz. Occassional narrow band of laminated grey Argillite odd spec Chalcopyrite.	SI LM	PYQS
	DO	93.57 - 93.88 Altered Dolomite Tr. PY. Sphalerite		SL
	DO	93.88 - 94.24 Black Graphitic Dolomite & qtz	GP	
	QVMX	97.9 - 98.20 Massive white qtz Vein		
99.67 - 110.33	GA	Moderately Siliceous to Strongly Siliceous Limy Graphitic Argillite. Numerous qtz calcite stringers & Veinlets.	SI LM	QS SL
		102.01 - 102.14 20% Sphalerite		SL
	QVGA	102.14 - 102.41 qtz Vein & Graphitic Argillite - Trace Sphalerite		SL
110.33 - 119.48	GABX	Black Limy Graphitic Argillite - Brecciated.	LM	QS
		Scattered qtz - Carbonate Stringers & Veinlets.		
		118.26 - 118.87 qtz Carbonate Veinlet.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG
ZONE:

Property: WINDFLOWER | Project No. 224 | Depth | Date Began
Hole No. WIN - 76 | Co'ord. | Horizontal Length | Date Completed
Claim No. | Core Size | Drilled By
Page 4 of 6 | Grid No. | Angle & Grid Direction | Elevation | Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
119.48 - 123.59	GABN	Dark Grey Graphitic Argillite - Finely Laminated		
123.59 - 129.54	GA	Siliceous Dark Grey to Black Graphitic Argillite	SI LM	QS GL SL
		Sections Calcareous.		
		Scattered qtz stringers & Veinlets with Trace Pyrite.		
		odd spec galena and Sphalerite.		
129.54 - 144.81	GA BR	Broken Siliceous and Limy Graphitic Argillite	LM SI	QS GL SL
		with Scattered qtz stringers and Veinlets - Trace Pyrite		
		occassional Spec & bleb galena and Sphalerite.		
	QCMX	135.18 - 135.48 massive white qtz - carbonate Vein		
		Core Angle @ Contact is 20°		
		@ 136.06 - 0.15 cm qtz stringer with 50% Pyrite. @ 20° Core L		QS PY
		131.52 - 132.95 strongly Siliceous & Broken with irregular qtz Veinlets -	SI	
		Trace Py, Pb, Zn		
		@ 132.92 Visible Pb - Zn.		
	QV GA	136.55 - 136.73 qtz Veining & Graphitic Argillite.		
	QV GA	139.75 - 140.05 Irregular qtz Veining & Graphitic Argillite		
		Trace Pyrite, Sphalerite, Galena.		
		142.28 - 142.46 - 0.15 cm qtz - Pyrite Stringer (60% Pyrite)		PY
		Core L = 10°		
	GA	143.10 - 144.81 Limy Graphity Argillite & qtz Veinlets.	LM	
144.81 - 152.40	QV GA	Quartz Veining & Graphitic Argillite - Trace Pyrite		SL GL
		odd spec Sphalerite and Galena.		
		Visible Galena or Sphalerite @ 145.08, 145.23, 147.40, 149.04,		
		150.26 - 150.72.		
152.40 - 155.75	GA	Black Limy Graphitic Argillite	LM	PY
	QCGA	152.85 - 153.07 Irregular qtz Carbonate Veining & Graphitic Argillite.		
		including a 18.24 cm Pyrite stringer		
	QC	153.07 - 153.62 40% Fine Pyrite in qtz - Carbonate zone within G.A.		
155.75 - 156.05	GA QV	Siliceous Graphitic Argillite & Grey Quartz Veining.	SI	

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Page 5 of 6

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WN-76 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Grid Direction Elevation Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
156.05 - 156.27	QV	WHITE QUARTZ VEIN & GRAPHITIC FRAGMENTS TRACE PYRITE - SPHALERITE.		PY SL
156.27 - 161.08	GABR	BLACK CALCAREOUS GRAPHITIC ARGILLITE — BROKEN SCATTERED qtz STRINGERS & VEINLETS CORE L = 0°-5°	LM	QS
	LC	160.47 - 160.63 SAND (LOST CORE)		
161.08 - 161.85	QV	GREY-WHITE QUARTZ VEIN WITH CARBONATE AND GRAPHITIC WISPS AND GRAPHITIC ARGILLITE CORE L = 22°	CB GP	
161.85 - 162.15	LC	LOST CORE		
162.15 - 173.28	GA	CALCAREOUS GRAPHITIC ARGILLITE WITH SCATTERED qtz STRINGERS & VEINLETS.		QS
	QV	163.37 - 164.15 qtz VEINING		
	QVGA	171.14 - 171.45 qtz VEINING & GRAPHITIC ARGILLITE		
	QV	171.90 - 172.15 WHITE qtz VEIN		
	QVGA	172.82 - 173.28 WHITE qtz VEIN & GRAPHITIC ARGILLITE.		
173.28 - 175.26	QVGA	WHITE QUARTZ VEIN & GRAPHITIC ARGILLITE		
175.26 - 176.00	GA	CALCAREOUS GRAPHITIC ARGILLITE WITH qtz STRINGER.	LM	QS
176.00 - 178.91	QVGA	QUARTZ VEINLETS & GRAPHITIC ARGILLITE.		
178.91 - 187.75	GA	JIMY GRAPHITIC ARGILLITE	LM	
187.75 - 191.62	FT	FAULT ZONE - CLAY & MUD.	CY	
191.62 - 191.72	GABR	GRAPHITIC ARGILLITE RUBBLE		
191.72 - 192.02	QV	QUARTZ VEIN - TRACE SPHALERITE, PYRITE.		PY SL
192.02 - 192.23	QZBR	QUARTZ RUBBLE & ARGILLITE		
192.23 - 193.85	LC	LOST CORE		

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DIAMOND DRILL LOG

ZONE: Page 6 of 6

Property: WINOFLOWER | Project No. 224 | Depth | Date Began
Hole No. W.N.-76 | Co ord. | Horizontal Length | Date Completed
Claim No. | Core Size | Drilled By
Grid No | Angle & Grid Direction | Elevation | Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
193.85 - 195.68	QVGA	QUARTZ VEIN & BLACK GRAPHITIC ARGILLITE & GREY ARGILLITE. WITH CARBONATE 2-3 TRACE PYRITE.	CB	
195.6E - 199.40	GABX	BRECCIATED CALCAREOUS GRAPHITIC ARGILLITE	SI	
		SILICIFIED WITH QTZ STRINGERS & VEINLETS.		
199.40 - 205.43	GASH	SILTERED SILICEOUS BLACK GRAPHITIC ARGILLITE & QUARTZ VEINING CALCAREOUS.	SI CB	QV
	QV	199.4 - 199.58 QTZ VEINING, GRAPHITIC, CALCAREOUS - TRACE PYRITE.	GP LM	
	QV	200.0 - 200.10 QTZ VEINLETS - TRACE - 1% PYRITE.		PY
	QVGA	200.43 - 201.13 QTZ VEIN & GRAPHITIC ARGILLITE - CARBONATE. TR. PY.	CB	
	LC	201.32 - 201.77 LOST CORE.		
	QZGABR	201.77 - 201.93 QUARTZ & GRAPHITIC ARGILLITE PEBBLES.		
	QVGA	201.93 - 202.97 QUARTZ VEINING & GRAPHITIC ARGILLITE.		
	QVGA	202.97 - 203.36 QUARTZ VEIN & GRAPHITIC ARGILLITE.		
	LC	203.36 - 203.45 LOST CORE.		
	GABR	203.45 - 203.60 BROKEN CORE - GRAPHITIC ARGILLITE & QTZ.		
	QZARBR	203.60 - 204.88 QUARTZ - ARGILLITE - DOLOMITE PEBBLE		
	LC.	204.EE - 205.28 LOST CORE		
205.43 - 218.23	DO	SILICEOUS YELLOW (Colored) ALTERED DOLOMITE	SI	
E.O.H.		ACID TEST @ 105.7m = 83° 15'		
		140.5 = 85° 45'		
		201.77 = 89° 15'		
		HOLE CEMENTED TOP to BOTTOM ON AUGUST 9		
		CASING REMOVED ON August 9.		

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30690 - 30705 SLUDGE

GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE PAGE 1 of 2

Property: WINDFLOWER Project No. 224 Depth 10.41 Date Began July 11 87
Hole No. WIN-77 Co ord. 10,113.77 Horizontal Length Date Completed July 13 87
Claim No. L 12481 4910.15E Core Size N.Q. Drilled By MB Drilling
Grid No. Angle & Direction -50S 75E GRID Elevation 1041.0 metres Logged By T. LAFAVOR

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.	
0-9.75	CASING	9.75	—																
9.75-13.80	WASTE	4.05	—																
13.80-14.00	31169	.20	.40	1.4															
14.00-14.50	31170	.50	.19	1.0															
14.50-14.94	31171	.44	.49	1.6															
14.94-15.29	31172	.35	.12	.4															
15.29-15.47	31173	.18	.70	1.8															
15.47-15.97	31174	.50	.15	.8															
15.97-16.46	31175	.49	.19	.5															
16.46-16.75	31176	.29	.82	129.0															
16.75-17.15	31177	.40	.85	5.2															
17.15-17.68	31178	.53	.58	1.7															
17.68-18.09	31179	.41	.21	1.4															
18.09-18.75	31180	.66	.25	1.4															
18.75-19.66	31181	.91	.34	1.3															
19.66-20.00	31182	.34	.25	1.1															
20.00-20.33	31183	.33	.17	.8															
20.33-20.76	31184	.43	.24	1.7															
20.76-21.17	31185	.41	.28	1.3															
21.17-21.64	31186	.47	.04	1.3															
21.64-22.62	31187	.98	.10	1.3															
22.62-23.01	31188	.39	.05	1.2															
23.01-23.62	31189	.61	.07	1.0															
23.62-24.28	31190	.66	<.03	.4															
24.28-24.58	31191	.30	<.03	.4															
24.58-24.99	31192	.41	<.03	.5															
24.99-25.70	31193	.71	.06	1.2															
25.70-26.52	31194	.82	<.03	.8															
26.52-27.13	31195	.61	.04	1.0															
27.13-28.04	31196	.91	.10	1.4															
28.04-29.04	31197	1.00	<.03	1.1															
29.04-38.67	WASTE	9.63	—																
38.67-39.01	31198	.34	.08	2.1															
39.01-40.53	WASTE	1.52	—																
40.53-41.10	31199	.57	.11	.9															
41.10-42.68	WASTE	1.58	—																
42.68-42.78	32000	.10	.13	1.3															
42.78-43.18	WASTE	.50	—																
43.18-43.83	32001	.70	.24	1.6															
43.83-43.90	WASTE	.07	—																

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,753

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE Page 2 of 2

Property WINDFLOWER Project No. 224 Depth 70.41 Date Began July 11/87
Hole No. WIN 77 Co ord. 10,113.77 Horizontal Length Date Completed July 13/87
Claim No. L 12481 4,910.15 E Core Size N.Q. Drilled By M&B DRILLING
Grid No. -505 75E Angle & Direction GRID Elevation 1041.0 metres Logged By T. LAFLAMME

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
43.90 - 44.46	32002	.56	.24	4.3															
44.46 - 44.50	WASTE	.04	—																
44.50 - 44.90	32003	.40	.29	.8															
44.90 - 46.02	32004	1.12	.60	1.1															
46.02 - 46.35	32005	.33	.32	.8															
46.35 - 47.55	32006	1.20	.41	1.9															
47.55 - 48.85	WASTE	1.30	—																
48.85 - 49.40	32007	.55	.13	1.2															
49.40 - 49.78	32008	.38	<.03	.4															
49.78 - 50.00	32009	.22	.04	.6															
50.00 - 50.40	32010	.40	<.03	.8															
50.40 - 51.20	WASTE	.80	—																
51.20 - 51.58	32011	.38	<.03	.2															
51.58 - 51.92	32012	.34	.11	.6															
51.92 - 52.44	32013	.52	.03	.2															
52.44 - 52.88	32014	.44	.03	.3															
52.88 - 53.40	32015	.52	.03	.3															
53.40 - 53.77	32016	.37	.07	.4															
53.77 - 55.05	WASTE	1.28	—																
55.05 - 55.48	32017	.43	.05	.6															
55.48 - 70.41 E.O.H.	WASTE	14.93	—																
				HOLE CEMENTED TOP to BOTTOM - CASING PULLED															
				ACID TEST @ 15.2 m = 49°															
				@ 70.4 m = 47°															

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

SLUDGE

Property WINDFLOWER Project No. 224 Depth 70.41 Date Began JULY 11/87

Hole No. WIN-77 Co ord. 10,113.77 Horizontal Length Date Completed JULY 13/87

Claim No. L 12481 4910.15E Core Size N.Q. Drilled By M & B DRILLING

Grid No. Angle & Direction -50° S75°E (GRID) Elevation 1041.0 Meters Logged By T. LAFAVOR

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 9.75	CASING	9.75																	
9.75 - 14.02	30690	4.27	.27																
14.02 - 17.07	30691	3.05	.135																
17.07 - 20.12	30692	3.05	1.72																
20.12 - 23.16	30693	3.005	.55																
23.16 - 26.21	30694	3.05	.145																
26.21 - 29.26	30695	3.05	.127																
29.26 - 32.31	30696	3.05	.25																
32.31 - 35.36	30697	3.05	.131																
35.36 - 38.40	30698	3.05	.132																
38.40 - 41.45	30699	3.05	.127																
41.46 - 44.50	30700	3.05	.144																
44.50 - 47.55	30701	3.05	.193																
47.55 - 50.60	30702	3.05	1.00																
50.60 - 53.64	30703	3.05	.192																
53.64 - 62.79	30704	9.15	.146																
62.79 - 68.88	30705	6.09	.171																
E.O.H.																			

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property WINDFLOWER Project No. 224 Depth 70.41 Date Began JULY 11/87

Hole No. WIN-77 Co-ord. 10 113.77N Horizontal Length Date Completed JULY 13/87

Claim No. L 12481 4910.15E Core Size N.Q. Drilled By M & B. DRILLING

Page P-1 OF Grid No. Angle & Grid Direction -50° S 75°E Elevation 1041.0 Logged By P.J. DESJARDINS

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
0 – 9.75	CSG	CASING – OVERBURDEN Start of Core 9.75		
9.75 – 14.02	GASH	SHEARED CALCAREOUS GRAPHITIC ARGILLITE		
14.02 – 14.3	GASH	STRONGLY SHEARED SILICEOUS GRAPHITIC ARGILLITE & SILICEOUS DOLOMITE AND QUARTZ VEINING	SI	QV
14.3 – 16.7	QZSX	QUARTZ VEIN and SULPHIDE ZONE	CB	PYGL
		14.3 – 15.33 qtz vein with patches of Dolomite – Calcareous Trace Pyrite 15.33 – 15.54 qtz vein and Dolomite and 20% Pyrite – Calcareous 15.54 – 16.76 Similar to Dark Grey Quartz Vein visible Galena @ 16.49		
16.7 – 19.69	GASH	SHEARED and BROKEN SILICEOUS CALCAREOUS GRAPHITIC ARGILLITE Trace Sphalerite, Galena, Chalcopyrite, Pyrite in Quartz Brecciated – with Scattered qtz Stringers and Veinlets	LM	PYSLGL
		VERY BAD GROUND CONDITIONS – SEVERAL SETS OF FRACTURES		
		16.7 – 17.07 15% PYRITE.		
19.69 – 20.42	QVBR	BADLY BROKEN & FRACTURED QUARTZ VEINING & GRAPHITIC ARGILLITE		PYSLGL
		Trace Galena, Sphalerite, Pyrite, Chalcopyrite in qtz CORE L = 0° – 32°		
		VERY UNSTABLE GROUND.		
20.42 – 43.89	GABR	BADLY BROKEN & FRACTURED CALCAREOUS GRAPHITIC ARGILLITE	LM	GS
		Scattered qtz Stringers & Veinlets. Trace Pyrite		
		VERY UNSTABLE GROUND.		
		23.62 – 24.23 grey qtz vein & GRAPHITIC ARGILLITE 25.81 – 26.42 grey qtz vein & GRAPHITIC ARGILLITE. 30.78 – 37.49 MODERATELY UNSTABLE		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Page P-2 of 2

Property WINDFLOWER | Project No. 224 | Depth | Date Began

Hole No. WIN-77 | Co ord. | Horizontal Length | Date Completed

Claim No. | Core Size | Drilled By

Grid No. | Angle & Grid Direction | Elevation | Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
43.89 - 44.25	QZ	2.54 cm wide qtz Stringer with 40% Pyrite.		PY
44.25 - 44.8	QZGA	QUARTZ VEIN & GRAPHITIC ARGILLITE		
			CL	
		@ 44.5 - 5.08 cm wide Zone of FAULT Gouge (MUD)		
44.8 - 46.48	GABX	SHEARED and BRECCIATED CALCAREOUS GRAPHITIC ARGILLITE silicified with qtz Stringers	SI	QZ
46.48 - 46.7	QV	GREY-White qtz VEIN GRAPHITE Smears with TRACE PYRITE and GALENA.	GP	GL
46.7 - 60.96	GA	CALCAREOUS GRAPHITIC ARGILLITE with DARKER Sections of GREY ARGILLITE.	LM	
		MORE STABLE GROUND.		
		49.37 - 49.7 qtz Veining and GRAPHITIC ARGILLITE		
		52.27 - 53.34 SILICEOUS FINE GRAINED DOLOMITE & GRAPHITIC ARGILLITE INTERLAYERED.		
60.96 - 65.10	DO	SILICEOUS FINE GRAINED YELLOW COLORED DOLOMITE	SI	
65.10 - 70.41	GA	CALCAREOUS GRAPHITIC ARGILLITE with NUMEROUS light grey ARGILLITE BEDS INTERLAYERED.	LM	
E.O.H.				
		DIP TEST @ 15.2 M = 49°		
		@ 70.4 M = 47°		
		HOLE CEMENTED TOP to BOTTOM		
		CASING REMOVED.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE PAGE 1 OF 3 1/3

Property WINDFLOWER
Project No. 224
Depth 93.27 m
Date Began JULY 13/87
Hole No. WIN 78
Co ord. 10113.77 N
4910.15 E
Horizontal Length
Date Completed JULY 15/87
Claim No. L12481
Core Size NQ
Drilled By M&B DRILLING
Grid No.
Angle & Direction -70° S 75°E GRID
Elevation 1041.0 m
Logged By P.J. DeVeaux & R. KLIPPENSTEIN

INTERVAL ~~FEET~~/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.	
0 – 5.18	CASING	5.18	0.00	0.0															
5.18 – 5.40	32018	.22	.06	.6															
5.40 – 5.62	19	.22	.10	1.0															
5.62 – 6.30	32020	.68	.08	.8															
6.30 – 6.74	21	.44	.09	.6															
6.74 – 7.24	22	.50	.12	.7															
7.24 – 9.40	WASTE	2.16	0.00	0.0															
9.40 – 10.11	32023	.71	.12	.9															
10.11 – 10.60	24	.49	.12	1.0															
10.60 – 11.35	32025	.75	.13	.6															
11.35 – 11.85	26	.50	.15	.9															
11.85 – 13.37	WASTE	1.52	0.00	0.0															
13.37 – 13.87	32027	.50	.17	1.3															
13.87 – 14.27	28	.40	.16	1.3															
14.27 – 14.40	29	.13	.19	1.2															
14.40 – 15.24	32030	.84	.12	1.2															
15.24 – 17.18	WASTE	1.94	0.00	0.0															
17.18 – 17.72	32031	.54	.18	1.4															
17.72 – 18.05	32	.33	.15	1.1															
18.05 – 18.54	33	.49	.17	1.2															
18.54 – 19.11	34	.57	.16	1.4															
19.11 – 19.41	32035	.30	.15	1.2															
19.41 – 19.91	36	.50	.13	1.6															
19.91 – 20.50	37	.59	.13	1.4															
20.50 – 21.00	38	.50	.08	1.2															
21.00 – 21.63	WASTE	.63	0.00	0.0															
21.63 – 22.13	32039	.50	.08	.9															
22.13 – 22.39	32040	.26	.06	1.1															
22.39 – 23.11	41	.72	.13	1.4															
23.11 – 23.62	42	.51	.10	1.1															
23.62 – 25.08	WASTE	1.46	0.00	0.0															
25.08 – 25.58	32043	.50	.07	1.3															
25.58 – 25.80	44	.22	.03	.7															
25.80 – 26.30	32045	.50	.05	.8															
26.30 – 27.00	WASTE	.70	0.00	0.0															
27.00 – 27.30	46	.30	.14	1.2															
27.30 – 27.70	47	.40	.13	.9															
27.70 – 28.20	48	.50	.12	1.0															
28.20 – 28.70	49	.50	.12	1.1															

GEOLOGICAL BRANCH
ASSESSMENT REPORT
16,753

32050- 30706 - 30730 SLUDGE COMPLETE Duplicate

GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE 2/3

Property WINDFLOWER Project No. 224 Depth 73.27 Date Began July 13/87
Hole No. WIN 78 Co ord 10,113.77N Horizontal Length Date Completed July 15/87
Claim No. L 12481 4910.15E Core Size N.Q. Drilled By M & B Drilling
Grid No. Angle & Direction -70° S 80°E Elevation 1041.0 M Logged By J. LAFLAMME
GRID

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES						
														WIDTH	Au.	Ag.	Cu.	Zn.		
28.70 - 28.89	32050	0.19	.81	5.1										0.34m	2.15	6.8				28.89 - 29.23
28.89 - 29.23	32051	0.34	2.15	6.8																
29.23 - 29.70	32052	0.47	.10	1.0																
29.70 - 29.76	waste	0.06	—	—																
29.76 - 30.26	32053	0.50	.11	.8																
30.26 - 30.93	32054	0.67	.13	1.1																
30.93 - 31.05	32055	0.12	.97	4.6																
31.05 - 31.55	32056	0.50	.09	1.7																
31.55 - 34.16	waste	2.61	—	—																
34.16 - 34.66	32057	0.50	.50	1.7																
34.66 - 35.03	32058	0.37	.18	1.3																
35.03 - 35.60	32059	0.57	.13	1.3																
35.60 - 36.39	waste	0.79	—	—																
36.39 - 36.95	32060	0.56	.07	.8																
36.95 - 37.40	32061	0.45	.05	.6																
37.40 - 37.87	32062	0.47	.07	.7																
37.87 - 38.43	32063	0.56	.15	1.1																
38.43 - 38.80	waste	0.37	—	—																
38.80 - 39.37	32064	0.57	.12	1.2																
39.37 - 39.85	32065	0.48	.14	1.5																
39.85 - 40.35	32066	0.50	.09	1.1																
40.35 - 40.90	32067	0.55	.16	1.5																
40.90 - 41.48	32068	0.58	.14	1.1																
41.48 - 41.70	32069	0.22	.12	2.0																
41.70 - 44.47	waste	2.77	—	—																
44.47 - 44.92	32070	0.45	.12	1.8																
44.92 - 45.52	32071	0.60	.08	1.6																
45.52 - 46.02	waste	0.50	—	—																
46.02 - 46.86	32072	0.84	.03	.6																
46.86 - 47.18	32073	0.32	.07	.9																
47.18 - 47.68	32074	0.50	.15	2.0																
47.68 - 47.98	32075	0.30	.09	.8																
47.98 - 48.46	32076	0.48	.12	2.0																
48.46 - 49.06	32077	0.60	.13	1.6																
49.06 - 49.66	32078	0.60	.14	1.8																
49.66 - 50.29	32079	0.63	.13	1.8																
50.29 - 50.84	32080	0.55	.16	1.4																
50.84 - 51.39	32081	0.55	.12	1.3																

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DIAMOND DRILL RECORD
CORE 3/3

Property: WINDFLOWER | Project No.: 224 | Depth: 93.27 | Date Began: JULY 13/87
Hole No.: WIN 78 | Co ord.: 10,113.77 N | Horizontal Length: | Date Completed: JULY 15/87
Claim No.: L12481 | 4910.15 E | Core Size: N.Q | Drilled By: M & B DRILLING
Grid No.: | Angle & Direction: | Elevation: 1041.0 m | Logged By: M. Cantwell

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
51.39-51.89	32082	0.50	.13	1.1															
51.89-52.39	32083	0.50	.11	1.5															
52.39-52.88	32084	0.49	.12	1.0															
52.88-53.25	32085	0.37	.18	1.8															
53.25-53.70	32086	0.45	.18	1.1															
53.70-53.93	32087	0.23	.61	.9															
53.93-54.15	32088	0.22	2.88	.8										0.32m	5.42	3.24			
54.15-54.25	32089	0.10	11.02	8.6															
54.25-54.86	Waste	0.61	—																
54.86-54.96	32090	0.10	.56	13.8															
54.96-55.21	32091	0.25	.22	2.1															
55.21-55.46	32092	0.25	.26	1.7															
59.51-60.00	32093	0.49	.07	.3															
60.00-74.30	Waste	14.30	—																
74.30-74.50	32094	0.20	<.03	.2															
74.50-74.64	32095	0.14	<.03	.2															
74.64-75.00	32096	0.36	<.03	.1															
75.00-75.50	32097	0.50	<.03	<.1															
75.50-75.90	32098	0.40	<.03	.1															
75.90-76.50	32099	0.60	<.03	.1															
76.50-77.11	32100	0.61	<.03	<.1															
77.11-80.35	Waste	3.24	—																
80.35-80.70	32101	0.35	<.03	<.1															
80.70-81.08	32102	0.38	.04	.1															
81.08-81.53	32103	0.45	.03	<.1															
81.53-82.05	32104	0.52	<.03	<.1															
E.O.H.				HOLE CEMENTED - TOP TO BOTTOM 10 BAGS										CASING PULLED					
				ACID TEST @ 601M = 66° 30'															

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

SLUDGE

Property: WILDFLOWER | Project No.: 224 | Depth: 93.27 | Date Began: JULY 13/87
Hole No.: WW-78 | Co ord.: 10,113.77 N | Horizontal Length: | Date Completed: JULY 15/87
Claim No.: L.12481 | 4910.15 E | Core Size: N.Q. | Drilled By: M & B. Drilling
Grid No.: | Angle & Direction: -70° S 82° E GRID | Elevation: 1041.0 M | Logged By: T. LAFAVOR

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
0 – 5.18	CASING	5.18																	
5.18 – 7.82	30706		.05																
7.92 – 10.97	30707		.04																
10.97 – 14.02	30708		.08																
14.02 – 17.07	30709		.06																
17.07 – 20.12	30710		.05																
20.12 – 23.16	30711		.06																
23.16 – 26.21	30712		.134																
26.21 – 29.26	30713		.24																
29.26 – 32.31	30714		.38																
32.31 – 35.36	30715		.30																
35.36 – 38.40	30716		.28																
38.40 – 41.45	30717		.32																
41.45 – 44.50	30718		.25																
44.50 – 47.55	30719		.15																
47.56 – 50.60	30720		.13																
50.60 – 53.64	30721		.15																
53.64 – 56.69	30722		9.68																
56.69 – 59.74	30723		2.74																
59.74 – 62.79	30724		1.72																
62.79 – 65.84	30725		1.55																
65.84 – 68.88	30726		.46																
68.88 – 71.93	30727		.169																
71.93 – 74.98	30728		.60																
74.98 – 78.03	30729		.136																
78.03 – 81.08	30730		.06																
81.08 – 84.12	30731		.02																
84.12 – 87.17	30732		.102																
87.17 – 90.22	30733		.13																
90.22 – 93.27	30734		.20																
E.O.H.																			

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DIAMOND DRILL LOG

ZONE:

Property: Wind Flower | Project No.: 224 | Depth: 93.26M. | Date Began: July 13/87

Hole No.: Win 78 | Coord.: 10 059N | Horizontal Length: | Date Completed: July 15/87

Claim No.: L12481 | 4938E | Core Size: N.Q. | Drilled By: M & B. Drilling

Page: 1 | Grid No.: | Angle & Grid Direction: -45 Grid West | Elevation: 1021.51m. | Logged By: W. Steiferau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
0 - 5.18m.	CSG	Casing		
5.18 - 27.0	GA	Calcareous Graphitic Argillite	CB	QV
		Dark grey to black, fine grained unit with poor to moderately well developed graphitic bedding-Schistosity. Contains 15% to 40% thinly laminated calcareous bands to several centimetres wide as well as thin carbonate veinlets in various stages of disruption/transposition into plane of Schistosity. Contains Trace to 2% background disseminated pyrite and Trace galena and Sphalerite.		
		5.4 - 5.62 : Irregular quartz vein with Trace to 1% fine to medium grained Subhedral pyrite.		
		5.62 - 6.30 : Calcareous graphitic argillite. Trace to 1% anhedral, medium grained pyrite in occasional quartz (± Carbonate) veins to 1 cm wide which compose 5% of Section.		
		6.30 - 6.74 : Calcareous graphitic argillite and 30% quartz Veining with Trace Sphalerite blebs.		
		9.40 - 9.9 : Approximately 40% lost Core. Blocky graphitic argillite with 1-2% very fine to medium grained disseminated pyrite.		
		10.11 - 11.35 : Calcareous graphitic argillite with 40% irregular quartz veins at low to Medium Core angles. 1-2% fine to medium grained euhedral pyrite, Trace Sphalerite associated with veins.		
		13.87 - 14.40 : Calcareous graphitic argillite with 3-5% Subhedral, Medium grained pyrite as aggregations and mineral trails within quartz-Carbonate Veins. Veins Comprise 10% of Section and are at 30 - 45° To Core axis.		
		14.27 - 15.24 : Blocky Core. 30% Core loss. 1% fine to medium grained disseminated pyrite.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

Property: Wind Flower | Project No. | Depth: 93.26 m | Date Began: July 13/87
Hole No.: Win 78 | Co ord.: 10 059 N | Horizontal Length | Date Completed: July 15/87
Claim No.: L12481 | 4938 E | Core Size | Drilled By
ZONE: | Page: 2 | Grid No. | Angle & Grid Direction: -45 Grid West | Elevation: 1021.51 m. | Logged By: W. Steeteraj

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		15.24 - 16.26: Blocky core. Trace disseminated pyrite.		
		17.18 - 17.72: 25% quartz-carbonate veins to 1.5 cm wide and subparallel to core axis. Veins carry 2-3% fine-grained euhedral pyrite.		
		17.72 - 18.05: Includes barren 2cm wide quartz-carbonate vein at 5° to core axis.		
		18.05 - 19.11: 15-20% quartz-carbonate veins (to 1cm wide) at shallow to medium core angles. 1-2% disseminated pyrite, mostly in veins.		
		19.11 - 19.41: Quartz vein with 30% graphitic argillite inclusions. Vein contacts irregular but approx. 40-50° to core axis. 1-2% fine-medium grained pyrite as occasional coarse splotches in argillite inclusions		
		22.13 - 22.39: 40% quartz-carbonate veins to 3 cm thick and approx. 40° to core axis generally. Overall 2-4% coarse pyrite blebs and pyrite trains in argillite.		
		23.11 - 23.62: 40% quartz-carbonate veins. 1-2% disseminated pyrite.		
		24.00 - 25.58 Blocky core with greater than 10 fractures/meter.		
		25.58 - 25.80 Qtz-carbonate vein with 30% argillite inclusions. No visible sulphides in vein. 1-2% fine to medium grained disseminated pyrite in argillite inclusions. Vein at 35-40° to core axis.		
		27.00 - 27.30 Graphitic argillite rubble and 50% lost core.		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

Property: Windflower | Project No. | Depth: 93.20m | Date Began: July 13/87

Hole No.: Win 78 | Co ord.: 10069 N | Horizontal Length | Date Completed: July 15/87

Claim No.: L12481 | 4938 E | Core Size | Drilled By

ZONE: | Page: 3 | Grid No. | Angle & Grid Direction: -45 Grid West | Elevation: 1021.51m | Logged By: W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		27.30 - 27.70: 30% quartz - Carbonate Veining. Veins to 3cm and 10-40° to Core axis. Trace pyrite in Veins and 1-2% fine to medium grained disseminated pyrite in argillite.		
		27.70 - 28.29 15% fine grained disseminated pyrite in argillite.		
		28.29 - 29.23 Near Solid pyrite (fine grained) and 15-30% quartz veining.		
		29.23 - 30.93 30% quartz - Carbonate Veining. Veins irregular, to 2cm and at Shallow to moderate core angles. Trace pyrite in veins and 1-3% pyrite dissemminations/ blebs in argillite.		
		30.93 - 31.05 Quartz Vein with 20% irregular graphite argillite inclusions and 15% pyrite as mineral trains and large f.g. aggregations.		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property: Wind Flower | Project No. | Depth: 93.26m | Date Began: July 13/87

Hole No.: WIN 78 | Co ord.: 10059N | Horizontal Length | Date Completed: July 15/87

Claim No.: L12481 | 4938E | Core Size | Drilled By

Page: 4 | Grid No. | Angle & Grid Direction: -45 Grid West | Elevation: 1021.51m | Logged By: W. Steeteraad

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		31.92 - 32.04 Graphitic Argillite - quartz vein rubble. Trace pyrite in qtz rubble. 1-2% disseminated pyrite in argillite.		
		32.40 - 34.60 Rubbly Core. Graphitic argillite. Near solid graphite in places + occasional quartz vein chips. Less than 1% pyrite overall but up to 5% locally in small centimetre wide patches.		
		34.66 - 35.03 Irregular quartz carbonate vein with 3-5% euhedral f.g. - m.g. disseminated pyrite. Section has 40% argillite material included. Vein appears to be ~ 30-40° to core axis overall.		
		35.03 - 36.60 Rubbly to blocky near solid graphitic argillite + clayey gouge. Fault Zone.		
		36.39 - 36.95 Brecciated quartz-carbonate vein with 25% graphitic argillite + carbonate inclusions. Trace pyrite blebs.		
		36.95 - 37.40 Mixed unit. 60% khaki green massive carbonate and 40% graphitic argillite. Carbonate section has abundant small carbonate vein fragments, weak fuchsite or mariposite alteration and trace v.f.g. pyrite. Argillite has approx 2-4% pyrite concentrated in carbonate patches.		
		37.40 - 38.80 Calcareous graphitic argillite with 20-30% disrupted thin irregular quartz carbonate veining at variable (0 - 60°) to core axis. Overall 1-3% disseminated pyrite throughout.		
		38.80 - 41.7 Rubble to blocky core. Highly graphitic argillite and fault gouge and 20% quartz vein rubble. Trace to 5% m.g. pyrite blebs in quartz vein material. Fault Zone.		
		41.70 - 47.98 Calcareous graphitic argillite. Thin calcareous laminae on a mm scale variably present throughout. Laminae at 10° to 55° to core axis. 5-10% very thin quartz and/or carbonate veining. Trace Py		
		44.97 - 45.52 15% m.g. - f.g. pyrite concentrated in abundant cm wide carbonate veins.		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property: Wind Flower | Project No. | Depth: 93.26m | Date Began: July 13/87

Hole No.: Win 78 | Co ord.: 10059N | Horizontal Length | Date Completed: July 15/87

Claim No.: L12481 | 4938E | Core Size | Drilled By

Page: 5 | Grid No. | Angle & Grid Direction: -45 Grid West | Elevation: 1021.51m | Logged By: W. Steiger

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		46.86 - 47.18: 60% quartz-carbonate veins to 6cm wide. Trace Sphalerite - 1-2% diss pyrite in argillite hostrock.		
		47.68 - 47.98 80% quartz veining with trace Sphalerite. 1-2% pyrite in argillite		
47.98 - 53.70	GA QC	Graphitic Argillite and Abundant Quartz-Carbonate Veining. Twenty to thirty percent irregular-disrupted quartz-carbonate veins mostly transposed into direction of argillite schistosity (30-40° to core axis). Trace chalcopyrite-pyrite in veins. Trace to 3% pyrite disseminated in argillite.		PY
		52.88 - 53.25 10% pyrite as f.g.-m.g. concentrations in disrupted carbonate veins.		
		53.25 - 53.70 3-5% pyrite associated with carbonate-quartz veining.		
				PY
53.70 - 54.96	QV.Sx	Main Zone Quartz Vein and Pyrite.		
		53.70 - 53.93: Blocky graphitic quartz vein with 10% f.g. m.g. pyrite.		
		53.93 - 54.15 - Bull quartz vein with 2-3% m.g.-c.g. pyrite.		
		54.15 - 54.25 Bull quartz vein with 3cm wide band of 70% m.g.-c.g. pyrite from 54.22 - 54.25. CA-55		
		54.25 - 54.86 - lost core (grouted).		
		54.86 - 54.96 quartz vein with graphitic argillite (60%) Graphitic argillite partially silicified and carries 10-15% disseminated m.g. pyrite. Core angles 50-55°		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

Property Wind Flower Project No. Depth 93.26m Date Began July 13/87

Hole No. Win 78 Co-ord. 10 059N Horizontal Length Date Completed July 15/87

Claim No. L12481 4938E Core Size Drilled By

ZONE: Page 6 Grid No. Angle & Grid Direction -45 Grid West Elevation 1021.51m Logged By W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
54.96-59.51	GA	Calcareous Graphitic Argillite.	CB	
		Contains approximately 10-15% thinly bedded calcareous bands to 3-4 cm wide scattered throughout argillite. Also contains approximately 15% diffuse carbonate (± quartz) veins in various stages of transposition subparallel to argillite schistosity/bedding. Trace sphalerite and trace 2% disseminated pyrite associated with veining.		
59.51-60.00	DO	Dolomite.		
		light yellow green, fine to medium grained, massive to poorly foliated subparallel to core axis. Trace light green mica alteration. 1-2% disseminated euhedral, mg. pyrite. Includes 10% quartz-carbonate veins at variable (20°-90°) to core axis. Veins carry negligible sulphides		
60.00-74.30	GABK	Calcareous Graphitic Argillite.	CB	
		As at 54.96-59.51 but with several zones of blocky-vuggy core. Approximately 5-10% carbonate-quartz veining throughout. Largest vein is a 2-3cm wide vuggy quartz vein at 71.18 which is 25° to core axis and contains no visible sulphides		
		62.18-64.03: blocky core with 15-20 fractures/metre.		
		65.23-66.30 blocky/vuggy core. Calcite lining vugs. Trace disseminated pyrite. 15-20 fracture/metre.		
		66.60-66.76 rubble-graphitic gouge. 1.15cm barren calcite qtz vein at 5° to core axis		
		68.00-68.78 blocky core. Some vuggy calcite veins at very shallow angles to core axis. Minor graphitic gouge + graphitic schistose rubble.		
		70.10-71.00 Calcareous graphite argillite rubble. Largest core fragment 3.2m thick.		
		71.61-72.85 Calcareous graphite argillite rubble and blocky core.		
		72.85-74.30 Blocky calcareous argillite with minor graphitic gouge + rubble.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

Property: Wind Flower | Project No. | Depth: 93.26m | Date Began: July 13/87
Hole No.: W-17-70 | Co ord.: 10 059 N | Horizontal Length | Date Completed: July 15/87
Claim No.: L 12481 | -9938 E | Core Size | Drilled By
ZONE: | Page: 7 | Grid No. | Angle & Grid Direction: -45 Grid West | Elevation: 1021.51m | Logged By: W. Steeteraw

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
74.30 - 93.26	DO	Dolomite.		
		Tr grey-brown		by
		Light grey, medium grained to coarse grained, massive unit. Tr-3% disseminated pyrite throughout.		
		74.30 - 75.0 15% quartz veining + minor pervasive silicification of dolomite. Unit appears moderately sheared, poorly schistose. Bright green alteration mineral common on siliceous schistose planes and generally throughout. 10-15% disseminated pyrite + pyrite whisps. Also Trace - 1% Sphalerite (?) as whisps on microshears. Several m.g. blebs of dark silvery sulphide in low angle 1cm wide quartz vein between 74.50 - 74.64.		
		75.90 - 77.11 Rubble to blocky core. Trace bright green alteration mineral. 1-3% disseminated m.g. - f.g. pyrite.		
		78.75 - 82.05 Rubble core to blocky core. Largest piece unbroken core is 8cm long - Most less than 3cm.		
		80.35 - 81.53: 10-20% qtz veining + qtz vein rubble included in dolomite rubble. Slight bright green alteration on some fractures. 2-3% dss pyrite + Trace - 1% Sphalerite (?) as fine grained whisps.		
		82.60 - 84.70 Blocky core and rubble. 15 to greater than 20 fractures/meter.		
93.26m.		End of Hole.		

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30735 - 30767 - Slides

GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD
CORE 1/5

Property WINDFLOWER | Project No. 224 | Depth 132.59 | Date Began JULY 15/87
Hole No. WIN 79 | Co ord. 10,059N | Horizontal Length | Date Completed JULY 18/87
Claim No. L 12481 | 4938E | Core Size N.Q | Drilled By M & B DRILLING
Grid No. | Angle & Direction -45° GRID WEST | Elevation 1021.51 | Logged By M CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 2.44	CASING	2.44					
2.44 - 6.08	WASTE	3.64	—	—			
6.08 - 6.50	32105	0.42	<.03	.5			
6.50 - 6.77	32106	0.22	<.03	.4			
6.77 - 6.89	32107	0.12	.06	3.5			
6.89 - 7.03	32108	0.14	.04	.5			
7.03 - 7.60	32109	0.57	.04	.6			
7.60 - 7.86	32110	0.26	<.03	.6			
7.86 - 8.97	32111	0.11	<.03	.4			
8.97 - 10.85	WASTE	1.88	—	—			
10.85 - 11.35	32112	0.50	<.03	.4			
11.35 - 12.12	32113	0.77	.04	.3			
12.12 - 12.96	32114	0.84	<.03	.2			
12.96 - 13.50	32115	0.54	<.03	.2			
13.50 - 13.88	32116	0.38	.12	1.2			
13.88 - 14.94	WASTE	1.06	—	—			
14.94 - 15.44	32117	0.50	<.03	.3			
15.44 - 15.94	32118	0.50	<.03	.1			
15.94 - 16.44	32119	0.50	<.03	<.1			
16.44 - 17.07	32120	0.63	<.03	.2			
17.07 - 17.98	32121	0.91	<.03	.1			
17.98 - 18.59	32122	0.61	.04	.3			
18.59 - 18.84	32123	0.25	<.03	.4			
18.84 - 19.20	32124	0.36	.05	.3			
19.20 - 19.70	32125	0.50	<.03	.2			
19.70 - 30.60	WASTE	10.90	—	—			
30.60 - 30.70	32126	0.10	.07	.6			
30.70 - 32.09	SOME 127	1.39	.08	.9			
32.09 - 32.60	32129	0.51	.05	.4			
32.60 - 33.10	32129	0.50	.04	.3			
33.10 - 33.52	32130	0.42	.07	.2			
33.52 - 33.90	32130	0.38	.05	.3			
33.90 - 34.24	32132	0.34	.08	3.9			
34.24 - 34.59	32133	0.35	.08	.3			
34.59 - 35.25	32134	0.66	<.03	.4			
35.25 - 35.75	32135	0.50	<.03	.5			
35.75 - 36.27	32136	0.52	<.03	.3			
36.27 - 36.77	32137	0.50	.07	.2			
36.77 - 37.27	32138	0.50	<.03	.1			
37.27 - 37.80	32139	0.53	.05	<.1			

WIDTH X ASSAY

AVERAGES

WIDTH	Au.	Ag.	Cu.	Zn.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,753

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE 2/5

Property: WINDFLOWER | Project No.: 224 | Depth: | Date Began: JULY

Hole No.: WIN 79 | Co ord.: | Horizontal Length: | Date Completed: JULY

Claim No.: | | Core Size: N.Q. | Drilled By: M & B DRILLING

Grid No.: | Angle & Direction: | Elevation: | Logged By: M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
37.80 - 38.30	32140	0.50	<.03	.1															
38.30 - 38.80	32141	0.50	<.03	.1															
38.80 - 39.30	32142	0.50	<.03	<.1															
39.30 - 39.80	32143	0.50	<.03	.2															
39.80 - 40.30	32144	0.50	<.03	.2															
40.30 - 40.85	32145	0.55	<.03	.1															
40.85 - 41.15	32146	0.30	.03	.4															
41.15 - 41.45	32147	0.30	.04	.6															
41.45 - 41.83	32148	0.38	<.03	1.3															
41.83 - 42.48	32149	0.65	.04	3.5															
42.48 - 43.00	32150	0.52	<.03	1.5															
43.00 - 43.40	32151	0.40	<.03	.3															
43.40 - 43.80	32152	0.40	<.03	.4															
43.80 - 44.40	WASTE	0.60	—	—															
44.40 - 44.90	32153	0.50	<.03	.2															
44.90 - 45.05	32154	0.15	.04	.3															
45.05 - 45.50	32155	0.45	.04	.6															
45.50 - 46.23	32156	0.73	.06	.5															
46.23 - 46.73	32157	0.50	.04	.3															
46.73 - 50.89	WASTE	4.16	—	—															
50.89 - 51.39	32158	0.50	.05	.6															
51.39 - 51.95	32159	0.56	<.03	.5															
51.95 - 52.97	WASTE	1.02	—	—															
52.97 - 53.37	32160	0.40	.05	.3															
53.37 - 53.62	32161	0.25	.05	.2															
53.62 - 54.12	32162	0.50	<.03	.1															
54.12 - 56.39	WASTE	2.27	—	—															
56.39 - 56.84	32163	0.45	.06	.4															
56.84 - 57.17	32164	0.33	.07	.3															
57.17 - 57.67	32165	0.50	.07	.2															
57.67 - 58.15	32166	0.48	.08	.8															
58.15 - 58.73	32167	0.58	.07	.4															
58.73 - 59.16	32168	0.44	.08	.3															
59.16 - 59.50	32169	0.34	.10	.2															
59.50 - 59.86	32170	0.36	<.03	.3															
59.86 - 60.59	32171	0.73	.11	.6															
60.59 - 61.09	32172	0.50	.34	.8															
61.09 - 61.69	32173	0.50	.23	.8															
61.69 - 62.30	32174	0.61	1.15	1.0															
62.30 - 62.46	32175	0.16	<.03	.5															

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE 3/5

Property WINDFLOWER Project No. 224 Depth Date Began JULY

Hole No. WIN 79 Co ord. Horizontal Length Date Completed JULY

Claim No. Core Size N.Q. Drilled By M & B DRILLING

Grid No. Angle & Direction Elevation Logged By M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY	AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.	
62.46 - 62.98	32176	0.52	.10	1.6										
62.98 - 63.12	32177	0.14	<.03	.5										
63.12 - 63.54	32178	0.42	.06	.6										
63.54 - 63.95	WASTE	0.41	—	—										
63.95 - 64.45	32179	0.50	1.03	1.0										
64.45 - 65.00	32180	0.55	1.54	1.0										
65.00 - 65.53	32181	0.53	1.18	1.1					3.28m	2.02				63.95 - 67.23
65.53 - 65.97	32182	0.44	6.66	3.1				INCL.	.44m	6.66	3.1			
65.97 - 66.34	32183	0.37	1.10	1.0										
66.34 - 66.48	32184	0.14	.45	.4										
66.48 - 66.99	32185	0.51	1.78	.6										
66.99 - 67.23	32186	0.24	1.45	1.1										
67.23 - 68.58	L.C.	1.35												
68.58 - 68.74	32187	0.16	.24	1.2										
68.74 - 69.00	32188	0.26	.32	1.0										
69.00 - 69.37	32189	0.37	.68	2.0										
69.37 - 69.94	32190	0.57	1.00	1.3										
69.94 - 70.89	WASTE	0.95	—	—										
70.89 - 71.39	32191	0.50	.23	1.9										
71.39 - 72.16	32192	0.77	.73	1.9										
72.16 - 72.90	32193	0.74	.72	2.5										
72.90 - 73.22	32194	0.32	1.48	3.3										
73.22 - 73.52	32195	0.30	.20	4.3										
73.52 - 73.80	32196	0.28	.31	2.0										
73.80 - 74.41	32197	0.61	1.63	3.4										
74.41 - 74.91	32198	0.50	.64	2.5										
74.91 - 75.41	32199	0.50	.41	3.6										
75.41 - 75.91	32200	0.50	3.03	3.5					0.50m	3.03	3.5			
75.91 - 76.46	32201	0.55	.36	3.4										
76.46 - 76.96	32202	0.50	.29	2.3										
76.96 - 77.40	32203	0.44	.23	2.1										
77.40 - 77.90	32204	0.50	.34	2.5										
77.90 - 78.36	32205	0.46	.80	3.0										
78.36 - 78.71	32206	0.35	.98	2.5										
78.71 - 78.96	32207	0.25	.89	2.9										
78.96 - 79.28	32208	0.32	1.15	3.6										
79.28 - 79.35	32209	0.07	.36	2.1										
79.35 - 80.05	32210	0.70	1.02	2.4										
80.05 - 80.61	32211	0.56	.44	3.2										
80.61 - 81.27	32212	0.66	.15	1.6										

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE 4/s

Property WINDFLOWER Project No. 264 Depth Date Began JULY

Hole No. WIN 79 Co ord. Horizontal Length Date Completed JULY

Claim No. Core Size N. Q. Drilled By M.B. DRILLING

Grid No. Angle & Direction Elevation Logged By M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
81.27 - 81.77	0.50	32213	.22	1.7															
81.77 - 82.27	0.50	32214	.19	1.6															
82.27 - 82.82	0.55	32215	.20	1.2															
82.82 - 83.32	0.50	32216	.28	1.4															
83.32 - 83.79	0.47	32217	.31	3.7															
83.79 - 83.90	0.11	32218	.65	1.1															
83.90 - 84.40	0.50	32219	.40	.12															
84.40 - 84.90	0.50	WASTE	—	—															
84.90 - 85.35	0.45	32220	.16	1.3															
85.35 - 85.98	0.63	32221	.36	1.9															
85.98 - 86.17	0.19	32222	.67	40.9															
86.17 - 86.26	0.09	32223	.37	4.5															
86.26 - 86.87	0.61	32224	.07	.8															
86.87 - 87.04	0.17	32225	.07	2.1															
87.04 - 87.22	0.18	32226	.05	1.4															
87.22 - 87.85	0.63	32227	.11	2.1															
87.85 - 88.00	0.15	32228	.08	1.5															
88.00 - 88.50	0.50	32229	.07	1.1															
88.50 - 92.81	0.31	WASTE	—	—															
92.81 - 93.19	0.38	32230	.08	.9															
93.19 - 93.43	0.24	32231	.07	1.5															
93.43 - 93.85	0.42	32232	.10	1.3															
93.85 - 94.26	0.41	32233	.13	1.5															
94.26 - 94.81	0.55	32234	.09	1.0															
94.81 - 94.99	0.18	32235	.09	1.2															
94.99 - 95.49	0.50	32236	.10	1.2															
95.49 - 97.03	0.54	WASTE	—	—															
97.03 - 97.40	0.37	32237	.05	3.0															
97.40 - 97.83	0.43	32238	.07	1.6															
97.83 - 98.40	0.57	32239	.04	1.0															
98.40 - 98.78	0.38	32240	.06	1.5															
98.78 - 99.09	0.31	32241	.05	1.1															
99.09 - 99.46	0.37	32242	.05	.9															
99.46 - 99.96	0.50	32243	.08	1.4															
99.96 - 100.38	0.42	32244	<.03	.1															
100.38 - 100.92	0.54	32245	.08	1.4															
100.92 - 101.46	0.54	32246	.04	.6															
101.46 - 101.63	0.17	32247	.08	1.6															
101.63 - 104.19	2.56	WASTE	—	—															
104.19 - 104.69	0.50	32248	.08	1.5															

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE 5/5

Property WINDFLOWER | Project No. 224 | Depth 132.59 | Date Began JULY 15/87

Hole No. WIN 79 | Co ord. 10,059 N | Horizontal Length | Date Completed JULY 18/87

Claim No. L 12481 | 4938 E | Core Size N.Q. | Drilled By M & B DRILLING

Grid No. | Angle & Direction -45° W GRID | Elevation 1021.51 | Logged By MARK CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY	AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.
104.69 - 104.94	32249	0.25	.05	1.2									
104.94 - 105.28	32250	0.34	.11	1.7									
105.28 - 111.76	WASTE	6.48	—	—									
111.76 - 112.16	32251	0.40	.07	1.0									
112.16 - 112.66	32252	0.50	.04	.8									
112.66 - 112.93	32253	0.27	.07	.8									
112.93 - 113.35	32254	0.42	.07	.4									
113.35 - 116.23	WASTE	2.88	—	—									
116.23 - 116.70	32255	0.47	.08	.3									
116.70 - 117.15	32256	0.45	.08	.4									
117.15 - 117.65	32257	0.50	.07	<.1									
117.65 - 119.88	WASTE	2.23	—	—									
119.88 - 120.34	32258	0.46	.10	.8									
120.34 - 120.71	32254	0.37	.07	.5									
120.71 - 121.21	32260	0.50	.09	.9									
121.21 - 121.70	32261	0.49	.08	.9									
121.70 - 124.67	WASTE	2.97	—	—									
124.67 - 125.01	32262	0.34	.11	.7									
125.01 - 125.19	32263	0.18	.05	1.4									
125.19 - 125.49	32264	0.30	<.03	.9									
127.92 - 128.32	32265	0.40	.09	1.0									
128.32 - 128.72	32266	0.40	.08	1.0									
128.72 - 129.17	32267	0.45	.09	.9									
129.17 - 129.54	32268	0.37	.08	.9									
129.54 - 131.08	WASTE	1.54	—	—									
131.08 - 131.43	32269	0.35	.05	.9									
131.43 - 131.70	32270	0.27	.06	.8									
131.70 - 132.00	32271	0.30	.04	.7									
132.00 - 132.40	32272	0.40	.32	.6									
132.40 - 132.59	waste	0.19	—	—									
E.O.H.													
				ACID TEST @ 59.4 = 44° 15'									
				@ 132.6 = 43° 15'									
				HOLE CEMENTED (Bird Top to Bottom									
				CASING PULLED.									

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

SLUDGE 1/1

Property WINDFLOWER | Project No. 224 | Depth 132.59 | Date Began JULY 15 1987
Hole No. WIN 79 | Co ord. 10,059 N | Horizontal Length | Date Completed JULY 18 1987
Claim No. L 12481 | 4938 E | Core Size N.Q. | Drilled By M.E.B. DRILLING
Grid No. | Angle & Direction -45° GRID WEST | Elevation 1021.51 | Logged By MARK CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 7.62	NO RETURN	7.62	—				
7.62 - 10.67	30735	3.05	.02				
10.67 - 13.72	30736	3.05	.19				
13.72 - 16.76	30737	3.04	.06				
16.76 - 19.81	30738	3.05	.02				
19.81 - 22.86	30739	3.05	.02				
22.86 - 25.91	30740	3.05	.02				
25.91 - 28.96	30741	3.05	.02				
28.96 - 32.00	30742	3.04	.02				
32.00 - 35.05	30743	3.05	.02				
35.05 - 38.10	30744	3.05	.02				
38.10 - 41.15	30745	3.05	.02				
41.15 - 44.20	30746	3.05	.02				
44.20 - 47.24	30747	3.04	.02				
47.24 - 50.29	30748	3.05	.02				
50.29 - 53.34	30749	3.05	.02				
53.34 - 56.39	30750	3.05	.02				
56.39 - 59.44	30751	3.05	.05				
59.44 - 62.48	30752	3.04	.49				
62.48 - 65.53	30753	3.05	1.15				
65.53 - 68.58	30754	3.05	2.39				
68.58 - 71.63	30755	3.05	.56				
71.63 - 74.68	30756	3.05	1.65				
74.68 - 77.72	30757	3.04	1.46				
77.72 - 80.77	30758	3.05	2.15				
80.77 - 83.82	30759	3.05	2.32				
83.22 - 86.87	30760	3.05	2.42				
86.87 - 89.92	30761	3.05	1.44				
89.92 - 92.96	30762	3.04	1.69				
92.96 - 96.01	30763	3.05					
96.01 - 99.06	30764	3.05	.60				
99.06 - 102.11	30765	3.05	.57				
102.11 - 105.16	30766	3.05					
105.16 - 109.73	30767	4.57					
109.73 - 132.59	No Sludge	22.86					
E.O.H.							

WIDTH X ASSAY

WIDTH					

AVERAGES

WIDTH	Au.	Ag.	Cu.	Zn.	

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property: Wind Flower | Project No.: 224 | Depth: 132.59 m | Date Began: July 15/87

Hole No.: Win 79 | Co ord.: 10.059N | Horizontal Length: | Date Completed: July 18/87

Claim No.: L12481 | 4930E | Core Size: NQ | Drilled By: M.E.B. Drilling

Page: 1 of 13 | Grid No.: | Angle & Grid Direction: -45 Grid West | Elevation: 1021.51m | Logged By: W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
0 - 2.66	CSG	Overburden - Casing		
2.66 - 13.50	DO	Dolomite.		
		Light grey to cream colored, fine to medium grained, poorly foliated unit. Very little (less than 5%) quartz - carbonate veining. Normally trace - 2% disseminated pyrite.		PY
		2.66 - 4.31: Blocky core with ~ 3o fractures/meter and 5% bright green alteration mineral (Mariposite - Fuchsite) on irregular fractures. 1-2% disseminated fg-mg pyrite.		
		6.58 - 7.03: 20-30% Carbonate veining and 3-4% Fuchsite alteration on fractures. Trace to 1% very finely disseminated pyrite. Two irregular stringers and blebs (to 2cm long and 1-2mm wide) of galena and/or argentiferous Silver Sulphide at 6.84 in association with carbonate vein.		
		7.03 - 7.62: Graphitic argillite and carbonate - quartz veining. Blocky core (>2o fractures/meter) from 7.28 - 7.5. Approx 30% carbonate (± qtz) veining as wisps. Trace pyrite.		
		7.62 - 8.84: 5-7% carbonate veining and 3-4% fuchsite alteration. Irregular quartz carbonate vein with minor fuchsite from 7.62 - 7.86. No visible mineralization in latter vein. + 15% graphitic argillite inclusions.		
		8.84 - 8.97: Calcareous Argillite (50%) and carbonate - quartz veining to 2 cm wide (50%).		
		8.97 - 9.32: Blocky calcareous and weakly graphitic argillite.		
		9.54 - 10.36: Blocky (>2o fractures/meter) weakly graphitic calcareous argillite and weakly graphitic dolomite. Trace - 1% disseminated pyrite.		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property: Windflower | Project No.: 224 | Depth: 132.59m | Date Began: July 15/87

Hole No.: W-79 | Co-ord.: 10059N | Horizontal Length: | Date Completed: July 18/87

Claim No.: L12481 | 9938E | Core Size: NQ | Drilled By: M.E.B. Drilling

Page: 2 | Grid No.: | Angle & Grid Direction: -45° Grid West | Elevation: 1021.51m | Logged By: W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		11.35 - 12.12: Graphitic argillite with 15% diffuse-transposed thin carbonate veinlets and thin carbonate band at 11.67 - 11.74. Trace disseminated pyrite.		
		12.96 - 13.5: Mixed calcareous graphitic argillite, dolomite and 30% quartz-carbonate veining. Veins to 1.5cm and 60 - 80° to core axis. Trace disseminated pyrite and as slicks on graphitic fractures.		
13.5 - 30.60	GA BK	Calcareous Graphitic Argillite	CB	
		13.5 - 14.94: Less than 5% quartz-carbonate veining. 30% thinly laminated calcareous bands which are sheared and contorted. Thin shears (graphitic) at high angles to core axis. Trace m.g., euhedral, disseminated pyrite.		
		14.94 - 17.98: Graphitic argillite with 15% quartz-carbonate veins and minor dolomite sections (16.15 - 16.25, 16.60 - 16.80). Approximately 0.7 meter lost core between 17.07 and 18.59 core markers. Largest quartz vein is 10cm (14.94 - 15.04m). Quartz veins largely disrupted and at variable 30 - 60° to core axis. Trace - 2% disseminated pyrite.		
		17.98 - 18.84: 50% brecciated quartz veins. Trace disseminated pyrite.		
		18.84 - 30.60: Calcareous graphitic argillite with short graphitic argillite sections to 1 meter wide comprising 40% of unit and becoming more abundant towards end of unit. Occasional quartz carbonate veins to 5cm wide. Compose 3% - 9% of unit as whole.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Page 3

Property: Wind Flower | Project No. 224 | Depth 132.59 m | Date Began July 15/87
Hole No. Win 79 | Co ord. 10059 N | Horizontal Length | Date Completed July 18/87
Claim No. L12481 | 4938 E | Core Size NQ | Drilled By MeB Drilling
Grid No. | Angle & Grid Direction -45° Grid West | Elevation 1021.51 m | Logged By W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		Blocky core from:		
		14.00 - 17.00: 10-15 fractures/meter.		
		17.00 - 19.40: rubbly to blocky; Greater than 20 fractures/meter		
		20.20 - 21.70: rubbly to blocky core with 70 cm core lost. Greater than 20 fractures/meter.		
		22.80 - 23.68: 15-20 fractures/metre.		
		25.75 - 30.60: Very blocky to rubbly core. 15-30 fractures/metre.		
30.60 - 41.83	DO	Dolomite.		
		Medium grey to cream colored, medium grained, massive to poorly shear foliated unit.		
		30.60 - 30.78: Qtz vein (60%) 3 cm+ wide at 5° to core axis and graphitic argillite. No visible mineralization in qtz vein.		
		30.78 - 32.00: Only 25 cm core recovered. Graphitic argillite with 45% irregular thin quartz-carbonate veining. No sulphides in veins and 3-5% pyrite blebs in argillite.		
		32.00 - 32.60: 50% quartz-carbonate veining in weakly fuchsitic altered dolomite. Veins to 6 cm wide and 40° to core axis. No mineralization in veins. Trace-2% disseminated pyrite in dolomite		
		32.60 - 33.90: Very weakly fuchsitic altered dolomite with no significant qtz-carbonate veining. 1-2% very f.g. pyrite as disseminations + disseminated mineral trains.		
		33.90 - 34.59: Fuchsite altered dolomite with 20-25% qtz-carbonate veins. Veins to 5 cm and 40-45° to core axis. No mineralization in veins and 2-3% pyrite and trace chalcopyrite in dolomite.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property: Wind Flower | Project No.: 224 | Depth: 132.59 m | Date Began: July 15/87
Hole No.: Win 79 | Co ord.: 10059N | Horizontal Length: | Date Completed: July 18/87
Claim No.: L12481 | 4938E | Core Size: NQ | Drilled By: M & B Drilling
Page: 4 | Grid No.: | Angle & Grid Direction: -45° Grid West | Elevation: 1021.51 m | Logged By: W. Stevenson

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		34.59 - 37.80: Weakly to moderately fuchsitic dolomite with 2-3% disrupted thin carbonate vein material. Unit as whole has crushed - sheared look. Contains 1-4% f.g. - m.g. pyrite as disseminations, mineral trains and fracture coating.		
		37.80 - 41.83: Crushed, sheared and blocky dolomite. Sporadic weak fuchsitic alteration at 40.25 - 41.45. Approximately 1-2% f.g. - m.g. disseminated pyrite throughout and trace galena at 41.17		
		Blocky Core from		
		30.78 - 32.00: Greater than 20 fractures/metre estimated.		
		34.40 - 38.80: rubbly to blocky core. from 15 to greater than 20 fractures/metre. 0.3 metres core loss between 36.27 - 37.80		
		38.80 - 40.05: 10 - 15 fractures/metre		
		40.05 - 40.15: Small rubble zone. Largest fragments 2cm x 3cm.		
		40.15 - 44.20: 15 - 35 fractures/metre.		
41.83 - 55.17	GADO	Calcareous Graphitic Argillite with interbedded Dolomite	LM	
		Mixed unit with 20% massive dolomite beds 1 to 40cm wide interbedded with limy - calcareous poorly laminated graphitic argillite. Laminations in argillite defined by thinly bedded (1-3mm) calcareous horizons which are variably contorted and sheared. Less than 5% quartz - carbonate veining overall except for sections defined below.		
		43.00 - 43.80: 30% quartz veins to 4cm wide and at 50-80° to core axis. Trace sphalerite as isolated blebs in veins. Trace pyrite in veins and Trace - 2% pyrite in argillite host		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property Wind Flower | Project No. 224 | Depth 132.59 m | Date Began July 15/87
Hole No. Win 79 | Co ord. 10 054N | Horizontal Length | Date Completed July 18/87
Claim No. L 12481 | 4938E | Core Size NQ | Drilled By M & B Drilling
Page 5 | Grid No. | Angle & Grid Direction -45° Grid West | Elevation 1021.51 m | Logged By W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		44.90 - 45.05 : 90% quartz veins to 35 cm wide at 70 - 80° to Core axis. Trace Sphalerite and galena.		
		45.50 - 46.23 : 15% quartz carbonate veins to 2 cm wide. Veins contorted and disrupted and contain 1 - 3% very fine grained disseminated pyrite.		
		51.39 - 51.95 : 5 - 10% Thin quartz - carbonate veins (to 1 cm wide) at 50 - 55° to Core axis. 2 - 3% blebs, fracture related and disseminated pyrite in veins and host argillite.		
		53.31 - 53.62 : Irregular quartz veining with 45% siliceous argillite dolomite inclusions. Vein contact at 70° to Core axis. Trace diss. pyrite in vein and trace 1% in inclusions.		
55.17 - 58.73	GA	Calcareous Graphitic Argillite.	CM	
		Contorted Thin (1 - 3mm) laminations occur in calcareous sections throughout unit.		
		55.17 - 56.39 Less than 5% Veining 56.39 - 58.73 : Overall 20 - 30% quartz and carbonate veining usually less than 1 cm wide and at 60 - 75° to Core axis. Trace - 2% fine disseminated pyrite. Through sections as whole. From 56.84 - 57.17 is quartz - carbonate vein with trace disseminated mafic blebs of chalcopyrite and pyrite.		
		Blocky core from:		
		44.20 - 47.24 : 10 - 15 Fractures / meter 47.24 - 49.89 5 - 10 Fractures / meter 49.89 - 50.89 Greater than 20 Fractures / meter 50.89 - 52.47 10 - 15 Fractures / metre 55.40 - 56.00 15 Fractures / meter 58.30 - 58.73 Greater than 30 Fractures / meter		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property: Wind Flower | Project No.: 224 | Depth: 132.59m | Date Began: July 15/87

Hole No.: Win 79 | Co ord: 10.059N | Horizontal Length: | Date Completed: July 18/87

Claim No.: L 12481 | 4938E | Core Size: NQ | Drilled By: M & B Drilling

Page: 6 | Grid No.: | Angle & Grid Direction: -45° Grid West | Elevation: 1021.51m | Logged By: W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
58.13-62.96	DO	Dolomite.		
		58.13-59.86' Argillaceous graphitic Dolomite to Calcareous graphite argillite. Dirty contact zone between units above and below. Contains less than 5% quartz carbonate veining except for section from 59.16 to 59.5 which has 50% quartz vein + vein breccia material. Trace - 1% mig. pyrite except for 2-4% pyrite from 59.16-59.5 along with rare fuchsite splotch.		
		59.86-62.96 Medium grey to grey brown, medium grained, poorly foliated Dolomite with thin yellowish Talcose Dolomitic Shears. Moderate fuchsite from 59.86 to 60.59, from 3-7% pyrite as disseminations and concentrations on foliation planes. Quartz-Carbonate vein from 62.30-62.96 with trace Chalcopyrite and pyrite. Blocky ground from 61.5-61.79 with 20-25 fractures/metre.		
62.96-63.95	GASH	Calcareous Graphitic Argillite.	CB	
		Much sheared with rotated fragments of laminated Dolomite to 15cm wide comprising 40% of unit and mainly concentrated in bottom half of unit. Most graphitic section from 62.96-63.54 contains 10-15% quartz carbonate veins and vein fragments the largest of which extends from 62.98-63.12 and contains trace Sphalerite + pyrite. Trace - 2% disseminated pyrite blebs and grains throughout rest of section.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property: Wind Flower | Project No.: 224 | Depth: 132.59 m | Date Began: July 15/87
Hole No.: Win 79 | Co ord.: 10 059 N | Horizontal Length: | Date Completed: July 18/87
Claim No.: L 12481 | 9938 E | Core Size: NQ | Drilled By: M & B Drilling
Page: 7 | Grid No.: | Angle & Grid Direction: -45° Grid West | Elevation: 1021.51 m | Logged By: W. Steeseraw

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
64.45 - 65.97	DO	Dolomite		
		Brownish grey, fine grained, poorly sheared (foliated) unit with 2-4 fractures/metre. Appx. 5% quartz carbonate veins to 30 cm at 70-80° to core axis. Approximately 5-7% pyrite throughout as disseminations, wisps and thin (1-3 mm) semimassive bands along foliation.		PY
* 65.97 - 66.45	QV SX	Quartz Vein and Sulphides		PY SL
		65.97 - 66.39 10% irregular dolomite inclusions and trace fine grained sphalerite blebs and euhedral-anhedral pyrite. 2-5% fine grained pyrite in inclusions		
		66.39 - 66.45 10-15% irregular argillite inclusions. Approx. 15% fine grained pyrite in irregular patches of semimassive sulphides to 6 cm wide.		
66.45 - 66.99	DO	Dolomite		PY
		As at 64.45 - 65.97 with 5-10% pyrite. Rare thin quartz-carbonate vein.		
66.99 - 67.28	QV SX	Main Zone Quartz Vein and Sulphides		PY
		Moderately brecciated, sheared vein containing 30-35% irregular angular pyrite-calcite patches to 4 cm wide. Patches contain 10-30% fine grained pyrite. Overall estimated pyrite content from 66.99 - 67.28 is 8-10%. Section from 66.25 - 66.28 has 30% pyrite.		
67.28 - 68.58	LC	Lost Core.		
68.58 - 85.22	GA	Graphitic Argillite.	LM	
		Black, fine grained, massive unit to 76.46 becoming more calcareous, slightly schistose from 76.46 to 85.22.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property: Wind Flower | Project No. 224 | Depth 132.59m | Date Began July 15/87
Hole No. Win 79 | Co ord 10059N | Horizontal Length | Date Completed July 18/87
Claim No. L12481 | 4938E | Core Size NQ | Drilled By M & B Drilling
Page 8 | Grid No. | Angle & Grid Direction -45° Grid West | Elevation 1021.51m | Logged By W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
68.58-86.26	GA	Graphitic Argillite (Continued)		
		68.58-68.74: Irregular quartz vein with 20% argillite inclusions + Shear Sticks. 1-2% m.g. Subhedral pyrite in inclusions on at vein contacts		
		68.74-69.94: Blocky graphitic argillite + 40% quartz (± carbonate) Veins to 15cm at 40-65° To Core axis. Trace pyrite, Sphalerite, chalcopyrite in veins. Approx. 1% disseminated pyrite in argillite at vein contacts.		
		69.94-73.52 Graphitic argillite. Competent unit with 5-6 fractures/metre. 5-10% quartz-carbonate Veining at 60° To Core axis. Approx 1-2% pyrite throughout usually heavier at vein contacts. Several 0.5cm bands with Calcite - 20% pyrite from 72.90-73.24. 60% quartz-carbonate Veining with Trace pyrite from 71.39-72.16. Also 30cm lost Core at 71.52m.		
		73.52-77.40 Graphitic argillite (To 76.96) and Calcareous graphitic argillite (76.96-77.40) with 20-30% irregular quartz-carbonate veins and irregular vein fragments. Obviously Significantly Sheared. Competent unit however with 4-6 fractures/meter. Overall 1-3% pyrite mainly concentrated in argillite at vein contacts. Occasional 1-2cm angular patch of Semi massive pyrite.		
		77.40-86.26 Graphitic argillite (Calcareous locally) with Overall 10%-15% quartz-carbonate veins and vein fragments. More Concentrated Veining at		
		80.05-80.61: 40% Veining, Vein fragments 83.82-86.26: 20-25% Veining + Vein fragments		
		Generally only Trace pyrite in quartz Carbonate Veins and 1-3% pyrite in argillite		

GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property Windflower | Project No. 224 | Depth 132.59m | Date Began July 15/87
Hole No. Win 79 | Co ord. 10 059N | Horizontal Length | Date Completed July 18/87
Claim No. L12461 | 4938E | Core Size NQ | Drilled By M & B Drilling
Page 9 | Grid No. | Angle & Grid Direction -45° Grid West | Elevation 1021.51m | Logged By W. Stefanaj

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
68.58-86.26	GA	Graphitic Argillite (Continued)		PYSL
		Extraordinary mineralization as follows		
		78.71-78.95 : 8% fg. pyrite concentrated in large calcite irregular patches in argillite.		
		79.28 : 5mm Sphalerite patchin 4cm quartz Carbonate Vein.		
		83.71 : 4.5cm quartz Vein with Several 1-3 mm Sphalerite and Chalcopyrite blebs.		
		86.02-86.20 : 60% quartz Carbonate veining (Several generations crosscutting) with 1-2% course blebby Sphalerite . Also 3 1-5mm irregular patches of galena in 15 cm vein at 45° to core axis.		
86.26-88.00	DO	Dolomite		PY
		Grey, fg, massive to weakly foliated . 5-6% pyrite as disseminations, mineral trails + irregular microfracture linings.		
		86.46-86.57 : Graphitic argillite . 1% disseminated pyrite		
		86.87-87.04 : Dolomite with 3 1cm to 2cm QTZ-Carbonate veins at 60-70° to core axis . Veins Case Trace-1% Combined Sphalerite - galena - Chalcopyrite.		
		87.23-87.30 : 50% quartz-Carbonate Vein - 50% argillaceous dolomite in irregular contact at low angle to core axis . 1% fg. pyrite near vein contact.		
		87.85-88.00 : 2 1.5 and 3 cm quartz - Carbonate Veins with Trace galendy, Chalcopyrite, Sphalerite 3-5% pyrite in dolomite		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property: Wind Flower | Project No.: 224 | Depth: 132.59 m | Date Began: July 15/87
Hole No.: W-A-79 | Co-ord.: 10 059 N | Horizontal Length: | Date Completed: July 18/87
Claim No.: L 12481 | 4938 E | Core Size: NQ | Drilled By: M.B. Dowling
Page: 10 | Grid No.: | Angle & Grid Direction: -45° Grid West | Elevation: 1021.51m | Logged By: W. Sieberud

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
88.00 - 94.99	GA	Graphitic Argillite with Dolomite interbeds.		PY
		Black, massive to very weakly foliated unit. Locally laminated calcareous argillite sections as well as short dolomite sections from 90.98 - 91.41, 91.91 - 92.44 and 92.81 - 93.44. Approximately 1-3% disseminated euhedral py to coarse grained pyrite disseminated throughout argillite with higher concentrations in short sections such as 88.00 - 88.50 (3-5% pyrite) associated with calcite irregular patches. 2-5% disseminated pyrite and pyrite trains in carbonate (Dolomite) sections along with trace fuchsite alteration. Less than 5% veining over whole section. Largest vein concentrations at		
		93.19 - 93.44: 60% quartz vein fragments to 6 cm in dolomite matrix. Trace - 1% fg. pyrite in veins and 2-3% pyrite in dolomite		
		94.26 - 94.81: 50% large qtz vein fragments in dolomite and graphitic argillite matrix. Trace - 1% pyrite and trace Sphalerite in vein fragments and 2-3% pyrite in matrix.		
		Blocky core at 93.44 to 94.00 with greater than 20 fractures per meter. Approx 2x fractures/meter from 90.50 - 91.41		
94.99 - 100.09	DO	Dolomite		
		Light grey-brown, fine grained, massive to very poorly foliated unit. Overall less than 3% quartz veining except locally as at 99.39		
		97.03 - 97.83: 15-20% qtz (± minor carbonate) veins to 3cm at variable angles to core axis (20° to 70°). Trace pyrite, chalcopyrite, Sphalerite blebs in veins.		
		99.96 - 100.38: Buff quartz vein with one 7cm patch of carbonate intergrowth c. 8% fg. pyrite and trace Sphalerite and chalcopyrite. Rest of vein has trace pyrite.		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property: WindFlower | Project No.: 224 | Depth: 132.59m | Date Began: July 15/87

Hole No.: Win 79 | Co-ord.: 10 059 N | Horizontal Length: | Date Completed: July 18/87

Claim No.: L 12481 | 9938 E | Core Size: NQ | Drilled By: M.B. Drilling

Page: 11 | Grid No.: | Angle & Grid Direction: -45° Grid West | Elevation: 1021.51m | Logged By: W. Stevenson

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		100.92 - 101.46 : 50% irregular interconnecting quartz (± minor carbonate) veins to 7cm wide carrying trace pyrite. Contacts with dolomite at variable angles		
		104.69 - 104.94 : 30-40% quartz veins to 5cm with trace pyrite near contacts. Veins at 55°-60° to core axis.		
		Dolomite in general carries 2-7% pyrite throughout as mineral trains on weak foliation planes and as pervasive disseminations		
		Carbonate (Dolomite) quartz vein rubble zone from 97.83-98.4. Blocky core from 100.92 - 102.83 with 15-20 fractures/meter.		
		Graphitic argillite section from 96.91-97.83 and 101.63-102.83 carry 1-3% disseminated pyrite		
106.09 - 132.59	G4	Calcareous Graphitic Argillite		
		106.09 - 109.90 : Argillite (graphitic) with 10% diffuse thin (1-5mm) calcite veining and rare thin grey, laminated calcareous graphitic argillite sections. 1-2% of disrupted quartz - carbonate veins to 1cm at 50-70 to core axis. 1-3% pyrite as finely disseminated grains, mineral trains in foliation planes and occasional irregular m.g. - c.g. blotches. Competent section with 4.6 fractures/metre on average.		
		109.90 - 110.50 : Dolomite with rare 3-4mm quartz carbonate veins at moderate - high core angles. 2-4% disseminated pyrite.		
		110.50 - 111.76 : As at 106.09 - 109.90.		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property Windflower | Project No. 224 | Depth 132.59 m | Date Began July 15/87

Hole No. Win 79 | Co ord. 10059N | Horizontal Length | Date Completed July 18/87

Claim No. L12481 | 4938E | Core Size NQ | Drilled By M.B. Drilling

Page 12 | Grid No. | Angle & Grid Direction -45° Grid West | Elevation 1021.51m | Logged By W. Stollenud

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
106.09 - 132.59	GA	Calcareous Graphitic Argillite (Continued)		
		111.76 - 113.35 Dolomite with 2-3% thin stringer qtz veins at 30-45° to core axis. 1-3% pyrite disseminations and fauns. Bull quartz vein from 112.66 - 112.93 with irregular contact and trace pyrite.		
		113.35 - 125.48 Calcareous graphite argillite. Higher carbonate content and more well developed calcareous interbedding - laminations than from 106.09 - 109.50. Approx. 2-10% combined quartz - carbonate and carbonate (diffuse) veining throughout. Quartz carbonate veins generally less than 1cm and 60-90° to core axis. 1-3% fg. pyrite overall.		
		116.76 - 117.15 : 60% qtz veining with irregular argillite fragments and trace pyrite		
		125.01 - 125.09 : quartz vein with trace - 1% combined galena + chalcopyrite. Vein contacts are irregular but low angles (20-30°) to core axis		
		Blocky core from:		
		119.88 - 121.70 : Mostly argillite rubble with several quartz - carbonate vein fragments. 1-3% pyrite in argillite rubble and trace py in qtz - carbonate vein rubble		
		124.67 - 125.42 : 25-30 fracture/meter.		
		126.60 - 126.80 : 25-30 fractures/meter		
		From 128.32 - 128.12 argillite contains 4 - 1cm contorted - folded bands of calcite, 20-40% fg. to mg. pyrite.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property: Windflower | Project No.: 224 | Depth: 132.59m | Date Began: July 15/87
Hole No.: Win 79 | Co ord.: 10,059 N | Horizontal Length: | Date Completed: July 18/87
Claim No.: L 12481 | 4938 E | Core Size: N.Q | Drilled By: M.e.B. Drilling
Page: 13 | Grid No.: | Angle & Grid Direction: -45° Grid West | Elevation: 1021.51m | Logged By: W. Stevenson

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
125.48-132.59	DO	Dolomite Light grey-brown, massive to finely laminated, 5-8% irregular quartz-carbonate veinlets to 4.5 cm wide and mostly and 60-75° to core axis. Trace pyrite veins. 1-3% disseminated pyrite + pyritic mineral trains in dolomite.		py
132.59		End of Hole		
E.O.H.		Acid Test @ 59.4 = 44° 15' @ 132.59 = 43° 15'		
		Hole Cemented (Bags) Top to Bottom. Casing Removed.		

Foliation / Bedding Core Angles.

5.95 m	60-65°	70.0 m	60°
11.00 m	35-45	74.0 m	55°
16.00 m	60°	80.0 m	50°
19.80 m	30-45°	84.0 m	48°
25.60 m	Variable	88.0 m	60°
37.00 m	70°	92.0 m	70°
39.90 m	50°	94.0 m	75°
42.40 m	65-70°	105.0 m	60°
49.50 m	70°	110.0 m	60-70°
54.60 m	75°	116.5 m	55-60°
61.70 m	45°	119.5 m	60-70°
65.50 m	50°	125.5 m	70-75°
68.80 m	60°	130.0 m	75°

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30768 - 30806 S } COMPLETE

GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE 1/4

Property: WINDFLOWER | Project No.: 224 | Depth: 126.18 | Date Began: JULY July 15/8

Hole No.: WIN 80 | Co ord.: 10 059 N 4938 E | Horizontal Length: | Date Completed: JULY 22/87

Claim No.: | Core Size: N.Q. | Drilled By: M&B DRILLING

Grid No.: | Angle & Direction: -55° Grid West | Elevation: 1021.51 | Logged By: M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 7.92	CASING	7.92	0.00	0.0															
7.92 - 9.34	WASTE	1.42	—	—															
9.34 - 9.70	32273	0.36	.08	.2															
9.70 - 11.40	waste	1.70	—	—															
11.40 - 11.87	32274	0.47	.10	.9															
11.87 - 12.60	32275	0.73	.07	.6															
12.60 - 13.10	32276	0.50	.09	.2															
13.10 - 13.41	32277	0.31	.08	.3															
13.41 - 13.74	32278	0.33	.09	.8															
13.74 - 13.94	32279	0.20	.09	.5															
13.94 - 14.06	32280	0.12	.12	2.2															
14.06 - 14.25	32281	0.19	.09	.4															
14.25 - 14.73	32282	0.48	.08	.3															
14.73 - 14.95	32283	0.22	.09	.6															
14.95 - 15.40	32284	0.45	.10	.3															
15.40 - 15.65	32285	0.25	.07	.7															
15.65 - 15.85	32286	0.20	.11	1.1															
15.85 - 21.34	waste	5.49	—	—															
21.34 - 21.80	32287	0.46	.13	.6															
21.80 - 28.51	waste	6.71	—	—															
28.51 - 28.78	32288	0.26	.06	.2															
28.78 - 39.45	waste	10.67	—	—															
39.45 - 39.95	32289	0.50	.12	.2															
39.95 - 40.55	32290	0.60	.16	.3															
40.55 - 41.15	32291	0.60	.08	.2															
41.15 - 41.53	32292	0.38	.27	.2															
41.53 - 41.90	32293	0.37	.10	.1															
41.90 - 43.59	LC(0.3) 32294	1.69	.12	.2															
43.59 - 44.05	32295	0.46	.07	.2															
44.05 - 44.45	32296	0.40	.10	.2															
44.45 - 48.97	waste	4.52	—	—															
48.97 - 49.81	32297	0.84	.07	<.1															
49.81 - 51.94	waste	2.13	—	—															
51.94 - 52.52	32298	0.58	.10	.2															
52.52 - 64.93	waste	12.31	—	—															
64.93 - 65.20	32299	0.27	.46	.3															
65.20 - 69.75	waste	4.55	—	—															
69.75 - 70.15	32300	0.40	.09	1.4															
70.15 - 70.71	32301	0.56	.71	2.7															
70.71 - 70.95	32302	0.24	.43	2.5															

GEOLOGICAL BRANCH
ASSESSMENT REPORT
16,753

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE 2/4

Property WINDFLOWER | Project No. 224 | Depth | Date Began JULY

Hole No. 80 | Co ord. | Horizontal Length | Date Completed JULY

Claim No. | | Core Size N.Q. | Drilled By M & B DRILLING

Grid No. | Angle & Direction | Elevation | Logged By M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES						
														WIDTH	Au.	Ag.	Cu.	Zn.		
70.95 - 73.20	32303	2.25	.196	3.0																
73.20 - 73.96	32304	0.76	.61	1.9																
73.96 - 74.60	32305	0.64	.31	2.0																
74.60 - 75.10	32306	0.50	.120	1.3																
75.10 - 75.40	32307	0.30	.121	1.1																
75.40 - 76.10	32308	0.70	.23	1.4																
76.10 - 76.95	32309	0.85	.20	2.0																
76.95 - 77.35	32310	0.40	.21	1.0																
77.35 - 77.80	32311	0.45	.76	1.8																
77.80 - 78.03	32312	0.23	.31	1.5																
78.03 - 78.75	32313	0.72	.65	1.9																
78.75 - 79.33	32314	0.58	.98	1.3																
79.33 - 79.60	32315	0.27	.68	2.4																
79.60 - 80.00	32316	0.40	1.67	3.9										4.15m	1.40					79.60 - 83.75
80.00 - 80.72	32317	0.72	1.14	2.7									INCL.	0.65m	3.16					
80.72 - 81.05	32318	0.33	.24	1.4																
81.05 - 81.70	32319	0.65	3.16	4.9																
81.70 - 82.25	32320	0.55	.82	4.3																
82.25 - 82.80	32321	0.55	.46	2.0																
82.80 - 83.30	32322	0.50	1.94	1.8																
83.30 - 83.75	32323	0.45	1.12	1.7																
83.75 - 84.25	32324	0.50	.67	1.1																
84.25 - 84.67	32325	0.42	.71	1.4																
84.67 - 85.18	32326	0.51	.48	1.2																
85.18 - 85.61	32327	0.43	.10	1.1																
85.61 - 85.90	32328	0.29	.71	2.1																
85.90 - 86.61	32329	0.71	.40	1.7																
86.61 - 87.12	32330	0.51	.165	1.6																
87.12 - 87.60	32331	0.48	.83	1.9																
87.60 - 88.30	32332	0.70	.62	1.6																
88.30 - 88.85	32333	0.55	.31	1.6																
88.85 - 89.12	32334	0.27	.45	2.7																
89.12 - 89.35	32335	0.23	.23	2.9																
89.35 - 90.00	32336	0.65	.28	1.9																
90.00 - 91.15	waste	1.15	—	—																
91.15 - 91.80	32337	0.65	.06	.5																
91.80 - 92.04	32338	0.24	.16	.5																
92.04 - 92.27	32339	0.23	.36	1.3																
92.27 - 92.83	32340	0.56	1.05	1.5																
92.83 - 93.53	32341	0.70	.59	3.9																

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DIAMOND DRILL RECORD

CORE 3/4

Property: WINDFLOWER | Project No.: 224 | Depth: | Date Began: JULY

Hole No.: WIN 80 | Co ord.: | Horizontal Length: | Date Completed: JULY

Claim No.: | Core Size: N.Q. | Drilled By: M & B DRILLING

Grid No.: | Angle & Direction: | Elevation: | Logged By: M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.		
93.53-94.04	32342	0.51	.33	1.1																
94.04-94.54	32343	0.50	.64	1.4																
94.54-94.94	32344	0.40	.24	1.3																
94.94-95.30	32345	0.36	.36	2.0																
95.30-96.14	32346	0.84	.65	.9																
96.14-96.60	32347	0.46	.45	1.1																
96.60-97.02	32348	0.42	.12	1.1																
97.02-97.56	32349	0.54	.33	3.3																
97.56-98.54	32350	0.98	.24	1.1																
98.54-99.06	32351	0.52	.31	1.8																
99.06-99.51	32352	0.45	.15	15.0																
99.51-100.00	32353	0.49	1.43	311.3										0.84m	1.48	388.0				99.51-100.35
100.00-100.35	32354	0.35	1.57	495.4																
100.35-102.41	(L.C. 1.65) 32355	2.06	.23	2.2																
102.41-103.02	32356	0.51	.32	1.5																
103.02-103.53	32357	0.51	.31	.4																
103.53-103.85	32358	0.32	.16	.4																
103.85-104.85	(L.C. 0.5) 32359	1.00	.12	1.0																
104.85-105.77	(L.C. 0.55) 32360	0.92	.09	.3																
105.77-106.07	32361	0.30	.79	1.0																
106.07-106.55	32362	0.48	.12	50.3																
106.55-106.90	32363	0.35	.23	.9																
106.90-107.29	32364	0.39	.10	.7																
107.29-107.33	32365	0.04	.09	1.4																
107.33-107.50	32366	0.17	.10	.2																
107.50-108.00	32367	0.50	.09	1.7																
108.00-108.51	32368	0.51	.10	2.3																
108.51-109.11	32369	0.60	.12	1.7																
109.11-109.75	32370	0.64	.16	1.5																
109.75-110.55	32371	0.80	.14	1.3																
110.55-111.55	32372	1.00	.06	1.7																
111.55-112.16	32373	0.61	.10	2.3																
112.16-112.86	32374	0.70	.11	.8																
112.86-113.66	32375	0.80	.08	1.1																
113.66-114.26	32376	0.60	.06	.9																
114.26-114.70	32377	0.44	.08	1.0																
114.70-115.82	waste	1.12	—	—																
115.82-116.54	32378	0.72	.06	.7																
116.54-117.15	32379	0.61	.06	.9																
117.15-117.65	waste	0.50	—	—																

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE 4/4

Property: WINDFLOWER | Project No.: 224 | Depth: | Date Began: JULY
Hole No.: W.W. 80 | Co ord.: | Horizontal Length: | Date Completed: JULY
Claim No.: | | Core Size: N.Q. | Drilled By: M & B DRILLING
Grid No.: | Angle & Direction: | Elevation: | Logged By: M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
117.65 - 118.18	32380	0.53	.05	.6															
118.18 - 118.52	32381	0.34	.20	.9															
118.52 - 119.00	32382	0.48	<.03	.4															
119.00 - 119.50	waste	0.50	—	—															
119.50 - 119.95	32383	0.45	.03	.7															
119.95 - 120.68	waste	0.73	—	—															
120.68 - 120.80	32384	0.12	.04	.3															
120.80 - 121.74	waste	0.94	—	—															
121.74 - 122.22	32385	0.48	.06	.9															
122.22 - 124.00	waste	1.78	—	—															
124.00 - 124.27	32386	0.27	.17	1.1															
124.27 - 124.54	waste	0.27	—	—															
124.54 - 124.76	32387	0.22	.07	.9															
124.76 - 125.48	waste	0.72	—	—															
125.48 - 125.88	32388	0.40	.07	1.0															
125.88 - 126.19	waste	0.31	—	—															
E.O.H.																			
			ACID TEST @ 103 = 51°																
						@ 126.18 = 50°45'													
			HOLE CEMENTED TO BOTTOM																
			CASING PULLED.																

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DIAMOND DRILL RECORD

P-1 of 4

Property WINDFLOWER | Project No. 224 | Depth 126.15 | Date Began July 18/87

Hole No. WIN-80 | Co ord. 10,059N | Horizontal Length | Date Completed July 22/87

Claim No. L12481 | 4938E | Core Size N.Q. | Drilled By M & B Drilling

Grid No. | Angle & Direction -55° West GRID | Elevation 1021.51 | Logged By P.J.D.

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 2.44	CASING	2.44																	
2.44 - 9.34	WASTE	6.90																	
9.34 - 9.70	32273	0.36																	
9.70 - 11.40	WASTE	1.70																	
11.40 - 11.87	32274	0.47																	
11.87 - 12.60	75	0.73																	
12.60 - 13.10	76	050																	
13.10 - 13.41	77	0.31																	
13.41 - 13.74	78	0.33																	
13.74 - 13.94	79	020																	
13.94 - 14.06	32280	0.12																	
14.06 - 14.25	81	0.19																	
14.25 - 14.73	82	0.48																	
14.73 - 14.95	83	0.22																	
14.95 - 15.40	84	0.45																	
15.40 - 15.65	85	0.25																	
15.65 - 15.85	86	0.20																	
15.85 - 21.34	WASTE	5.49																	
21.34 - 21.80	32287	0.46																	
21.80 - 28.51	WASTE	6.71																	
28.51 - 28.78	32288	0.27																	
28.78 - 39.45	WASTE	10.67																	
39.45 - 39.95	32289	0.50																	
39.95 - 40.55	90	0.60																	
40.55 - 41.15	91	0.60																	
41.15 - 41.53	92	0.38																	
41.53 - 41.90	93	0.37																	
41.90 - 43.59	94	1.69																	
43.59 - 44.05	95	0.46																	
44.05 - 44.45	96	0.40																	
44.45 - 48.97	WASTE	4.52																	
48.97 - 49.81	32297	0.84																	
49.81 - 51.94	WASTE	2.13																	
51.94 - 52.52	32298	0.58																	
52.52 - 64.93	WASTE	12.41																	
64.93 - 65.20	32299	0.27																	
65.20 - 69.75	WASTE	4.55																	
69.75 - 70.15	32300	0.40																	
70.15 - 70.71	01	0.56																	
70.71 - 70.95	32302	0.24																	

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

P. 2 of 4

Property WINDFLOWER Project No. 447 Depth Date Began

Hole No. WI.N-80 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Direction Elevation Logged By

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
70.95 - 73.20	32303	2.25																	
73.20 - 73.96	32304	.76																	
73.96 - 74.60	05	.64																	
74.60 - 75.10	06	.50																	
75.10 - 75.40	07	.30																	
75.40 - 76.10	08	.70																	
76.10 - 76.95	09	.85																	
76.95 - 77.35	32310	.40																	
77.35 - 77.80	11	.45																	
77.80 - 78.03	12	.23																	
78.03 - 78.75	13	.72																	
78.75 - 79.33	14	.58																	
79.33 - 79.60	15	.27																	
79.60 - 80.00	16	.40																	
80.00 - 80.72	17	.72																	
80.72 - 81.05	18	.33																	
81.05 - 81.70	19	.65																	
81.70 - 82.25	32320	.55																	
82.25 - 82.80	21	.55																	
82.80 - 83.30	22	.50																	
83.30 - 83.75	23	.45																	
83.75 - 84.25	24	.50																	
84.25 - 84.67	25	.42																	
84.67 - 85.18	26	.51																	
85.18 - 85.61	27	.43																	
85.61 - 85.96	28	.39																	
85.96 - 86.61	29	.71																	
86.61 - 87.12	32330	.51																	
87.12 - 87.66	31	.54																	
87.66 - 88.30	32	.64																	
88.30 - 88.85	33	.55																	
88.85 - 89.12	34	.27																	
89.12 - 89.35	35	.23																	
89.35 - 90.00	36	.65																	
90.00 - 91.15	WASTE	1.15																	
91.15 - 91.80	32337	.65																	
91.80 - 92.04	38	.24																	
92.04 - 92.27	39	.23																	
92.27 - 92.83	32340	.56																	
92.83 - 93.52	32341	.69																	

Use Black Pen Only

GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

P-3 of 4

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN-80 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Direction Elevation Logged By

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
93.52 - 94.04	32348	.52																	
94.04 - 94.54	43	.50																	
94.54 - 94.94	44	.40																	
94.94 - 95.30	45	.36																	
95.30 - 96.14	46	.84																	
96.14 - 96.60	47	.46																	
96.60 - 97.02	48	.42																	
97.02 - 97.56	32349	.54																	
97.56 - 98.54	32350	.98																	
98.54 - 99.06	51	.52																	
99.06 - 99.51	52	.45																	
99.51 - 100.00	53	.49																	
100.00 - 100.35	54	.35																	
100.35 - 102.41	55	1.06			(1.65 m L. 1 Cu.)														
102.41 - 103.02	56	.61																	
103.02 - 103.53	57	.51																	
103.53 - 103.85	58	.32																	
103.85 - 104.85	59	1.00			(0.50 m L.C.)														
104.85 - 105.77	32360	.92			(0.55 m L.C.)														
105.77 - 106.07	61	.30																	
106.07 - 106.55	62	.48																	
106.55 - 106.90	63	.35																	
106.90 - 107.29	64	.39																	
107.29 - 107.33	65	.04																	
107.33 - 107.50	66	.17																	
107.50 - 108.00	67	.50																	
108.00 - 108.51	68	.51																	
108.51 - 109.11	69	.60																	
109.11 - 109.75	32370	.64																	
109.75 - 110.55	71	.80																	
110.55 - 111.55	72	1.00																	
111.55 - 112.16	73	.61																	
112.16 - 112.86	74	.70																	
112.86 - 113.66	75	.80																	
113.66 - 114.26	76	.60																	
114.26 - 114.70	77	.44																	
114.70 - 115.82	waste	1.12																	
115.82 - 116.54	32378	.72																	
116.54 - 117.15	79	.61																	
117.15 - 117.65	waste	.50																	

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

P-4 of 4

Property WINDFLOWER Project No. 224 Depth 126.18 Date Began

Hole No. WIN-80 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Direction Elevation Logged By

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
117.65 - 118.18	32380	.53																	
118.18 - 118.52	81	.34																	
118.52 - 119.00	82	.48																	
119.00 - 119.50	waste	.50																	
119.50 - 119.95	32383	.45																	
119.95 - 120.68	waste	.73																	
120.68 - 120.80	32384	.12																	
120.80 - 121.74	waste	.94																	
121.74 - 122.22	32385	.48																	
122.22 - 124.00	WASTE	1.78																	
124.00 - 124.27	32386	.27																	
124.27 - 124.54	waste	.27																	
124.54 - 124.76	32387	.22																	
124.76 - 125.48	waste	.72																	
125.48 - 125.88	32388	.40																	
125.88 - 126.18	waste	.30																	
E.O.H.																			
			ACIC TEST @ 126.18 = 52°45'																
			CASING PULLED																
			HOLE CEMENTED TOP & BOTTOM (13 BAGS)																

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

SLUDGE 1/1

Property WINDFLOWER Project No. 224 Depth 126.18 Date Began JULY 18/87
Hole No. WIN 80 Co ord. 10,059N Horizontal Length Date Completed JULY 22/87
Claim No. L12481 4938E Core Size N.Q. Drilled By M & B DRILLING
Grid No. Angle & Direction -55° West GRID Elevation 1021.51 Logged By MARK CANTWELL

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 7.92	30768	7.92	.02																
7.92 - 10.97	30769	3.05	.02																
10.97 - 14.02	30770	3.05	.02																
14.02 - 17.07	30771	3.05	.02																
17.07 - 20.12	30772	3.05	.02																
20.12 - 23.16	30773	3.04	.02																
23.16 - 26.21	30774	3.05	.02																
26.21 - 29.26	30775	3.05	.02																
29.26 - 32.31	30776	3.05	.02																
32.31 - 35.36	30777	3.05	.02																
35.36 - 38.40	30778	3.04	.02																
38.40 - 41.45	30779	3.05	.02																
41.45 - 44.50	30780	3.05	.05																
44.50 - 47.55	30781	3.05	.07																
47.55 - 50.60	30782	3.05	.02																
50.60 - 53.64	30783	3.04	.02																
53.64 - 56.69	30784	3.05	.02																
56.69 - 59.74	30785	3.05	.32																
59.74 - 62.79	30786	3.05	.02																
62.79 - 65.84	30787	3.05	.17																
65.84 - 68.88	30788	3.04	2.82																
68.88 - 71.93	30789	3.05	1.25																
71.93 - 74.98	30790	3.05	1.42																
74.98 - 78.03	30791	3.05	2.12																
78.03 - 81.08	30792	3.05	1.21																
81.08 - 84.12	30793	3.04	1.89																
84.12 - 87.17	30794	3.05	2.10																
87.17 - 90.22	30795	3.05	2.16																
90.22 - 93.27	30796	3.05	1.76																
93.27 - 96.32	30797	3.05	1.62																
96.32 - 99.36	30798	3.04	1.55																
99.36 - 102.41	30799	3.05	1.09																
102.41 - 105.46	30800	3.05	.69																
105.46 - 108.51	30801	3.05	.98																
108.51 - 11.56	30802	3.05	1.14																
111.56 - 114.60	30803	3.04	1.05																
114.60 - 117.65	30804	3.05	1.49																
117.65 - 120.70	30805	3.05	1.28																
120.70 - 123.75	30806	3.05	1.01																
123.75 - 126.18	NO RETURN	2.43																	

F.O.H

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE 1/4

Property WINDFLOWER Project No. 224 Depth 126.18 Date Began JULY 15/87
Hole No. W-N 80 Co-ord. 10 059 N Horizontal Length Date Completed JULY 22/87
Claim No. Core Size N.Q. Drilled By M & B DRILLING
Grid No. Angle & Direction -55° GRID WEST Elevation Logged By M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 7.92	CASING	7.92																	
7.92 - 9.34	WASTE	1.42																	
9.34 - 9.70	32273	0.36																	
9.70 - 11.40	waste	1.70																	
11.40 - 11.87	32214	0.47																	
11.87 - 12.60	32275	0.73																	
12.60 - 13.10	32276	0.50																	
13.10 - 13.41	32277	0.31																	
13.41 - 13.74	32278	0.33																	
13.74 - 13.94	32279	0.20																	
13.94 - 14.06	32280	0.12																	
14.06 - 14.25	32281	0.19																	
14.25 - 14.73	32282	0.48																	
14.73 - 14.95	32283	0.22																	
14.95 - 15.40	32284	0.45																	
15.40 - 15.65	32285	0.25																	
15.65 - 15.85	32286	0.20																	
15.85 - 21.34	waste	5.49																	
21.34 - 21.80	32287	0.46																	
21.80 - 28.51	waste	6.71																	
28.51 - 28.78	32288	0.26																	
28.78 - 39.45	waste	10.67																	
39.45 - 39.95	32289	0.50																	
39.95 - 40.55	32290	0.60																	
40.55 - 41.15	32291	0.60																	
41.15 - 41.53	32292	0.38																	
41.53 - 41.90	32293	0.37																	
41.90 - 43.59	32294	1.69																	
43.59 - 44.05	32295	0.46																	
44.05 - 44.45	32296	0.40																	
44.45 - 48.97	waste	4.52																	
48.97 - 49.81	32297	0.84																	
49.81 - 51.94	waste	2.13																	
51.94 - 52.52	32298	0.58																	
52.52 - 64.83	waste	12.31																	
64.83 - 65.20	32299	0.27																	
65.20 - 69.75	waste	4.55																	
69.75 - 70.15	32300	0.40																	
70.15 - 70.71	32301	0.56																	
70.71 - 70.95	32302	0.24																	

DUPLICATE

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE 2/4

Property WINDFLOWER | Project No. 244 | Depth | Date Began July
Hole No. 80 | Co ord. | Horizontal Length | Date Completed July
Claim No. | | Core Size N.Q | Drilled By M & B DRILLING
Grid No. | Angle & Direction | Elevation | Logged By H. CAINTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
70.95 - 73.20	32303	1.25																	
73.20 - 73.96	32304	0.76																	
73.96 - 74.60	32305	0.64																	
74.60 - 75.10	32306	0.50																	
75.10 - 75.40	32307	0.30																	
75.40 - 76.10	32308	0.70																	
76.10 - 76.95	32309	0.85																	
76.95 - 77.35	32310	0.40																	
77.35 - 77.80	32311	0.45																	
77.80 - 78.03	32312	0.23																	
78.03 - 78.75	32313	0.72																	
78.75 - 79.33	32314	0.58																	
79.33 - 79.60	32315	0.27																	
79.60 - 80.00	32316	0.40																	
80.00 - 80.72	32317	0.72																	
80.72 - 81.05	32318	0.33																	
81.05 - 81.70	32319	0.65																	
81.70 - 82.25	32320	0.55																	
82.25 - 82.80	32321	0.55																	
82.80 - 83.30	32322	0.50																	
83.30 - 83.75	32323	0.45																	
83.75 - 84.25	32324	0.50																	
84.25 - 84.67	32325	0.42																	
84.67 - 85.18	32326	0.51																	
85.18 - 85.61	32327	0.43																	
85.61 - 85.90	32328	0.29																	
85.90 - 86.61	32329	0.71																	
86.61 - 87.12	32330	0.51																	
87.12 - 87.60	32331	0.48																	
87.60 - 88.30	32332	0.70																	
88.30 - 88.85	32333	0.55																	
88.85 - 89.12	32334	0.27																	
89.12 - 89.35	32335	0.23																	
89.35 - 90.00	32336	0.65																	
90.00 - 91.15	waste	1.15																	
91.15 - 91.80	32337	0.65																	
91.80 - 92.04	32338	0.24																	
92.04 - 92.27	32339	0.23																	
92.27 - 92.83	32340	0.56																	
92.83 - 93.53	32341	0.70																	

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE 3/4

Property WINDFLOWER Project No. 224 Depth Date Began July

Hole No. WIN 80 Co ord. Horizontal Length Date Completed July

Claim No. Core Size N.Q. Drilled By M & B DRILLING

Grid No. Angle & Direction Elevation Logged By M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
93.53 - 94.04	32342	0.51																	
94.04 - 94.54	32343	0.50																	
94.54 - 94.94	32344	0.40																	
94.94 - 95.30	32345	0.36																	
95.30 - 96.14	32346	0.84																	
96.14 - 96.60	32347	0.46																	
96.60 - 97.02	32348	0.42																	
97.02 - 97.56	32349	0.54																	
97.56 - 98.54	32350	0.98																	
98.54 - 99.06	32351	0.52																	
99.06 - 99.51	32352	0.45																	
99.51 - 100.00	32353	0.49																	
100.00 - 100.35	32354	0.35																	
100.35 - 102.41	32355	2.06																	
102.41 - 103.02	32356	0.51																	
103.02 - 103.53	32357	0.51																	
103.53 - 103.85	32358	0.32																	
103.85 - 104.85	32359	1.00																	
104.85 - 105.77	32360	0.92																	
105.77 - 106.07	32361	0.30																	
106.07 - 106.55	32362	0.48																	
106.55 - 106.90	32363	0.35																	
106.90 - 107.29	32364	0.39																	
107.29 - 107.33	32365	0.04																	
107.33 - 107.50	32366	0.17																	
107.50 - 108.00	32367	0.50																	
108.00 - 108.51	32368	0.51																	
108.51 - 109.11	32369	0.60																	
109.11 - 109.75	32370	0.64																	
109.75 - 110.55	32371	0.80																	
110.55 - 111.55	32372	1.00																	
111.55 - 112.16	32373	0.61																	
112.16 - 112.86	32374	0.70																	
112.86 - 113.66	32375	0.80																	
113.66 - 114.26	32376	0.60																	
114.26 - 114.70	32377	0.44																	
114.70 - 115.82	waste	1.12																	
15.82 - 116.54	32378	0.72																	
116.54 - 117.15	32379	0.61																	
117.15 - 117.65	waste	0.50																	

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE 4/4

Property WINDFLOWER Project No. 664 Depth Date Began JULY

Hole No. WIN 80 Co ord. Horizontal Length Date Completed JULY

Claim No. Core Size N.Q. Drilled By M.E. DRILLING

Grid No. Angle & Direction Elevation Logged By M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
117.65 - 118.18	52380	0.53																	
118.18 - 118.52	52381	0.34																	
118.52 - 119.00	52382	0.48																	
119.00 - 119.50	waste	0.50																	
119.50 - 119.95	52383	0.45																	
119.95 - 120.68	waste	0.73																	
120.68 - 120.80	52384	0.12																	
120.80 - 121.74	waste	0.94																	
121.74 - 122.22	52385	0.48																	
122.22 - 124.00	waste	1.78																	
124.00 - 124.27	52386	0.27																	
124.27 - 124.54	waste	0.27																	
124.54 - 124.76	52387	0.22																	
124.76 - 125.48	waste	0.72																	
125.48 - 125.88	52388	0.40																	
125.88 - 126.19	waste	0.31																	
E.O.H.																			
				ACID TEST @ 103 = 51°															
						@ 126.16 = 52°45'													
				HOLE CONTINUED TOP to BOTTOM															
				CASING PULLED															

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property WINDFLOWER | Project No. 224 | Depth 126.18 | Date Began JULY 18/87

Hole No. WIN-80 | Co-ord. 10 059N | Horizontal Length | Date Completed JULY 22/87

Claim No. L 12481 | 4938E | Core Size N.Q. | Drilled By M & B Drilling

Page P-1 of 5 | Grid No. | Angle & Grid Direction | Elevation 1021.51 | Logged By P.J. DeJoux

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
0 - 2.44	CSG	CASING - OVERBURDEN		
2.44 - 9.67	DO	GREY DOLOMITE		
		FUCHSITIC, LIGHT BROWN COLOURED (ALTERATION) - FOLIATION	FU	
		LARGE WHITE X-TALS. - OCCASIONAL QTZ STRINGER & IRREGULAR.		
9.67 - 11.52	ARBR	BROKEN GREY ARGILLITE	GR	
		WEAKLY GRAPHITIC NARROW SILICEOUS SECTIONS		
11.52 - 12.59	DO	SILICEOUS DOLOMITE WITH QUARTZ VEINLETS	SI	SL
		NARROW ARGILLACEOUS SECTIONS INTERLAYERED.		
		TRACE PYRITE, SPHALERITE IN PARTS.		
		12.07 - 12.25 GREY QTZ-CARBONATE VEIN - TRACE PYRITE, SPHALERITE.		
12.59 - 13.71	DO QV	STRONGLY SILICIFIED DOLOMITE & GREY-WHITE QUARTZ VEINS	SI	
		13.01 - 13.41 GREY-WHITE QTZ VEIN TR PYRITE		
13.71 - 15.24	QV DO	WHITE-GREY QUARTZ VEIN & SILICEOUS DOLOMITE		TT GI SL
		TRACE PYRITE, CHALCOPYRITE, TETRAHEDRITE, GALENA, SPHALERITE.		
15.24 - 23.22	ARGA	GREY TO DARK GREY GRAPHITIC ARGILLITE → ARGILLITE	LM	
		CALCAREOUS WITH SILICEOUS SECTIONS.		
		21.33 - 21.79 QTZ VEINING TRACE PYRITE, SPHALERITE.		
23.22 - 32.31	DOMX	MASSIVE COARSE GRAINED FUCHSITIC DOLOMITE	FU	
		28.43 - 28.41 WHITE QTZ VEIN.		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN - 80 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

 Grid No. Angle & Grid Direction Elevation Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
32.31 - 35.66	DOSH	SHEARED FUCHSITIC DOLOMITE	FU	
		WELL FOLLIATED CORE L = 55°		
35.66 - 40.23	DOMX	MASSIVE DOLOMITE	FU	
		WEAKLY FOLLIATED FUCHSITE IN PARTS		
40.23 - 42.15	DOQV	SILICEOUS ARGILLACEOUS DOLOMITE And QUARTZ VEINING		
		Part graphitic TRACE Pyrite, Sphalerite in parts.		
		40.99 - 41.15 Scattered Blebs of SPHALERITE.		
42.15 - 48.00	DOAR	ARGILLACEOUS DOLOMITE - CALCAREOUS GREY ARGILLITE	ARLM	
		Sections weakly GRAPHITIC.		
		widely Scattered qtz stringers & Veinlets.		
48.00 - 69.83	DO	DOLOMITE (Altered - Yellow - Lt brown Colour)		QV
		ARGILLACEOUS SECTIONS. Scattered qtz stringers, Veinlets.		
		51.81 - 52.42 qtz Veining & ARGILLACEOUS DOLOMITE with Pyrite Blebs.		
		48.92 - 49.83 Strongly Silicified Section		
		64.95 - 65.13 white qtz Vein		
		BROKEN		
69.83 - 73.97	RVFTX	QUARTZ VEIN - GRAPHITIC ARGILLITE (FAULT ZONE) Poor Core Recovery		
		INCLUDES 1.83 metres Lost Core.		
		69.95 - 70.10 qtz Vein TRACE Pyrite		
		70.10 - 70.26 GRAPHITIC ARGILLITE		
		70.26 - 70.92 Broken qtz Vein TRACE to 1% Pyrite		
		70.92 - 71.23 FAULT Gouge (BLACK MUD)		
		71.23 - 72.84 Lost Core.		
		72.84 - 73.12 qtz Vein & GRAPHITIC ARGILLITE Rubble		
		73.12 - 73.76 GRAPHITIC ARGILLITE & qtz Veining (badly broken).		
		73.76 - 73.82 FAULT Gouge		
		73.82 - 73.91 white qtz Rubble.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Page P-3 of 5

Property WINDFLOWER | Project No. 224 | Depth | Date Began
Hole No. WIN – 80 | Co ord. | Horizontal Length | Date Completed
Claim No. | Core Size | Drilled By
Grid No. | Angle & Grid Direction | Elevation | Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
73.97 – 76.96	GABX	BLACK – GREY BRECCIATED GRAPHITIC ARGILLITE with Narrow Sections Grey Argillite.		SL
		CALCAREOUS – Scattered qtz – carbonate Stringers – Trace Pyrite, Sphalerite.		
		Visible Sphalerite @ 75.16		
76.96 – 82.81	GAQV	SILICEOUS BLACK GRAPHITIC ARGILLITE & QUARTZ VEINING	SILM	QS
		Numerous qtz Stringers, Veinlets and Veinings CALCAREOUS.		
		76.96 – 78.03 Strongly Siliceous – with qtz veining – Trace Pyrite		
		78.79 – 79.03 qtz – carbonate vein with graphitic wisps – TR. Py.		
		79.58 – 80.07 Broken qtz – Carbonate Vein – Trace Pyrite.		
	*	81.53 – 82.29 qtz – carbonate veining & Graphitic Argillite – Trace Pyrite.		
82.81 – 86.41	QC	QUARTZ CARBONATE VEINING and GRAPHITIC ARGILLITE to GREY CALCAREOUS ARGILLITE to ARGILLACEOUS DOLOMITE	LM	PY SL
		TRACE to 1% Pyrite in selected qtz Sections – Trace Sphalerite @ 85.80 – TRACE galena – Sphalerite.		
86.41 – 87.63	ARGA	SILICEOUS and CALCAREOUS GREY ARGILLITE to BLACK GRAPHITIC ARGILLITE	LMSI	
		Scattered qtz Stringers.		
87.63 – 91.35	GA	BRECCIATED BLACK CALCAREOUS GRAPHITIC ARGILLITE	LM	
		scattered qtz – carbonate stringers.		
91.35 – 99.06	GA	SILICEOUS BLACK GRAPHITIC ARGILLITE to GREY ARGILLITE		QSPYSL
		with NARROW ARGILLACEOUS DOLOMITE Sections.		
		Numerous qtz Stringers, Veinlets, & clots. TR. Py Sphalerite.		
		94.94 – 95.40 qtz – carbonate veining. TR. Py, Sphalerite, Tetrahedrite.		
		98.51 – 99.06 Strongly Siliceous ARGILLACEOUS Dolomite.		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Page P4 of 5

Property: WINDFLOWER | Project No.: 224 | Depth: | Date Began:
Hole No.: WIN - 80 | Co ord: | Horizontal Length: | Date Completed:
Claim No.: | Core Size: | Drilled By:
Grid No: | Angle & Grid Direction: | Elevation: | Logged By:

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
99.06 – 104.8 – 108.51	QCVN	MAIN ZONE ? QUARTZ - CARBONATE VEIN		PYSLGL
		TRACE to 5% PYRITE, TR - 1% SPHALERITE, TR to 2% GALENA.		
	*	99.0 – 100.58 grey qtz - carbonate vein with Dolomite Fragments large Blebs Pb-Zn TRACE - 2% PYRITE.		
	*	100.58 – 101.19 massive white qtz vein TRACE PY. - Pb - Zn.		
		101.19 – 102.41 Lost Core.		
		102.41 – 102.71 qtz - carbonate Rubble TRACE PY, Pb - Zn.		
		CORE ∠ OF SULPHIDE IN QUARTZ = 20° – 30°		
		102.71 – 103.17 Lost Core		
		103.17 – 103.63 BADLY BROKEN white qtz vein with large fine grained Blebs PYRITE, (up to 20%)		
		103.63 – 103.99 white qtz vein TRACE PYRITE.		
		103.99 – 104.33 qtz vein Rubble. TRACE PY.		
		104.33 – 104.85 Lost Core.		
		104.85 – 105.15 qtz vein & Dolomite Rubble TR. PYRITE		
		105.15 – 105.24 white qtz vein - Carbonate - TRACE - 1% PYRITE.		
		105.24 – 105.76 Lost Core.		
		105.76 – 105.92 qtz - Dolomite Rubble.		
		105.92 – 107.29 grey - white qtz vein with Dolomite Fragments TRACE PY & Pb - Zn		
		107.29 – 107.59 qtz - Dolomite Rubble		
		107.59 – 107.90 Bull white qtz vein - TRACE PYRITE		
		107.90 – 108.20 qtz vein & Dolomite Rubble TRACE PY, Sphalerite.		
		108.20 – 108.51 qtz veining & Dolomite TRACE PY.		
108.51 – 114.91	DO	SILICEOUS DOLOMITE	SI	QS
		Scattered qtz veinlets & stringers - TR. PYRITE.		
114.91 – 116.43	GA	CALCAREOUS GRAPHITIC ARGILLITE - qtz stringers.	LM	QS
116.43 – 119.17	DO	SILICEOUS DOLOMITE	SI	
		scattered qtz stringers - veinlets with TRACE PYRITE.		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN-80 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

 Grid No. Angle & Grid Direction Elevation Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
119.17 - 120.70	DO	Grey Argillaceous Dolomite with qtz Stringers & Trace Pyrite	AL	
120.70 - 123.44	DO	Dirty Dolomite with Argillaceous Sections. Scattered qtz Veinlets.	AL	QV
		121.31 - 121.43 qtz Vein - Tr. Py.		
		120.7 - 120.76 qtz Vein.		
		121.76 - 122.22 qtz Veinlets & Black Dolomite		
123.44 - 126.18	GA	Calcareous Graphitic Argillite	LM	
		Scattered qtz Stringers.		
E.O.H.				
		DIP TEST @ 103 = 51°		
		@ 126.18 = 52° 45'		
		Hole Cemented Top to Bottom (13 Bags)		
		Casing Removed		

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30808 – 30849 S / COMPLETE

GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE 1/3

Property: WINDFLOWER | Project No.: 224 | Depth: 124.04 m | Date Began: JULY 22 1987
Hole No.: WIN 81 | Coord.: 10059 N | Horizontal Length: | Date Completed: JULY 25 1987
Claim No.: L12481 | 4938 E | Core Size: N.Q. | Drilled By: M & B DRILLING
Grid No.: | Angle & Direction: -67° @ N 53° GRID W | Elevation: 1021.51 m | Logged By: MARK CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.	
0 – 1.83	CASING	1.83																	
1.83 – 12.84	waste	11.01																	
12.84 – 13.11	32434	0.27	.08	1.2															
13.11 – 13.35	32435	0.24	.12	2.3															
13.35 – 13.85	waste	0.50	—	—															
13.85 – 14.50	32436	0.65	.13	1.5															
14.50 – 14.80	32389	0.30	.11	.8															
14.80 – 17.37	waste	2.57	—	—															
17.37 – 17.75	32390	0.38	.14	.9															
17.75 – 18.20	32391	0.45	.07	.4															
18.20 – 22.25	waste	4.05	—	—															
22.25 – 22.68	32392	0.43	.10	1.2															
22.68 – 23.08	32393	0.40	.22	1.6															
23.08 – 24.62	32394	1.54	.11	1.2															
24.62 – 25.00	32395	0.38	.12	1.3															
25.00 – 27.46	waste	2.46	—	—															
27.46 – 27.96	32396	0.50	.13	1.2															
27.96 – 28.24	32397	0.28	.15	1.1															
28.24 – 28.74	32398	0.50	.25	1.6															
28.74 – 31.93	waste	3.19	—	—															
31.93 – 32.55	32399	0.62	.12	1.4															
32.55 – 33.25	32400	0.70	.14	1.5															
33.25 – 33.90	32401	0.65	.14	1.3															
33.90 – 34.55	32402	0.65	.22	1.4															
34.55 – 35.36	32403	0.81	.11	1.2															
35.36 – 35.68	32404	0.32	.32	1.4															
35.68 – 36.26	32405	0.58	.18	1.1															
36.26 – 36.88	32406	0.62	.09	1.1															
36.88 – 37.24	32407	0.36	.08	1.3															
37.24 – 37.64	32408	0.40	.14	1.3															
37.64 – 38.00	32409	0.36	.12	1.2															
38.00 – 38.40	32410	0.40	.08	1.4															
38.40 – 38.84	waste	0.44	—	—															
38.84 – 39.22	32411	0.38	.13	1.2															
39.22 – 39.85	32412	0.63	.20	1.2															
39.85 – 40.53	32413	0.68	.27	1.2															
40.53 – 40.78	32414	0.25	.14	1.3															
40.78 – 41.45	32415	0.67	.05	1.0															
41.45 – 41.85	32416	0.40	.13	.9															
41.85 – 42.06	waste	0.21	—	—															

GEOLOGICAL BRANCH
ASSESSMENT REPORT
16,753

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE 2/3

Property WINDFLOWER Project No. 224 Depth 129.84 m Date Began July 22 1987

Hole No. WIN 81 Co ord. 10059 N Horizontal Length Date Completed July 25 1987

Claim No. L12481 4938 E Core Size N.Q. Drilled By M & B DRILLING

Grid No. Angle & Direction -67° N53°GRIDW Elevation 1021.51m Logged By MARK CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES						
														WIDTH	Au.	Ag.	Cu.	Zn.		
42.06-42.67	32417	0.61	.12	1.0																
42.67-43.28	32418	0.61	.18	1.2																
43.28-43.66	32419	0.38	.17	1.3																
43.66-44.00	32420	0.34	.09	1.2																
44.00-44.63	32421	0.63	.12	1.1																
44.63-44.75	32422	0.12	.21	1.0																
44.75-45.05	32423	0.30	.12	1.3																
45.05-45.34	32424	0.29	.12	1.6																
45.34-45.66	32425	0.32	.13	1.5																
45.66-46.12	32426	0.46	.08	1.3																
46.12-46.81	32427	0.69	.10	1.3																
46.81-51.75	waste	4.94	—	—																
51.75-52.12	32428	0.37	.12	1.4																
52.12-52.62	32429	0.50	.09	1.3																
52.62-52.96	32430	0.34	.08	1.5																
52.96-54.13	waste	1.17	—	—																
54.13-54.33	32431	0.20	.08	1.3																
54.33-54.44	32432	0.11	.05	1.1																
54.44-56.00	waste	0.56	—	—																
56.00-56.59	32433	0.59	.04	1.3																
56.59-74.05	waste	17.46	—	—																
74.05-74.58	32437	0.53	.06	1.2																
74.58-74.98	32438	0.40	.07	1.0																
74.98-89.56	waste	14.58	—	—																
89.56-89.86	32464	0.30	.13	.9																
89.86-89.98	32465	0.10	.19	1.5																
89.98-90.22	32466	0.24	.14	1.4																
90.22-94.61	waste	4.39	—	—																
94.61-94.77	32439	0.16	.08	1.2																
94.77-94.92	32440	0.15	.10	1.0																
94.92-95.10	32441	0.18	.09	1.1																
95.10-95.50	32442	0.40	.12	1.1																
95.50-95.70	32443	0.20	.09	.9																
95.70-96.32	32444	0.62	.13	1.3																
96.32-97.64	32445	1.32	.12	1.2																
97.64-101.65	waste	4.01	—	—																
101.65-102.15	32446	0.50	.38	1.4																
102.15-102.66	32447	0.51	.40	1.4																
102.66-102.76	32448	0.10	.10	.8																
102.76-103.14	32449	0.38	.70	2.5																

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE 3/3

Property WINDFLOWER Project No. 224 Depth 129.84 Date Began JULY 22 1987
Hole No. WIN 81 Co ord. 10059 N Horizontal Length Date Completed JULY 25 1987
Claim No. L12481 49.38 E Core Size N.Q. Drilled By M & B DRILLING
Grid No. Angle & Direction -67° @ N 53° GRID W Elevation 1021.51 Logged By MARK CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
103.14 - 103.58	32450	0.44	.52	1.5															
103.58 - 104.02	32451	0.44	.50	1.7															
104.02 - 104.46	32452	0.44	.33	2.1															
104.46 - 104.66	32453	0.20	.36	1.3															
104.66 - 104.76	32454	0.10	.20	.6															
104.76 - 105.16	32455	0.40	.31	1.1															
105.16 - 105.46	32456	0.30	.17	1.5															
105.46 - 106.07	32457	0.61	.47	1.3															
106.07 - 106.52	32458	0.45	.22	1.5															
106.52 - 106.98	32459	0.46	.17	1.6															
106.98 - 107.50	32460	0.52	.14	1.4															
107.50 - 108.00	32461	0.50	.12	1.0															
108.00 - 108.51	32462	0.51	.13	1.1															
108.51 - 109.12	32463	0.61	.11	1.3															
109.12 - 129.84	WASTE	20.74																	
E.O.H																			
			AC 10 TEST @ 82.3 = 64°																
			CASING PULLED																
			HOLE CEMENTED TOP & BOTTOM (13 BAGS.)																

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

SLUDGE 1/1

Property WINDFLOWER Project No. 224 Depth 129.84 Date Began July 22/87

Hole No. WIN 81 Co ord. 10059.4 Horizontal Length Date Completed July 25/87

Claim No. L1248I 4938 E Core Size N.Q. Drilled By M & B DRILLING

Grid No. Angle & Direction -67° 453°W Elevation 1021.51 m Logged By MARK CANTWELL

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 4.88	30808	4.88	.35																
4.88 - 7.92	30809	3.04	.09																
7.92 - 10.97	30810	3.05	.04																
10.97 - 14.02	30811	3.05	.31																
14.02 - 17.07	30812	3.05	.42																
17.07 - 20.12	30813	3.05	.30																
20.12 - 23.16	30814	3.04	.24																
23.16 - 26.21	30815	3.05																	
26.21 - 29.26	30816	3.05	.17																
29.26 - 32.31	30817	3.05	.29																
32.31 - 35.36	30818	3.05	.15																
35.36 - 38.40	30819	3.04	.05																
38.40 - 41.45	30820	3.05	.02																
41.45 - 44.50	30821	3.05	.02																
44.50 - 47.55	30822	3.05	.09																
47.55 - 50.60	30823	3.05	.04																
50.60 - 53.64	30824	3.04	.03																
53.64 - 56.69	30825	3.05	.02																
56.69 - 59.74	30826	3.05	.05																
59.74 - 62.79	30827	3.05	.05																
62.79 - 65.84	30828	3.05	.04																
65.84 - 68.88	30830	3.04	.02																
68.88 - 71.93	30829	3.05	.02																
71.93 - 74.98	30831	3.05	.12																
74.98 - 78.03	30832	3.05	.19																
78.03 - 81.08	30833	3.05	.02																
81.08 - 84.12	30834	3.04	.02																
84.12 - 87.17	30835	3.05	.02																
87.17 - 90.22	30836	3.05	.72																
90.22 - 93.27	30837	3.05	.03																
93.27 - 96.32	30838	3.05	.21																
96.32 - 99.36	30839	3.04	.06																
99.36 - 102.41	30840	3.05	.32																
102.41 - 105.46	30841	3.05	.34																
105.46 - 108.51	30842	3.05	.22																
108.51 - 111.56	30843	3.05	.36																
111.56 - 114.60	30844	3.04	.21																
114.60 - 117.65	30845	3.05	.24																
117.65 - 120.70	30846	3.05	.31																
120.70 - 123.75	30847	3.05	.28																
123.75 - 126.80	30848	3.05	.23																

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SLUDGE 30808 – 30848

GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property: Windflower | Project No.: 224 | Depth: 129.84 m. | Date Began: July 22/87
Hole No.: Win 81- | Co ord.: 10.059 N | Horizontal Length: | Date Completed: July 25/87
Claim No.: L12481 | 4938 E | Core Size: NQ | Drilled By: M.B. Drilling
Page: 1 | Grid No.: | Angle & Grid Direction: -67° @ N 53° Grid W | Elevation: 1021.51 m. | Logged By: W. Stokteras

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
0 - 1.83	CSG			
1.83 - 15.34	DO	Fuchsite Dolomite.	FUMS IV	QCVN
		Light grey to light brownish grey, fine to medium grained, poorly foliated unit. Weak fuchsite alteration as coatings on Sericite fractures. Trace - 1% Mg. disseminated pyrite - Trace Chalcopyrite in dolomite. Rare quartz veins less than 1cm except at 12.89 - 15.34 which overall contains 10% Veining (up to 17 cm as at 14.58 - 14.75) Veining: Trace Pyrite in Veins		
		1.83 - 5.03m: 12 Fractures/meter at 15°, 25° and 55° To Core axis		
		5.03 - 7.16m: 3-5 Fractures/meter at 30°, 60-65°.		
		7.16 - 7.92m: Rubble. Largest fragment 6cm x 2cm.		
		7.92 - 9.57m: 5-7 Fractures/meter except for Rubble at 8.83 - 8.94 Fractures at 50, 70° and Subparallel To Core axis		
		9.57 - 11.43m: Blocky ground with 15 To > 20 Fractures/meter at 30, 65, 70-80° To Core axis.		
		11.43 - 15.34m: 3-5 Fractures/meter at 55° - 60° To Core axis.		
				QCVN
15.34 - 18.20	GA BK	Graphitic Argillite (Calcareous)	LM	
		Weakly laminated blocky unit with 15 To > 20 Fractures/meter Throughout. Minor gouge seems To Several mm wide locally. Approx. 5% diffuse Carbonate Veins and Quartz - Carbonate Veins. Trace - 1% Pyrite in argillite.		
		17.75 - 18.20 - Qtz vein + Vein rubble: Trace Pyrite.		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property Windflower | Project No. 224 | Depth 129.84m | Date Began July 22/87

Hole No. Win 81 | Co ord. 10059N | Horizontal Length | Date Completed July 25/87

Claim No. L12481 | 9938E | Core Size NQ | Drilled By M.E.B. Drilling

Page 2 | Grid No. | Angle & Grid Direction ~67° @ N 53° E and W. | Elevation 1021.51m | Logged By W. Steeteau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
18.20 - 20.30	DD GA	Interbedded Dolomite and Calcareous Graphitic Argillite. Medium grey, m.g sections of laminated dolomite to 2cm interbedded with calcareous graphitic argillite sections to 22cm wide. 5% irregular q/z - carbonate veins to 4cm and thin (1-3mm) diffuse carbonate veins. Carbonate veins carry trace m.g. pyrite and predominantly 60° to core axis. Trace - 1% pyrite in host dolomites - argillites. - Blocky ground with greater than 20 fractures/meter from 18.20 - 18.59 at 30° and 60° to core axis. Approximately 4 - 7 fractures/meter over remainder of unit		
20.30 - 22.68	DD BK	Dolomite. Cream colored to light brownish grey, weakly fuchsitic, fine grained to medium grained unit. Weakly to moderately sheared foliated. No significant veining except for odd fragments of disrupted quartz carbonate veins. Trace irregular pyrite blebs. 8-10 fractures/meter at 10-50° and 100° to core axis. Unit somewhat kaolinized	KA FU	
22.68 - 31.93	GA	Graphitic Argillite. Massive to infrequently interbedded with thin calcareous laminae. Contains less than 5% quartz carbonate veining at 50-60° to core axis and to 6cm wide. Also 3-5% thin diffuse, disrupted carbonate veining in various stages of transposition parallel to bedding schistosity. Trace 1cm quartz - carbonate veins and trace disseminated fg. - mg pyrite in argillite. Moderate to good ground with 3-5 fractures/meter at 35° and 60° to core axis.		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

Property Windflower Project No. 224 Depth 129.84m Date Began July 22/87

Hole No. Win 81 Co ord. 10.059 N Horizontal Length Date Completed July 25/87

Claim No. L 124.81 4938 E Core Size N.Q Drilled By M.B. Drilling

ZONE: Page 3 Grid No. Angle & Grid Direction -67° @ N 53° E to W Elevation 1021.51m Logged By W. Stevenson

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
31.93-46.81,	GAQCBXSH	Graphitic Argillite with Brecciated Quartz-Carbonate Veining	PY	
		Graphitic argillite with overall 15% irregular quartz-carbonate veins and brecciated vein material. Unit as whole appears strongly sheared. 1-2% fine - m.g. disseminated pyrite in argillite and trace pyrite in veining in general.		
		44.63 - 4 pebbles of massive, m.g. pyrite. 70% quartz-carbonate veining from 44.63-44.95. Veining has trace py.		
		32.55-33.85 : rubble and blocky core. 20-40° fracture angles.		
		35.36-35.68 : Blocky core with > 20 fractures/meter at 50-55°.		
		37.65-38.40 : Somewhat blocky core with 12-15 fractures/meter at 15° and 60° to core axis.		
		39.22-39.85 : Graphitic fault gouge with angular fragments of argillite to 5 cm.		
		43.66-44.00 : Blocky core and rubble. Measurable fractures at 40-60°.		
		44.63-45.66 : Blocky core with 15-20 fractures/meter at 15° and 55°. Mostly rubble from 45.34-45.66.		
46.81-49.38	GA BK	Blocky Graphitic Argillite	GR	
		Near solid graphite. Schistose with 5-7% disrupted thin carbonate veining. Blocky with largest core piece 13 cm and most pieces < 6 cm. Fractures and partings at 10-20° and 55°. Trace - 1% disseminated pyrite overall.		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Page 4

Property: Wind Flower	Project No. 224	Depth: 129.84 m	Date Began: July 22/87
Hole No. Win 81	Coord. 10059N	Horizontal Length	Date Completed: July 25/87
Claim No. L 12481	4938E	Core Size: NQ	Drilled By: M&B Drilling
Grid No.	Angle & Grid Direction: -67° @ N 53° Grid W.	Elevation: 1021.51 m	Logged By: W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
49.38 - 58.59	GA	Calcareous Graphitic Argillite	CMFUMS PY	ARQC
		Moderately well and thinly bedded with finely laminated calcareous bands to 25 cm alternating with graphitic argillite bands. 2-4% carbonate and quartz-carbonate veining throughout. Quartz-carbonate veins usually at 50-60° to core axis. Largest vein is from 54.33-54.44 (Sericitic-fuchsitic with 1% pyrite). Argillite has ~1% mig.-c.g. euhedral pyrite throughout.		
		52.12-52.62. Calcareous graphitic argillite rubble/blocky ground. Includes some (5%) vuggy quartz carbonate vein material which has trace galena.		
		56.00 - 56.59: Blocky to rubbly graphitic argillite with 1-2% pyrite associated with 10% quartz-carbonate veining. Most of sulphides found in short section from 56.23 - 56.30 which carries 5-7% pyrite. > 20 fractures/meter at 30° and 50-60°.		
		Most of unit is moderate ground with 3-7 fractures/meter at 55-70° and 15° to core axis.		
58.59 - 69.47	GA	Graphitic Argillite with occasional Carbonate-Sericite interbeds.	CBMS SL PY	
		Massive overall with very localized laminated calcareous beds to 20 cm thick. Also contains approximately 2-3% bands of canary yellow, fig., sericite-carbonate to 23 cm wide which contain trace fuchsite and pyrite. Section as whole contains less than 5% irregular quartz-carbonate veins and diffuse carbonate veins. Qtz-carbonate veins to 4 cm and at shallow to moderate core angles. Trace sphalerite-pyrite in veins and 1% fig.-mig. euhedral pyrite dissemated in argillite. Moderate ground with 4-7 fractures/meter except for 60.27-61.12 (10-15 fractures/m) and 62.18-62.43 (rubble).		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

Property: Windflower | Project No.: 224 | Depth: 129.84 m. | Date Began: July 22/87
Hole No.: W.in.81 | Co ord.: 10059N | Horizontal Length: | Date Completed: July 25/87
Claim No.: L12481 | 4938E | Core Size: NQ. | Drilled By: M.E.B. Drilling
ZONE: | Page: 5 | Grid No.: | Angle & Grid Direction: -67° @ N53°GridW | Elevation: 1021.51m. | Logged By: W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
69.47-90.32	DO	Dolomite - Arkosic Dolomite.	ARKOSIC DY	
		Grey, fine to medium grained, massive to poorly foliated unit. Contains Very little (1%) quartz-carbonate veining but locally appears Silicified and/or Contains vein fragments to 1-2 cm. Weakly-Fuchsitic from 72.74-84.38. Largest Quartz vein is 4 cm and is at 55° to core axis between 74.42-74.58. It contains traces of a Silvery metallic mineral which is not galena. Dolomite contains 1-3% fine-medium grained Subhedral pyrite on average as disseminations and blebs - Strongest on foliation planes. Good Core Throughout with 1-3 fractures/meter at 40° and 60-70° To Core axis. From 73.06-73.42 and 75.30-75.72 is blocky core with 10-15 fractures/meter at 75° and 10° To Core axis.		
		89.86-89.98: 25-30% mg, anhedral-Subhedral pyrite.		
		89.98-90.22: Rubbly dolomite + graphitic quartz-carbonate vein rubble. Trace fuchsite and pyrite.		
90.32-109.12	GALC	Graphitic Argillite.		
		90.32-97.64: Mostly rubble with fragments less than 5cm. Much lost core as well.		
		91.74-93.87: 80% Core loss. Rubble of graphitic argillite and Sericitic dolomite. Minor veining-1% pyrite		
		90.32-91.74: 65% Core loss. Graphitic argillite gouge and rubble. 1% pyrite in larger fragments		
		93.87-95.10: Blocky graphitic argillite including Sericitic dolomite from 94.61-94.77 and irregular qtz-carbonate vein from 94.77 To 94.92. Trace-1% fg.-mg pyrite in argillite. Trace pyrite in qtz-carbonat vein.		
		95.10-96.32: Mostly graphitic gouge and rubble and 25% core loss. Qtz-carbonate vein with no apparent mineralization from 95.56-95.70		

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DIAMOND DRILL LOG

ZONE:

Property: Wind Flower | Project No.: 224 | Depth: 129.84 m. | Date Began: July 22/87

Hole No.: Win 81 | Co ord.: 10059N | Horizontal Length: | Date Completed: July 25/87

Claim No.: L.12481 | 4938E | Core Size: NQ. | Drilled By: M.B. Drilling

Page: 6 | Grid No.: | Angle & Grid Direction: -67° @ N 53° GridW | Elevation: 1021.51 m | Logged By: W. Stetefeld

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		Graphitic Argillite - (Continued)		
		96.32-97.53: Graphitic argillite and quartz-carbonate vein rubble. 70% Core loss. Trace-1% mig. euhedral pyrite in argillite and veining.		
		97.53-97.64: Schistose graphitic argillite rubble including minor barren QTZ veins to 1cm at 55°-70° to core axis.		
		97.64-102.66: blocky graphitic argillite with 15-25 fractures/meter at 35°-60° to core axis except for gouge and rubble at 100.74 to 101.65 (30% Core loss). Approximately 5-10% quartz-carbonate veins to 2cm at 50° to core axis except for 101.65-102.66 with 20% veining & 1% fg.-mig. pyrite in argillite and Trace pyrite in veins.		
		102.66-109.12: Graphitic argillite and 15% quartz-carbonate veins and vein breccia material. Veins mostly at 50° to core axis and to 10cm wide. Trace pyrite in veining and Trace-1% pyrite in argillite. Largest quartz ± carbonate veins at:		
		102.66-102.76: QTZ vein at 20° to core axis. Trace Sphalerite, pyrite.		
		109.66-109.76: QTZ vein at 60° to core axis. Trace Pyrite.		
		Section from 102.66-109.12 averages 10 Fractures/m. at 50° to core axis.		
		105.46-106.67: Graphitic argillite and quartz vein rubble and blocky core. 30% quartz veins to 5cm at 90° to core axis. Trace Pyrite.		

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DIAMOND DRILL LOG

Property Wind Flower Project No. 224 Depth 129.84 m. Date Began July 22/87

Hole No. Win 81 Co-ord. 10059 N Horizontal Length Date Completed July 25/87

Claim No. L 12481 4938 E Core Size NQ Drilled By M & B Drilling

ZONE: Page 7 Grid No. Angle & Grid Direction -67° @ N 53° Grid W Elevation 1021.51m Logged By W. Stevenson

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
109.12 - 129.84	DO	Sericitic Dolomite	MSAK	
		Grey and light yellow, fine grained, moderately Sericitized arkosic dolomite. Moderately foliated with alternating Sericite enriched and impoverished thin bands giving the unit a crudely grey and yellow striped appearance. 3-4% of quartz-carbonate veins to 5 cm wide, at 40°-60° to core axis. Trace pyrite in dolomite and veining. Good ground over entire unit with 1-3 fractures/meter at 55° to core axis.		
129.84		End of Drillhole.		

Foliation/Bedding Angles To Core Axis.

15.54 meters	60-68°	81.00 meters	35-45°
20.72 "	66-72°	85 "	40-50°
22.40 "	50-60°	90 "	68-70°
28.74 "	45-48°	97 "	60°
30.05 "	38-41°	106 "	50-55°
41.45 "	25°	111 "	50°
43.60 "	40°	115 "	55°
50.20 "	60-70°	122 "	55°
60.00 "	70-90°	129 "	55°
65.00 "	60°		

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30089 - 30128 S / Complete

GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

P-1 of 7

Property: WINDFLOWER | Project No.: 224 | Depth: 201.47 | Date Began: JULY 24/87
Hole No.: Wine-82 | Co ord.: 10243N 4916E | Horizontal Length: | Date Completed: AUG. 3/87
Claim No.: L12481 | Core Size: N.Q. | Drilled By: M & B. DRILLING
Grid No.: | Angle & Direction: -71° S82°E GRID | Elevation: 1057.51 | Logged By: W. S.

SAME AS WIN 14

INTERVAL [redacted]/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.	WIDTH X ASSAY	AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.
Core												
0 - 9.14	Casing											
9.14 - 9.69	waste											
9.69 - 11.58	lost core											
11.58 - 12.60	28283	1.02	.09	.4			only contains 34 cm of core					
12.60 - 12.80	84	0.20	.11	.1								
12.80 - 14.13	28285	1.33	.12	.3			only contains 75 cm of core					
14.13 - 14.43	waste		0.00	0.0								
14.43 - 16.46			-1.00	-1.0			lost core.					
16.46 - 16.59	waste		0.00	0.0								
16.59 - 17.67			-1.00	-1.0			lost core					
17.67 - 19.04	waste		0.00	0.0								
19.04 - 20.42			-1.00	-1.0			lost core					
20.42 - 21.64	waste		0.00	0.0								
21.64 - 22.90	28286	1.26	.10	.3			only contains 96 cm of core					
22.90 - 23.16	28287	0.26	.12	.1								
23.16 - 23.77	88	0.61	.11	.1			only contains 16 cm of core.					
23.77 - 24.49	waste		0.00	0.0								
24.49 - 24.99			-1.00	-1.0			lost core.					
24.99 - 25.79	waste		0.00	0.0								
25.79 - 26.57			-1.00	-1.0			lost core.					
26.57 - 27.44	waste		0.00	0.0								
27.44 - 28.09			-1.00	-1.0			lost core.					
28.09 - 28.42	waste		0.00	0.0								
28.42 - 29.57			-1.00	-1.0			lost core.					
29.57 - 29.78	waste		0.00	0.0								
29.78 - 30.48			-1.00	-1.0			lost core.					
30.48 - 32.31	waste		0.00	0.0								
32.31 - 33.41	28287	1.10	.18	.8			only contains 50 cm of core					
33.41 - 33.64	28290	0.23	.17	.4								
33.64 - 33.75	91		.16	.8								
33.75 - 34.14			-1.00	-1.0			lost core.					
34.14 - 36.75	waste		0.00	0.0								
36.75 - 37.19			-1.00	-1.0			lost core.					
37.19 - 37.89	waste		0.00	0.0								
37.89 - 38.10			-1.00	-1.0			lost core					
38.10 - 38.95	waste		0.00	0.0								
38.95 - 39.32			-1.00	-1.0			lost core.					
39.32 - 39.60	28292	0.28	.14	.8								

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,753

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE P-2 of 7

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. Win-82. Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Direction Elevation Logged By

INTERVAL / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
Core																			
39.60 - 39.71	28293	0.11	.09	.5															
39.71 - 40.04	28294	0.33	.11	.7			only contains 19 cm of core												
40.04 - 40.30	28295	0.26	.14	.8															
40.30 - 40.84	96	0.54	113	1.1															
40.84 - 41.07	97	0.23	.12	1.1															
41.07 - 42.07	98	1.00	.12	.6															
42.07 - 44.17	waste		0.00	0.0															
44.17 - 44.57	Lost core		-1.00	-1.0			Lost core												
44.57 - 45.57	28299	1.00	.40	.8															
44.57 - 46.38	28300	0.81	.09	.8															
46.38 - 47.38	01	1.00	.11	1.0															
47.38 - 51.28	waste		0.00	0.0															
51.28 - 51.78	28302	0.50	<.03	.2															
51.78 - 51.93	03	0.15	.03	.3															
51.93 - 52.43	04	0.50	.05	.2															
52.43 - 57.73	waste		0.00	0.0															
57.73 - 58.23	28305	0.50	.04	.8															
58.23 - 58.40	06	0.17	<.03	.1															
58.40 - 58.90	07	0.50	<.03	.5															
58.90 - 61.16	waste		0.00	0.0															
61.16 - 61.57	LC		-1.00	-1.0			Lost core												
61.57 - 65.44	waste		0.00	0.0															
65.44 - 65.94	08	0.50	<.03	.4															
65.94 - 66.91	09	0.97	.04	.4															
66.91 - 67.41	28310	0.50	.04	.6															
67.41 - 85.65	WASTE	18.24	0.00	0.0															
85.65 - 86.01	28311	0.36	.04	.1															
86.01 - 86.22	28312	0.21	.04	<.1															
86.22 - 86.50	28313	0.28	.07	.1															
86.50 - 87.21	28314	0.71	.04	.3															
87.21 - 87.41	28315	0.20	<.03	<.1															
87.41 - 87.90	28316	0.49	<.03	.1															
87.90 - 88.24	28317	0.34	<.03	.1															
88.24 - 88.85	28318	0.61	<.03	<.1															
88.85 - 89.25	28319	0.40	<.03	<.1															
89.25 - 89.56	28320	0.31	.10	.3															
89.56 - 90.05	28321	0.49	<.03	<.1															
90.05 - 90.27	28322	0.22	.03	.1															

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE 3/7

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN 82 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Direction Elevation Logged By MARK CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES						
														WIDTH	Au.	Ag.	Cu.	Zn.		
90.27 - 96.52	WASTE	6.25																		
96.52 - 96.89	28323	0.37	<.03	<.1																
96.89 - 97.40	28324	0.51	<.03	<.1																
97.40 - 97.95	WASTE	0.55	0.00	0.0																
97.95 - 98.15	28325	0.20	.06	.5																
98.15 - 99.75	WASTE	1.60	0.00	0.0																
99.75 - 100.25	28326	0.50	.11	.7																
100.25 - 100.75	28327	0.50	.10	.8																
100.75 - 101.50	28328	0.75	.10	1.0																
101.50 - 102.12	28329	0.62	.03	.3																
102.12 - 102.52	28330	0.40	.05	.3																
102.52 - 102.93	28331	0.41	.20	.8																
102.93 - 103.17	28332	0.24	.12	.7																
103.17 - 103.70	28333	0.53	.16	.9																
103.70 - 104.20	28334	0.50	.16	.7																
104.20 - 104.73	28335	0.53	.18	.8																
104.73 - 105.03	28336	0.30	.15	.8																
105.03 - 105.70	28337	0.67	.08	.5																
105.70 - 106.02	28338	0.32	.17	.8																
106.02 - 106.55	28339	0.53	.21	.9																
106.55 - 109.54	WASTE	2.99	0.00	0.0																
109.54 - 109.90	28340	0.36	.18	1.4																
109.90 - 113.69	WASTE	3.79	0.0	0.0																
113.69 - 113.99	28341	0.30	.10	.8																
113.99 - 114.30	28342	0.31	.09	1.2																
114.30 - 114.61	28343	0.30	.07	.6																
114.61 - 114.91	28344	0.30	.06	.6																
114.91 - 121.71	WASTE	6.80	0.00	0.0																
121.71 - 122.04	28345	0.33	.04	.2																
122.04 - 122.54	28346	0.50	.06	.7																
122.54 - 123.14	28347	0.60	.10	.7																
123.14 - 123.78	28348	0.64	.07	.6																
123.78 - 124.28	28349	0.50	.10	.9																
124.28 - 124.83	28350	0.55	.06	.4																
124.83 - 125.37	28351	0.54	.07	.5																
125.37 - 125.91	28352	0.54	.12	1.2																
125.91 - 126.18	28353	0.27	.08	.6																
126.18 - 126.48	28354	0.30	.07	.9																
126.48 - 129.16	WASTE	2.68	0.00	0.0																
129.16 - 129.66	28355	0.50	.06	.6																

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DIAMOND DRILL RECORD

CORE 4/7

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN 82 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Direction Elevation Logged By MARK CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
129.66 - 130.34	28356	0.58	.09	1.0															
130.34 - 130.91	28357	0.57	.06	.5															
130.91 - 132.89	WASTE	1.98	0.00	0.0															
132.89 - 133.50	28358	0.61	.03	.3															
133.50 - 133.81	28359	0.31	.05	.4															
133.81 - 134.42	28360	0.61	.06	.3															
134.42 - 134.67	28361	0.25	<.03	.2															
134.67 - 135.17	28362	0.50	.12	.1															
135.17 - 135.67	28363	0.50	.09	.8															
135.67 - 135.87	28364	0.30	.09	1.0															
135.87 - 136.25	28365	0.38	.09	.7															
136.25 - 136.66	28366	0.41	.12	1.1															
136.66 - 137.07	28367	0.41	<.03	.1															
137.07 - 137.46	28368	0.39	.03	<.1															
137.46 - 138.06	28369	0.60	.05	.2															
138.06 - 138.44	28370	0.38	.05	.2															
138.44 - 138.86	28371	0.42	.03	.2															
138.86 - 139.29	28372	0.43	.03	.1															
139.29 - 139.79	28373	0.50	.05	.1															
139.79 - 140.22	28374	0.43	.06	.1															
140.22 - 140.90	28375	0.68	.03	.2															
140.90 - 141.20	28376	0.30	<.03	.1															
141.20 - 141.34	28377	0.14	.05	.2															
141.34 - 141.73	28378	0.39	.06	.1															
141.73 - 142.07	28379	0.34	.05	<.1															
142.07 - 142.65	28380	0.58	.05	<.1															
142.65 - 142.91	28381	0.26	.11	.3															
142.91 - 143.31	28382	0.40	.09	.4															
143.31 - 143.96	WASTE	0.65	0.00	0.00															
143.96 - 144.27	28383	0.31	.06	<.1															
144.27 - 144.55	28384	0.28	.08	.1															
144.55 - 145.00	28385	0.145	.06	<.1															
145.00 - 146.06	WASTE	1.06	0.00	0.0															
146.06 - 146.46	28386	0.40	.03	.1															
146.46 - 148.07	WASTE	1.61	0.00	0.0															
148.07 - 148.34	28387	0.27	.09	.4															
148.34 - 148.66	28388	0.32	.04	.1															
148.66 - 148.81	28389	0.15	.05	<.1															
148.81 - 148.95	28390	0.14	.06	<.1															
148.95 - 149.25	28391	0.30	.03	.3															

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DIAMOND DRILL RECORD

CORE 5/7

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN 82 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Direction Elevation Logged By MARK CANTWELL

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
149.25-150.60	WASTE	1.35	0.00	0.0															
150.60-150.85	28392	0.25	.09	.1															
150.85-151.18	28393	0.33	.12	.2															
151.18-151.51	28394	0.33	.08	.3															
151.51-151.95	WASTE	0.44	0.00	0.0															
151.95-152.14	28395	0.19	.08	.1															
152.14-152.49	28396	0.35	.12	.1															
152.49-153.00	28397	0.51	.12	.1															
153.00-153.94	28398	0.94	.11	.5															
153.94-154.30	28399	0.36	.05	.4															
154.30-154.93	WASTE	0.63	0.00	0.0															
154.93-155.23	28400	0.30	.07	.5															
155.23-156.18	28401	0.95	.11	.6															
156.18-156.97	28402	0.79	.09	.4															
156.97-157.95	WASTE	0.98	0.00	0.0															
157.95-158.36	28403	0.41	.07	.5															
158.36-158.84	WASTE	0.48	0.00	0.0															
158.84-159.29	28404	0.45	.06	.7															
159.29-159.61	28405	0.32	.15	.8															
159.61-159.79	28406	0.18	.12	.9															
159.79-160.53	28407	0.74	.12	.7															
160.53-160.83	28408	0.30	.09	.5															
160.83-162.24	WASTE	1.41	0.00	0.0															
162.24-162.62	28409	0.38	.07	.4															
162.62-162.93	28410	0.31	.15	.7															
162.93-163.16	28411	0.23	.06	.3															
163.16-163.78	28412	0.62	.11	.6															
163.78-164.31	28413	0.53	.21	1.1															
164.31-164.60	28414	0.29	.08	.5															
164.60-165.08	28415	0.48	.07	.4															
165.08-165.70	28416	0.62	.07	.3															
165.70-165.97	28417	0.27	.21	.9															
165.97-166.18	28418	0.21	.22	.7															
166.18-166.62	28419	0.44	1.46	1.7															
166.62-167.30	28420	0.68	1.14	1.2															
167.30-167.97	28421	0.67	.04	.1															
167.97-170.15	WASTE	2.18	0.00	0.0															
170.15-170.50	28422	0.35	.07	.5															
170.50-170.79	28423	0.29	.13	.9															
170.79-171.59	WASTE	0.80	0.00	0.0															

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DIAMOND DRILL RECORD

CORE 6/7

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN 82 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Direction Elevation Logged By MARK CANTWELL

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
171.59 - 171.95	28424	0.36	.04	.2															
171.95 - 172.31	28425	0.36	.12	.7															
172.31 - 172.82	28426	0.51	.08	.4															
172.82 - 173.10	28427	0.28	.19	1.1															
173.10 - 173.40	28428	0.30	.05	.2															
173.40 - 173.83	28429	0.43	.06	.2															
173.83 - 174.47	28430	0.64	.06	.3															
174.47 - 175.00	28431	0.53	.05	.2															
175.00 - 177.55	WASTE	2.55	0.00	0.0															
177.55 - 178.10	28432	0.55	.08	.6															
178.10 - 178.30	28433	0.20	.12	.4															
178.30 - 178.70	28434	0.40	.04	<.1															
178.70 - 179.11	28435	0.41	.12	.5															
179.11 - 179.45	28436	0.34	.17	.4															
179.45 - 180.14	28437	0.69	.28	.8															
180.14 - 180.65	28438	0.51	.18	.7															
180.65 - 181.17	28439	0.62	.05	.2															
181.17 - 181.42	28440	0.25	.05	<.1															
181.42 - 181.90	28441	0.48	<.03	<.1															
181.90 - 182.24	28442	0.34	<.03	<.1															
182.24 - 182.71	28443	0.46	.09	.4															
182.71 - 183.18	28444	0.47	.07	.2															
183.18 - 183.73	28445	0.55	.06	.2															
183.73 - 184.23	28446	0.50	.11	.4															
184.23 - 184.73	28447	0.50	.08	.3															
184.73 - 185.35	28448	0.62	.11	.2															
185.35 - 185.95	28449	0.60	.10	.4															
185.95 - 186.26	28450	0.31	.44	.9															
186.26 - 186.48	28451	0.22	.09	.5															
186.48 - 186.90	28452	0.42	.47	.7															
186.90 - 187.32	28453	0.42	.29	1.0															
187.32 - 188.00	28454	0.68	.12	.9															
188.00 - 188.68	28455	0.68	.20	1.1															
188.68 - 188.96	28456	0.28	.15	.9															
188.96 - 189.28	28457	0.32	.25	1.8															
189.28 - 190.21	WASTE	0.93	0.00	0.0															
190.21 - 190.40	28458	0.19	.53	1.4															
190.40 - 190.60	28459	0.20	.42	1.7															
190.60 - 190.83	28460	0.23	.41	1.1															
190.83 - 191.07	28461	0.24	.47	1.0															

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE 7/78

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN 82 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Direction Elevation Logged By

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
191.07 - 191.30	28462	0.23	.52	2.3															
191.30 - 192.00	28463	0.70	.18	2.1															
192.00 - 192.65	28464	0.65	.14	.9															
192.65 - 193.15	28465	0.50	.11	.6															
193.15 - 193.71	28466	0.56	.06	.9															
193.71 - 194.28	28467	0.57	.14	1.1															
194.28 - 194.70	28468	0.42	.12	1.2															
194.70 - 195.02	28469	0.32	.16	.6															
195.02 - 195.62	28470	0.62	.10	.4															
195.62 - 196.22	28471	0.60	.12	.3															
196.22 - 197.21	WASTE	0.99	0.00	0.0															
197.21 - 200.25	28472	(2.90 LOST) 0.14	.12	.3															
200.25 - 200.86	28473	0.61	.17	.6															
200.86 - 201.47	28474	0.61	.17	.8															
E.O.H																			

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

SLUDGE 1/2

Property WINDFLOWER Project No. 224 Depth 201.47 Date Began July 24/87

Hole No. WIN-82 Co ord. 10243N Horizontal Length Date Completed ~~July~~ Aug. 3/87

Claim No. L.12481 4916E Core Size N.Q. Drilled By M & B DRILLING

Grid No. Angle & Direction -71°S82°E GRID Elevation Logged By MARK CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.	WIDTH X ASSAY	AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.
0 - 11.58	CASING	11.58	—									
11.58 - 14.63	300 89	3.05	.02									
14.63 - 17.68	300 90	3.05	.02									
17.68 - 20.73	300 91	3.05	.03									
20.73 - 23.77	300 92	3.04	.03									
23.77 - 26.82	300 93	3.05	.05									
26.82 - 29.87	300 94	3.05	.04									
29.87 - 32.92	300 95	3.05	.07									
32.92 - 35.97	300 96	3.05	.09									
35.97 - 39.01	300 97	3.04	.08									
39.01 - 42.06	300 98	4.05	.08									
42.06 - 45.11	300 99	3.05	.09									
45.11 - 48.16	300 00	3.05	.04									
48.16 - 51.21	301 01	3.05	.03									
51.21 - 54.25	301 02	3.04	.03									
54.25 - 57.30	301 03	3.05	.02									
57.30 - 60.35	301 04	3.05	.02									
60.35 - 63.40	301 05	3.05	.02									
63.40 - 66.45	301 06	3.05	.02									
66.45 - 69.49	301 07	3.04	.03									
69.49 - 72.54	301 08	3.05	.04									
72.54 - 75.59	301 09	3.05	.02									
75.59 - 78.64	301 10	3.05	.02									
78.64 - 81.69	301 11	3.05	.03									
81.69 - 84.73	301 12	3.05	.04									
84.73 - 87.78	301 13	3.05	.04									
87.78 - 90.83	301 14	3.05	.04									
90.83 - 93.88	301 15	3.05	.04									
93.88 - 105.77	NO RETURN	11.89	—									
105.77 - 108.81	30016	3.04	.05									
108.81 - 111.86	301 17	3.05	.09									
111.86 - 163.68	NO RETURN	51.82	—									
163.68 - 166.73	301 18	3.05	<.03									
166.73 - 169.77	301 19	3.04	.05									
169.77 - 172.82	301 20	3.05	.06									
172.82 - 178.92	301 21	6.10	.07									
178.92 - 181.97	301 22	3.05	<.03									
181.97 - 185.01	301 23	3.05	.07									
185.01 - 188.06	301 24	3.05	.09									
188.06 - 191.11	301 25	3.05	.09									

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

SLUDGE 2/2

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN-82 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Direction Elevation Logged By MARK CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
191.11 - 194.16	30126	3.05	.05																
194.16 - 197.21	30127	3.05	<.03																
197.21 - 200.25	30128	3.04	<.03																
200.25 - 201.47	NO RETURN	1.22	—																
E.O.H.																			

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

SLUDGE 1/2

Property WINDFLOWER Project No. 224 Depth Date Began JULY 24 1987

Hole No. WIN. 82 Co ord. Horizontal Length Date Completed

Claim No. Core Size N.Q Drilled By M & B DRILLING

Grid No. Angle & Direction -71° Elevation Logged By MARK CANTWELL

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 11.58	CASING	11.58																	
11.58 - 14.63	30089	3.05																	
14.63 - 17.68	30090	3.05																	
17.68 - 20.73	30091	3.05																	
20.73 - 23.77	30092	3.04																	
23.77 - 26.82	30093	3.05																	
26.82 - 29.87	30094	3.05																	
29.87 - 32.92	30095	3.05																	
32.92 - 35.97	30096	3.05																	
35.97 - 39.01	30097	3.04																	
39.01 - 42.06	30098	3.05																	
42.06 - 45.11	30099	3.05																	
45.11 - 48.16	30100	3.05																	
48.16 - 51.21	30101	3.05																	
51.21 - 54.25	30102	3.04																	
54.25 - 57.30	30103	3.05																	
57.30 - 60.35	30104	3.05																	
60.35 - 63.40	30105	3.05																	
63.40 - 66.45	30106	3.05																	
66.45 - 69.49	30107	3.04																	
69.49 - 72.54	30108	3.05																	
72.54 - 75.59	30109	3.05																	
75.59 - 78.64	30110	3.05																	
78.64 - 81.69	30111	3.05																	
81.69 - 84.73	30112	3.04																	
84.73 - 87.78	30113	3.05																	
87.78 - 90.83	30114	3.05																	
90.83 - 93.88	30115	3.05																	
93.88 - 105.77	NO RETURN	11.89																	
105.77 - 108.81	30116	3.04																	
108.81 - 111.86	30117	3.05																	
111.86 - 163.68	NO RETURN	51.82																	
163.68 - 166.73	30118	3.05																	
166.73 - 169.77	30119	3.04																	
169.77 - 172.82	30120	3.05																	
172.82 - 178.92	30121	6.10																	
178.92 - 181.97	30122	3.05																	
181.97 - 185.01	30123	3.04																	
185.01 - 188.06	30124	3.05																	
188.06 - 191.11	30125	3.05																	

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

SLUDGE 2/2

Property WINDFLOWER Project No. Depth Date Began

Hole No. WIN 82 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Direction Elevation Logged By H. CANTWELL

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES						
														WIDTH	Au.	Ag.	Cu.	Zn.		
191.11 - 194.16	30126	3.05																		
194.16 - 197.21	30127	3.05																		
197.21 - 198.73	30128	1.62																		
198.73 - 201.47	NO RETURN	2.74																		
EOH																				

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE: Main Zone Page 1 of 14

Property: Windflower Project No. 224 Depth 201.47 Date Began July 24/87

Hole No. Win-82 Co ord. 10,243N Horizontal Length Date Completed Aug. 3/87

Claim No. L-12481 4916E Core Size NQ Drilled By M&B Drilling

Grid No. Angle & Grid Direction -71° S82°E GRID Elevation 2019.31 Logged By W.S. Ferreira

INTERVAL [redacted] / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
0 – 9.14	CSG	Casing.		
9.14 – 44.50	ARGBKLC	Blocky Light Grey Argillite		QC
		Very blocky, lots of lost core, most pieces of core are less than 10 cm long; argillite is laminated with minor graphite and limy beds; 5% quartz-carbonate veins; <1% pyrite. CA @ 31.09 is destroyed by coring		
		9.14 – 11.58: Rubble, 1.89 metres of lost core in this interval		
		11.58 – 12.60: Rubble, 0.67 metres " " " " " "		
		12.60 – 12.80: Quartz-carbonate vein; rubble; no pyrite; CA is destroyed		
		12.80 – 14.13: Rubble, 0.58 metres of lost core in this interval		
		14.13 – 16.46: Rubble, 2.03 metres " " " " " "		
		16.46 – 17.67: " , 1.08 metres " " " " " "		
		17.67 – 18.29: " all core recovered.		
		18.29 – 20.42: Rubble, 1.38 metres of lost core in this interval		
		20.42 – 21.64: " , 0.82 metres of core " " " "		
		21.64 – 22.90: " , 0.30 metres " " " " " "		
		22.90 – 23.16: White quartz-carbonate vein; rubble; <1% pyrite; CA's are destroyed		
		23.16 – 23.77: Rubble, 0.45 metres of lost core in this interval		
		23.77 – 24.99: " , 0.50 metres " " " " " "		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property | Project No. | Depth | Date Began

Hole No. Win-82 | Co ord. | Horizontal Length | Date Completed

Claim No. | Core Size | Drilled By

Page | Grid No. | Angle & Grid Direction | Elevation | Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		24.99 - 26.21: Rubble, 0.42 metres of lost core in this interval		
		26.57 - 28.09: " , 0.87 metres " " " " " "		
		28.09 - 29.57: " , 1.15 metres " " " " " "		
		29.57 - 30.48: " , 0.70 metres " " " " " "		
		32.31 - 33.41: " , 0.60 metres " " " " " "		
		33.41 - 33.64: Quartz - carbonate vein; trace pyrite; diffuse CA's.		
		33.75 - 34.14: Lost Core.		
		36.27 - 37.19: Rubble, 0.44 metres of lost core in this interval		
		37.19 - 38.10: Rubble, 0.29 metres of " " " " "		
		38.10 - 39.32: " , 0.37 " " " " " " "		
		39.60 - 39.71: Quartz - carbonate vein; no pyrite; CA is about 50°.		
		39.71 - 40.04: Contains 19 cm of quartz - carbonate argillite rubble; trace pyrite.		
		40.30 - 41.07: Quartz - carbonate - pyrite vein; contains 50% wall rock inclusions; 20% fine pyrite in wall rock inclusions mainly; CA appears to be about 40°.		
		43.40 - 44.50: Mine Fault, graphitic argillite with mine fault gouge clay; only contains 33 cm of core in this interval, remainder is lost core.		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property | Project No. | Depth | Date Began

Hole No. Win-82. | Co ord. | Horizontal Length | Date Completed

Claim No. | Core Size | Drilled By

Page | Grid No. | Angle & Grid Direction | Elevation | Logged By

INTERVAL [redacted] / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
44.50-71.65	ARG.1	Light Grey Argillite interbedded with Graphitic Argillite Consists of laminated light grey argillite sequences up to about 1 metre long interbedded with graphitic argillite sequences up to about 1 metre long. Overall contains about 5% diffuse quartz-carbonate veins; 1% fine pyrite; CA@ 71.65 is 50° 45.57-46.38: Contains 70% diffuse quartz-carbonate veins; 5% fine pyrite; irregular CA's. 51.78-51.93: Quartz-pyrite veinlet; diffuse and irregular to about 1 mm wide; 25% fine to medium pyrite; CA is 40°. 58.23-58.40: Yellowish carbonate vein with <1% brownish ephalite and 4% fine to medium grained pyrite @ the vein margin; CA is irregular and average 65°. 60.00-61.16: Blocky ground 61.16-61.57: Lost core. 64.20-64.97: Blocky ground may be a minor fault 65.94-66.91: Contains 20% diffuse quartz-carbonate veins; 2% pyrite; CA's range from 20° to 60°. 70.41-70.71: Minor fault; core consists of graphitic argillite rubble and clay	71	QCVN

GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE: Page

Property | Project No. | Depth | Date Began
Hole No. | Co ord. | Horizontal Length | Date Completed
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Grid No. | Angle & Grid Direction | Elevation | Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
44.50 - 71.65		Light Grey Argillite interbedded with Graphitic Argillite (Continued)		
		71.36 - 71.65 : Blocky graphitic argillite with 25% quartz - Carbonate vein and vein breccia material. Trace - 1% fine grained disseminated Pyrite in some Sheared Carbonate Veins.		
71.65 - 81.36	DO	Argillaceous Dolomite	ALG PY	
		Light grey to cream colored, fine to medium grained Kaolinized and Sericitic dolomite. Massive to poorly foliated and weakly Fuchsite from 71.63 - 75.44. Contains 5-8% angular to Subrounded carbonate and/or quartz vein fragments to 8 Cm wide. Trace - 2% disseminated Pyrite and rare chalcopyrite bleb.		
		Ground Conditions as follows throughout Unit:		
		71.63 - 73.76 : moderate - good with 7-10 fractures/meter at 30-60° To core axis and chlorite ± Sericite ± Fuchsite ± Kaolinite Coated		
		73.76 - 78.94 : good with 0-3 fractures/meter at 40-55° To Core axis and mainly Kaolinite - Sericite Coated. From 75.33 - 75.95 is Sandy to pebbly gouge/rubble with 75% lost Core. Gouge is graphitic.		
		78.94 - 79.86 : Only 60 Cm of pebbly rubble and blocky core retrieved (i.e. 35% lost Core).		
		79.86 - 80.31 : Blocky core/rubble and Sandy gouge. Fracture angles of 30°-90° preserved on larger fragments. Much Kaolinization.		
		80.31 - 80.81 : Kaolinite Sandy Gouge.		
		80.81 - 81.36 : Blocky Core with 4-5 fractures/meter at 35-45° To Core axis.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE: Page

Property | Project No. | Depth | Date Began
Hole No. | Co ord. | Horizontal Length | Date Completed
Claim No. | Core Size | Drilled By
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INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
81.36 - 85.65	GA	Graphitic Argillite		
	GA	81.36 - 82.22 : Competent graphitic argillite with 4 fractures/meter at 50° To Core axis. Contains 15% Carbonate - quartz Veins To 5cm wide. Veins and host argillite both carry Trace Pyrite.		QCVN
	GA BK LC	82.22 - 85.65 : Blocky Core/Rubble. Fragments of very graphitic argillite To 10 cm - often coated in graphitic clayey gouge. Larger Fragments often Friable and contain To 2% Pyrite Streaks and blebs along Schistosity. Fracture angles of 10-15° locally preserved. No Significant Veining		
		82.22 - 83.82 : 64 cm Core recovered (66% Core loss).		
		83.82 - 84.72 : 56 cm Core recovered (38% Core loss)		
		84.72 - 85.65 : 50 cm rubble/blocky Core recovered (47% Core loss).		
85.65 - 92.70	GA	Calcareous Graphitic Argillite and Graphitic Argillite.	LM PY	QCVN
		Finely laminated Calcareous graphitic argillite bands To 76 cm alternate with Schistose graphitic argillite Sections To 84 cm wide. Unit as whole Contains 5% quartz - Carbonate Veins To 35cm wide and Several percent of irregular, thin Carbonate Veins at Variable angles To Core axis. Best Veined Sections are as follows:		
		86.01 - 86.22 : 25% Thin (To 1.5 cm) Carbonate - quartz Veins. No Visible mineralization.		
		87.21 - 87.41 : QTZ - Carbonate Vein with irregular Contacts, 20% argillite Fragments and rare Pyrite grain.		
		88.85 - 89.20 : Brecciated quartz - Carbonate Vein with irregular sheared Contacts and isolated odd Pyrite grain.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE: Page

Property ..... Project No. ..... Depth ..... Date Began .....
Hole No. ..... Co ord. ..... Horizontal Length ..... Date Completed .....
Claim No. ..... Core Size ..... Drilled By .....
Grid No. ..... Angle & Grid Direction ..... Elevation ..... Logged By .....

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
85.65-92.70		Calcareous Graphitic Argillite and Graphitic Argillite (Continued)		
		87.41-87.90: 30% contorted and brecciated quartz veins (to 1.5cm), some of which contain 30-40% fine to medium grained pyrite.		
		90.05-90.27: Sericitized carbonate-quartz vein. Trace pyrite.		
		Graphitic argillite and Calcareous graphitic argillite contains trace-2% fine grained disseminated pyrite throughout.		
		Unit as whole constitutes moderately good ground with 4-8 fractures/meter at 15-30° to core axis. Exception is section from 90.52-92.70 with 10-15 fractures/meter.		
92.70-97.40	QCG1	Sericitic and Quartz-Carbonate Veined Graphitic Argillite.	M5	
		Irregular fragments of graphitic argillite (to 12cm wide) seemingly float in and are in sharp contact with a fine grained, light mustard colored sericitic rock which also contains 10-30% quartz-carbonate veins/vein fragments. One trace disseminated pyrite in veins and host rocks.		
		96.52-96.89: Quartz-carbonate vein at 20° to core axis. Rare pyrite grain mainly at contacts.		
		Good ground with 2-3 fractures/meter at 10-30° to core axis with exception of blocky sections from 92.70-93.10, 93.50-93.77, 94.79-95.05.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property ..... Project No. ..... Depth ..... Date Began .....
Hole No. ..... Co ord. ..... Horizontal Length ..... Date Completed .....
Claim No. ..... Core Size ..... Drilled By .....
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INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
97.40 - 180.19	GA	Graphitic Argillite	LMC KY	QCVN
		Black, fine grained, somewhat schistose unit with occasional grey, laminated calcareous bands to 52 cm wide which are mainly found in upper 10 metres. 1-3% pyrite grains and blebs throughout as well as 5-7% quartz-carbonate veining and diffuse thin carbonate veining. Most concentrated veining as follows:		
		97.95 - 98.15: 60% irregular quartz-carbonate veins with 2-3% pyrite.		
		99.75 - 100.25: 15% vein and vein breccia with 2% pyrite		
		102.12 - 102.52: 50% quartz-carbonate veins to 2cm with trace pyrite.		
		102.93 - 103.17: 45% irregular qtz-carbonate vein fragments. Trace pyrite.		
		105.03 - 105.70: Bull quartz vein at 15° to core axis. No mineralization.		
		109.54 - 109.90: 20% quartz-carbonate veins to 1.5cm at 20° to core axis and with 1% pyrite.		
		114.61 - 114.91: 35% quartz-carbonate veining to 5cm at 60-65° to core axis and with trace pyrite near contacts		
		121.77 - 126.98: 15% veining to 2cm at 25-30°, 40° to core axis and trace pyrite		
		125.91 - 126.18: Three sulphide-quartz-carbonate veins in this section. Veins 1-3 cm wide and 30° to core axis. Sulphide comprises 30-60% of veins and is fine to coarse grained pyrite.		
		129.16 - 129.66: 35-40% quartz-carbonate veining. One 14 cm vein in middle of section contains a 6 cm patch of 20% fine grained pyrite. Trace pyrite in remaining veins. Vein angles are 0°-30° to core axis.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE: Page

Property | Project No. | Depth | Date Began
Hole No. Win. 82 | Co ord. | Horizontal Length | Date Completed
Claim No. | | Core Size | Drilled By
Grid No. | Angle & Grid Direction | Elevation | Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
97.40 - 180.19		Graphitic Argillite (Continued)		
		130.34 - 130.91 : 40% irregular quartz - Carbonate veining / vein fragments. Trace pyrite at vein contacts.		
		132.89 - 136.66 : 10-20% quartz - Carbonate veining to 8 cm at 20-25° To core axis. Trace Pyrite in veins.		
		136.66 - 140.90 : 30-60% quartz - Carbonate veins to 5 cm at 25-90° To core axis for most part. Trace - 1% pyrite in veins as well as following mineralization:		
		135.67 - 135.87 : Trace - 1% Sphalerite		
		137.38 : Speck of silvery galena or Tetrahedrite		
		138.35 : Trace Sphalerite		
		139.60 : Trace Sphalerite		
		140.26 : Trace Sphalerite.		
		141.22 - 141.34 : 50% quartz - Carbonate veining at 25° To core axis. Trace chalcopyrite - pyrite		
		142.07 - 142.91 : 1 Cm Carbonate - quartz vein which is subparallel To core axis. From 142.15 - 142.43 vein contains Trace Chalcopyrite. From 142.65 - 142.91 vein has Trace Chalcopyrite, Tetrahedrite and Sphalerite.		
		144.87 - 145.08 : 55% quartz veins To 7 Cm wide with irregular low angle contacts and trace Tetrahedrite and Sphalerite.		
		146.06 - 146.16 : 95% quartz - Carbonate veining To 9 cm at irregular core angles. Trace : Tetrahedrite (?) as irregular blebs To 3 mm at 148.89.		

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DIAMOND DRILL LOG

ZONE: Page

Property ..... Project No. ..... Depth ..... Date Began .....

Hole No. ..... Co ord. ..... Horizontal Length ..... Date Completed .....

Claim No. ..... Core Size ..... Drilled By .....

Grid No. ..... Angle & Grid Direction ..... Elevation ..... Logged By .....

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
97.40 - 180.19		Graphitic Argillite (Continued)		
		150.60 - 150.85 : 50% quartz - carbonate veining to 3cm at 55° 80° to core axis. Trace pyrite.		
		153.94 - 154.59 : 60% irregular quartz - carbonate veins at 55° to core axis. Several 2-3mm Tetrahedrite (?) ± Chalcopyrite blebs at 154.34.		
		154.93 - 155.23 : 30% quartz veining to 1.5cm at 60° to core axis. No mineralization		
		157.95 - 158.36 : 35-40% quartz - carbonate veins to 8cm at 30° and 45° to core axis. Trace Sphalerite as isolated 1mm blebs. 1% pyrite over section mainly concentrated in fg. carbonate - quartz - sulphide (to 3cm) bands ca. 3 - 1cm wide.		
		158.84 - 159.29 : 70% quartz - carbonate veins to 26cm wide at 30° to core axis. Trace Sphalerite and Tetrahedrite as isolated blebs to 1mm. Trace pyrite at vein contacts.		
		162.93 - 163.78 : 26% quartz - carbonate veins to 4cm. Veins irregular but mostly at 20 - 30° and 0° to core axis. Trace pyrite at vein contacts.		
		164.31 - 164.60 : Irregular veins to 12cm comprise 45% of section and contain trace Sphalerite, pyrite.		
		165.08 - 165.70 : Several quartz - carbonate veins to 8cm make up 55% of interval and carry isolated rare Sphalerite blebs to 2mm. Veins contorted but 20 - 40° to core axis		
		165.97 - 166.82 : 70% quartz - carbonate veining. Largest vein is 23cm (165.97 - 168.18), has 45° and 60° contacts, and carries trace Sphalerite blebs to 2mm. Smaller veins subparallel to core axis.		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property | Project No. | Depth | Date Began

Hole No. | Co-ord. | Horizontal Length | Date Completed

Claim No. | Core Size | Drilled By

Page | Grid No. | Angle & Grid Direction | Elevation | Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
97.40 - 180.14		Graphitic Argillite (Continued)		
	QCVN	* 166.62-167.97: 15% quartz Carbonate Veins to 4cm at 60° and Subparallel to Core axis. Sphalerite Specks at 166.93, 167.55, 167.65, odd grain Pyrite.	54	
		170.15-170.79: 25-30% quartz-Carbonate Veins to 3cm at 0-30° to Core axis. Trace - 1% Sphalerite blebs to 6mm.		
		171.59-171.95: 20% irregular quartz-Carbonate Veins at shallow angles to Core axis. Several Sphalerite blebs to 3mm and Pyrite traces in Veins		
		173.10-173.83: 15% qtz-Carbonate Veins to 2cm mainly at 5-10° to Core axis. Several Sphalerite blebs to 2mm.		
		174.47-175.00: 10-15% barren qtz-Carbonate Veins to 4cm. Veins brecciated and fragments oriented along 20° Schistosity		
		177.55-179.45: 60% irregular quartz-Carbonate Veins at 0-25° to Core axis. Largest Vein is from 178.30-179.11 and Contains Several blebs Sphalerite to 4mm. Rest of Veins are barren.		
		From 173.10-176.55 is a fairly well laminated, grayish, more Calcareous graphitic argillite Section. Laminations are generally Subparallel to Core axis. 5% Diffuse Carbonate-quartz Veins at 25° to Core axis. Trace Pyrite.		
		Ground Conditions throughout graphitic argillite (97.40-180.14) are as follows:		
		97.40-167.59 is good moderate ground with 3-7 fractures/meter at 0°, 15-25° to Core axis		

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DIAMOND DRILL LOG

ZONE: Page

Property | Project No. | Depth | Date Began

Hole No. | Co ord. | Horizontal Length | Date Completed

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INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
97.40 - 180.14		Graphitic Argillite (Continued)		
		107.59 - 113.69 is overall poor ground with 5-7 Fractures / meter at 5-10°, 20-25° and irregular angles to Core axis. Blocky / rubbly zones from 107.59 - 108.09, 108.49 - 109.31, 109.90 - 110.67, 111.66 - 112.36, 113.44 - 113.69.		
		113.99 - 114.3 is Very poor ground with rubble and Sandy graphitic gouge from 114.19 - 114.30; 25% lost Core from 113.69 - 113.99.		
		114.30 - 132.28 is good ground with 3-7 Fractures / meter at 40°, 60° and 20° to Core axis.		
		132.89 - 154.99 is good - moderate ground with 2-5 Fractures / meter at 25-45°, 65-75° to Core axis except for following sections:		
		132.89 - 133.60 : blocky with 10cm pebbly rubble		
		135.89 - 136.25 : blocky with ≥ 20 Fractures / meter at 0-20° to Core axis.		
		137.60 - 138.06 : blocky - rubbly ground with numerous subparallel (to Core axis) Fractures.		
		139.89 - 140.69 : blocky with numerous 20-30° Fractures.		
		141.13 - 141.81 : pebbly quartz vein fragments and graphitic argillite rubble.		
		141.81 - 143.96 : blocky to rubbly graphitic argillite. Core fragments mostly 1-14cm - 10cm Sand Seam at 143.86 - 143.96		
		143.96 - 145.08 : Somewhat blocky with 6-9 Fractures / meter a variable Core angles.		
		151.80 - 152.14 : blocky with 15-20 Fractures / meter at 5° and irregular Core angles. Graphitic Mud on Fractures.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE: Page

Property | Project No. | Depth | Date Began
Hole No. 82 | Co ord. | Horizontal Length | Date Completed
Claim No. | | Core Size | Drilled By
Grid No. | Angle & Grid Direction | Elevation | Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
97.40 - 180.14		Graphitic Argillite (Continued)		
		Ground Conditions from 154.99 - 180.14 are generally good with 2-4 fractures/meter. Fractures are largely subparallel to schistosity/ laminations in host rock. Worst ground sections are at:		
		155.44 - 155.97: 10 cm of angular pebbly rubble retrieved. Rest is lost core.		
		163.16 - 163.78: blocky core with ≥ 20 fractures/meter at 0-15° and irregular angles to core axis.		
		165.97 - 167.03: blocky with 12-15 fractures/meter at irregular core angles		
		179.11 - 179.88: 7-10 fractures/meter at 5-10° and irregular angles to core axis		
180.14 - 187.32	QCVN 1/2	Quartz-Carbonate Veined and Carbonate altered argillite.	CB	
		Extensively quartz-carbonate veined (30-60%) and carbonate altered, bleached looking argillite. Veins mostly 1-2 cm wide and 0-30° to core axis with occasional higher angle (60-70°) veins. Trace pyrite in veins and trace - 1% disseminated pyrite and thin disrupted pyrite stringers (1 to 2-3 mm) in argillite.		
		Overall good ground with 1-3 fractures/meter at 45-55° and irregular core angles with exception of blocky graphitic argillite section from 185.95-186.23.		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

Property ..... Project No. ..... Depth ..... Date Began .....

Hole No. Win 82 ..... Co ord. ..... Horizontal Length ..... Date Completed .....

Claim No. ..... Core Size ..... Drilled By .....

ZONE: Page ..... Grid No. ..... Angle & Grid Direction ..... Elevation ..... Logged By .....

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
187.32-196.22	GA	Graphitic Argillite		
		Black, moderately Schistose unit with 3-5% Thin diffuse Carbonate Veining and the following Sections of Thicker or more Concentrated Veining.		QCVN
		188.00-188.96: 15-20% quartz-Carbonate Veining at 0-25° To Core axis. Trace pyrite except for irregular 6cm wide vein at 20° To Core axis from 188.68-188.96 which has Trace Chalcopyrite and Tetrahedrite as microfracture Coatings.		
		190.83-191.07: 5 Cm quartz-Carbonate Vein at 15° To Core axis and Trace pyrite.		
		192.0-193.5: Quartz-Carbonate Vein with 30% Irregular Carbonate altered graphitic argillite fragments. Trace pyrite		
		193.5-194.28: 30-35% Irregular quartz vein fragments To 8 Cm oriented 20° To Core axis. Trace pyrite		
		194.28-196.28: 40-60% brecciated quartz-Carbonate vein fragments in graphitic argillite Sheared matrix. Shear Schistosity and fragments at 10-15° To Core axis. Trace-2% pyrite mostly as m.g. euhedral grains in argillite. Trace Sphalerite at edge of vein fragment at 195.10.		
		Ground from 187.32-196.22 is good overall with 2-4 fracture/meter at irregular, high angles To Core axis and occasional 0-20° fracture. Exception is blocky argillite from 188.96-189.28.		

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DIAMOND DRILL LOG

ZONE:

Property ..... Project No. ..... Depth ..... Date Began .....

Hole No. Win 82 Co ord. ..... Horizontal Length ..... Date Completed .....

Claim No. ..... Core Size ..... Drilled By .....

Page ..... Grid No. ..... Angle & Grid Direction ..... Elevation ..... Logged By .....

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
196.22 - 197.21	LC	Lost Core		
197.21 - 200.25	LC	Lost Core / Rubble 10 cm of pebbly quartz - carbonate vein and graphitic argillite rubble recovered. Trace pyrite in argillite rubble. No mineralization in vein rubble.		
200.25 - 201.47	FT	Fault Gouge / Rubble Loose, sandy to pebbly quartz vein and graphitic argillite rubble and gouge. Trace to 3% pyrite in some argillite fragments.		
201.47		End of hole. Hole Sanded in at 200.25 - 201.47 interval and abandoned. HOLE CEMENTED ——— CASING REMOVED. TOP to BOTTOM. Foliation Angles to Core Axis. 9144 METERS 25° 98 " 20° 100 " 25° 103 " 0° 104 " 0-15° 109 " 25° 112 " 25° 115 " 50° 120 " 22° 129 " 25° 132 " 35° 135 " 40° 139 " 45° 146 " 50° 148 " 60° 158 METERS 45° 165 METERS 20° 168.5 " 0-20° 170.0 " 15° 171.59 " 0° 177.0 " 0° 181 " 0° 184.2 " 0-20° 187.32 " 0° 188.68 " 0-10° 191.30 " 35° 194.0 " 0-20° 196.22 " 0-10° ACID TEST @ 113.7 = 74°30' @ 195.7 = 75°30'		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE 1/2

Property WINDFLOWER Project No. 224 Depth 77.72 m Date Began July 25/87

Hole No. WIN 83 Co ord. 10000 N Horizontal Length Date Completed July 28/87

Claim No. L12481 4884.5 E Core Size N.Q. Drilled By M & B DRILLING

Grid No. Angle & Direction -45 GRID WEST Elevation 1026 m Logged By M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 5.49	CASING	5.49	—	—			
5.49 - 8.75	waste	3.26	—	—			
8.75 - 9.25	32467	0.50	.16	.4			
9.25 - 9.38	32468	0.13	.15	.2			
9.38 - 9.68	32469	0.30	.11	.3			
9.68 - 16.32	waste	6.64	—	—			
16.32 - 16.76	32470	0.44	.88	1.6			
16.76 - 17.26	32471	0.50	.50	1.5			
17.26 - 17.81	32472	0.55	.26	1.6			
17.81 - 18.35	32473	0.54	.71	2.2			
18.35 - 18.55	32474	0.20	1.57	3.2			
18.55 - 19.00	32475	0.45	.16	2.1			
19.00 - 19.32	32476	0.32	.10	1.9			
19.32 - 19.57	32477	0.25	.10	3.2			
19.57 - 19.78	32478	0.21	.10	51.0			
19.78 - 20.31	32479	0.53	.05	3.1			
20.31 - 20.56	32480	0.25	.07	1.5			
20.56 - 20.88	32481	0.32	.01	1.3			
20.88 - 21.13	32482	0.25	.08	.6			
21.13 - 21.35	32483	0.22	.04	8.0			
21.35 - 21.60	32484	0.25	.06	2.3			
21.60 - 21.73	32485	0.13	.35	1.9			
21.73 - 28.11	waste	6.38	—	—			
28.11 - 28.41	32486	0.30	.10	1.0			
28.41 - 28.71	32487	0.30	.05	.6			
28.71 - 28.76	32488	0.05	.09	.4			
28.76 - 30.31	waste	1.55	—	—			
30.31 - 30.60	32489	0.29	.08	.4			
30.60 - 30.72	32490	0.12	.05	3.8			
30.72 - 31.02	32491	0.30	.07	.5			
31.02 - 32.85	waste	1.83	—	—			
32.85 - 33.15	32492	0.30	.07	.3			
33.15 - 33.45	32493	0.30	<.03	.7			
33.45 - 33.75	32494	0.30	<.03	.3			
33.75 - 36.51	waste	2.76	—	—			
36.51 - 36.81	32495	0.30	<.03	.7			
36.81 - 36.98	32496	0.17	.03	.7			
36.98 - 37.28	32497	0.30	.04	.5			
37.28 - 43.00	waste	5.72	—	—			
43.00 - 43.25	32498	0.25	.03	.2			

WIDTH X ASSAY

AVERAGES

WIDTH	Au.	Ag.	Cu.	Zn.	

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,752

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE 2/2

Property: WINDFLOWER | Project No.: 224 | Depth: 77.72 m | Date Began: JULY 25/87
Hole No.: WIN 83 | Co ord.: 10000 N | Horizontal Length: ~~N.Q.~~ | Date Completed: JULY 28/87
Claim No.: L12481 | 4884.5 E | Core Size: N.Q. | Drilled By: M & B DRILLING
Grid No.: | Angle & Direction: -45 GRID WEST | Elevation: 1026 m | Logged By: MARK CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
43.25 - 43.30	32499	0.05	<.03	.7															
43.30 - 43.48	31200	0.18	.08	.3															
43.48 - 47.15	Waste	3.67	—	—															
47.15 - 47.30	31201	0.15	<.03	.8															
47.30 - 47.38	31202	0.08	.07	.3															
47.38 - 47.60	31203	0.22	.18	.3															
47.60 - 48.40	Waste	0.80	~~.42~~	~~.2~~															
48.40 - 48.65	31204	0.25	.42	.2															
48.65 - 48.70	31205	0.05	.13	.2															
48.70 - 48.96	31206	0.26	.14	.3															
48.96 - 50.50	Waste	1.54	—	—															
50.50 - 50.88	31207	0.38	.13	.1															
50.88 - 50.97	31208	0.09	.15	.1															
50.97 - 51.33	31209	0.36	.04	.2															
51.33 - 52.80	Waste	1.47	—	—															
52.80 - 53.21	31210	0.41	.66	.1															
53.21 - 53.38	31211	0.17	.50	.1															
53.38 - 53.60	31212	0.22	<.03	.3															
53.60 - 53.90	31213	0.30	<.03	.3															
53.90 - 54.28	31214	0.38	<.03	.4															
54.28 - 55.16	31215	0.88	<.03	.4															
55.16 - 55.23	31216	0.07	<.03	.2															
55.23 - 55.48	31217	0.25	<.03	.2															
55.48 - 62.67	Waste	7.19	—	—															
62.67 - 62.92	31218	0.25	<.03	.4															
62.92 - 63.11	31219	0.19	<.03	.4															
63.11 - 64.00	Waste	0.89	—	—															
64.00 - 64.17	31220	0.17	<.03	.6															
64.17 - 65.66	Waste	1.49	—	—															
65.66 - 65.81	31221	0.15	<.03	.2															
65.81 - 68.43	Waste	2.62	—	—															
68.43 - 68.58	31222	0.15	<.03	.3															
68.58 - 71.26	Waste	2.68	—	—															
71.26 - 71.63	31223	0.37	.19	.2															
71.63 - 72.60	Waste	0.97	—	—															
72.60 - 73.30	31224	0.70	<.03	.3															
73.30 - 77.72	Waste	4.42	—	—															
E.O.H.																			

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

SLUDGE 1/1

Property WINDFLOWER Project No. 264 Depth Date Began

Hole No. WIN 83 Co ord. Horizontal Length Date Completed

Claim No. Core Size N.Q. Drilled By M & B DRILLING

Grid No. Angle & Direction Elevation Logged By MARK CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 15.24	30850	15.24	.075																
15.24 - 16.76	30851	1.52	.67																
16.76 - 19.81	30853	3.05	.42																
19.81 - 22.86	30852	3.05	.54																
22.86 - 25.91	30854	3.05	.22																
25.91 - 28.96	30855	3.05	.24																
28.96 - 32.00	30856	3.04	.25																
32.00 - 35.05	30857	3.05	.31																
35.05 - 38.10	30858	3.05	.11																
38.10 - 41.15	30859	3.05	.15																
41.15 - 44.20	30860	3.05	.21																
44.20 - 47.24	30861	3.04	.08																
47.24 - 50.29	30862	3.05	.14																
50.29 - 53.34	30863	3.05	.11																
53.34 - 56.39	30864	3.05	.08																
56.39 - 59.44	30865	3.05	.20																
59.44 - 62.48	30866	3.04	.14																
62.48 - 65.53	30867	3.05	.12																
65.53 - 68.58	30868	3.05	.05																
68.58 - 71.63	30869	3.05	.13																
71.63 - 74.68	30870	3.05	.09																
74.68 - 77.72	30871	3.04	.07																
E.O.H																			

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3200 - 3224

GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property: WindFlower | Project No.: 224 | Depth: 777.72 m. | Date Began: July 25/87
Hole No.: Win 83 | Co ord.: 10000 N | Horizontal Length | Date Completed: July 28/87
Claim No.: L.12481 | 4884.5E | Core Size: NQ | Drilled By: M.E.B. Drilling
Page: 1 | Grid No. | Angle & Grid Direction: -45 Grid West | Elevation: 1026. m. | Logged By: W. Steeteraad

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
0 - 5.49	CSG	Overburden.		
5.49 - 16.52	ARBK	Calcareous Argillite.	LM	QCVN
		Light grey, fine grained, massive to poorly laminated unit. Becomes very weakly porphyritic locally, especially from 15.24 - 16.52. Approximately 5-10% irregular quartz - carbonate veining throughout with largest vein from 9.25 - 9.38 carrying 2-3% pyrite at its contacts. 1% pyrite within argillite as whole with most concentrated near vein contacts. Veining predominently subparallel and 50-60° to core axis. Moderately blocky core with 15-20 fractures/meter throughout. Lost core as follows:		
	LC	6.71 - 9.14 : 50% lost core. Fracture angles at 45° and 65°. 9.14 - 10.69 : 50% lost core. Fractures at 25° 10.69 - 15.24: 80% lost core. Rubble - blocky core. Fractures at 40° and 65°.		
16.52 - 40.57	GA	Calcareous Laminated Cryptitic Argillite.	LM	QCVN
		Light grey and black, thinly bedded and laminated unit - less than 5% quartz-carbonate veins over whole unit. Veins at 55-75° to core axis. Veins wider than 10 cm as follows.		
		18.35 - 18.55 : diffuse quartz veining with 40% irregular argillite fragments. 1-2% fg. to cg. euhedral pyrite at vein contacts.		
	Target Zone (?)	19.57 - 19.78 : Quartz-carbonate vein with 4 cm band of massive pyrite. Vein + sulphide band at 35° to core axis. Trace sphalerite.		
		20.31 - 20.46 : Somewhat brecciated quartz-carbonate vein with Trace - 1% pyrite.		
		28.41 - 28.71 : Bull quartz vein at 40° to core axis. Trace fg. pyrite as rare irregular blebs.		
		33.15 - 33.45 : Poorly foliated quartz vein with 10% argillite stringers and 1% disseminated pyrite.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property Windflower | Project No. 234 | Depth 77.72 m. | Date Began July 25/87
Hole No. Win 83 | Co ord. 10000 N | Horizontal Length | Date Completed July 28/87
Claim No. L12481 | 4884.5E | Core Size NQ | Drilled By M.B. Drilling
Page 2 | Grid No. | Angle & Grid Direction -45° Grid | Elevation 1026 m. | Logged By W. J. Teeteraw

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		36.81-36.98 : Quartz-Calcite Vein with no visible mineralization at 65° To Core axis.		
		Argillite in general carrys Trace-1% disseminated pyrite. Laminations variably contorted into small S and Z microfolds. (>20 fractures/meter)		
		Blocky core and/or rubble zones from 16.32-16.76, 21.13-21.33, 34.20-34.40, 35.05-35.75, 24.17-25.26. Rest of unit is moderate-poor ground with 9-20 fractures/meter along easily parted laminations planes (65°-85° To Core axis).		
		Graphitic Argillite.		
40.57-41.15	G4	Dark grey to black unit with only rare calcareous laminated sections in contrast to unit above. 5-10% quartz-carbonate and thinner incipient diffuse calcite veining combined. Most of veining is of latter type (calcite). Largest quartz carbonate veins are at-		QCVN
		41.15-41.19 - 72° To core axis. Foliated with graphitic argillite. Trace disseminated pyrite.		
		43.25-43.30 - 75° To core axis. Trace Sphalerite		
		Argillite as a unit contains Trace-1% very fine grained disseminated, carbonized pyrite. Good ground throughout with 5-7 fractures/meter along foliation/bedding planes at 70-85° To Core axis.		
41.15-62.67	AR GA	Interbedded Calcareous Argillite and Calcareous Graphitic Argillite.		QCVN
		Unit consists of 15% thinly banded calcareous graphitic argillite sections to 16 meters wide interbedded with laminated calcareous argillite sections to 15 meter wide. Quartz-Carbonate and Calcite veins together comprise less than 5% of unit. Best quartz-carbonate veining occurs at-		
		47.34-47.38 - Blocky quartz carbonate veins with 40% calcareous argillite. Trace silvery mineral - Tetrahedrite or galena.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property Wind Flower | Project No. 224 | Depth 77.72 m | Date Began July 25/87
Hole No. Win 83 | Co ord. 10000 N | Horizontal Length | Date Completed July 28/87
Claim No. L12481 | 4884.5 E | Core Size NQ | Drilled By M.B. Drilling
Page 3 | Grid No. | Angle & Grid Direction -45° Grid West | Elevation 1026 m | Logged By W. Stoltman

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
47.15-62.67		Interbedded Calcareous Argillite and Calcareous Graphitic Argillite: (Contd)		
		48.65-48.96 : 30% quartz carbonate veins to 5cm wide in calcareous graphitic argillite. Veins partially dismembered & irregular and 70-80° to core axis. Trace pyrite at vein contacts		
		50.88-50.97 : Crushed - graphitic foliated quartz - carbonate vein with contacts at 70° to core axis. Trace pyrite		
		53.21-53.30 : Irregular quartz carbonate vein with trace sphalerite.		
		53.90-53.98 : Quartz vein rubble and 40% graphitic argillite. Trace py in veins near contacts		
		55.16-55.23 : Irregular qtz vein. Trace pyrite at contacts.		
		Moderate - good ground with 4-9 fractures/meter at 80-85 along bedding/lamination planes.		
		Blocky core with > 20 fractures/meter from: 47.24-47.40 and 53.90 to 54.02.		
62.67-77.72	GA	Graphitic Argillite.		
		Dark grey - black, massive to poorly schistose and with infrequent laminated Calcareous Argillite bands to several centimeters wide comprising less than 5% of unit with following exceptions.		GCVN
		62.92-63.11 : 55% irregular veining with argillite inclusions + trace py.		
		64.01-64.17 : 30% quartz carbonate veins and vein fragments to 1cm wide. Trace pyrite		
		65.66-65.81 : 50% veining including one 4cm quartz-carbonate-sericite-fuchsite vein with rare euhedral pyrite cube. Less than 1% pyrite overall		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property Windflower | Project No. 224 | Depth 77.72m | Date Began July 25/87

Hole No. Win 83 | Co ord. 10000 N | Horizontal Length | Date Completed July 28/87

Claim No. L12481 | 4884 S E | Core Size NQ | Drilled By M e B Drilling

 | Grid No. | Angle & Grid Direction -45° Grid West | Elevation 1026m | Logged By W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
62.67-77.72		Graphitic Argillite (Continued)		
		68.43-68.58: 30% quartz-carbonate vein fragments to 2 cm wide. Trace euhedral, m.g. pyrite.		
		71.26-71.63: 35% quartz-carbonate veins (to 6 cm) at 50-70° to core axis and carrying trace pyrite.		
		72.60-73.30: 25% quartz-carbonate veining to 1.5 cm and subparallel to core axis. Trace pyrite near contacts.		
		Graphitic argillite is moderate ground with 4-9 fractures/meter at 80° to core axis. Exception is 25 cm section of sandy graphitic gouge beginning at 75.28.		
77.72		End of Drillhole.		

Acid test @ 77.72 m is 41½° dip (corrected).

Core Foliation/Bedding Angles

6.71 meters	Irregular	38 meters	80-85°
9.14 "	Irregular	41 "	80-85°
16.76 "	Irregular	44.2 "	80-85°
19.50 "	25°	50.29 "	85
22.86 "	90°	53.34 "	80°
25.91 "	Variable.	59.44 "	80°
28.96 "	75°	62.48 "	75°
32.00 "	75°	68.80 "	80°
36 "	80°	71.63 "	75°

5 - 30872 - 30883

GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE 1/2

Property WINDFLOWER Project No. 224 Depth 89.61 Date Began JULY 28 1987

Hole No. WIN 84 Co ord. 10,000 N Horizontal Length Date Completed JULY 30 1987

Claim No. L 12481 4884.5E Core Size N.Q. Drilled By M & B DRILLING

Grid No. Angle & Direction -59° West Grid Elevation 1026 m Logged By MARK CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 4.57	CASING	4.57	—	—			
4.57 - 10.73	WASTE	6.16	—	—			
10.73 - 10.97	31225	0.24	.12	.4			
10.97 - 11.58	31226	0.61	.42	.7			
11.58 - 12.19	31227	0.61	.24	.2			
12.19 - 14.02	31228	1.83	.13	.8			
14.02 - 15.24	L.C.	1.22	-1.00	-1.00			
15.24 - 15.70	31229	0.46	.34	1.3			
15.70 - 16.15	31230	0.45	.14	1.5			
16.15 - 17.07	31231	0.92	.12	1.8			
17.07 - 17.68	31232	0.61	.22	1.7			
17.68 - 18.29	31233	0.61	.32	2.2			
18.29 - 18.80	31234	0.51	.21	1.9			
18.80 - 19.30	31235	0.50	.24	2.5			
19.30 - 19.67	31236	0.37	.26	2.1			
19.67 - 20.00	31237	0.37	.19	2.8			
20.00 - 20.12	31238	0.12	.24	2.1			
20.12 - 20.75	31239	0.63	.13	2.0			
20.75 - 21.08	31240	0.33	.45	3.8			
21.08 - 21.58	31241	0.50	.14	1.5			
21.58 - 22.13	31242	0.55	.43	2.4			
22.13 - 22.63	31243	0.50	.18	1.8			
22.63 - 23.16	31244	0.63	.26	1.4			
23.16 - 23.55	31245	0.39	.18	2.2			
23.55 - 23.65	31246	0.10	.25	1.9			
23.65 - 23.89	31247	0.24	.33	1.6			
23.89 - 24.22	31248	0.33	.25	11.5			
24.22 - 24.69	31249	0.47	.19	1.6			
24.69 - 25.19	31250	0.50	.32	1.5			
25.19 - 25.69	31251	0.50	.19	1.6			
25.69 - 26.21	31252	0.52	.23	1.6			
26.21 - 26.49	31253	0.28	.22	2.2			
26.49 - 58.36	waste	31.87	—	—			
58.36 - 58.49	31254	0.13	.09	.6			
58.49 - 59.74	waste	1.25	—	—			
59.74 - 59.84	31255	0.10	.11	1.6			
59.84 - 60.00	31256	0.16	.10	1.1			
60.00 - 60.15	31257	0.15	.08	.5			
60.15 - 60.29	31258	0.14	.06	2.1			
60.29 - 63.60	waste	3.31	—	—			

WIDTH X ASSAY

AVERAGES

WIDTH	Au.	Ag.	Cu.	Zn.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,753

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE 2/2

Property WINDFLOWER Project No. 224 Depth Date Began JULY 1987

Hole No. WIN 84 Co ord. Horizontal Length Date Completed JULY 1987

Claim No. Core Size Drilled By M & B Drilling

Grid No. Angle & Direction Elevation Logged By MARK CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
63.60 - 64.10	31259	0.50	.05	.7															
64.10 - 64.77	31260	0.67	.11	.6															
64.77 - 69.66	waste	4.89	—	—															
69.66 - 69.98	31261	0.32	.09	.6															
69.98 - 72.25	waste	2.27	—	—															
72.25 - 72.62	31262	0.37	.05	.3															
72.62 - 73.06	31263	0.44	.07	.5															
73.06 - 73.56	31264	0.50	<.03	.5															
73.56 - 73.73	31265	0.17	<.03	<.1															
73.73 - 74.19	31266	0.82	<.03	.5															
74.19 - 74.65	31267	0.46	<.03	.4															
74.65 - 75.10	31268	0.45	<.03	.3															
75.10 - 85.12	waste	10.02	—	—															
85.12 - 85.36	31269	0.24	<.03	.6															
85.36 - 86.10	waste	0.74	—	—															
86.10 - 86.20	31270	0.10	.06	1.7															
86.20 - 88.06	waste	1.86	—	—															
88.06 - 88.22	31271	0.16	<.03	.7															
88.22 - 89.61	waste	1.39	—	—															
E.O.H.																			
			ACID TEST @ 8961 = 56°45'																
			HOLE CEMENTED.																
			CASING PULLED (0 BAGS).																

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

SLUDGE 1/1

Property WINDFLOWER Project No. 224 Depth ..... Date Began .....

Hole No. WIN 84 Co ord. ..... Horizontal Length ..... Date Completed .....

Claim No. .... Core Size ..... Drilled By M & B. DRILLING

Grid No. ..... Angle & Direction ..... Elevation ..... Logged By MARK CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 4.57	NO RETURN	4.57	—	—															
4.57 - 7.92	30872	3.36	.04																
7.92 - 10.97	30873	3.05	.49																
10.97 - 14.02	30874	3.05	.38																
14.02 - 15.24	NO RETURN	1.22	—	—															
15.24 - 17.07	30875	1.83																	
17.07 - 20.12	30876	3.05	.28																
20.12 - 23.16	30877	3.04	.38																
23.16 - 26.21	30878	3.05	.26																
26.21 - 29.26	30879	3.05	.31																
29.26 - 32.31	30880	3.05	.30																
32.31 - 35.36	30881	3.05	.15																
35.36 - 38.40	30882	3.04	.18																
38.40 - 41.45	30883	3.05	.15																
41.45 - 89.61	NO RETURN	48.16	—	—															
E.O.H																			
			ACID @ 89.61 = 56° 45'																
			CASING PULLED																
			HOLE CEMENTED - TOP TO BOTTOM - 9 BAGS																

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property: Wind Flower | Project No.: 224 | Depth: 89.61 m. | Date Began: July 28/87
Hole No.: Win 84 | Co ord.: 10 000N | Horizontal Length: | Date Completed: July 30/87
Claim No.: L 12481 | 4884.5E | Core Size: NQ | Drilled By: M e B Drilling
Page: 1 | Grid No.: | Angle & Grid Direction: -59 Grid West | Elevation: 1026 m. | Logged By: W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
0 – 4.72	CSG	No Core - Overburden.		
4.72 – 10.73	DOBK	Dolomite to Argillitic Dolomite.	KA	
		Light to medium grey, fine grained, massive to moderately brecciated unit with short (1 to 15 cm) sections of very weakly graphitic argillitic dolomite. All core is very blocky to rubble, extensively kaolinized and contains several 5 - 15 cm sections of kaolite gouge. Most core fragments < 6 cm. Lost core as follows:		
	LO	6.70 – 7.62: 60% lost core. Rubble.		
		7.92 – 8.53: 30% core loss. Rubble.		
		8.53 – 9.45: 55% core loss. Rubble/gouge.		
		Dolomite overall contains 5-7% quartz-carbonate veins + vein fragments to several cm wide and oriented 40-60° to core axis. Trace - 1% disseminated euhedral pyrite in veins and dolomite.		
10.73 – 26.49	QCGA	Quartz-Carbonate Veined / Silicified Calcareous, weakly Graphitic Argillite	SILM PYT	
		Gradational with unit above. Medium grey to black, fg., massive to locally carbonate laminated unit. Contains approximately 15% quartz (± carbonate) veining overall with most extensive veined - quartz flooded sections occurring from:		
		20.12 – 20.75: Pervasive quartz (± minor carbonate) flooding with 35% thin irregular veins and blotches of qtz-carbonate and extensive carbonate alteration of host rock fragments. Approximately 10-12% evenly disseminated m.g., subhedral pyrite.		
		21.08 – 22.13: 30% quartz-carbonate veining at variable angles to core axis (large percentage in 50-70° range). 5-8% m.g. pyrite associated with carbonate rich patches in veins. Also trace silvery mineral (galena and/or tetrahedrite) as isolated irregular blotches & fracture fillings.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property: Wind Flower | Project No.: 224 | Depth: 89.61 m | Date Began: July 28/87
Hole No.: Win 84 | Co ord.: 10000N | Horizontal Length: | Date Completed: July 30/87
Claim No.: L12481 | 4884.5E | Core Size: NQ | Drilled By: McB Drilling
Page: 2 | Grid No.: | Angle & Grid Direction: -59 Grid West | Elevation: 1026 m | Logged By: W. Stelfox

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
10.73 - 26.49		Quartz Carbonate Veined / Silicified Calcareous, Weakly graphitic Argillite (Continued)		
		Overall Section Contains 1-5% disseminated pyrite associated with the Veining. Trace galena and/or tetrahedrite also noted at 23.89 - 24.22 (2 cm - 5° Qtz Carbonate Vein) and Trace Sphalerite in 60% quartz flooded Zone from 26.21 - 26.49		
		From 10.73 - 18.80 is bad ground with mostly rubble to blocky core. largest core fragment is 15 cm and most are less than 4 cm. Lost Core as follows:		
	LC	12.19 - 14.02 : 75% Core loss. Kaolinized rubble < 4 cm. 14.02 - 15.24 : Cave - 100% lost Core. One 3 cm pebble massive pyrite remaining 16.15 - 17.07 : 50% Core loss. Rubble < 6 cm. 17.07 - 17.68 : 20% Core loss. Blocky Core / rubble < 7 cm. 17.68 - 18.29 : 50% Core loss. Blocky Core / rubble.		
		Minor rubble Zones from 18.75 - 18.85 and 25.19 - 25.42. Remainder of Section from 18.29 - 26.49 is moderate - good ground with 4-8 fractures / meter at 55-65° To Core axis		
26.49 - 41.20	ARGA	Bedded Laminated Grey Calcareous Argillite and Graphitic Argillite	LM	
		Unit Consists of finely laminated calcareous argillite - dolomitic Sections To 30 cm wide alternating with graphitic argillite Sections To 22 cm wide. Less than 5% quartz - Carbonate veining. Veins To 9 cm wide and mostly at 65-75° To Core axis. Trace - 1% disseminated pyrite in argillite. Veining Carries only Trace pyrite. Good ground - moderate ground with 4-7 fractures / meter except for rubble Zone from 26.49 to 28.93 which has 20% Core loss. Fractures mostly parallel foliation.		
41.20 - 54.42	GA	Graphitic Argillite.		
		Black, fg., massive To slightly Schistose unit with minor widely Spaced Thin (To 7 cm) Calcareous laminated Sections. Less than 5% quartz - Carbonate veins (To 7 cm) at 70° To Core axis and 3-5% Thin (1-3 mm) diffuse Carbonate veins. From 51.00 - 51.60 includes 6 irregular brecciated bands of yellow Sericite - Carbonate rock containing 1% pyrite - Trace kyanite alteration - Trace 1% disseminated pyrite in argillite. Trace pyrite in veins. Good Ground with 3-6 fractures / meter. Fracturing follows foliation - Schistosity.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE: Page 3

Property Windflower Project No. 224 Depth 89.61m Date Began July 28/87
Hole No. Win 84 Co ord. 10000N Horizontal Length Date Completed July 30/87
Claim No. L12481 488455E Core Size NQ Drilled By MeB Drilling
Grid No. Angle & Grid Direction -59 Grid West Elevation 1026.m Logged By W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
54.42-67.08	GA	Grey Laminated Calcareous Graphitic Argillite.	cm	QCVN
		Very well laminated, light to dark grey, weakly graphitic calcareous argillite with occasional graphitic argillite bands (1 to 36 cm wide) comprising less than 10% of unit. Quartz-Carbonate veins to 13 cm wide make up less than 5% of rock and carry only trace pyrite usually distributed at contacts. Most concentrated veining occurs from:		
		58.36-58.49: 40% quartz carbonate veins to 3cm at 90° to C.A. Trace pyrite in veins. 2% disseminated pyrite in graphitic argillite hostrock.		
		59.74-59.84: 30% irregular quartz-carbonate veins to 3cm. Odd pyrite grain in veins. 1-2% pyrite disseminated in graphitic argillite.		
		60.00-60.15: 5cm wide quartz-carbonate vein at ~30° to core axis. 1% pyrite in vein near contacts.		
		From 54.42-67.08 is good ground with 3-6 fractures/meter; mostly at 70-80° to core axis and following graphitic slips.		
		Argillite hostrock carries 1-3% pyrite disseminated throughout and as trains on lamination/foliation planes.		
67.08-89.61	GA	Graphitic Argillite.	PY	QCVN
		Black, finegrained, massive to poorly foliated unit with occasional grey laminated calcareous beds to 1.3 meter wide (88.22-89.35 m) but usually ≤ 15cm wide comprising 15-20% of unit. Argillite as whole contains 2-4% pyrite disseminated throughout and concentrated (10 50%) in some random calcareous beds upto 1cm thick.		
		67.08-72.25: 10-15% combined carbonate and quartz-carbonate veins to 4cm wide at 60-70° to core axis for most part. Trace pyrite in veins. 69.66-69.98 has 35% veining (barren) and 2 1cm thick carbonized beds of calcite + 10% pyrite.		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property: Windflower | Project No.: 224 | Depth: 89.61m | Date Began: July 28/87

Hole No.: Win 84 | Co-ord.: 10000N | Horizontal Length: | Date Completed: July 30/87

Claim No.: L 12481 | 4884SE | Core Size: NQ | Drilled By: M.B. Drilling

Page: 4 | Grid No.: | Angle & Grid Direction: -59 Grid West | Elevation: 1026 m | Logged By: W. Steeman

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
67.08 - 89.61		Graphitic Argillite (Continued)		
		72.25 - 75.10 : 20% quartz - carbonate veining to 10 cm (72.48-72.58) at variable angles to core axis. Veins largely brecciated and dismembered. Trace pyrite in veins.		
		75.10 - 89.61 : 5% quartz - carbonate veining at 60-75° to core axis. Veins to 4 cm wide and carry on trace pyrite with exception of 2 cm vein at 86.13 which has 10% e.g. euhedral pyrite cubes		
		From 67.08 - 89.61 is good ground with 2-5 fractures / meter at 60-75° to core axis. Exception is rubble zone from 77.63 - 78.07.		
89.61		End of Drillhole.		

Foliation / Bedding Angles to Drillcore Axis

5.79 meters	65°	53 meters	70°
19.30 meters	55°	56 "	65°
22.13 "	75°	62 "	65°
24.69 "	70°	65 "	60°
29.26 "	55°	68 "	70°
32.31 "	70°	71 "	80°
35.36 "	70°	75 "	Variable
38.40 "	65°	79.5 "	75°
41 "	65°	83 "	70°
44 "	75°	85 "	55°
48 "	75°	89.35 "	70°

ACID TEST @ 89.61 = 56° 45'

CASING PULLED

HOLE CEMENTED - TOP TO BOTTOM - 9 BAGS

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30886 - 30894 5 Comps.

GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE 1/2

Property WINDFLOWER | Project No. 224 | Depth 38.71 | Date Began July 30/87
Hole No. WIN - 85 | Co ord. 10 000 N | Horizontal Length | Date Completed July 31/87
Claim No. 412484 | 4884.5E | Core Size N.Q. | Drilled By M & B DRILLING
Grid No. | Angle & Direction -78° GRID WEST | Elevation 1026 m | Logged By M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 5.79	CASING	5.79	0.00	0.0			
5.79 - 6.45	WASTE	0.66	0.00	0.0			
6.45 - 6.78	31300	0.33	.03	<.1			
6.78 - 7.08	31301	0.30	.05	<.1			
7.08 - 7.21	31302	0.13	.03	<.1			
7.21 - 7.62	31303	0.41	<.03	<.1			
7.62 - 8.23	31304	0.61	.11	<.1			
8.23 - 8.83	31305	0.60	.03	<.1			
8.83 - 9.23	31306	0.40	.03	<.1			
9.23 - 9.54	31307	0.31	.03	<.1			
9.54 - 10.20	31308	0.66	<.03	<.1			
10.20 - 10.67	31309	0.47	.03	<.1			
10.67 - 11.27	31310	0.60	.05	<.1			
11.27 - 11.52	31311	0.25	.03	.1			
11.52 - 12.10	31312	0.58	.05	<.1			
12.10 - 12.50	31313	0.40	.05	.2			
12.50 - 13.10	31314	0.60	<.03	.2			
13.10 - 13.45	31315	0.35	.03	.1			
13.45 - 13.85	31316	0.40	.03	.1			
13.85 - 14.25	31317	0.40	.03	.1			
14.25 - 14.54	31318	0.29	.03	.3			
14.54 - 15.63	31319	1.08	.03	.2			
15.63 - 22.96	WASTE	7.33	0.00	0.0			
22.96 - 23.06	31320	0.12	.17	.1			
23.06 - 23.21	31321	0.15	.09	.1			
23.21 - 23.63	31322	0.42	.09	1.1			
23.63 - 24.69	31323	1.06	.09	.9			
24.69 - 25.10	31324	0.41	.09	1.1			
25.10 - 25.49	31325	0.39	.09	.5			
25.49 - 25.72	31326	0.23	.14	1.7			
25.72 - 26.03	31327	0.31	.03	.4			
26.03 - 26.31	31328	0.28	.17	1.2			
26.31 - 26.76	31329	0.45	.04	.9			
26.76 - 27.08	31330	0.32	<.03	.6			
27.08 - 27.48	31331	0.40	.10	1.3			
27.48 - 27.98	31332	0.50	.13	1.2			
27.98 - 28.12	31333	0.14	.03	.2			
28.12 - 28.60	31334	0.48	.40	.7			
28.60 - 28.86	31335	0.26	.33	.5			
28.86 - 29.44	31336	0.58	<.03	.4			

WIDTH X ASSAY

WIDTH	Au.	Ag.	Cu.	Zn.	

AVERAGES

WIDTH	Au.	Ag.	Cu.	Zn.	

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,752

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE 2/2

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN - 85 Co ord. Horizontal Length Date Completed

Claim No. Core Size N.Q. Drilled By

Grid No. Angle & Direction Elevation Logged By M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
29.44 - 29.56	31337	0.13	.41	.3															
29.56 - 30.00	31338	0.44	.43	.2															
30.00 - 36.06	WASTE	6.06	0.00	0.0															
36.06 - 36.36	31339	0.30	.31	<.1															
36.36 - 36.46	31340	0.10	.107	<.1															
36.46 - 36.77	31341	0.31	.11	<.1															
36.77 - 36.97	31342	0.20	.28	.1															
36.97 - 37.27	31343	0.30	.122	<.1															
37.27 - 38.71	WASTE	1.44	0.00	0.0															
E.O.H																			
			HOLE LOST - RODS SANDED IN																
			CASING REMOVED																

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

SLUDGE

PAGE 1 OF 1

Property WINAFLOWER Project No. 224 Depth 38.71 m Date Began July 30

Hole No. WIN 85 Co ord. 10,000 N Horizontal Length Date Completed July 31

Claim No. L-12484 4,884.5 E Core Size N.Q Drilled By M&B DRILLING

Grid No. Angle & Direction -78° WEST GRID Elevation 1,026 M Logged By J. LAFAVOR

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
0-5.79	CASING	5.79	—	—															
5.79-8.23	NO RETURN	2.44	—	—															
8.23-11.28	308 86	3.05	.36																
11.28-14.33	308 87	3.05	.09																
14.33-17.37	308 88	3.05	.28																
17.37-20.42	308 89	3.05	.07																
20.42-23.47	308 90	3.05	.09																
23.47-26.52	308 91	3.05	.07																
26.52-29.57	308 92	3.05	.02																
29.57-32.61	308 93	3.05	.02																
32.61-35.66	308 94	3.05	.02																
35.66-38.71	NO RETURN	3.05	—																
E.O.H.																			
			HOLE ABANDONED - RODS SHOVED IN																
			CASING REMOVED																

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property WINDFLOWER Project No. 224 Depth 38.71 Date Began JULY 30/87

Hole No. Win. 85 Co ord. 10,000N Horizontal Length Date Completed JULY 31/87

Claim No. L12484 4084.5E Core Size N.Q Drilled By M & B. Drilling

Page 1 Grid No. Angle & Grid Direction -78° GRID WEST Elevation 1026 m Logged By W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
0 - 6.45	CSG	No Core Recovery - Overburden		
6.45 - 16.76	DOAR	Cherty Dolomite to Siliceous Calcareous Argillite.	SICM	
		Light grey to light Chocolate Colored unit consisting of abundant contorted and brecciated, thin cherty bands (1 to 50cm) alternating with or floating in argillite dolomite. (locally graphitic). 10-15% irregular quartz-carbonate veining. Cherty bands and veins are moderately to extensively brecciated. Best concentrations of veining occur at:		
	QCVN BX	7.08-7.62: 50% brecciated irregular quartz-carbonate veins. Vein fragments to 6 cm. From 7.08-7.21 veins carry 5% medium grained pyrite. 7.21-7.62 has trace pyrite.		BX
	QZVN	9.23-9.54: Quartz vein and silicified zone with trace - 1% very fine grained pyrite and rare, isolated chalcopyrite bleb.		
	QCVN	14.25-14.57: 60% quartz-carbonate veins - vein fragments up to 3cm wide at 45-50° to core axis. Trace pyrite, usually at vein contacts.		
		Graphitic Argillite and Calcareous, laminated graphitic argillite interbed at 11.52-12.10.		
		From 6.45-16.76 dolomite/argillite contains 1-3% disseminated pyrite and pyrite train with rare chalcopyrite grain.		
		Poor ground overall with very blocky and/or rubble zones at 6.78-7.08, 7.62-8.23, 10.20-11.27, 12.10-12.50, 13.10-13.45, 14.54-15.63, Sixty percent (60%) lost Core From 14.54-15.63.		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE: Page

Property | Project No. | Depth | Date Began

Hole No. | Co ord. | Horizontal Length | Date Completed

Claim No. | Core Size | Drilled By

Grid No. | Angle & Grid Direction | Elevation | Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
16.76-20.42'	L.C.	Lost Core - Sand Seam		
20.42-33.02'	GA	Graphitic Argillite.	PY	QCVN
		Black, fine grained Schistose unit with gradations into poorly laminated calcareous graphitic argillite. 10% quartz-carbonate veining overall. Best veining occurs at:		
		Target Vein Zone		
		22.96-23.06: Quartz carbonate veining (50%) with 2-4% pyrite		
		25.72-26.03: Quartz-carbonate vein with 15% angular graphitic argillite inclusions, 5-7% medium-grained pyrite and trace chalcopyrite. Sulphides occur mainly in carbonate rich patches of veins. Veins at 35-40° to core axis.		
		26.30-26.76: 30% quartz-carbonate veins to 6 cm wide at 25-35° to core axis. Trace-3% fine grained pyrite and trace chalcopyrite in veins. Sulphides again concentrated in carbonate patches and at vein contacts.		
		27.98-28.12: Quartz-carbonate vein at 55° to core axis. Contains 2-3% pyrite and trace tetrahedrite and sphalerite.		
		29.41-29.56: 30% quartz-carbonate veining to 2cm with irregular contacts. Trace sphalerite		
		Argillite hostrock has 1-4% disseminated pyrite.		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property ..... Project No. ..... Depth ..... Date Began .....

Hole No. ..... Co ord. ..... Horizontal Length ..... Date Completed .....

Claim No. ..... Core Size ..... Drilled By .....

Page ..... Grid No. ..... Angle & Grid Direction ..... Elevation ..... Logged By .....

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
20-12 - 33.02		Graphitic Argillite (Continued)		
		20.42 - 28.86 metres is blocky - poor ground overall with blocky - rubble zones from 21.05 - 21.17, 21.23 - 23.16 (30% core loss), 23.63 - 24.62 (60% core loss), 25.49 - 25.72, 26.31 - 26.76, 27.03 - 27.48, 28.12, 30.00. Fracturing largely along local foliation - Schistosity planes.		
		28.86 - 33.02 is good ground with 4-6 fractures / meter at 45-50° To Core axis.		
33.02 - 38.71	DO	Sericitic Dolomite	MS	QCVN
		Extensively Sericitized argillitic dolomite. Striped yellow and grey, fine to medium grained with quartz - Carbonate Veining comprising 2-8% of unit depending on location in Section. Veins 1 to 5+1 cm and at 35-50° To Core axis. Dolomite contains 2-4% disseminated pyrite and pyrite Traces on Foliation planes. Moderately well foliated.		
		36.36 metres: 4cm quartz - Carbonate Vein at 45° To core axis which has 2-1% fine grained pyrite in Carbonate patches.		
		36.77 - 36.97: 2.5cm wide quartz - Carbonate Vein at 17° To Core axis. 1% pyrite and Trace Chalcopyrite.		
		Good ground with 0-2 fractures / meter at 50° to core axis.		
38.71		End of Hole. Rods Sanded in and broke off. Hole abandoned.		

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34550 - 34575 } COMPLETE

GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD
CORE 1/4

Property WINDFLOWER Project No. 224 Depth 81.38 Date Began Aug 1/87
Hole No. WIN-86-86 Co ord. 10082. N Horizontal Length Date Completed Aug 4/87
Claim No. L5654 5022 E Core Size N.Q. Drilled By KOOTENAY DRILLING
Grid No. Angle & Direction -90° Elevation 1967.16 (1015.36) Logged By M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.	WIDTH X ASSAY
0 - 0.30	CASING	0.30	0.00	0.0			
0.30 - 0.69	WASTE	0.39	0.00	0.0			
0.69 - 1.31	29000	0.62	<.03	<.1			
1.31 - 1.47	29001	0.16	<.03	<.1			
1.47 - 2.17	29002	0.70	<.03	<.1			
2.17 - 2.67	29003	0.50	<.03	<.1			
2.67 - 3.04	29004	0.37	<.03	<.1			
3.04 - 3.39	29005	0.35	<.03	<.1			
3.39 - 3.57	29006	0.18	<.03	<.1			
3.57 - 4.11	29007	0.54	<.03	<.1			
4.11 - 4.61	29008	0.50	<.03	<.1			
4.61 - 6.93	WASTE	.32	0.00	0.0			
6.93 - 7.43	29009	0.50	<.03	<.1			
7.43 - 7.77	29010	0.34	<.03	.4			
7.77 - 8.12	29011	0.35	<.03	.3			
8.12 - 8.62	29012	0.50	<.03	.4			
8.62 - 9.07	29013	0.45	<.03	.3			
9.07 - 9.20	29014	0.13	<.03	.2			
9.20 - 9.70	29015	0.50	<.03	.1			
9.70 - 10.00	29016	0.30	<.03	.1			
10.00 - 10.38	29017	0.38	<.03	.1			
10.38 - 10.66	29018	0.28	<.03	.1			
10.66 - 11.16	29019	0.50	<.03	<.1			
11.16 - 11.66	29020	0.50	<.03	.1			
11.66 - 12.06	29021	0.40	<.03	.1			
12.06 - 12.24	29022	0.18	.06	.1			
12.24 - 12.74	29023	0.50	.05	<.1			
12.74 - 13.10	29024	0.36	.05	.1			
13.10 - 13.50	29025	0.40	.04	.1			
13.50 - 14.00	29026	0.50	<.03	.1			
14.00 - 14.20	29027	0.20	<.03	.2			
14.20 - 14.61	29028	0.41	.04	.1			
14.61 - 14.94	29029	0.33	.03	.2			
14.94 - 15.44	29030	0.50	.04	.1			
15.44 - 16.02	29031	0.58	.03	.1			
16.02 - 16.18	29032	0.16	.03	.1			
16.18 - 16.80	29033	0.62	.03	.1			
16.80 - 17.22	29034	0.42	.03	.1			
17.22 - 19.43	WASTE	2.21	0.00	0.0			
19.43 - 19.93	29035	0.50	<.03	.2			

AVERAGES					
WIDTH	Au.	Ag.	Cu.	Zn.	

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,753

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE 2/4

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN-86 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Direction Elevation Logged By M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
19.93 - 20.08	29036	0.15	<.03	.1															
20.08 - 20.62	29037	0.54	.05	.1															
20.62 - 21.05	29038	0.53	.03	<.1															
21.05 - 21.45	29039	0.40	.03	.2															
21.45 - 21.84	29040	0.39	<.03	.1															
21.84 - 22.39	29041	0.55	.04	.2															
22.39 - 22.89	29042	0.50	<.03	.1															
22.89 - 23.39	29043	0.50	<.03	.1															
23.39 - 23.79	29044	0.40	<.03	.3															
23.79 - 24.14	29045	0.35	.04	.1															
24.14 - 24.46	29046	0.32	.04	.2															
24.46 - 24.66	29047	0.20	.03	.2															
24.66 - 25.06	29048	0.40	.03	.1															
25.06 - 25.34	29049	0.28	<.03	.2															
25.34 - 25.67	29050	0.33	.04	.3															
25.67 - 26.34	29051	0.67	.04	.2															
26.34 - 26.90	29052	0.56	<.03	<.1															
26.90 - 27.10	29053	0.20	<.03	<.1															
27.10 - 27.30	29054	0.20	<.03	.2															
27.30 - 27.80	29055	0.50	.05	.1															
27.80 - 28.18	29056	0.38	<.03	.2															
28.18 - 28.69	29057	0.51	<.03	.1															
28.69 - 29.19	29058	0.50	.03	.1															
29.19 - 29.69	29059	0.50	.04	.1															
29.69 - 30.00	29060	0.31	.06	.4															
30.00 - 30.50	29061	0.50	.07	.4															
30.50 - 31.10	29062	0.60	.07	.5															
31.10 - 31.48	29063	0.38	.08	.6															
31.48 - 31.98	29064	0.50	.06	.4															
31.98 - 32.61	29065	0.62	.13	.9															
32.61 - 33.08	29066	0.47	.13	.8															
33.08 - 33.50	29067	0.42	.08	.4															
33.50 - 34.37	29068	0.87	.10	<.1															
34.37 - 34.87	29069	0.50	.05	<.1															
34.87 - 35.37	29070	0.50	.09	.1															
35.37 - 35.67	29071	0.30	.05	<.1															
35.67 - 36.17	29072	0.50	.03	<.1															
36.17 - 36.51	29073	0.34	<.03	<.1															
36.51 - 37.01	29074	0.50	.04	.2															
37.01 - 37.41	29075	0.40	.65	<.1															

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE 3/4

Property WINDFLOWER Project No. Depth Date Began

Hole No. WIN-86 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Direction Elevation Logged By M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.	
37.41 - 37.84	29076	0.43	.33	.7			
37.84 - 38.32	29077	0.48	.13	.9			
38.32 - 38.97	29078	0.65	1.52	1.2			
38.97 - 39.49	29079	0.52	.21	.5			
39.49 - 39.71	29080	0.22	1.01	.9			
39.71 - 40.19	29081	0.48	.18	1.0			
40.19 - 40.56	29082	0.37	.34	.7			
40.56 - 40.89	29083	0.33	2.22	1.2			
40.89 - 41.34	29084	0.45	1.98	.8			
41.34 - 41.76	29085	0.42	.27	1.2			
41.76 - 41.96	29086	0.20	.11	.6			
41.96 - 42.26	29087	0.30	.03	.3			
42.26 - 42.41	29088	0.15	1.67	.2			
42.41 - 42.71	29089	0.30	.10	.8			
42.71 - 43.18	29090	0.47	.18	.4			
43.18 - 43.58	29091	0.40	.15	.1			
43.58 - 44.10	29092	0.52	.03	<.1			
44.10 - 44.60	29093	0.50	.04	<.1			
44.60 - 45.10	29094	0.50	.05	.2			
45.10 - 45.51	29095	0.41	.42	.4			
45.51 - 46.01	29096	0.50	1.65	<.1			
46.01 - 46.41	29097	0.40	.12	<.1			
46.41 - 46.67	29098	0.26	.55	<.1			
46.67 - 47.17	29099	0.50	.08	<.1			
47.17 - 47.47	29100	0.30	.04	.4			
47.47 - 47.89	29101	0.32	.08	.7			
47.89 - 48.49	29102	0.60	.05	.8			
48.49 - 49.00	29103	0.51	.10	.9			
49.00 - 49.42	29104	0.42	.09	1.6			
49.42 - 49.92	29105	0.50	.15	.8			
49.92 - 50.37	29106	0.45	.30	.5			
50.37 - 50.87	29107	0.50	.04	.3			
50.87 - 52.76	WASTE	1.89	0.00	0.0			
52.76 - 53.26	29108	0.50	.06	.7			
53.26 - 53.36	29109	0.10	.03	.4			
53.36 - 53.75	29110	0.39	.10	1.1			
53.75 - 53.95	29111	0.20	.10	.7			
53.95 - 54.35	29112	0.40	.09	.9			
54.85 - 54.85	29113	0.50	.04	.4			
54.85 - 54.47	29114	0.12	.05	.3			

WIDTH X ASSAY						AVERAGES					
						WIDTH	Au.	Ag.	Cu.	Zn.	

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE 4/4

Property WINDFLOWER | Project No. | Depth | Date Began

Hole No. WIN-86 | Co ord. | Horizontal Length | Date Completed

Claim No. | | Core Size | Drilled By

Grid No. | Angle & Direction | Elevation | Logged By M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.	
54.97-55.47	29115	0.50	.04	.5															
55.47-59.00	WASTE	3.53	0.00	0.0															
59.00-59.50	29116	0.50	6.94	1.0															
59.50-60.00	29117	0.50	.14	.6										1.50M	2.69				59.00-60.50
60.00-60.50	29118	0.50	1.00	.7															
60.50-60.82	29119	0.32	.05	.4															
60.82-61.32	29120	0.50	.06	.4															
61.32-64.79	WASTE	0.47	0.00	0.0															
64.79-65.29	29121	0.50	<.03	.4															
65.29-65.79	29122	0.50	<.03	.3															
65.79-66.36	29123	0.57	.05	.3															
66.36-66.64	29124	0.28	.03	.3															
66.64-67.15	29125	0.51	<.03	.4															
67.15-68.76	WASTE	1.61	0.00	0.0															
68.76-69.26	29126	0.50	.03	.3															
69.26-69.62	29127	0.36	<.03	.2															
69.62-70.12	29128	0.50	<.03	.2															
70.12-70.71	29129	0.59	<.03	.1															
70.71-71.07	29130	0.36	.04	.6															
71.07-71.57	29131	0.50	<.03	.3															
71.57-77.45	WASTE	5.88	0.00	0.0															
77.45-77.95	29132	0.50	<.03	.4															
77.95-78.05	29133	0.10	<.03	.2															
78.05-78.55	29134	0.50	<.03	.1															
78.55-81.38	WASTE	2.83	0.00	0.0															
E.O.H.																			
				HOLE CEMENTED															
				CASING REMOVED.															

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

SLUDGE

PAGE 1 of 1

Property WINDFLOWER Project No. 224 Depth 81.38 Date Began AUG 1

Hole No. WIN86 Co ord. 10,027N-5922E Horizontal Length Date Completed AUG 4

Claim No. L-5654 Core Size N.Q Drilled By Kootenay Drilling

Grid No. Angle & Direction -90° Elevation 1967.16 Logged By T. LAFAVOR

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
0 - .34	CASING	.34	—																
.34 - 5.18	31550	4.84	.02																
5.18 - 8.23	31551	3.05	.02																
8.23 - 11.28	31552	3.05	.02																
11.28 - 14.33	31553	3.05	.02																
14.33 - 17.37	31554	3.05	.02																
17.37 - 20.42	31555	3.05	.02																
20.42 - 23.47	31556	3.05	.02																
23.47 - 26.52	31557	3.05	.02																
26.52 - 29.57	31558	3.05	.02																
29.57 - 32.61	31559	3.05	.06																
32.61 - 35.66	31560	3.05	.04																
35.66 - 38.71	31561	3.05	<.03																
38.71 - 41.76	31562	3.05	<.03																
41.76 - 44.81	31563	3.05	.36																
44.81 - 47.85	31564	3.05	.12																
47.85 - 50.90	31565	3.05	.24																
50.90 - 53.95	31566	3.05	.86																
53.95 - 57.00	31567	3.05	.36																
57.00 - 60.05	31568	3.05	.30																
60.05 - 63.09	31569	3.05	.25																
63.09 - 66.14	31570	3.05	<.03																
66.14 - 69.19	31571	3.05	.04																
69.19 - 72.24	31572	3.05																	
72.24 - 75.29	31573	3.05	<.03																
75.29 - 78.33	31574	3.05																	
78.33 - 81.38	31575	3.05	.04																
E.O.H.																			

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Page 1 of 8

Property WINDFLOWER | Project No. 224 | Depth 81.38 M | Date Began AUG 1/87

Hole No. WIN 86 | Co ord. 10027 N | Horizontal Length | Date Completed AUG 4/87

Claim No. L 5654 | 5022 E | Core Size NQ | Drilled By Kootenay Exploration Drilli

Grid No. | Angle & Grid Direction vert. | Elevation 1967.16 M (GR) 1015.36 MSL | Logged By B. GABOURY

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
0 - .69	CSG	Casing		
.69 - 52.00	AR	Light grey calcareous argillite		GASC
		interlaminated calcareous argillites and minor (<15%) graphitic argillites; overall contains ~15% qtz-carb veins & pods and <1% fine py:		
		.69 - 1.31 : contains ~20% diffuse qtz-carb veins, rusty CA's irregular ~25°		
		1.31 - 1.47 : contains ~45% diffuse qtz-carb. veins, irreg. CA.'s		
	AR	6.34 - 10.38 : medium grey section of calcareous argillite, somewhat more contorted & with 15-20% qtz carb veins:		QCVN
		7.43 - 7.77 : ~10-15% diffuse contorted qtz-carb veins irreg. C.A.'s		
		7.77 - 8.12 : 40-50% diffuse qtz-carb. veining; irreg CA's vary from 20° - 60°; tr py.		
		8.42 - 8.62 : 30-40% qtz-carb veins, irreg CA's vary from 45° to ~90°.		
		8.62 - 9.07 ; 30-40% diffuse qtz-carb veining, very contorted, irreg CA's		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE: Page 2

Property: WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN 86 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Grid Direction Elevation Logged By

INTERVAL FEET/METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		9.07 - 9.20 : Qtz - carb vein with 10-20% wallrock inclusions, Minor schlieren of sericite - carb (yellow) CA's ~ 60°		
		9.20 - 9.70 : 15-20% diffuse qtz - carb veining, contorted irreg CA's vary 50°-70°		
		9.70 - 10.00 : Blocky section with 20-30% diffuse qtz-carb veining (>80% core recovery)		
	ARQC	10.38 - 31.98 : Light grey calcareous argillite (as before)		
		10.38 - 10.66 : 30-40% diffuse qtz-carb veining; CA's 30°-45°		
		12.06 - 12.24 : Qtz-carb vein with 40-50% wallrock incls, Upper CA ~90° Lower CA ~60°		
		14.61 - 14.94 : 15-20% diffuse irreg qtz-carb veinlets including an 8 cm wide vein with a speck of galena CA's ~ 50°		
		16.02 - 16.18 : 30-35% diffuse qtz-carb veining; irreg CA's		
		19.93 - 20.08 : light grey silicified section with 20-30% irreg qtz-carb vein -		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE: Page 3

Property: WINDFLOWER Project No. 224 Depth Date Began
Hole No. WIN 86 Co ord Horizontal Length Date Completed
Claim No. Core Size Drilled By
Grid No. Angle & Grid Direction Elevation Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		lets, two possible specks tetrahedrite.		
		20.08 - 21.05 : light grey silicified sections with 10-15% fine qtz - carb veinlets.		
		21.05 - 21.45 : darker grey contorted section with 20-30% diffuse qtz - carb veining * One speck fine tetrahedrite & one speck fine cpy ; irreg CA's.		
		21.45 - 21.84 : 15% diffuse qtz - carb veining, includes one 10 cm vein with upper contact CA 55° lower contact CA 70°		
		23.39 - 24.46 : 65-75% diffuse qtz - carb veins. CA's average ~ 40° 24.14 - 25.46 ; numerous specks sphal & gal *		
		25.06 - 25.34 : dark grey contorted & brecciated section with 10-15% diffuse qtz - carb veining ; one speck tetrahedrite in centre of section *		
		26.34 - 26.90 : 35-45% qtz - carb veining (mainly diffuse), tr py CA's average 70°		
		27.10 - 27.30 : 25-35% qtz - carb veining 2.5 cm wide vein in centre has one small speck of sphal + tetrahedrite + cpy, CA's ~ 70° *		
		28.68 - 29.19 : 15-20% diffuse qtz - carb veining (severely contorted), some veinlets indicate CA's of 60-70°		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

Property: WINDFLOWER | Project No.: 224 | Depth: | Date Began:
Hole No.: WIN 86 | Co ord.: | Horizontal Length: | Date Completed:
Claim No.: | | Core Size: | Drilled By:
ZONE: | Page: 4 | Grid No.: | Angle & Grid Direction: | Elevation: | Logged By:

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		29.85 : 2 cm wide diffuse qtz-carb veinlet with one speck sphal		
		30.50 - 31.10 : 15-25% diffuse qtz-carb veinlets (up to several cm dia.) carrying the occassional speck of sphal.		
	GA	31.98 - 35.37 : A darker grey somewhat more graphitic argillite with 10-15% fine qtz-carb veinlets. Degree of contortion increases downhole through this interval:		
	FT	33.08 - 35.27 : Fault Zone sheared, graphitic blocky section, with the occassional qtz veinlet up to ~5 cm dia. Drag folding evident in upper 25 cm of section. Shearing trends ~ 47° to core axis.		
	QCAR	35.37 - 40.89 : Light grey calcareous argillite with minor graphitic interbeds and ~ 50% quartz-carbonate veins:	FY	
		37.41 - 37.84 : qtz-carb vein with 10-20% wallrock incls, 1-2% py (minor coarse py), traces tetrahed. CA's ~ 38°		
		38.32 - 38.97 : 70% qtz-carb veining, 1-2% fine py, traces sphal & tetrahed. Upper contact CA = 60° Lower contact CA ≈ 15°		
		39.49 - 39.71 : Qtz-carb vein with 1-2% fine to med. fine py Upper contact CA = 55° Lower contact CA ≈ 55° (irreg.)		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE: Page 5

Property: WINDFLOWER | Project No.: 224 | Depth: | Date Began:
Hole No.: WIN 86 | Co ord.: | Horizontal Length: | Date Completed:
Claim No.: | | Core Size: | Drilled By:
Grid No.: | Angle & Grid Direction: | Elevation: | Logged By:

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		39.79 - 40.09 : qtz - carb vein with 20% wallrock incls, tr-1% py Upper contact CA 35° Lower contact CA 60° (irreg.)		
		* 40.19 - 40.56 : 60-70% diffuse qtz-carb veining, 1-2% fine py plus traces sphal & tetrahed. CA's generally ~ 60°		
		* 40.56 - 40.89 : 20-30% diffuse qtz-carb veining in a somewhat darker grey calcareous argillite, 1-2% fine to med. fine py plus traces sphal. CA's ~ 52°		
	AR	40.89 - 41.76 : Light grey calcareous argillite with minor graphitic interbeds (as before) plus 10-15% qtz-carb veins.		
	ARQC	41.76 - 44.10 : Light grey calcareous argillite with minor graphitic interbeds plus ~ 30% qtz-carb. veins and 1-2% dissem. py overall:		PYSL
		41.76 - 41.96 : qtz-carb vein with tr py and several specks sphal, contorted, irreg CA's		
		* 42.26 - 42.41 : qtz-carb vein with tr-1% fine py plus two fine specks sphal. Upper contact CA ~ 15° Lower contact CA ~ 70°		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE: Page 6

Property: WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN 86 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Grid Direction Elevation Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		42.71 - 43.00 : 30-40% qtz-carb veining (largely diffuse), ~1% fine py plus trace specks of sphal, tetrahed & cpy in reg CA's. *		
		43.00 - 43.18 : qtz-carb vein with tr-1% fine py and traces of galena on vein selvages. CA's ~ 60° *		
		43.18 - 43.58 : silicified section with 30-35% diffuse qtz-carb veining, 1-2% fine py. CA's ~ 65° (parallel to fol.)		
		43.58 - 44.10 : 25-35% qtz-carb veining with 1-2% fine py (overall) plus traces sphal in veins		
	AR	44.10 - 52.00 : Light grey calcareous argillite with minor graphitic interbeds plus ~15% qtz-carb veining (as before)	GR	
		Note : 44.81 - 45.20 ; foliation & bedding change dip direction. Core angles change from +65° → +20° (contorted) → -55° in the down hole direction (fold).		
		45.51 - 46.01 : ~50% qtz-carb veining (diffuse except for 27 cm wide vein with ~30% wallrock incls at top of interval). 1-3% py overall (this includes the darker graphitic wallrock) plus traces of tetrahed in qtz veinlets. *		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE: Page 7

Property: WINDFLOWER Project No.: 224 Depth: Date Began:
Hole No.: WIN 86 Co ord.: Horizontal Length: Date Completed:
Claim No.: Core Size: Drilled By:
Grid No.: Angle & Grid Direction: Elevation: Logged By:

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE		DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
52.00 - 81.38	ARGA		Interbedded light grey calcareous argillites and graphitic argillites	LM	
			Graphitic argillite interbeds varying from cm thicknesses to several tens of cm thickness comprise 25-30% of this interval. Qtz-carb veinlets (mainly concordant to the fabric) comprise 10-15% of the interval overall:		
			53.26 - 54.97: 25-30% qtz-carb veins (several 10-15 cm thick), larger veins carry tr-1% py, plus the occassional speck of sphal &/or tetrahed. CA's generally average 55°		
		*			
	QCVN	(*)	59.50 - 60.82: 15-20% diffuse qtz-carb veining, tr py, occassional speck cpy, sphal or tetrahed. Veinlets with base metal sulfides 1-3cm dia & CA's ~ 50-60°.	CPS LTT	
		*			
			65.29 - 66.64; contorted graphitic section with 20-30% diffuse qtz-carb veining (some up to 4cm dia), tr-1% py overall, traces sphal, tetrahed & cpy.		
		*			
			69.26 - 69.62: contorted graphitic section with 30-40% diffuse qtz-carb veins, tr-1% py, plus several specks cpy, sphal & tetrahed. irreg CA's ~ 55°		
		*			
			70.71 - 71.07: contorted graphitic section with 30-40% diffuse qtz-carb veins, 1-2% py overall, veins have trace specks sphal, cpy and galena. CA's ~ 50°		
		*			

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE: Page 8

Property WINDFLOWER Project No. 224 Depth Date Began
Hole No. WIN 86 Co ord. Horizontal Length Date Completed
Claim No. Core Size Drilled By
Grid No. Angle & Grid Direction Elevation Logged By

INTERVAL FEET / (METRES)	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		77.95 - 78.05 : diffuse qtz - carb vein with tr py plus one small speck sphal.		
81.38		End of Hole (Hole cemented to top)		
		CASING REMOVED		
		Core Angles		
		1.47 M : 38° (bed // fol)		
		3.39 M : 45° irreg. (bed // fol)		
		5.30 M : 20° irreg (bed // fol)		
		8.22 M : 22° irreg (bed // fol)		
		10.55 M : 47° (bed // fol)		
		10.96 M : 55° (bed // fol)		
		12.00 M : 65° (bed // fol)		
		13.00 M : 38° (bed // fol)		
		14.00 M : 40° (bed // fol)		
		15.80 M : 45-50° (bed // fol)		
		21.50 M : 55° (bed // fol)		
		22.0 M → 36.9 M contorted.		
		36.9 M : bedding ~25° ; fol ~ 40°		
		44.81 M : 65° (bed // fol) contorted.		
		48.5 M : 40° (bed // fol) contorted		
		53.4 M : 35° (bed // fol) slight contort.		
		55.5 M : 43° (bed // fol)		
		57.0 M : 58° (bed // fol)		
		57 → 58.5m → ptigmatic folding incipient cleavage developing at 50° to core axis.		
		60.75 M : 35° (bed // fol) minor contort.		
		62.5 M : bedding = 70°, fol = 35°		
		65.2 M : bedding = - 35°, fol = + 55°		
		68.0 M : 44° (bed // fol) minor contort.		
		70.0 M : 30° (bed // fol) minor contort.		
		72.5 M : 30° (bed // fol) minor contort.		
		75.5 : 55° (bed // fol)		
		78.3 : 53° (bed // fol.)		
		81.0 : bedding = - 50°, fol = + 42°.		

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30876 - 30936 S] COMPLETE

GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE 1/5

Property WINDFLOWER Project No. 224 Depth 149.66 Date Began AUG. 1/87

Hole No. WIN - 87 Co ord. 10158.3 N Horizontal Length Date Completed AUG. 7/87

Claim No. L 12481 4882.25 E Core Size N.Q. Drilled By M & B. DRILLING

Grid No. Angle & Direction -71° S.31°30'E Elevation 1059.20 Logged By M. CANTWELL

CORE 1.0

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 5.79	CASING	5.79	0.00	0.0			
5.79 - 7.24	WASTE	1.45	.0.00	0.0			
7.24 - 7.59	28475	0.35	<.03	.3			
7.59 - 7.92	28476	0.33	<.03	.3			
7.92 - 8.17	28477	0.25	.05	.3			
8.17 - 8.39	28478	0.22	.04	.3			
8.39 - 8.64	28479	0.25	.08	.4			
8.64 - 8.98	28480	0.34	.03	.2			
8.98 - 9.23	28481	0.25	.04	.3			
9.23 - 11.30	WASTE	2.07	0.00	0.0			
11.30 - 11.55	28482	0.25	.03	.8			
11.55 - 12.14	28483	0.59	.08	.7			
12.14 - 12.36	28484	0.22	.04	1.0			
12.36 - 12.74	28485	0.38	.05	.9			
12.74 - 13.97	WASTE	1.23	0.0.0	0.0			
13.97 - 14.22	28486	0.25	0.05	.9			
14.22 - 14.66	28487	0.44	<.03	.8			
14.66 - 15.10	28488	0.44	<.03	.7			
15.10 - 15.68	28489	0.58	.03	.5			
15.68 - 16.29	28490	0.61	<.03	.8			
16.29 - 18.04	WASTE	1.75	0.00	0.0			
18.04 - 18.67	28491	0.63	.03	.6			
18.67 - 19.09	28492	0.42	.03	.9			
19.09 - 19.49	28493	0.40	<.03	.1			
19.49 - 19.79	28494	0.30	.03	.3			
19.79 - 20.12	28495	0.33	.03	.4			
20.12 - 20.38	28496	0.26	<.03	.3			
20.38 29.72	WASTE	9.34	0.00	0.0			
29.72 30.00	28497	0.28	.05	.4			
30.00 30.38	28498	0.38	.04	.2			
30.38 30.55	28499	0.17	.04	.2			
30.55 - 36.27	WASTE	5.72	0.00	0.0			
36.27 - 36.82	28500	0.55	.06	.4			
36.82 - 37.00	28501	0.18	.04	.1			
37.00 - 37.44	28502	0.44	.04	.1			
37.44 - 38.07	28503	0.63	.05	.3			
38.07 - 38.47	28504	0.40	.04	.2			
38.47 - 38.69	28505	0.22	.03	.1			
38.69 - 38.97	28506	0.28	.05	.2			
38.97 - 39.30	28507	0.33	.06	.3			

WIDTH X ASSAY

AVERAGES

WIDTH	Au.	Ag.	Cu.	Zn.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE 3/5

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN - 87 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Direction Elevation Logged By M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.	
39.30 - 39.63	28508	0.33	.07	<.1			
39.63 - 39.96	28509	0.33	.04	<.1			
39.96 - 40.41	28510	0.45	.06	<.1			
40.41 - 40.65	28511	0.24	.03	.2			
40.65 - 41.15	28512	0.50	.04	.1			
41.15 - 47.65	WASTE	6.50	0.00	0.0			
47.65 - 48.29	28513	0.64	.05	.4			
48.29 - 48.74	28514	0.45	.11	.1			
48.74 - 49.09	28515	0.35	.03	.1			
49.09 - 52.12	WASTE	3.03	0.00	0.0			
52.12 - 52.54	28516	0.42	<.03	<.1			
52.54 - 53.07	28517	0.53	<.03	<.1			
53.07 - 53.42	28518	0.35	<.03	<.1			
53.42 - 53.75	28519	0.33	<.03	<.1			
53.75 - 54.25	28520	0.50	<.03	<.1			
54.25 - 54.80	28521	0.55	<.03	<.1			
54.80 - 56.54	WASTE	1.74	0.00	0.0			
56.54 - 56.89	28522	0.35	.03	.4			
56.89 - 57.30	28523	0.41	.04	.5			
57.30 - 57.80	28524	0.50	<.03	.6			
57.80 - 58.35	28525	0.55	<.03	.5			
58.35 - 58.82	28526	0.47	<.03	.2			
58.82 - 59.11	28527	0.29	.04	.4			
59.11 - 59.78	28528	0.67	<.03	.2			
59.78 - 60.07	28529	0.29	.07	.4			
60.07 - 60.23	28530	0.16	<.03	.2			
60.23 - 60.77	28531	0.54	.05	.3			
60.77 - 61.40	28532	0.63	<.03	<.1			
61.40 - 61.75	28533	0.35	<.03	<.1			
61.75 - 62.79	28534	1.04	<.03	<.1			
62.79 - 63.25	28535	0.46	<.03	<.1			
63.25 - 63.50	28536	0.25	<.03	<.1			
63.50 - 64.62	WASTE	1.12	0.00	0.0			
64.62 - 64.84	28537	0.22	<.03	<.1			
64.84 - 64.96	28538	0.12	<.03	<.1			
64.96 - 65.36	28539	0.40	.03	.2			
65.36 - 67.06	WASTE	1.70	0.00	0.0			
67.06 - 67.29	28540	0.23	.13	.7			
67.29 - 67.47	28541	0.18	.05	.5			
67.47 - 68.10	28542	0.63	.11	.5			

WIDTH X ASSAY						

AVERAGES					
WIDTH	Au.	Ag.	Cu.	Zn.	

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

3/5

Property WINDFLOWER Project No. Depth Date Began

Hole No. WIN - 87 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Direction Elevation Logged By M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
68.10 - 68.40	28543	0.30	.04	.4															
68.40 - 68.62	28544	0.22	.05	.6															
68.62 - 68.89	28545	0.27	.03	.3															
68.89 - 69.40	28546	0.51	.03	.4															
69.40 - 69.73	28547	0.33	.03	.2															
69.73 - 70.18	28548	0.45	.03	.4															
70.18 - 70.60	28549	0.42	.11	.3															
70.60 - 71.98	WASTE	0.38	0.00	0.0															
71.98 - 72.17	28550	0.19	.10	.8															
72.17 - 72.30	28551	0.13	.06	.4															
72.30 - 72.55	28552	0.25	.10	.8															
72.55 - 73.80	WASTE	1.25	0.00	0.0															
73.80 - 74.11	28553	0.31	.11	.6															
74.11 - 74.44	28554	0.33	<.03	<.1															
74.44 - 74.84	28555	0.40	<.03	<.1															
74.84 - 75.20	28556	0.36	<.03	<.1															
75.20 - 77.16	WASTE	1.96	0.00	0.0															
77.16 - 77.46	28557	0.30	.04	.1															
77.46 - 78.03	28558	0.57	.03	<.1															
78.03 - 78.53	28559	0.50	.04	<.1															
78.53 - 79.03	28560	0.50	.09	<.1															
79.03 - 79.55	28561	0.52	.03	.1															
79.55 - 80.31	28562	0.76	.03	.2															
80.31 - 82.80	WASTE	2.49	0.00	0.0															
82.80 - 83.20	28563	0.40	.04	.2															
83.20 - 83.52	28564	0.32	<.03	.1															
83.52 - 84.12	28565	0.60	.09	.6															
84.12 - 87.48	WASTE	3.36	0.00	0.0															
87.48 - 88.10	28566	0.62	.07	.4															
88.10 - 88.70	28567	0.60	.11	.6															
88.70 - 89.09	28568	0.39	.17	.9															
89.09 - 89.46	28569	0.37	.13	.5															
89.46 - 89.71	28570	0.25	.20	1.1															
89.71 - 90.10	28571	0.39	.10	.6															
90.10 - 90.48	28572	0.38	.13	.8															
90.48 - 90.87	28573	0.39	.11	.6															
90.87 - 91.14	28574	0.27	.07	.3															
91.14 - 94.76	WASTE	3.62	0.00	0.0															
94.76 - 94.95	28575	0.19	<.03	.1															
94.95 - 95.30	28576	0.35	<.03	<.1															

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DIAMOND DRILL RECORD

Core 4/5

Property WINDFLOWER | Project No. | Depth | Date Began

Hole No. WIN - 87 | Co ord. | Horizontal Length | Date Completed

Claim No. | | Core Size | Drilled By

Grid No. | Angle & Direction | Elevation | Logged By M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
95.30-98.15	WASTE	2.85	0.00	0.0															
98.15-98.58	28577	0.43	.10	.5															
98.58-98.71	28578	0.13	<.03	<.1															
98.71-99.11	28579	0.40	.105	.3															
99.11-103.39	WASTE	3.28	0.00	0.0															
103.39-103.74	28580	0.35	.03	.1															
103.74-103.94	28581	0.20	.03	.2															
103.94-104.24	28582	0.30	.10	.7															
104.24-105.16	28583	0.90	.103	.2															
105.16-105.50	28584	0.34	.120	.9															
105.50-105.88	28585	0.38	.110	.8															
105.88-106.07	28586	0.19	<.03	<.1															
106.07-117.35	WASTE	1.28	0.00	0.0															
117.35-117.80	28587	0.45	<.03	<.1															
117.80-118.16	28588	0.36	.06	.9															
118.16-118.68	28589	0.52	.04	1.3															
118.68-119.18	28590	0.50	.11	.7															
119.18-119.70	28591	0.52	.09	.4															
119.70-120.20	28592	0.50	.12	2.0															
120.20-120.40	28593	0.20	.21	22.5															
120.40-121.00	28594	0.60	.05	.2															
121.00-121.31	28595	0.31	.03	.2															
121.31-122.07	28596	0.76	.03	.1															
122.07-122.40	28597	0.33	.04	.2															
122.40-123.00	28598	0.60	.11	1.3															
123.00-123.57	28599	0.57	.12	1.5															
123.57-123.75	28600	0.18	.13	2.7															
123.75-124.05	28601	0.30	.04	.1															
124.05-124.30	28602	0.25	.08	.8															
124.30-126.49	WASTE	2.19	0.00	0.0															
126.49-126.88	28603	0.39	.11	1.0															
126.88-127.18	WASTE	0.30	0.00	0.0															
127.18-127.45	28604	0.27	.09	.5															
127.45-128.02	28605	0.57	.09	.8															
128.02-128.63	WASTE	0.61	0.00	0.0															
128.63-128.97	28606	0.34	.12	.8															
128.97-129.31	28607	0.34	.14	.7															
129.31-129.44	28608	0.13	.07	.5															
129.44-129.94	28609	0.50	.11	.9															
129.94-130.57	28610	0.63	.09	.8															

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE 5/5

Property: WINDFLOWER | Project No.: 224 | Depth: | Date Began:

Hole No.: WIN - 89 | Co ord.: | Horizontal Length: | Date Completed:

Claim No.: | | Core Size: | Drilled By:

Grid No.: | Angle & Direction: | Elevation: | Logged By: M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES						
														WIDTH	Au.	Ag.	Cu.	Zn.		
130.57 - 130.95	28611	0.38	.07	.6																
130.95 - 131.45	28612	0.50	.08	.8																
131.45 - 131.75	28613	0.30	.08	.9																
131.75 - 133.02	WASTE	1.27	0.00	0.0																
133.02 133.42	28614	0.40	.08	.6																
133.42 - 133.65	28615	0.23	.04	.3																
133.65 - 134.11	28616	0.46	<.03	.3																
134.11 - 134.64	28617	0.53	<.03	.1																
134.64 - 135.04	28618	0.40	<.03	<.1																
135.04 - 135.55	WASTE	0.51	<.03	<.1																
135.55 - 135.85	28619	0.30	<.03	.1																
13585 - 136.44	28620	0.59	<.03	<.1																
136.44 - 136.74	28621	0.30	<.03	.1																
136.74 - 149.66	WASTE	12.92	0.00	0.0																
E.O.H																				
			HOLE ABANDONED DUE TO CAVE																	
			ACID @ 105.5 m = 71° 45'																	
			CASING REMOVED.																	

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DIAMOND DRILL RECORD

SLUDGE PAGE 1 OF 2

Property WINDFLOWER Project No. 224 Depth 149.66 Date Began AUG 1

Hole No. WIN 87 Co ord 10,158.3N Horizontal Length Date Completed AUG 7

Claim No. L-12481 4,882.25E -71°S Core Size N.Q Drilled By MAB DRILLING

Grid No. Angle & Direction 35E Elevation 1,059.20 Logged By T. LA FAVOR

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 5.79	CASING	5.79																	
5.79 - 7.92	30896	2.13	.08																
7.92 - 10.97	30897	3.05	<.03																
10.97 - 14.02	30898	3.05	.03																
14.02 - 17.07	30899	3.05	<.03																
17.07 - 20.12	30900	3.05	<.03																
20.12 - 23.16	30901	3.05	<.03																
23.16 - 26.21	30902	3.05	<.03																
26.21 - 29.26	30903	3.05	.05																
29.26 - 32.31	30904	3.05	.03																
32.31 - 35.36	30905	3.05	<.03																
35.36 - 38.40	30906	3.05	<.03																
38.40 - 41.45	30907	3.05	<.03																
41.45 - 44.50	30908	3.05	<.03																
44.50 - 47.55	30909	3.05	<.03																
47.55 - 50.60	30910	3.05	<.03																
50.60 - 53.64	30911	3.05	<.03																
53.64 - 56.69	30912	3.05	.05																
56.69 - 59.74	30913	3.05	.05																
59.74 - 62.79	30914	3.05	.06																
62.79 - 65.84	30915	3.05	.06																
65.84 - 68.88	30916	3.05	.06																
68.88 - 71.93	30917	3.05	.07																
71.93 - 74.98	30918	3.05	.10																
74.98 - 78.03	30919	3.05	.07																
78.03 - 81.08	30920	3.05	.04																
81.08 - 84.12	30921	3.05	<.03																
84.12 - 87.17	30922	3.05	.03																
87.17 - 90.22	30923	3.05	<.03																
90.22 - 93.27	30924	3.05	.07																
93.27 - 96.32	30925	3.05	.18																
96.32 - 99.36	30926	3.05	.13																
99.36 - 102.41	30927	3.05	.10																
102.41 - 105.46	30928	3.05	.13																
105.46 - 108.51	30929	3.05	.11																
108.51 - 111.56	30930	3.05	.11																
111.56 - 114.60	30931	3.05	.11																
114.60 - 117.65	30932	3.05	.15																
117.65 - 120.70	30933	3.05	.32																
120.70 - 142.04	30934	21.34																	

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

SLUDGE PAGE 2 OF 2

Property WINDFLOWER Project No. 224 Depth 149.66 m Date Began AUG 1

Hole No. WIN 87 Co ord. 10,158.3 N Horizontal Length Date Completed AUG 7

Claim No. L-12481 4,882.25 E Core Size NQ Drilled By MSB DRILLING

Grid No. Angle & Direction -71° S 35E Elevation 1,059.20 m Logged By T. LAFAVOR

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
142.04 - 145.08	30435	3.04	.12																
145.08 - 148.13	30436	3.05	.14																
148.13 - 149.66	NO RETURN	1.53																	
E.O.H.																			

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property: Windflower | Project No.: 224 | Depth: 149.66 | Date Began: August 1/87
Hole No.: Win 87 | Co ord.: 10158.3N | Horizontal Length: | Date Completed: August 7/87
Claim No.: L 12481 | 4882.25E | Core Size: NQ | Drilled By: M & B Drilling
Page: 1 of 10 | Grid No.: | Angle & Grid Direction: -71° Grid S-3° | Elevation: 1059.20 | Logged By: W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
0 - 5.79	CSG	No Core Recovery - Overburden		
5.79 - 12.74	G4	Calcareous Graphitic Argillite		QCVN
		Light grey and black, Thinly bedded (cm mm To cm Scale) unit consisting of alternating calcareous and graphitic beds. Odd Thicker laminated grey calcareous argillite and/or dolomite beds to 68cm Thick compose 25% of unit. 8-10% irregular, moderately brecciated quartz-Carbonate Veins to 3.5cm wide. Most Concentrated Veining at:		
		7.59 - 7.92: 20-25% qtz-Carbonate Veins to 3.5cm at 35-40° To Core axis. No Visible mineralization.		
		8.64 - 8.98: 30% quartz-Carbonate Veins to 2.5cm at 20-25° To Core axis. Trace Sphalerite blebs to 1mm.		
		11.30 - 11.55: 15-20% quartz-Carbonate Veins to 2.5cm at 30°, 50° to Core axis. Trace Pyrite		
		12.14 - 12.36: 25% irregular quartz vein fragments to 7cm in graphitic argillite band. Trace Pyrite		
		Good ground with 3-5 fractures/meter at 35°-50° To Core axis. Fractures mainly along foliation and/or bedding planes.		
12.74 - 16.29	G4	Graphitic Argillite		
		Black, Slightly Schistose with 3-5% thin, diffuse Carbonate veins which are mainly Subparallel to Schistosity.		
		14.22 - 15.10: Quartz Carbonate Vein at 15° To Core axis and Containing rare Sphalerite blebs to 5mm.		
		Good ground with 2-4 fractures/meter at 25-35°, and irregular Core angles except for blocky ground (>20 fractures/meter) and Somewhat Friable graphitic argillite from 15.68 - 16.00.		

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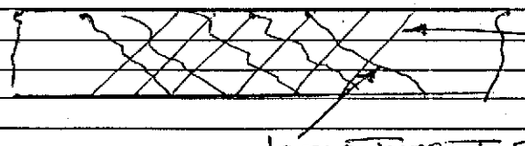
GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property: Wind Flower | Project No.: 224 | Depth: 149.66m | Date Began: August 1/87
Hole No.: W.in.87 | Co ord.: 1015S.3N | Horizontal Length: | Date Completed: August 7/87
Claim No.: L12481 | 4882.25E | Core Size: NQ | Drilled By: M.e.B. Drilling
Page: 2 of 10 | Grid No.: | Angle & Grid Direction: -71° @ Grid S-3 | Elevation: 1059.20m | Logged By: W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
16.29 - 18.07	AR	Laminated Calcareous Argillite Grey, thinly laminated (2-3mm laminae) unit with 30% irregular graphitic argillite bands to 2cm wide. Bedding laminae wavy and 55-60° to core axis. Micro shears at 50° to core axis. Trace - 1% pyrite.  Less than 5% diffuse thin carbonate - quartz veining, mainly concentrated in graphitic argillite sections. Trace pyrite in veins. Good ground with 2 fractures/meter at 50-55° to core axis and mostly coincident with microshear planes.		
18.07 - 118.16	GA	Graphitic Argillite	MS CB	QCVN
		Black, poorly schistose unit with very occasional grey, laminated calcareous argillite sections. From 5-15% diffuse carbonate veins and quartz carbonate veining throughout. Veins variably fragmented and carry trace pyrite. Most concentrated and/or thickest individual veins at: 18.67 - 19.49: 20% quartz - carbonate veining to 2.5cm at 10-30° to core axis. Trace sphalerite. 30.38 - 30.55: Brecciated quartz vein. No visible mineralization. 36.27 - 37.00: 10-15% sericite - quartz - carbonate vein fragments to 3cm. Trace pyrite. 38.97 - 39.63: 15-20% quartz - carbonate veins to 2cm at 50°, 80° and 20° to core axis. No visible mineralization.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property: Wind Flower | Project No.: 224 | Depth: 149.66 | Date Began: August 7/87
Hole No.: Win 87 | Co ord.: 10158.3N | Horizontal Length: | Date Completed: August 7/87
Claim No.: L12481 | 4882.25E | Core Size: NQ | Drilled By: M.B. Drilling
Page: 3 of | Grid No.: | Angle & Grid Direction: -71° @ Grid S-35°E | Elevation: 1059.20m | Logged By: W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
18.07 - 118.16		Graphitic Argillite (Continued)		
		38.47 - 38.69: Sericitic - qtz - Carbonate vein at 40-45° to core axis. Trace pyrite		
		39.96 - 40.10: 30% quartz - Carbonate veining and vein fragments. Trace pyrite.		
		40.10 - 40.65: Qtz - Carbonate vein at 45° to core axis. No visible mineralization.		
		52.12 - 54.80: 15% quartz - Carbonate vein fragments to 3cm and diffuse thin carbonate veins combined. Disrupted veins give unit a chaotic - brecciated look. Odd 1-3mm speck of sphalerite in vein material as at 52.16, 53.38. Trace sphalerite and tetrahedrite in 2cm quartz - Carbonate vein at 40° to core axis at 53.12.		
		57.30 - 60.77: 25% quartz - Carbonate veins to 23cm at 20-30° to core axis. Trace pyrite in veins at contacts as well as following localized mineralization:		
		57.83 - Trace chalcopyrite in 4cm, 60° vein		
		58.35 - 58.82: 4-5cm, 20° vein with trace sphalerite.		
		61.40 - 61.75: blocky/rubbly quartz - Carbonate and graphitic schist fragments to 2cm. Quartz - Carbonate fragments comprise 50-60% of rubble and carry trace pyrite.		
		63.25 - 63.50: 50-55% irregular quartz - Carbonate vein fragments. Trace chalcopyrite, sphalerite and tetrahedrite as isolated blebs to 2mm.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property: Wind Flower | Project No.: 224 | Depth: 149.66 | Date Began: August 1/87
Hole No.: Win 87 | Co ord.: 10158.3N | Horizontal Length: | Date Completed: August 7/87
Claim No.: L12481 | 4882.25E | Core Size: NQ | Drilled By: M&B Drilling
Page: 4 of | Grid No.: | Angle & Grid Direction: -71° @ Grid S-35E | Elevation: 1059.20m | Logged By: W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
18.07 - 118.16		Graphitic Argillite (Continued)		
		64.86 - 64.96: Quartz-Carbonate Vein with irregular, Sheared Contacts and 30% argillite inclusions. Trace Pyrite		
		67.29 - 67.47: 15-20% Veins to 2cm with Contacts and very Shallow and irregular angles to Core axis. Trace Sphalerite and Pyrite.		
		68.62 - 68.89: 60% quartz-Carbonate Veins including 10 cm Vein at 60°-65° to core axis which carries Trace Tetrahedrite		
		69.40 - 70.60: 20-30% Veins to 3cm at 40-60° to Core axis. Trace Sphalerite in 3cm vein fragment at 69.98.		
		74.11 - 74.44: 30% irregular Vuggy quartz-Carbonate Veins to 4 cm with Several 1-2 mm Sphalerite blebs.		
		74.84 - 75.20: 50-55% irregular Vuggy Veins and vein fragments to 12 cm with Trace Sphalerite.		
		77.16 - 80.31: 20-40% quartz-Carbonate Veins to 4 cm with irregular variable Contact angles (0°, 20°, 40°) to Core axis. Trace Sphalerite in Veins at 77.50, 78.48, 78.65, 79.08.		
		83.20 - 83.52: 60% quartz Carbonate Veins to 4 cm at 35° to Core axis. 3 blebs Sphalerite (to 1mm) in one vein.		
		86.71 - 87.40: Weakly fuchsite altered dolomite with trace-2% disseminated pyrite.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

Property: Wind Flower | Project No.: 224 | Depth: 149.66 m | Date Began: August 1/87
Hole No.: Win 87 | Co ord.: 10158.3N | Horizontal Length: | Date Completed: August 7/87
Claim No.: L12481 | 4882.25E | Core Size: NQ | Drilled By: M & B Drilling
ZONE: | Page: 5 of | Grid No.: | Angle & Grid Direction: -71° @ Grid S-35°E | Elevation: 1059.20m | Logged By: W. Stefaniw

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
18.07 - 118.16		Graphitic Argillite (Continued)		
		87.48 - 88.10 : 25% Veins to 3cm at shallow angles to core axis - Veins vuggy locally and coarse. Trace - 1% pyrite and trace sphalerite.		
		89.09 - 89.46 : 15% quartz vein fragments to 1.5cm at 20-25° to core axis. Trace pyrite - sphalerite.		
		90.48 - 91.14 : 15% quartz - carbonate vein and vein fragments. Trace pyrite.		
		94.75 - 94.95 : Blocky - fractured quartz vein with 1-2% fg. pyrite at contacts and on graphite slips		
		94.95 - 95.30 : Yellow Sericite - Carbonate band with 10% late carbonate - quartz veins to 5mm at 45-60°. Weak fuchsite alteration, trace pyrite.		
		98.58 - 98.71 : Blocky, bull quartz vein with 1% fine to medium grained euhedral pyrite.		
		103.74 - 103.94 : Blocky ground with 20-30% quartz - carbonate vein material containing trace sphalerite.		
		105.88 - 106.07 : Blocky - rubbly core including 50% quartz - carbonate vein fragments. Trace pyrite.		
		117.35 - 118.16 : Grey to cream colored, massive, medium grained, very weakly fuchsitic dolomite. 1% disseminated pyrite.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property: Windflower | Project No.: 224 | Depth: 149.66 m. | Date Began: August 1/87
Hole No.: W.n.87 | Co ord.: 10,158.3N | Horizontal Length: | Date Completed: August 7/87
Claim No.: L12481 | 4882.25E | Core Size: NQ | Drilled By: M.E.B. Drilling
Page: 6 of | Grid No.: | Angle & Grid Direction: -71° @ Grid S-35° E | Elevation: 1059.20 m. | Logged By: W. Stoltenau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
18.07-124.05		Graphitic Argillite (Continued)		
		From 18.07-48.79 is good-moderate ground with 3-6 fractures/meter. Exceptions are:		
		20.38-21.74: blocky ground with 20-25 fractures/meter at 20-35° to core axis.		
		22.53-22.88: rubble/blocky ground. Largest fragment 6 cm.		
		22.88-24.94: 10-12 fractures/meter along 45°-60° schistosity.		
		24.94-26.21: blocky ground with >20 fractures/meter at 45°-50° to core axis.		
		26.21-31.62: rubble to blocky core and minor gouge. Most core fragments < 4 cm.		
		31.62-32.46: 70% core loss. Graphitic argillite rubble.		
		32.46-33.53: 100% core loss.		
		33.53-34.75: 60% core loss. Mostly graphitic argillite fragments < 4 cm and minor gouge.		
		34.75-35.05: 60% core loss. Argillite chips < 3 cm.		
		35.05-36.27: blocky core/rubble. Most core fragments < 6 cm. Fractures at 50-60°.		
		38.07-38.19: graphitic argillite gouge.		
		47.55-47.88: Blocky ground. Most fragments < 5 cm. Fractures at 25-45° to core axis.		
		48.20-48.79: Very blocky. Fractures at 0°, 30° and irregular angles to core axis.		
		48.79-56.89: Moderate ground with 4-8 fractures/meter at 20-50° to core axis. Rubble from 54.86-55.67.		
		56.89-57.30: rubble and blocky, friable graphitic argillite. Largest core fragment 5 cm. Fractures at 45°. Very poor ground.		
		From 57.30-82.40 is generally moderate ground with 3-6 fractures per meter at 5°, 30°, 50-60° to core axis. Exceptions are as follows:		
		57.90-60.27: blocky with 10-15 fractures/meter at 30°		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property: Wind Flower | Project No.: 224 | Depth: 149.66 m | Date Began: August 1/87
Hole No.: Win 87 | Co ord.: 10158.3N | Horizontal Length: | Date Completed: August 7/87
Claim No.: L12481 | 4882.25E | Core Size: NQ | Drilled By: M.e.B Drilling
Page 7 of | Grid No.: | Angle & Grid Direction: -71° @ Grid S-35° E | Elevation: 1059.20m | Logged By: W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
118.07-124.05	GA	Graphitic Argillite (Continued)		
		61.95-67.06: blocky core with 10-20 fractures/meter and rubble zones from 61.95-61.70, 62.93-63.25, 64.00-64.78, 65.36-65.68, 65.93-66.08. Sandy and pebbly gouge and 95% lost core from 62.04-62.64.		
		70.18-74.11: blocky to rubbly and locally friable graphitic argillite. Core fragments < 7cm. Fracture angles of 25-50°.		
		74.60-75.55: blocky core		
		77.16-77.96: blocky core		
		78.16-82.40: rubble and blocky core with largest fragment 10cm		
		82.50-86.71: Mainly blocky core with most fragments < 10cm. Rubble from 82.65-83.20, 86.56-86.71. Fractures at 20-35°, 60°.		
		86.71-90.97: Moderate ground with 4-5 fractures/meter at 10-20, 60° To core axis, blocky from 87.4-87.98, 88.50-88.78		
		90.97-93.27: Mostly rubble and < 10% vein material. Core fragments < 3cm.		
		93.27-94.95: Mostly rubble to 94.75. Blocky qtz vein remainder of section.		
		94.95-106.07: Very blocky with > 20 fract/m. and most fragments < 5cm. Rubble from 95.55-96.52, 96.77-97.10, 98.15-99.11, 99.98-100.28, 100.76-106.43. 30% lost core from 101.80-103.94. 50% lost core from 103.94-104.24. 85% lost core from 104.24-105.16.		
		106.43-114.66: Very poor ground. Mainly pebbly rubble to 108.81. Clayly to Sandy gouge from 108.81-114.66. 90% core loss and 28 cm of gouge recovered from 108.81-111.56. 80% core loss and 67cm clayey gouge from 111.56-114.66		
		114.66-117.00: Moderate ground. 3-6 fract/m. at 10-50° To core axis		
		117.00-124.10: Very poor ground. Mostly pebble rubble. Most fragments < 5cm. 75% core loss and 18cm rubble/gouge from 121.31-122.97		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

Property: Windflower | Project No.: 224 | Depth: 149.66 m | Date Began: August 7/87
Hole No.: Win 87 | Co ord.: 10158.3N | Horizontal Length: | Date Completed: August 7/87
Claim No.: L12481 | 1882.25E | Core Size: NQ | Drilled By: M.B. Drilling
ZONE: | Page: 8 of | Grid No.: | Angle & Grid Direction: -71° @ Grid S-35°E | Elevation: 1059.20 m | Logged By: W. Stokstead

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
118.16 - 124.05	QC.BK	Blocky and Rubbly Quartz - Carbonate Vein	CH GR PY SL TI	
		118.16 - 120.40 : Slightly to moderately brecciated quartz-carbonate vein crosscut by 20-40% anastamosing, schistose chlorite - graphite - carbonate shears 1 to 2cm wide. Shears carry 5-7% pyrite. Vein from 118.68 - 120.20 carries trace tetrahedrite and sphalerite. From 120.30 - 120.40 is 1-2% irregular sphalerite blebs to 7cm.		
		120.40 - 121.31 : QTZ - carbonate vein rubble. Trace 1% pyrite.		
		121.31 - 123.57 : Quartz - carbonate vein breccia. Angular quartz vein fragments 1 to 4cm in a chaotic matrix of smaller quartz vein fragments and cut by late veining. 3-10% disseminated medium to coarse grained pyrite.		
		123.57 - 124.05 : More massive quartz vein. From 123.57 - 123.75 contains 5% pyrite in irregular stringers and disseminations in chlorite - graphite shears and inclusions.		
124.05 - 133.65	GA	Graphitic Argillite		QCVN
		Much sheared schistose graphitic argillite with numerous angular fragments of fine grained grey carbonate veins, quartz carbonate veins and calcareous graphitic argillite bands. Fragments aligned at 0-20° to core axis. Overall 7-10% quartz - carbonate veins and vein fragments to 17 cm with best veined sections as follows:		
		127.18 - 127.45 : quartz - carbonate vein with 20% irregular graphitic argillite fragments. Trace pyrite. Vein foliations and contacts at 45° to core axis.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

Property: Wind Flower | Project No.: 224 | Depth: 149.66 m | Date Began: August 1/87
Hole No.: Win.87 | Co ord.: 10158.3N | Horizontal Length: | Date Completed: August 7/87
Claim No.: L12481 | 4882.25E | Core Size: NQ | Drilled By: M.E.B. Drilling
ZONE: | Page 9 of | Grid No.: | Angle & Grid Direction: -71° @ Grid S-35°E | Elevation: 1059.20m | Logged By: W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
124.05 - 133.65		Graphitic Argillite (Continued)		
		129.39 - 129.44: 15-20% quartz-carbonate vein fragments to 2.5cm with trace sphalerite and chalcopyrite. 50° core angles for vein fragment alignments.		
		130.67 - 131.45: 20% veins at 0° and 30° to core axis. Trace - 1% pyrite.		
		133.42 - 133.65: 40% quartz-carbonate veins to 8 cm at 45°-50° to core axis. Trace sphalerite, chalcopyrite, pyrite		
		Ground conditions as follows in graphitic argillite:		
		124.05 - 128.63: Poor. Very blocky and rubbly with most core fragments < 9cm. Graphitic fractures at 0°, 30° to core axis.		
		128.63 - 131.50: Good with 4 fractures/meter at 35° except for 5 cm of rubble at 31.00 - 31.05.		
		131.50 - 133.65: Very poor blocky/rubbly ground with numerous low angle (0-50) graphitic fractures		
133.65 - 149.66	DO	Sericitic Dolomite.	MS Fu	QCVN
		Yellow and grey striped, moderately well foliated, fine grained unit.		
		133.65 - 135.04: Qtz-carbonate vein with patchy yellow sericite alteration to 134.64. From 134.64 - 135.04 is 20% veins to 3cm. Trace irregular sphalerite blebs to 5mm. in veins as well as isolated fuchsitic clots.		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property Wind Flower | Project No. 224 | Depth 149.66 m | Date Began August 1/87
Hole No. Win87 | Co ord. 10158.3N | Horizontal Length | Date Completed August 7/87
Claim No. L12481 | 4882.25E | Core Size NQ | Drilled By M.E.B. Drilling
Page 10 of 10 | Grid No. | Angle & Grid Direction -71° @ Grid S-3 | Elevation 1059.2 m | Logged By W. Stetenau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
133.66-149.66		Sericite Dolomite (Continued)		
		135.04-141.60: Sericite dolomite with 5% quartz-carbonate veining. Trace pyrite in both veins and dolomite. Veins at 25°, 75° to core axis. Several 1-4cm qtz-carbonate veins at 70-80° to core axis between 135.85-136.44.		
		141.60-142.72: Very weakly chloritic and/or graphitic argillaceous dolomite. Less than 5% veining and Trace-1% disseminated pyrite.		
		142.72-146.43: As at 135.04-141.68.		
		146.43-149.66: 25-50% diffuse irregular carbonate-quartz veins with indistinct vague contacts. Trace 1% disseminated pyrite.		
		Good ground with 0-3 fractures/meter at 15°, 45°, 60° to core axis and subparallel to local foliation.		
149.66		End of Drillhole. Hole caved in and abandoned.		
		AC10 @ 108.5 m = 71° 45'		

Core Foliation - Shearing Angles

7.0 meters	30-35	42 meters	50°	81.5 meters	30°	123.0 meters	0-5°
8.0 "	35°	44 meters	45°	83.52 "	50°	126.0 "	0°
9.5 "	30°	49 "	40°	85 "	50-66°	127.0 "	0-15°
14.0 "	25°	51 "	40°	90 "	50°	128.62 "	20-25°
18.5 "	35°	53.75 "	40°	96.2 "	50°	133 "	0°
21.0 "	40°	61 "	60°	100 "	45°	134.5 "	35°
23.5 "	50°	65 "	90°	114.66 "	20°	138.9 "	50°
26 "	40°	67.5 "	35°	116.13 "	45°	142.0 "	35°
29 "	70°	69.5 "	35°	117.35 "	55°	145.0 "	50°
37 "	45°	72.3 "	23°	118.50 "	10-15°	149.6 "	50°
39 "	65°	76 "	0°	119.50 "	5°		

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30129 - 30153 5 } COMPLETE

GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE 1/3

Property WINDFLOWER Project No. 224 Depth 101.80 Date Began AUGUST 4/87

Hole No. WIN - 88 Co ord. 10243N Horizontal Length Date Completed AUG. 9/87

Claim No. L 12481 4916E Core Size N.Q. Drilled By M & B. DRILLING

Grid No. Angle & Direction -66° 582°E Elevation ~~1067.51~~ 1051.31 Logged By M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES WIDTH	Au	Ag			
0 - 26.09	CASING	26.09	0.00	0.0															
- 26.09	WASTE		0.00	0.0															
26.09 - 26.36	28622	0.27	.04	.1															
26.36 - 26.47	28623	0.11	.05	.2															
26.47 - 26.97	28624	0.50	<.03	.1															
26.97 - 29.20	WASTE	2.23	0.00	0.0															
29.20 - 29.64	28625	0.44	.06	.5															
29.64 - 30.18	28626	0.54	.04	.1															
30.18 - 30.58	28627	0.40	<.03	.1															
30.58 - 31.09	28628	0.51	<.03	.2															
31.09 - 31.54	28629	0.45	<.03	.1															
31.54 - 32.04	28630	0.50	<.03	.1															
32.04 - 32.54	28631	0.50	<.03	.2															
32.54 - 32.85	28632	0.31	.10	.2			NOTE: SEE OTHER ASSAY SHEET FOR RESULTS												
32.85 - 40.84	WASTE	7.99	0.00	0.0															
40.84 - 41.24	28633	0.40	.03	.3															
41.24 - 41.64	28634	0.40	.04	.4															
41.64 - 42.04	28635	0.40	<.03	.2															
42.04 - 42.44	28636	0.40	<.03	.1															
42.44 - 42.63	28637	0.19	.04	.4															
42.63 - 42.80	28638	0.17	<.03	<.1															
42.80 - 43.22	28639	0.44	<.03	<.1															
43.22 - 43.51	28640	0.29	<.03	.1															
43.51 - 43.82	28641	0.31	<.03	.3															
43.82 - 44.26	28642	0.44	<.03	.1															
44.26 - 44.69	28643	0.43	<.03	.2															
44.69 - 45.10	28644	0.41	<.03	.2															
45.10 - 47.13	WASTE	1.03	0.00	0.0															
47.13 - 47.34	28645	0.21	<.03	.2															
47.34 - 47.58	28646	0.24	<.03	.2															
47.58 - 47.85	28647	0.27	<.03	.2															
47.85 - 48.02	28648	0.17	<.03	.1															
48.02 - 48.13	28649	0.11	<.03	.3															
48.13 - 48.43	28650	0.30	<.03	<.1															
48.43 - 49.06	WASTE	0.63	0.00	0.0															
49.06 - 49.63	28651	0.57	<.03	<.1															
49.63 - 49.90	28652	0.27	<.03	<.1															
49.90 - 57.30	WASTE	7.40	0.00	0.0															
57.30 - 57.50	28653	0.20	<.03	.2															
57.50 - 57.84	28654	0.34	<.03	.1															

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,753

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE 2/3

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN-88 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Direction Elevation Logged By M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
57.84 - 58.30	28655	0.46	<.03	.1															
58.30 - 59.60	28656	0.30	<.03	.2															
59.60 - 61.52	WASTE	2.92	0.00	0.0															
61.52 - 61.95	28657	0.43	<.03	.3															
61.95 - 62.07	28658	0.12	<.03	.1															
62.07 - 62.37	28659	0.30	<.03	.2															
62.37 - 65.04	WASTE	2.67	0.00	0.0															
65.04 - 65.31	28660	0.27	<.03	.1															
65.31 - 65.45	28661	0.14	<.03	.1															
65.45 - 65.69	28662	0.24	<.03	.1															
65.69 - 69.81	WASTE	4.12	0.00	0.0															
69.81 - 70.28	28663	0.47	.12	.7															
70.28 - 70.36	28664	0.08	.03	.2															
70.36 - 70.66	28665	0.30	<.03	.1															
70.66 - 75.29	WASTE	1.63	0.00	0.0															
75.29 - 75.57	28666	0.28	<.03	<.1															
75.57 - 75.72	28667	0.15	<.03	<.1															
75.72 - 76.06	28668	0.34	<.03	<.1															
76.06 - 84.23	WASTE	8.17	0.00	0.0															
84.23 - 84.39	28669	0.16	<.03	.1															
84.39 - 86.42	WASTE	2.03	0.00	0.0															
86.42 - 86.71	28670	0.29	.06	.3															
86.71 - 87.12	28671	0.41	.10	.6															
87.12 - 87.50	28672	0.38	.05	.3															
87.50 - 87.74	28673	0.24	.07	.5															
87.74 - 88.05	28674	0.31	.07	.4															
88.05 - 88.35	28675	0.30	.08	.5															
88.35 - 92.80	WASTE	4.45	0.00	0.0															
92.80 93.24	28676	0.44	.10	.5															
93.24 - 93.70	28677	0.46	.06	.4															
93.70 - 94.10	28678	0.44	.07	.6															
94.10 - 94.56	28679	0.46	.14	.5															
94.56 - 94.89	28680	0.33	.09	.7															
94.89 - 95.29	28681	0.40	.13	.5															
95.29 - 95.59	28682	0.30	.14	.7															
95.59 - 95.97	28683	0.38	.09	.3															
95.97 - 97.65	WASTE	1.68	0.00	0.0															
97.65 - 97.95	28684	0.30	.14	.6															
97.95 - 98.15	28685	0.20	.08	.3															
98.15 - 98.70	WASTE	0.55	0.00	0.0															

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE 3/3

Property WINDFLOWER Project No. Depth Date Began

Hole No. WIN-88 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Direction Elevation Logged By M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
98.70-99.00	28686	0.30	.08	.1															
99.00-99.19	28687	0.19	.06	.2															
99.19-99.64	28688	0.45	.11	.2															
99.64-100.32	28689	0.68	.13	.3															
100.32-100.40	28690	0.08	.07	.2															
100.40-100.79	28691	0.39	.16	.3															
100.79-101.39	28692	0.60	.15	.3															
101.39-101.80	28693	0.41	.16	.3															
E.O.H																			
			ACID TEST @ 18.3m =					67°	15'										
HOLE LOST																			
					@ 102.4 m =			71°	15'										
			CASING Removed.																

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

SLUDGE PAGE 1 OF 1

Property WINDFLOWER Project No. 424 Depth 101.80 Date Began AUG 7
Hole No. WIN 88 Co ord. 10243N Horizontal Length Date Completed AUG 9
Claim No. L-12481 4916E Core Size NQ Drilled By M&B DRILLING
Grid No. Angle & Direction -66°S 82°E Elevation 2,019.31 Logged By T.LA FAVOR

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 17.37	CASING	17.37																	
17.37 - 23.47	no return	6.10																	
23.47 - 26.52	30129	3.05	.09																
26.52 - 29.57	30130	3.05	<.03																
29.57 - 32.61	30131	3.05	<.03																
32.61 - 35.66	30132	3.05	.08																
35.66 - 38.71	30133	3.05	36.81																
38.71 - 41.76	30134	3.05	.14																
41.76 - 44.81	30135	3.05	.08																
44.81 - 47.85	30136	3.05	.09																
47.85 - 50.90	30137	3.05	.06																
50.90 - 53.95	30138	3.05	.07																
53.95 - 57.00	30139	3.05	<.03																
57.00 - 60.05	30140	3.05	.08																
60.05 - 63.09	30141	3.05	<.03																
63.09 - 66.14	30142	3.05	<.03																
66.14 - 69.19	30143	3.05	<.03																
69.19 - 72.24	30144	3.05	<.03																
72.24 - 75.29	30145	3.05	.06																
75.29 - 78.33	30146	3.05	.08																
78.33 - 81.38	30147	3.05	.04																
81.38 - 84.43	30148	3.05	.05																
84.43 - 87.48	30149	3.05	.06																
87.48 - 90.53	30150	3.05	.07																
90.53 - 93.57	30151	3.05	.03																
93.57 - 96.62	30152	3.05	.13																
96.62 - 99.67	30153	3.05																	
99.67 - 101.80	no return	2.13																	
HOLE ABANDONED	0																		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property Wind Flower | Project No. 224 | Depth 101.80 m. | Date Began August 4/87
Hole No. Win 88 | Co ord. 10243 N | Horizontal Length | Date Completed August 9/87
Claim No. L 1248 | 4916 E | Core Size NQ | Drilled By M.E.B. Drilling
Page 1 of 6 | Grid No. | Angle & Grid Direction -66° S-82°E | Elevation 1067.51 | Logged By W. Stotteau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
0-17.69	CSG	No Core Recovery - Overburden		
17.69-40.84	AR	Grey, laminated Calcareous Argillite.	MSCG	BCVN
		Fine to medium grained with grey Carbonate - plagioclase - quartz laminae from 1-4 mm outlined and separated by very thin (< 1mm) Chlorite - Sericite - graphite planes. Graphitic interbeds comprise 15% of unit with thickest ones at 29.10 - 29.64, 30.18 - 33.40, 39.78 - 40.84. Sericite - Carbonate band from 35.79 - 36.00. (HIGH SLUDGE LOSS = 36.82 g/f)		
		Unit normally has less than 5% quartz - Carbonate veining which carrys Trace - 1% pyrite. Best veined sections are at:		
		17.69 - 23.07 m: Silicified, quartz - Carbonate and highly sheared argillite (grey laminated). Original features of argillite largely obliterated by Silicification and shearing + qtz-Carbonate veining. Shears sub-parallel to Core axis. Trace - 1% pyrite.		
		26.36 - 26.47: Contains 4.5cm qtz-Carbonate vein at 45-50° to core axis. Trace Sphalerite blebs to 1mm.		
		29.47 - 29.64: 7cm vein at 55° to Core axis. Trace Pyrite		
		30.18 - 31.09: Graphitic argillite with 60-65% brecciated) vein fragments to 8cm. Trace pyrite and odd Sphalerite bleb to 3mm.		
		31.54 - 32.85: Calcareous graphitic argillite with 25-30% brecciated qtz-Carbonate vein fragments to 5cm. Trace pyrite.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property Wind Flower | Project No. 224 | Depth 101.80 m | Date Began August 4/87
Hole No. Win 88 | Co ord. 10243N | Horizontal Length | Date Completed August 9/87
Claim No. L 12481 | 4916E | Core Size NQ | Drilled By M.E.B. Drilling
Page 2 of 6 | Grid No. | Angle & Grid Direction -66° @ S-83°E | Elevation 2019.31 m | Logged By W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
40.84-42.44	QCAR	Graphitic Argillite and Quartz-Carbonate Veining.		
		Sixty percent (60%) irregular quartz-carbonate veins to 20cm with irregular contacts generally 30°-60° to core axis. Trace pyrite.		
42.44-61.00	ARGA	Grey laminated Calcareous Argillite with Graphitic Argillite interbeds.		QCVN
		Grey, medium grained, thinly laminated Calcareous argillite with 10% graphitic argillite and calcareous graphitic argillite sections. The widest graphitic sections occur from 43.89-44.69, 46.63-47.34, 49.93-51.30, 54.56-55.50 and 56.96-58.08. Approximately 10% quartz-carbonate veining over entire unit with most concentrated veining at:		
		42.63-42.80: 60% irregular quartz-carbonate veins. No mineralization.		
		43.22-43.51: 45% quartz-carbonate veins to 9 cm at 76° to core axis. Trace sphalerite.		
		47.34-47.58: QTZ-carbonate vein at 50° to core axis. Trace Py.		
		48.02-48.13: 40% veining to 5cm at 60° to core axis. Trace Py.		
		49.06-49.63: Sericitized, weakly kaolinite QTZ-carbonate vein. Moderately brecciated with several percent fine to medium grained pyrite in some sericitic patches.		
		57.84-58.39: 25-30% quartz-carbonate veining to 7cm. Vein contacts irregular but approx. 60-70°. Trace Py.		
		Ground conditions in grey laminated argillite as follows:		
		42.44-54.56: Moderate-good ground with 5 fractures/meter at 30° to core axis. Blocky sections with 15 to greater than 20 fractures/meter from 43.51-43.89, 46.63-47.13, 50.10-50.90,		

GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property: Windflower | Project No.: 224 | Depth: 101.80 m | Date Began: August 4/87
Hole No.: Win.88 | Co ord.: 10243N | Horizontal Length: | Date Completed: August 9/87
Claim No.: L12481 | 4916E | Core Size: NQ | Drilled By: M.E.B. Drilling
Page: 3 of 6 | Grid No.: | Angle & Grid Direction: -66° @ S-82°E | Elevation: 2019.31 m | Logged By: W. Stefaniuk

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
42.44-61.08	ARG1	Grey Laminated Calcareous Argillite with Graphitic Argillite Interbeds (Continued).		
		54.56-57.30: Moderate-poor ground with 5-10 Fractures/meter at 0-35° To Core axis. Blocky/rubbly From 57.00-57.30		
		57.30-61.08: Moderate ground with 3-7 Fractures/meter at 25-30° To Core axis		
61.08-74.12	G1	Graphitic Argillite		
		Massive To Locally Schistose with 15% grey Calcareous graphitic argillite and laminated Calcareous argillite interbeds 5 To 70 Cm wide. Approximately 5% quartz-Carbonate Veining over whole unit with best Veining at:		
		61.52-61.95: 25% QTZ-Carbonate Veins and Vein Fragments To 3 Cm at 25-30° To Core axis. 1-3% Pyrite Mainly Concentrated within Several Carbonate-Sulphide (30-90%)-quartz Vein fragments.		
		61.95-62.07: QTZ-Carbonate Vein at 25° To Core axis with 1-2% Pyrite.		
		65.31-65.45: Irregular quartz-Carbonate Vein with 40% angular inclusions and Trace Sphalerite and Pyrite.		
		65.63-65.69: 4.5 Cm QTZ-Carbonate Vein at 60° To Core axis. No Visible mineralization.		
		70.28-70.36: Sheared foliated (90°) quartz-Carbonate Vein. Non mineralized.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property Windflower Project No. 224 Depth 101.80 m Date Began August 4/87
Hole No. Win 88 Co ord. 10243N Horizontal Length Date Completed August 9/87
Claim No. L 12481 4916E Core Size NQ Drilled By M & B Drilling
Page 4 of 6 Grid No. Angle & Grid Direction -66 @ S-82°E Elevation 2019.31m Logged By W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
61.08 - 74.12		Graphitic Argillite (Continued)		
		Ground conditions in graphitic argillite are poor overall with 6-8 fractures/meter at 15-80° to core axis and blocky/rubbly (locally friable) sections from 62.07-62.23, 62.88-63.33, 61.08-61.53, 64.74-65.04, 66.02-66.15, 66.84-70.71, 71.90-73.26. 65% lost core and pebbly rubble from 69.19-69.80. 35% lost core and rubble from 71.93-72.39.		
74.12-83.25	DO	Dolomite	FU PY	
		Light brown, moderately well foliated, weakly fuchsitic dolomite with crushed look and overall 5-10% recognizable subrounded to irregular qtz-carbonate vein inclusions. Fragments mostly < 1cm. Two 1.5-2cm wide veins at 60° to core axis between 75.57-75.72 are non mineralized. Dolomite carrys trace-3% pyrite blebs, streaks and grains and trace chalcopyrite.		
		Ground conditions are moderate with 1-5 fractures/meter at 15-20°, 60° and 90° to core axis. Blocky sections from 76.66-77.10, 77.89-78.23, 78.58-78.68, 80.80-81.48.		
83.25-92.15		Graphitic Argillite.		
		Moderately schistose with 10-20% quartz-carbonate vein fragments to 10cm and trace-3% fine to medium grained pyrite blebs and grains. Trace-1% pyrite in most vein fragments. Best concentrations of veining occur at:		
		86.12-86.77: 20% quartz-carbonate veins and vein fragments to 1.5 cm oriented at 10° to core axis. Trace pyrite.		
		87.12-87.56: 40% vein fragments at variable angles to core axis. Trace-1% pyrite.		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property Windflower Project No. 224 Depth 101.80 m Date Began August 4/87

Hole No. Win 88 Co-ord. 1024.3N Horizontal Length Date Completed August 9/87

Claim No. L 12481 4916 E Core Size NQ Drilled By M.B. Drilling

Page 5 of 6 Grid No. Angle & Grid Direction -66° @ S-82°E Elevation 2019.31 m Logged By W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
83.25 - 101.80	GA	Graphitic Argillite (Continued)		
		87.74 - 88.05: 20% quartz-carbonate vein fragments with trace pyrite and several sphalerite blebs to 4mm (67.98).		
		92.80 - 95.97: 20-25% vein fragments. Trace pyrite in veins and trace chalcopyrite and tetrahedrite at 95.32 in 1.5cm 20° quartz-carbonate vein.		
		97.95 - 98.15: 60% brecciated quartz-carbonate vein material. No visible mineralization.		
		99.00 - 99.19: Slightly brecciated qtz-carbonate vein at 25° to core axis. Trace pyrite.		
		99.64 - 100.40: 15-20% qtz-carbonate veins and vein fragments including 5cm vein (100.32 - 100.40) at 55-60° to core axis. Trace pyrite.		
		100.79 - 101.39: 20% qtz-carbonate veining and vein breccia. No visible mineralization.		
		Ground conditions in graphitic argillite from 83.25 - 97.13 are good to moderate with 1-5 fractures/m at 10°, 30-90° and 0° to core axis. Blocky ground from 87.67 - 88.22, 90.74 - 91.74, 94.89 - 95.29, 95.97 - 96.93. From 97.13 - 101.80 is poor blocky ground with most core fragments < 10cm. Very blocky to rubbly from: 99.45 - 99.64, 100.12 - 100.66, 101.65 - 101.80.		
101.80		End of Hole - Hole Caved and Abandoned.		
Hole Lost.				

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property Wind Flower | Project No. 224 | Depth 101.80 | Date Began August 4/87

Hole No. Win.88 | Co ord. 10243N | Horizontal Length | Date Completed August 9/87

Claim No. L.12481 | 4916E | Core Size NQ | Drilled By M&B Drilling

Page 6 of 6 | Grid No. | Angle & Grid Direction -66° @ S-82°E | Elevation 2019.31 m | Logged By W. Stoeferau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE

Foliation - Angles of Drillcore.

18.59 metres	0-5°	67 metres	45°
23.47 "	0°	72 "	35°
26.47 "	50°	75 "	50°
29.64 "	35°	78 "	40°
34.76 "	35°	82 "	45°
38.71 "	40°	89 "	15°
42.45 "	50°	91 "	0°
44.40 "	50°	93.70 "	0-5°
48 "	40°	96.93 "	0-15°
51.30 "	45°	97 "	5°
53. "	0-20°	100.79 "	10°
59.5 "	40°		
61.87 "	30°		

ACID TEST @ 18.3 m = 67° 15'

ACID TEST @ 102.4 M = 71° 15'

CASING REMOVED.

HOLE LOST DUE TO CAVE

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE PAGE 1 OF 3

Property WIND FLOWER Project No. 244 Depth 101.80 Date Began AUGUST 9/87
Hole No. WIN # 88 Co ord. 10243 N Horizontal Length Date Completed Aug. 9/87
Claim No. L 12481 4916 E Core Size N.Q. Drilled By M+B DRILLING
Grid No. Angle & Direction -66° S 82°E Elevation 1067.51 Logged By G. WRIGHT

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES						
														WIDTH	Au.	Ag.	Cu.	Zn.		
0 - 26.09	WASTE	26.09																		
26.09 - 26.36	22	.27																		
26.36 - 26.47	23	.11																		
26.47 - 26.97	24	.50																		
26.97 - 29.20	WASTE	2.23																		
29.20 - 29.64	28625	.44																		
29.64 - 30.18	26	.54																		
30.18 - 30.58	27	.40																		
30.58 - 31.09	28	.51																		
31.09 - 31.54	29	.45																		
31.54 - 32.04	28630	.50																		
32.04 - 32.54	31	.50																		
32.54 - 32.85	32	.31																		
32.85 - 35.36	WASTE	2.51																		
35.36 - 35.86	5801	.50	105	.4																
35.86 - 36.20	02	.34	103	.2																
36.20 - 36.60	03	.40	.04	<.1																
36.60 - 37.00	04	.40	.03	.1																
37.00 - 37.50	5805	.50	<.03	<.1																
37.50 - 38.05	06	.55	.03	.1																
38.05 - 38.40	07	.35	<.03	.1																
38.40 - 38.71	08	.31	.04	.1																
38.71 - 39.00	5809	.29	<.03	.1																
39.00 - 40.84	WASTE	1.84																		
40.84 - 41.24	33	.40																		
41.24 - 41.64	34	.40																		
41.64 - 42.04	28635	.40																		
42.04 - 42.44	36	.40																		
42.44 - 42.63	37	.19																		
42.63 - 42.80	38	.17																		
42.80 - 43.22	39	.49																		
43.22 - 43.51	28640	.29																		
43.51 - 43.82	41	.31																		
43.82 - 44.26	42	.44																		
44.26 - 44.69	43	.43																		
44.69 - 45.10	44	.41																		
45.10 - 47.13	WASTE	1.03																		
47.13 - 47.34	28645	.21																		
47.34 - 47.58	46	.24																		
47.58 - 47.85	47	.27																		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE PAGE 2 OF 3

Property: WIND FLOWER | Project No.: 4<1 | Depth: | Date Began:
Hole No.: WIN #88 | Co ord.: | Horizontal Length: | Date Completed:
Claim No.: | Core Size: | Drilled By:
Grid No.: | Angle & Direction: | Elevation: | Logged By: G. WRIGHT

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.	
47.85-48.02	48	.17																	
48.02-48.13	49	.11																	
48.13-48.43	28650	.30																	
48.43-49.06	WASTE	.63																	
49.06-49.63	51	.57																	
49.63-49.90	52	.27																	
49.90-57.30	WASTE	7.40																	
57.30-57.50	53	.20																	
57.50-57.84	54	.34																	
57.84-58.30	28655	.46																	
58.30-58.60	56	.30																	
58.60-61.52	WASTE	2.92																	
61.52-61.95	57	.43																	
61.95-62.07	58	.12																	
62.07-62.37	59	.30																	
62.37-65.04	WASTE	2.67																	
65.04-65.31	60	.27																	
65.31-65.45	61	.14																	
65.45-65.69	62	.24																	
65.69-69.81	WASTE	4.12																	
69.81-70.28	63	.47																	
70.28-70.36	64	.08																	
70.36-70.66	28665	.30																	
70.66-75.29	WASTE	1.63																	
75.29-75.57	66	.28																	
75.57-75.72	67	.15																	
75.72-76.06	68	.34																	
76.06-84.23	WASTE	8.17																	
84.23-84.39	69	.16																	
84.39-86.42	WASTE	2.03																	
86.42-86.71	28670	.29																	
86.71-87.12	71	.41																	
87.12-87.50	72	.38																	
87.50-87.74	73	.24																	
87.74-88.05	74	.31																	
88.05-88.35	28675	.30																	
88.35-92.80	WASTE	4.45																	
92.80-93.24	76	.44																	
93.24-93.70	77	.46																	
93.70-94.10	78	.44																	

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE 3 OF 3

Property WIND FLOWER Project No. 224 Depth Date Began

Hole No. WIN #88 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Direction Elevation Logged By G.WRIGHT

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
94.10 - 94.56	79	.46																	
94.56 - 94.89	28680	.33																	
94.89 - 95.29	81	.40																	
95.29 - 95.59	82	.30																	
95.59 - 95.97	83	.38																	
95.97 - 97.65	WASTE	1.68																	
97.65 - 97.95	84	.30																	
97.95 - 98.15	28685	.20																	
98.15 - 98.70	WASTE	.55																	
98.70 - 99.00	86	.30																	
99.00 - 99.19	87	.19																	
99.19 - 99.64	88	.45																	
99.64 - 100.32	89	.68																	
100.32 - 100.40	28690	.08																	
100.40 - 100.79	91	.39																	
100.79 - 101.39	92	.60																	
101.39 - 101.80	93	.41																	
101.80 - E.O.H.																			

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34576-34600 -S COMPLETE

GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE 1/4

Property WINFLOWER Project No. LCY Depth 94.15 Date Began Aug 5/87

Hole No. WIN 89 Co ord. 9960 N - Horizontal Length Date Completed Aug 7/87

Claim No. L5654 4992 E Core Size N.Q. Drilled By Kootenay Expl. Drilling

Grid No. Angle & Direction -45E Elevation ~~1466.34~~ 1015.09 ?? Logged By M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.		
0 - 0.64	CASING	0.64	0.00	0.0																
0.64 - 4.66	WASTE	4.02	0.00	0.0																
4.66 - 5.16	29135	0.50	.04	<.1																
5.16 - 5.46	29136	0.30	3.57	2.0																
5.46 - 5.76	29137	0.30	.10	<.1																
5.76 - 6.21	29138	0.45	8.66	1.4																
6.21 - 6.46	29139	0.25	1.44	.7																
6.46 - 6.71	29140	0.25	6.15	2.7																
6.71 - 7.11	29141	0.40	8.44	1.7																
7.11 - 7.55	29142	0.44	29.90	9.2																
7.55 - 8.05	29143	0.50	11.83	3.8																
8.05 - 8.55	29144	0.50	.103	.1																
8.55 - 10.41	WASTE	1.86	0.00	0.0																
10.41 - 10.83	29145	0.42	<.03	<.1																
10.83 - 11.41	29146	0.58	<.03	<.1																
11.41 - 11.74	29147	0.33	<.03	<.1																
11.74 - 12.04	29148	0.30	<.03	<.1																
12.04 - 12.39	29149	0.35	<.03	<.1																
12.39 - 12.82	29150	0.43	.04	<.1																
12.82 - 13.02	29151	0.20	<.03	<.1																
13.02 - 13.52	29152	0.50	.03	<.1																
13.52 - 14.17	29153	0.65	<.03	.1																
14.17 - 14.57	29154	0.40	<.03	<.1																
14.57 - 15.07	29155	0.50	<.03	.2																
15.07 - 16.80	WASTE	1.73	0.00	0.0																
16.80 - 17.36	29156	0.56	<.03	<.1																
17.36 - 17.68	29157	0.32	<.03	<.1																
17.68 - 18.01	29158	0.33	<.03	<.1																
18.01 - 18.25	29159	0.24	<.03	.2																
18.25 - 18.69	29160	0.44	<.03	.2																
18.69 - 19.04	29161	0.36	1.19	.6																
19.04 - 19.54	29162	0.50	.35	.2																
19.54 - 19.92	29163	0.38	.21	.3																
19.92 - 20.42	29164	0.50	.06	.4																
20.42 - 20.92	29165	0.50	.05	.3																
20.92 - 21.39	29166	0.47	.25	.6																
21.39 - 21.89	29167	0.50	1.05	.5																
21.89 - 22.16	29168	0.27	75.31	42.3																
22.16 - 22.30	29169	0.14	3.34	2.2																
22.30 - 22.79	29170	0.49	.08	.7																

5.16 - 8.05: 2.89M, 10.15

21.39 - 23.3: 2.43M, 13.20

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,753

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE 2/4

Property WIND FLOWER Project No. 264 Depth Date Began

Hole No. WIN 89 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Direction Elevation Logged By M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
22.79 - 22.89	WASTE	0.10	0.00	0.0															
22.89 - 23.10	29171	0.21	1.30	.6															
23.10 - 23.32	29172	0.22	44.41	11.8															
23.32 - 23.82	29173	0.50	1.33	1.0															
23.82 - 24.32	29174	0.50	.31	.7															
24.32 - 24.89	29175	0.57	.08	.4															
24.89 - 25.01	29176	0.12	<.03	.4															
25.01 - 25.51	29177	0.50	<.03	.9															
25.51 - 26.01	29178	0.50	1.84	.8															
26.01 - 26.51	29179	0.50	<.03	.2															
26.51 - 27.37	WASTE	0.86	0.00	0.0															
27.37 - 28.43	29180	1.06	.04	.3															
28.43 - 28.83	29181	0.40	<.03	.2															
28.83 - 29.00	29182	0.17	<.03	.2															
29.00 - 29.50	29183	0.50	<.03	.5															
29.50 - 34.48	WASTE	4.98	0.00	0.0															
34.48 - 34.98	29184	0.50	<.03	.2															
34.98 - 35.50	29185	0.52	<.03	.2															
35.50 - 35.80	29186	0.30	<.03	.3															
35.80 - 36.30	29187	0.50	<.03	.1															
36.30 - 36.62	29188	0.32	<.03	.2															
36.62 - 36.93	29189	0.31	<.03	.2															
36.93 - 37.12	29190	0.19	.29	.4															
37.12 - 37.70	29191	0.58	<.03	.3															
37.70 - 38.12	29192	0.42	<.03	.2															
38.12 - 39.17	WASTE	1.05	0.00	0.0															
39.17 - 39.67	29193	0.50	<.03	.3															
39.67 - 40.04	29194	0.37	.03	.4															
40.04 - 40.18	29195	0.14	<.03	.3															
40.18 - 40.58	29196	0.40	<.03	.2															
40.58 - 40.94	29197	0.36	<.03	.4															
40.94 - 41.48	29198	0.54	<.03	.3															
41.48 - 41.98	29199	0.50	<.03	.3															
41.98 - 42.51	29200	0.53	<.03	.1															
42.51 - 42.69	29201	0.18	<.03	.1															
42.69 - 42.96	29202	0.27	<.03	.1															
42.96 - 43.46	29203	0.50	<.03	.5															
43.46 - 43.96	29204	0.50	.03	.4															
43.96 - 45.53	WASTE	1.57	0.00	0.0															
45.53 - 45.83	29205	0.30	<.03	.5															

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE 3/4

Property WINDFLOWER Project No. Depth Date Began

Hole No. WIN 89 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Direction Elevation Logged By M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
45.83 - 46.33	29206	0.50	.03	.5															
46.33 - 46.83	29207	0.50	<.03	.4															
46.83 - 47.55	29208	0.72	<.03	.4															
47.55 - 48.05	29209	0.50	<.03	.3															
48.05 - 48.45	29210	0.40	<.03	.4															
48.45 - 48.95	29211	0.50	<.03	.3															
48.95 - 49.50	29212	0.55	<.03	.2															
49.50 - 49.87	29213	0.37	<.03	.6															
49.87 - 50.30	29214	0.43	<.03	.4															
50.30 - 52.10	WASTE	1.80	0.00	0.0															
52.10 - 52.60	29215	0.40	.03	.4															
52.60 - 53.10	29216	0.50	<.03	.3															
53.10 - 53.60	29217	0.50	<.03	.2															
53.60 - 54.10	29218	0.50	<.03	.3															
54.10 - 54.40	29219	0.30	<.03	.2															
54.40 - 54.66	29220	0.26	<.03	.1															
54.66 - 54.96	29221	0.30	<.03	.3															
54.96 - 55.46	29222	0.50	<.03	.2															
55.46 - 55.80	29223	0.34	<.03	.3															
55.80 - 56.04	29224	0.24	<.03	.4															
56.04 - 56.56	29225	0.52	<.03	.3															
56.56 - 57.06	29226	0.50	<.03	.1															
57.06 - 57.56	29227	0.50	.04	.2															
57.56 - 58.05	29228	0.49	.23	2.2															
58.05 - 58.26	29229	0.21	<.03	.1															
58.26 - 58.76	29230	0.50	.42	.3															
58.76 - 59.20	29231	0.44	.14	.1															
59.20 - 59.80	29232	0.60	<.03	.3															
59.80 - 60.30	29233	0.50	.10	.1															
60.30 - 60.80	29234	0.50	<.03	.2															
60.80 - 64.65	WASTE	3.85	0.00	0.0															
64.65 - 65.15	29235	0.50	.30	.2															
65.15 - 65.50	29236	0.35	.04	.1															
65.50 - 66.34	29237	0.84	<.03	.1															
66.34 - 66.84	29238	0.50	.08	.2															
66.84 - 67.34	29239	0.50	.12	.4															
67.34 - 69.52	WASTE	2.18	0.00	0.0															
69.52 - 70.02	29240	0.50	.07	.6															
70.02 - 70.22	29241	0.20	.09	.4															
70.22 - 70.72	29242	0.50	.18	.3															

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE 4/4

Property WINDFLOWER Project No. 264 Depth Date Began

Hole No. WIN 89 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Direction Elevation Logged By M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
70.72 - 71.12	WASTE	0.40	0.00	0.0															
71.12 - 71.65	29243	0.53	3.86	2.1	S														
71.65 - 71.95	29244	0.30	.93	.3															
71.95 - 72.45	29245	0.50	.88	1.0															
72.45 - 72.90	29246	0.45	<.03	.2															
72.90 - 73.40	29247	0.50	.04	.5															
73.40 - 73.90	29248	0.50	.54	.4															
73.90 - 74.40	29249	0.50	.60	.4															
74.40 - 74.90	29250	0.50	<.03	.2															
74.90 - 75.30	29251	0.40	<.03	.2															
75.30 - 75.56	29252	0.26	<.03	.2															
75.56 - 76.06	29253	0.50	<.03	.2															
76.06 - 82.04	WASTE	5.98	0.00	0.0															
82.04 - 82.54	29254	0.50	<.03	.1															
82.54 - 83.62	29255	(.85EC) 1.08	<.03	.1															
83.62 - 84.22	29256	0.60	<.03	.1															
84.22 - 84.62	29257	0.40	<.03	.1															
84.62 - 85.22	29258	0.60	<.03	.1															
85.22 - 85.72	29259	0.50	<.03	.1															
85.72 - 86.12	29260	0.40	<.03	.1															
86.12 - 87.63	29261	(1.66EC) 1.51	<.03	.1															
87.63 - 88.13	29262	0.50	<.03	.1															
88.13 - 88.43	29263	0.40	<.03	.1															
88.43 - 88.93	29264	0.50	<.03	.1															
88.93 - 89.43	29265	0.50	<.03	<.1															
89.43 - 89.60	29266	0.17	<.03	<.1															
89.60 - 90.10	29267	0.50	<.03	<.1															
90.10 - 93.27	WASTE	3.17	0.00	0.0															
E.O.H																			
			AC 10 @ 94.10 = 45°																
			Hole to be CONTINUED — CASING to be Pulled																
									Site Removed										

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DIAMOND DRILL RECORD

SLUDGE PAGE 1 OF

Property WINFLOWER Project No. 224 Depth 93.27 Date Began AUG 5

Hole No. WIN 89 Co ord. 9,960 N Horizontal Length Date Completed AUG 7

Claim No. L 5654 4,992 E Core Size NQ Drilled By Kootenay Drilling

Grid No. Angle & Direction -66° S 82E Elevation 1,966.84 ?? Logged By J. LAFAVOR

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.	
0 - .64	CASING	.64					
.64 - 4.88	34577	4.24	.107				
4.88 - 7.92	34578	3.05	11.34				
7.92 - 10.97	34579	3.05	12.00				
10.97 - 14.02	34580	3.05	13.83				
14.02 - 17.07	34581	3.06	3.00				
17.07 - 20.12	34582	3.05	7.84				
20.12 - 23.16	34583	3.05	47.21				
23.16 - 26.21	34584	3.05	18.90				
26.21 - 29.26	34585	3.05	24.22				
29.26 - 32.31	34586	3.05	13.98				
32.31 - 34.30	34587	3.05	3.15				
34.30 - 38.40	34588	3.05	1.24				
38.40 - 41.45	34589	3.05	.81				
41.45 - 44.50	34590	3.05	2.90				
44.50 - 47.55	34591	3.05	2.89				
47.55 - 50.60	34592	3.05	4.99				
50.60 - 53.64	34593	3.06	2.71				
53.64 - 56.69	34594	3.05	2.29				
56.69 - 59.74	34595	3.05	10.75				
59.74 - 62.79	34596	3.05	.44				
62.79 - 65.84	34597	3.05	.47				
65.84 - 68.88	34598	3.05	1.23				
68.88 - 71.93	34599	3.05	2.83				
71.93 - 74.98	34600	3.05	.42				
74.98 - 78.03	No Return	16.12					
78.03 - 94.15							
E.O.H.							

WIDTH X ASSAY						

AVERAGES					
WIDTH	Au.	Ag.	Cu.	Zn.	

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property WINDFLOWER | Project No. 224 | Depth 94.15 M | Date Began Aug 4/87
Hole No. WIN 89 | Co ord. 9960 N | Horizontal Length | Date Completed Aug 8/87
Claim No. L 5654 | 4993 E | Core Size NQ | Drilled By Kootenay Exploration Drill
Page 1 of 7 | Grid No. | Angle & Grid Direction -45 E. | Elevation 1967 M. | Logged By B. GABOURY

INTERVAL FEET (METRES)	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
0 - 3.03	CSG	casing		
3.03 - 94.10	AR	Light grey calcareous argillite Contains up to 15% graphitic interbeds commonly ≤ 2 cm thick and approximately 15% qtz - carb veining; generally up to 1% dissem py:		
	QCVN	* 5.16 - 8.05 : section with 50% qtz - carb veining and 3-5% py overall :	PYTT	
		* 5.46 - 6.21 : qtz - carb vein with tr py and tetrahedrite Upper contact CA = 30° Lower contact diffuse		
		* 6.46 - 8.06 : a 3-8 cm qtz - carb vein approximately follows the core axis (CA ~ 0°) one speck tetrahed near 6.71 M.		
	QCVN	10.83 - 14.57 : section with 25-30% qtz - carb veining	SL	
		* 10.83 - 11.41 : qtz - carb vein with traces of py & sphal. upper contact CA = 45° lower contact CA = 35°		
		11.74 - 12.39 : qtz - carb vein with 20-30% wallrock incls. upper contact CA ~ 35° lower contact CA ~ 20° (diffuse)		
		* 14.17 - 14.57 : qtz - carb vein with traces sphal ; 20-30% wallrock incls		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE: Page 2 of 7

Property WINDFLOWER Project No. 224 Depth Date Began
Hole No. WIN 89 Co ord. Horizontal Length Date Completed
Claim No. Core Size Drilled By
Grid No. Angle & Grid Direction Elevation Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		upper contact CA = 30° diffuse lower contact CA = 30° (these CA's are opposite direction to fol.)		
	QCVN	16.80 - 19.92 : 50% qtz - carb veining in silicified, bleached light grey argillite.	SI	SL
		16.80 - 17.36 : qtz - carb vein with ~40% wallrock incls, tr py upper contact CA ~15° lower contact CA ~20°		
		17.68 - 18.01 : qtz - carb vein with 20% wallrock incls; tr py upper contact CA ~60° (diffuse) lower contact CA ~50° (diffuse)		
		18.69 - 19.54 : qtz - carb vein with 1-3% med. fine py plus several specks sphal. upper contact CA 25° lower contact CA 35° (diffuse)		
	AR QC	21.39 - 25.01 : ~15% qtz - carb veining in a generally light grey silicified calcareous argillite with very few (< 5%) graphitic interbeds.	SI GR	VG FT
		* 21.89 - 22.16 : qtz - carb vein with 30% wallrock incls, 1-2% med. fine py, several specks sphal, cpy & tetrahedrite plus numerous flecks visible gold upper contact CA = 70° (good) lower contact CA = 70° (diffuse)		
		22.16 - 22.30 : a 1 cm wide relatively		

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DIAMOND DRILL LOG

ZONE:

Page 3 of 7

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN 89 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Grid Direction Elevation Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		irregular qtz - carb veinlet with 1-2% py plus several specks sphal, cpy & tetrahed. This veinlet cuts foliation at 30-35° to core axis in the opposite direction.		
		23.10 - 23.32 : silicified, bleached, light grey calcareous argillite with ~40% qtz - carb stockworks. These contain tr - 1% py, several specks cpy, sphal & tetrahed. plus several flecks visible gold. Core angles generally ~ 40° but there are some individual veinlets with core angles up to 90°	SI	QFPT
		24.89 - 25.01 : qtz - carb vein with fine py in carb. selvages.		
	QC VN	27.87 - 29.0 : silicified, bleached light grey calcareous argillite with 40-50% diffuse qtz - carb veining, 1-2% fine py (overall) plus traces of sphal and tetrahed in veins. Veins are usually contorted but there are some later stage veins (cross-cutting) with core angles of 65-90°.		PYSL
	ARQC	29.00 - 41.98 : Light grey calcareous argillite (as before) with ~15% qtz - carb veins overall.		
		34.98 - 35.50 : diffuse qtz - carb vein (40-50% wall-rock incls), tr py irreg. CA's		
		35.50 - 35.80 : qtz - carb vein (plus several smaller veinlets) 20% wallrock incls, 1-3% fine to med fine py in silicified grey argillite		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Page 4 of 7

Property: WINDFLOWER | Project No.: 224 | Depth: | Date Began:

Hole No.: WIN 89 | Co ord: | Horizontal Length: | Date Completed:

Claim No.: | | Core Size: | Drilled By:

Grid No.: | Angle & Grid Direction: | Elevation: | Logged By:

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		upper contact CA ~ 25° lower contact CA ~ 25°		
		36.62 - 36.93 : diffuse qtz-carb vein (~40% wallrock incls), tr-1% py, one speck sphal., lower contact concordant with fabric. (CA = 50°)		
		37.12 - 37.70 : diffuse qtz-carb vein (40-50% wallrock incls), tr py, several specks sphal irreg CA's.		
		39.80 : contorted 1 cm wide, qtz-carb veinlet, concord. with fabric, one speck tetrahed.		
		40.04 - 40.18 : diffuse qtz-carb vein CA ~ 30° (cuts foliation)		
	AFQC	41.98 - 48.45 : Generally silicified section of light grey calcareous argillite with minor graphitic interbeds, 10-15% qtz-carb veinlets overall, tr py	S1	
		41.98 - 42.69 : qtz-carb stockworks (30-40% of interval is veins), no visible sulfides, all possible orientations to core axis.		
		42.69 - 43.46 : qtz-carb vein with 10-20% wallrock incls, tr py; lower contact CA = diffuse upper contact CA ≈ 85°		
		45.83 - 48.45 : 10-15% diffuse qtz-carb veining, tr py, occassional specks sphal., irreg CA's.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

Property: WINDFLOWER Project No.: 224 Depth: Date Began:
Hole No.: WIN 89 Co ord.: Horizontal Length: Date Completed:
Claim No.: Core Size: Drilled By:
ZONE: Page 5 of 7 Grid No.: Angle & Grid Direction: Elevation: Logged By:

INTERVAL FEET (METRES)	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
	ARQC	48.45 – 56.04 : Light grey calcareous argillite with minor graphitic interbeds. (as before.):		
		49.5 – 49.87 : highly contorted qtz-carb veinlet, ≤ 2cm dia., several specks * tetrahedrite, one speck cpy, tr-1% py; irreg CA's.		
		52.6 – 53.10 : contorted section with 10-15% fine qtz-carb veinlets; * one with a speck of tetrahed.		
		53.10 – 54.10 : Fault zone (minor) blocky calcareous argillite + fault gouge.		
		54.40 – 54.66 : 50% qtz-carb veining (includes two 4cm wide veins, one of which has * a speck of tetrahed. upper contact (54.4) CA = 70° (this is 20° off fol. direction) lower contact CA ~ 60°		
		55.80 – 56.04 : qtz-carb vein upper CA ~ 60° (~// fol) lower CA ~ 75°		
	QZ SK	56.04 – 60.30 : Silicified light grey calcareous argillite with 30-40% qtz stockworks with ~1% py (5% in hostrock itself); some sections are so heavily stockworked so as to give the rock a brecciated appearance.	5' py	
	AR	60.30 – 65.15 : Light grey calcareous argillite with minor graphitic interbeds and ~15% qtz-carb veining (as before)		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

Property: WINDFLOWER | Project No.: 224 | Depth: | Date Began:
Hole No.: WIN 89 | Co ord.: | Horizontal Length: | Date Completed:
Claim No.: | | Core Size: | Drilled By:
ZONE: | Page: 6 of 7 | Grid No.: | Angle & Grid Direction: | Elevation: | Logged By:

INTERVAL FEET (METRES)	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
	QZSK	65.15 - 66.84 : silicified light grey calcareous argillite with 30 - 40 % qtz stockworks ; 1 - 3 % py overall.	PY	
	AR	66.84 - 70.22 : Light grey calcareous argillite with minor graphitic interbeds ; ~ 15% qtz-carb veins, 1-2% dissem py ; (as before)	PY	QC
		66.84 - 68.50 : contorted darker grey section.		
		70.02 - 70.22 : ~ 5 cm wide qtz - carb vein CA's ~ 22°		
	FTAR	70.22 - 90.20 : Fault Zone ;		
		70.22 - 70.97 : contorted, 25 - 30% qtz - carb veining in sheared calcareous argillite. CA's diffuse but most ≈ 35°		
		* 70.97 - 71.65 : blocky contorted calcareous argillite with 25-30% qtz - carb veining CA's ~ 35°.		
		78.03 - 81.50 : generally blocky dark grey calcareous argillite.		
		83.62 - 84.12 : qtz - carb vein with 10-20% wallrock incls, 1-2% py, fractured ; Upper contact CA ?, lower contact CA ~ 10°		
		87.63 - 89.43 : darker grey blocky section		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE: Page 7 of 7

Property: WINDFLOWER Project No.: 224 Depth: Date Began:

Hole No.: WIN 89 Co ord.: Horizontal Length: Date Completed:

Claim No.: Core Size: Drilled By:

Grid No.: Angle & Grid Direction: Elevation: Logged By:

INTERVAL FEET (METRES)	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
	AR	90.20 - 94.10 : Light grey calcareous argillite with up to 15% qtz-carb veinlets (as before), mildly contorted & drag folded.		
94.10		END OF HOLE ACID @ 94.10 = 45° To be Capped - Casing to be Pulled - Sites Removed.		
		Core Angles		
		6.71 M — 0° (tol // bed) folded. 11.7 M — 5-10° (tol // bed) 12.5 M — bedding = 0° ; tol = 35° 15.0 M — 20° (tol // bed.) 19.54 M — 35° (tol // bed) 20.54 M — 30° (tol // bed.) 22.20 M — 25° (tol // bed) 25.3 M — 40° tol (bedding contorted) 29.5 M — 22° (bed // tol) 31.0 M — 24° (tol // bed) 34.0 M — 35° (tol // bed) 36.93 M — 50° (tol // bed) 39.67 M — 20° (tol // bed) (contorted) 40.18 M — 45° (tol) 41.98 M — 40° (tol) 41.98M - 49.5M — bedding & tol very contorted. 49.5M — 0° (bed // tol) 50.9 M — 37° (tol // bed) 54.10 M — 65° (tol // bed) 55.80 M — 40° (tol // bed) (slight contorted) 59.80 M — 32° (tol) 66.0 M — 50° (tol // bed) 69.3M — 35° (tol // bed) 70.0 M — 35° (tol // bed) 74.2 M — 35° (tol) 82.5 M — 0° (tol // bed) 84.12 M — 0° (tol // bed) 86.0 M — 20° (tol // bed)	88.0 M — 33° (shearing) 88.93M - 15° (shearing) 90.6 M - 0° 92.5 M - 0°	

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30937 - 30939 S

GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE 1/6

Property WINDFLOWER Project No. 224 Depth 191.71 Date Began Aug 7/87

Hole No. WIN-90 Coord. 10158.3 N Horizontal Length Date Completed Aug. 15/87

Claim No. L12481 ~~4882.5E~~ 4882.25E Core Size NQ Drilled By M & B Drilling

Grid No. Angle & Direction -66°S35°E Elevation 1059.20 m Logged By M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.
0 - 4.42	CASING		0.00	0.0		
- 4.42	WASTE		0.00	0.0		
4.42 - 4.53	31500	0.11	.06	.1		
4.53 - 4.88	315 01	0.35	.08	.1		
4.88 - 7.35	WASTE	2.47	0.00	0.0		
7.35 - 7.55	315 02	0.20	.08	.2		
7.55 - 7.85	315 03	0.30	.08	.2		
7.85 - 8.15	315 04	0.30	.07	.1		
8.15 - 8.74	315 05	0.59	.09	.2		
8.74 - 9.04	315 06	0.30	.07	.1		
9.04 - 11.07	WASTE	2.03	0.00	0.0		
11.07 - 11.37	315 07	0.30	.09	.5		
11.37 - 11.80	315 08	0.43	.08	.4		
11.80 - 12.26	315 09	0.46	.08	.3		
12.26 - 12.58	315 10	0.32	.07	.4		
12.58 - 13.05	315 11	0.47	.09	.4		
13.05 - 13.35	315 12	0.30	.08	.4		
13.35 - 13.50	315 13	0.15	.09	.6		
13.50 - 13.86	315 14	0.36	.12	.8		
13.86 - 14.90	WASTE	1.04	0.00	0.0		
14.90 - 15.22	315 15	0.32	.07	.4		
15.22 - 15.62	315 16	0.40	.10	.7		
15.62 - 15.98	315 17	0.36	.07	.5		
15.98 - 16.31	315 18	0.33	.07	.5		
16.31 - 16.61	315 19	0.30	.09	.5		
16.61 - 18.62	WASTE	2.01	0.00	0.0		
18.62 - 18.94	315 20	0.32	.10	.6		
18.94 - 19.24	315 21	0.30	.07	.5		
19.24 - 19.50	315 22	0.26	.07	.4		
19.50 - 28.90	WASTE	9.40	0.00	0.0		
28.20 - 28.37	315 23	0.17	.08	.4		
28.37 - 28.88	315 24	0.51	.07	.4		
28.88 - 29.18	315 25	0.20	.03	.3		
29.18 - 29.78	315 26	0.60	.06	.4		
29.78 - 30.08	WASTE	0.30	0.00	0.0		
30.08 - 30.40	315 27	0.32	<.03	.2		
30.40 - 30.72	315 28	0.32	<.03	.3		
30.72 - 30.94	315 29	0.22	<.03	.2		
30.94 - 31.50	WASTE	0.56	0.00	0.0		
31.50 - 31.80	315 30	0.30	.05	.3		

WIDTH X ASSAY

AVERAGES

WIDTH	Au.	Ag.	Cu.	Zn.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,753

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE 2/6

Property WINDFLOWER Project No. Depth Date Began

Hole No. WIN-90 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Direction Elevation Logged By M. CANTWELL

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
31.80 - 31.97	31531	0.17	<.03	.2															
31.97 - 32.31	31532	0.34	<.03	.2															
32.31 - 41.20	WASTE	8.89	0.00	0.0															
41.20 - 41.50	31533	0.30	.03	.3															
41.50 - 41.80	31534	0.30	<.03	.3															
41.80 - 42.10	31535	0.30	<.03	.4															
42.10 - 42.94	WASTE	0.84	0.00	0.0															
42.94 - 43.24	31536	0.30	.05	.3															
43.24 - 43.50	31537	0.26	<.03	.4															
43.50 - 44.02	31538	0.52	.04	.2															
44.02 - 44.19	31539	0.17	.03	.5															
44.19 - 44.50	31540	0.31	.06	.4															
44.50 - 52.15	WASTE	7.65	0.00	0.0															
52.15 - 52.40	31541	0.25	<.03	.3															
52.40 - 52.64	31542	0.24	.03	.3															
52.64 - 53.11	31543	0.45	.03	.2															
53.11 - 53.52	31544	0.41	.03	.4															
53.52 - 53.84	31545	0.32	.03	.4															
53.84 - 55.62	WASTE	1.78	0.00	0.0															
55.62 - 55.92	31546	0.30	<.03	.4															
55.92 - 56.26	31547	0.34	<.03	.3															
56.26 - 56.69	31548	0.33	<.03	.3															
56.69 - 58.45	WASTE	1.76	0.00	0.0															
58.45 - 58.75	31549	0.30	.05	.4															
58.75 - 59.04	31550	0.29	<.03	.3															
59.04 - 59.39	31551	0.35	<.03	.4															
59.39 - 59.69	31552	0.30	<.03	.3															
59.69 - 60.00	31553	0.31	<.03	.3															
60.00 - 60.30	31554	0.30	.03	.3															
60.30 - 61.20	WASTE	0.90	0.00	0.0															
61.20 - 61.50	31555	0.30	<.03	.2															
61.50 - 61.93	31556	0.43	<.03	.1															
61.93 - 62.26	31557	0.33	<.03	.3															
62.26 - 62.56	31558	0.30	.04	.4															
62.56 - 63.70	WASTE	1.14	0.00	0.0															
63.70 - 64.08	31559	0.38	<.03	.3															
64.08 - 64.56	31560	0.48	<.03	.2															
64.56 - 64.67	31561	0.11	<.03	.2															
64.67 - 64.97	31562	0.30	<.03	.1															
64.97 - 65.48	31563	0.51	.15	.3															

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE 3/6

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN-90 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Direction Elevation Logged By M. CANTWELL

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
65.48 - 65.83	31564	0.35	.07	.3															
65.83 - 68.33	WASTE	2.50	0.00	0.0															
68.33 - 68.63	315 65	0.30	<.03	.2															
68.63 - 69.21	315 66	0.58	.06	.1															
69.21 - 69.51	315 67	0.30	.13	.1															
69.51 - 72.16	WASTE	2.65	0.00	0.0															
72.16 - 72.46	315 68	0.30	.04	<.1															
72.46 - 72.56	315 69	0.10	.06	.1															
72.56 - 72.86	315 70	0.30	.07	.2															
72.86 - 75.23	WASTE	2.37	0.00	0.0															
75.23 - 75.51	315 71	0.28	.13	.2															
75.51 - 75.90	315 72	0.39	.03	.3															
75.90 - 76.40	315 73	0.50	.13	.2															
76.40 - 76.72	315 74	0.32	<.03	<.1															
76.72 - 76.86	315 75	0.16	<.03	.1															
76.86 - 77.09	315 76	0.23	<.03	.2															
77.09 - 77.72	315 77	0.63	<.03	.1															
77.72 - 78.02	315 78	0.30	<.03	.2															
78.02 - 78.28	315 79	0.26	.03	.2															
78.28 - 78.58	315 80	0.30	<.03	.1															
78.58 - 81.20	WASTE	2.62	0.00	0.0															
81.20 - 81.50	315 81	0.30	<.03	.3															
81.50 - 81.72	315 82	0.22	<.03	.2															
81.72 - 82.02	315 83	0.30	<.03	.2															
82.02 - 85.17	WASTE	3.15	0.00	0.0															
85.17 - 85.47	315 84	0.30	<.03	.3															
85.47 - 85.67	315 85	0.20	<.03	.3															
85.67 - 85.97	315 86	0.30	<.03	.2															
85.97 - 86.05	315 87	0.80	<.03	.2															
86.05 - 86.25	315 88	0.20	<.03	.2															
86.25 - 86.56	315 89	0.26	<.03	.3															
86.56 - 87.03	315 90	0.47	.03	.3															
87.03 - 87.33	315 91	0.30	<.03	.5															
87.33 - 88.09	WASTE	0.76	0.00	0.0															
88.09 - 88.39	315 92	0.30	<.03	.3															
88.39 - 88.67	315 93	0.28	<.03	.3															
88.67 - 89.07	315 94	0.40	<.03	.3															
89.07 - 90.22	WASTE	1.15	0.00	0.0															
90.22 - 90.48	315 95	0.26	<.03	.4															
90.48 - 90.81	315 96	0.33	<.03	.2															

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE 4/6

Property WINFLOWER | Project No. | Depth | Date Began

Hole No. WIN-90 | Co ord. | Horizontal Length | Date Completed

Claim No. | | Core Size | Drilled By

Grid No. | Angle & Direction | Elevation | Logged By M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES						
														WIDTH	Au.	Ag.	Cu.	Zn.		
90.81 - 91.14	31597	0.33	<.03	.5																
91.14 - 91.44	315 98	0.30	<.03	.3																
91.44 - 91.84	315 99	0.40	<.03	.2																
91.84 - 92.51	31600	0.67	<.03	.4																
92.51 - 98.14	WASTE	5.63	0.00	0.0																
98.14 - 98.60	31601	0.46	.06	.9																
98.60 - 98.75	31602	0.15	.06	.6																
98.75 - 99.00	31603	0.25	.11	.7																
99.00 - 99.30	31604	0.30	.04	.5																
99.30 - 99.60	31605	0.30	.03	.2																
99.60 - 99.95	31606	0.35	.08	.8																
99.95 - 100.30	31607	0.35	.07	.7																
100.30 - 100.70	31608	0.40	<.03	.3																
100.70 - 101.10	31609	0.40	<.03	.4																
101.10 - 101.50	31610	0.40	<.03	.3																
101.50 - 102.00	31611	0.50	<.03	.3																
102.00 - 102.41	31612	0.41	.07	.5																
102.41 - 102.87	31613	0.46	.03	.6																
102.87 - 103.02	31614	0.15	.03	.6																
103.02 - 103.66	31615	0.64	.03	.5																
103.66 - 103.81	31616	0.15	<.03	.8																
103.81 - 104.23	31617	0.42	.04	.7																
104.23 - 104.55	31618	0.32	.03	.7																
104.55 - 104.85	31619	0.30	<.03	.5																
104.85 - 104.98	31620	0.13	<.03	.6																
104.98 - 105.35	31621	0.37	.03	.6																
105.35 - 105.91	31622	0.56	<.03	.7																
105.91 - 106.21	31623	0.30	<.03	.5																
106.21 - 106.47	31624	0.46	.08	.3																
106.47 106.81	31625	0.34	.03	.5																
106.81 - 107.25	31626	0.44	<.03	.4																
107.25 - 107.73	31627	0.48	<.03	.4																
107.73 - 107.80	31628	0.07	<.03	.5																
107.80 - 108.16	31629	0.36	<.03	.5																
108.16 - 108.53	31630	0.37	<.03	.1																
108.53 - 108.84	31631	0.31	<.03	.4																
108.84 - 109.07	31632	0.23	<.03	.3																
109.07 - 109.47	31633	0.40	<.03	.4																
109.47 - 109.78	31634	0.31	<.03	.6																
109.78 - 110.18	31635	0.40	<.03	.5																

GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE S/C

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN-90 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Direction Elevation Logged By M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
110.18 - 110.55	316 36	0.37	.33	.4															
110.55 - 110.75	316 37	0.20	<.03	.3															
110.75 - 113.71	WASTE	2.96	0.00	0.0															
113.71 - 113.99	316 38	0.28	<.03	.6															
113.99 - 114.55	316 39	0.56	<.03	.5															
114.55 - 114.76	316 40	0.21	<.03	.6															
114.76 - 115.04	316 41	0.28	<.03	.6															
115.04 - 115.60	316 42	0.56	<.03	1.0															
115.60 - 115.82	316 43	0.22	<.03	1.3															
115.82 - 116.74	316 44	0.92	<.03	.8															
116.74 - 117.20	316 45	0.46	<.03	.6															
117.20 - 117.56	316 46	0.36	.07	1.0															
117.56 - 118.20	316 47	0.64	<.03	.5															
118.20 - 118.71	316 48	0.51	<.03	.8															
118.71 - 119.17	316 49	0.46	<.03	1.1															
119.17 - 119.61	316 50	0.44	<.03	1.0															
119.61 - 119.91	316 51	0.30	.07	2.2															
119.91 - 120.38	316 52	0.47	.14	1.3															
120.38 - 120.54	316 53	0.16	.17	1.5															
120.54 - 120.63	316 54	0.09	.10	.6															
120.63 - 120.99	316 55	0.36	.14	1.3															
120.99 - 121.15	316 56	0.16	.10	.8															
121.15 - 121.58	316 57	0.43	.11	1.0															
121.58 - 121.74	316 58	0.16	.14	.8															
121.74 - 121.93	316 59	0.19	.19	1.3															
121.93 - 122.23	316 60	0.30	.15	1.0															
122.23 - 122.58	316 61	0.35	.15	.9															
122.58 - 122.97	316 62	0.39	.03	1.0															
122.97 - 123.14	316 63	0.17	.13	1.3															
123.14 - 124.35	316 64	0.21	.04	1.2															
124.35 - 125.77	316 65	0.42	<.03	1.0															
125.77 - 126.79	316 66	1.02	.04	1.2															
126.79 - 127.41	316 67	0.62	.07	1.2															
127.41 - 128.47	316 68	1.06	.04	.5															
128.47 - 129.04	316 69	0.57	<.03	.5															
129.04 - 129.42	316 70	0.38	<.03	.3															
129.42 - 143.85	WASTE	4.43	0.00	0.0															
143.85 - 144.15	316 71	0.30	.03	.1															
144.15 - 144.45	316 72	0.30	.08	.4															
144.45 - 144.75	316 73	0.30	.04	1.1															

GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE 6/6

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN-90 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Direction Elevation Logged By M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.	
144.75 - 150.53	WASTE	0.00	0.0																
150.53 - 150.85	316 74	<.03	.1																
150.85 - 151.18	316 75	.04	.1																
151.18 - 151.48	316 76	.04	.1																
151.48 - 151.98	316 77	.07	.3																
151.98 - 152.28	316 78	.05	.2																
152.28 - 155.64	WASTE	0.00	0.0																
155.64 - 155.92	316 79	.03	.2																
155.92 - 156.11	316 80	<.03	.1																
156.11 - 156.41	316 81	<.03	.1																
156.41 - 157.28	WASTE	0.00	0.0																
157.28 - 157.43	316 82	.09	.3																
157.43 - 161.52	WASTE	0.00	0.0																
161.52 - 161.82	316 83	.09	.1																
161.82 - 162.22	316 84	.11	.5																
162.22 - 162.52	316 85	.12	.5																
162.52 - 168.12	WASTE	0.00	0.0																
168.12 - 168.62	316 86	.05	.3																
168.62 - 169.12	316 87	.04	.2																
169.12 - 169.47	316 88	.06	.1																
169.47 - 169.79	WASTE	0.00	0.0																
169.79 - 170.09	316 89	.06	.2																
170.09 - 170.50	316 90	.05	.2																
170.50 - 171.00	316 91	.04	.2																
171.00 - 171.50	316 92	.25	.1																
171.50 - 172.00	316 93	.17	.2																
172.00 - 172.50	316 94	.04	.1																
172.50 - 173.00	316 95	.10	<.1																
173.00 - 173.60	316 96	.11	.2																
173.60 - 179.30	WASTE	0.00	0.0																
179.30 - 179.60	316 97	.08	<.1																
179.60 - 179.80	316 98	.06	<.1																
179.80 - 180.10	316 99	.10	<.1																
180.10 -	WASTE																		
E.O.H																			
		ACID TEST @	154.23 m	=	68° 30'														
			@	187.76 m	=	69°													
		HOLE CEMENTED - CASING REMOVED																	

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

SLUDGE

Property WINDFLOWER Project No. 224 Depth Date Began AUG 7/87
Hole No. WIN 90 Co ord. 10158.3 N Horizontal Length Date Completed Aug 15/87
Claim No. L 12481 4882.25E Core Size N.Q. Drilled By M&B DRILLING
Grid No. Angle & Direction -66°S Elevation 1059.20 M Logged By J. LAFAVOR

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 4.27	CASING	4.27																	
4.27 - 4.88	WO return	.61																	
4.88 - 7.92	30937	3.05																	
7.92 - 10.97	30938	3.05																	
10.97 - 29.26	WO return	18.29																	
29.26 - 32.31	30939	3.06																	

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property: Wind Flower | Project No.: 224 | Depth: 191.71 | Date Began: August 7/87
Hole No.: W.F. 90 | Co ord.: 10158.3N | Horizontal Length: | Date Completed: August 15/87
Claim No.: L 12481 | 4882.25E | Core Size: NQ | Drilled By: M.E.B. Drilling
Page 1 of 12 | Grid No.: | Angle & Grid Direction: -66° @ grid S-35° East | Elevation: 1059.20m | Logged By: W. Siketaw

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
0 - 4.42 m.	CSG	No Core Recovered - Overburden.		
4.42 - 7.35	AR	Grey Laminated Calcareous Argillite.	MS PY	QCVN
		Thinly laminated with more massive, fine grained, light yellow Sericitized band from 6.10 - 6.40. Schistose graphitic interbeds to 15cm Comprise 7% of Section. Overall Trace - 1% pyrite in argillite. Widest quartz - Carbonate vein, from 4.42 - 4.53, Carries Trace - 1% pyrite. Less than 5% Veining over remainder of unit. Veining Carries Trace - 1% pyrite.		
7.35 - 12.35	GA	Calcareous Graphitic Argillite	PYSL	QCVN
		Crudely grey and black banded with Contorted and Variably brecciated Calcareous beds to 1cm alternating with mostly thinner graphitic bands. Trace - 2% disseminated pyrite.		
		5-7% quartz - Carbonate Veining in unit as whole with following best Veined Sections:		
		8.15 - 8.74: 25% fine quartz - Carbonate Veins to 6 Cm at 50° and 90° to Core axis with Trace Sphalerite as isolated blebs to 2mm.		
		11.07 - 11.37: 15-20% quartz - Carbonate Veins to 2cm at 20-40° to Core axis. Trace Tetrahedrite and Sphalerite.		
		11.80 - 12.26: 20% quartz - Carbonate Vein fragments to 5Cm. Trace pyrite.		
		Ground Conditions as follows:		
		4.42 - 7.35: Moderate with 3-8 fractures/meter at 45°-60° to Core axis. Blocky Sections from 4.88 - 5.48, 6.69 - 6.73, 6.93 - 7.03, 7.55 - 7.62, 8.74 - 9.14, 10.06 - 10.97 (60% lost Core).		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property: Wind Flower | Project No.: 224 | Depth: 191.71 | Date Began: August 7/87

Hole No.: Win 90 | Co ord.: 1015.3N | Horizontal Length: | Date Completed: August 15/87

Claim No.: L12481 | 4982.25E | Core Size: NQ | Drilled By: M.E.B. Drilling

Page: 2 of 12 | Grid No.: | Angle & Grid Direction: -66° @ S-38°E Grid | Elevation: 1059.20m | Logged By: W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
12.35-90.48	G4	Graphitic Argillite.	CBMS PYSL	QCVN
		Massive to poorly foliated-schistose with less than 5% laminated grey calcareous bands usually <10cm wide except for largest band at 30.72-32.08. Several yellow Sericite-Carbonate-quartz bands to 14 Cm Compose 10-15% of argillite between 35.11-39.0 and contain Scattered Fuchsite slets-Trace to 1% pyrite. Trace-2% Throughout argillite as Disseminations and rare Thin Fg., Carbonate-Sulphides (20-40%)-qtz band. 5-10% quartz-Carbonate Veining overall with more Concentrated Veining at		
		13.35-13.56: 30% qtz-Carbonate Vein fragments. Trace pyrite.		
		18.94-19.24: 70% Veining to 4 Cm at 20-30° to Core axis. No Visible mineralization.		
		28.37-28.88: 20% qtz-Carbonate Veins to 3 Cm at 20° to Core axis. Trace Sphalerite and pyrite.		
		30.08-30.40: 15-20% qtz-Carbonate Veins to 1.5 Cm at 0° and 50° to Core axis. Trace pyrite.		
		31.80-31.97: 15-20% qtz-Carbonate Veining including a 1.5 Cm, 20° Vein with Trace Chalcopyrite.		
		41.50-41.80: 80% Veins to 17 Cm at 55-60° to Core axis with Trace Sphalerite and pyrite.		
		44.02-44.19: 12 Cm qtz-Carbonate Vein at 55° to Core axis with Trace Tetrahedrite and pyrite.		
		52.64-52.82: 15% Veins to 1 Cm+ at 0° to Core axis. Trace Sphalerite.		
		53.11-53.52: 20% Vein fragments to 7 Cm at Variable angles to Core axis. Trace pyrite.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property: Windflower | Project No.: 224 | Depth: 191.71m | Date Began: August 7/87
Hole No.: Win 90 | Co ord.: 10158.3N | Horizontal Length | Date Completed: August 15/87
Claim No.: L12481 | 4982.25E | Core Size: NQ | Drilled By: M.E.B. Drilling
Page: 3 of 12 | Grid No. | Angle & Grid Direction: -66 @ grid S-35° East | Elevation: 1059.20m | Logged By: W. Stoltenau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
12.35 - 90.48		Graphitic Argillite (Continued).		
		55.92 - 56.26: 30% qtz-Carbonate Veins To 10cm at 55° To Core axis and with Traces Sphalerite and pyrite.		
		58.75 - 59.04: Vein at 45° To Core axis with Trace Sphalerite, Tetrahedrite, pyrite.		
		59.39 - 60.00: 30-35% qtz-Carbonate Veins To 10cm with diffuse, irregular Contacts.		
		61.50 - 61.93: 25% irregular Stockwork Type qtz-Carbonate Veins To 3cm at Variable Core angles. Trace Sphalerite.		
		63.70 - 64.08: 40% qtz-Carbonate Veins To 5cm at 40° To Core axis. Trace Sphalerite.		
		65.48 - 65.83: 10-15% qtz-Carbonate Veins To 1.5cm at 35°, 60° To Core axis. Trace Sphalerite, Chalcopyrite.		
		68.63 - 69.21: 50% Veining with irregular Contacts. Trace pyrite.		
		72.96 - 72.56: Vein with 20% inclusions and at 60° To core axis. No visible mineralization.		
		76.40 - 77.42: Brecciated, Silicified, Carbonate altered argillite with 30-40% qtz-Carbonate Veining. Includes Section of 60% Veining from 76.40 - 76.72 and Wide qtz-Carbonate Vein from 76.86 - 77.09. Trace Sphalerite.		
		75.23 - 75.51: 80% irregular qtz-Carbonate Veins with Shear Foliation and Trace Sphalerite.		
		78.02 - 78.28: 20% qtz-Carbonate Veins To 1cm at 60° (Late Veins) and 0° (early brecciated Veins) To Core axis. Trace Sphalerite.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

Property Windflower | Project No. 224 | Depth 191.71m | Date Began August 7/87
Hole No. Win 90 | Co ord. 10158.3N | Horizontal Length | Date Completed August 15/87
Claim No. L12481 | 4882.25E | Core Size NQ | Drilled By M.E.B. Drilling
ZONE: | Page 4 of 12 | Grid No. | Angle & Grid Direction -66° @ Grid S-35° East | Elevation 1059.20m | Logged By W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
12.35 - 90.78		Graphitic Argillite (Continued)		
		81.50 - 81.72: 50% irregular qtz-Carbonate Veins with 40-50° angle to Core axis. Trace Tetrahedrite.		
		85.47 - 85.67: 40-45% brecciated Carbonate-quartz Vein with Trace Sphalerite.		
		86.05 - 86.25: 30-35% dismembered qtz-Carbonate Veins with Trace Sphalerite, Tetrahedrite, Chalcopyrite.		
		86.56 - 87.03: 20-25% qtz-Carbonate Vein Fragments. Trace Sphalerite.		
		88.39 - 88.61: 50% Sheared Foliated quartz-Carbonate Veins to 2cm at 25-30° to Core axis. Trace Sphalerite.		
		Ground Conditions in Graphitic Argillite as follows:		
		12.35 - 20.83: Moderate - good with 3-5 fractures/m. at 30° to Core axis with exception of blocky Sections from 13.56 - 13.77, 14.66 - 14.74, 16.54 - 16.78, 17.07 - 17.98 (rubble - 10% Core recovery), 18.57 - 18.71.		
		20.83 - 27.38: Fault Zone rubble - Very poor ground with most Core Fragments < 3cm. Cave with 30cm lost Core from 21.95 - 23.25. 30% lost Core from 22.5 - 23.16. 75% lost Core from 23.46 - 25.91.		
		27.38 - 29.68: Blocky with 10-15 fractures/meter Subparallel to Schistosity (40-60°).		
		29.68 - 32.71: Moderate - good ground with 5 fractures/meter at 50° to Core axis except for blocky Core (>20 fractures/m.) from 31.24 - 31.74.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property Wind Flower | Project No. 224 | Depth 191.71m | Date Began August 7/87
Hole No. Win 90 | Coord. 10158.3N | Horizontal Length | Date Completed August 15/87
Claim No. L12481 | 4882.25E | Core Size NQ | Drilled By M.B. Drilling
Page 5 of 12 | Grid No. | Angle & Grid Direction -66°@ Grid S-35°East | Elevation 1059.20m | Logged By W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
12.35-90.48		Graphitic Argillite (Continued).		
		32.71-46.80: Good ground with 1-4 fractures/m. Subparallel to local foliation/schistosity.		
		46.80-49.07: 5-10 fractures/meter at 30°-50°.		
		49.07-52.40: Blocky ground with longest core fragment 14cm and most ≤ 7cm. Rubble from 50.29-50.90.		
		52.40-60.80: Moderate ground with 3-6 fractures/m. at 20°-40°. Blocky sections from 52.82-53.11, 55.55-55.62, 56.59-56.85.		
		From 60.80-90.48 is good ground with 2-4 fractures/meter; usually subparallel to local foliation-schistosity. Exceptions as follows:		
		61.40-62.03: blocky with 15 fractures/meter. Rubble and Sand/gouge from 61.95-62.04.		
		63.80-64.08: Blocky ground with fractures at 40°. Clayey gouge from 63.8-63.82.		
		67.78-68.88: Blocky with 10-12 fractures/meter at 40° and irregular angles.		
		74.20-76.40: Blocky with 10-12 fractures/meter at 40°-60°		
		78.94-79.70: Blocky to Rubbly ground. Largest core fragment 5cm.		
		86.25-86.70: Blocky to rubbly core. 30° fractures.		
		87.43-88.19: Blocky with 10-12 fractures/meter at 30°, 55° to core axis.		
		90.02-90.48: Blocky to rubbly with most fragments < 4cm.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property Wind Flower | Project No. 224 | Depth 191.71m | Date Began August 7/87
Hole No. Win90 | Co ord. 101.58.3N | Horizontal Length | Date Completed August 15/87
Claim No. L12481 | 4882.25E | Core Size NQ | Drilled By MeB Drilling
 | Grid No. | Angle & Grid Direction -66° @ Grid S-35° East | Elevation 1059.20m | Logged By W. Stefaniuk

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
90.48 - 91.84	QCVNBK	Blocky Quartz - Carbonate Vein Much fractured vein with largest core fragment 7cm and most fragments < 3cm. 10% graphitic material as inclusions and schistose matrix between QTZ-Carbonate vein fragments. Trace - 1% pyrite and Trace chalcopyrite. Poor ground.	PY	
91.84 - 100.30	GAGSH	Graphitic Argillite (Sheared) Blocky, poor to moderately schistose unit with 10-15% brecciated, thin, irregular quartz - carbonate veins. Massive, weakly fuchsitic section from 95.20 - 95.79. Trace - 1% pyrite in veining and 1-3% pyrite in argillite. QTZ-Carbonate vein (50° to C.A.) with trace pyrite from 99.3 - 99.6. Thirty percent (30%) QTZ-Carb. veins at 30° to C.A. and trace sphalerite from 98.6 - 98.75. 91.84 - 92.51: Mostly pebbly rubble. 20% lost core. 92.51 - 93.88: Very blocky to rubble with most fragments < 5cm and sandy graphitic argillite gouge from 93.07 - 93.27. Measurable fractures are subparallel to core axis. 93.88 - 94.33: Moderate ground with 3 fractures at 50° and irregular core angles. 94.33 - 95.10: Blocky with > 20 fractures/meter at 5-20° to core axis. 95.89 - 98.14: Blocky with most core fragments < 8cm. Rubble from 97.43 - 98.14. Fractures at 50°, 20°, 0°. 10-15% lost core. 98.14 - 100.30: Moderate ground with 7-8 fractures/meter at 45-50°. Rubble from 99.98 - 100.04	FU PYSL	QCVN

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property: Wind Flower | Project No.: 224 | Depth: 191.71m | Date Began: August 7/87
Hole No.: Win 90 | Co ord.: 101.58.3N | Horizontal Length: | Date Completed: August 15/87
Claim No.: L12481 | 4882.25E | Core Size: NQ | Drilled By: M.B. Drilling
Page 7 of 12 | Grid No.: | Angle & Grid Direction: -66° @ Grid S-35° East | Elevation: 1059.20 m | Logged By: W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
100.30 - 102.11'	QCVN	Quartz - Carbonate Vein	CB	
		Massive to slightly brecciated with late Calcite along irregular microfractures. Vuggy between 101.10 - 101.50. Vein from 100.30 - 101.15 is running Subparallel to Core axis. Section as whole includes 30 - 40% irregular hostrock borders and inclusions in various stages of Carbonate alteration. Trace pyrite.		
		100.30 - 100.55: Angular rubble to blocky core with irregular clean fractures.		
		100.55 - 101.15: Non fractured.		
		101.15 - 102.11: has 7 fractures at irregular Core angles. Pebble rubble from 101.50 - 101.65		
102.11 - 129.09'	GA	Graphitic Argillite.	MTTSL	QCVN
		Brecciated looking, moderately Schistose unit with 1-3% disseminated pyrite and irregular pyrite blebs.	PYTTSL	QCVN
		102.11 - 106.21: 5-8% brecciated diffuse, thin (mainly < 0.5cm) Carbonate - quartz veining with trace - 1% pyrite.		
		106.21 - 109.07: 20-50% quartz - carbonate veined and carbonate altered. Veining mostly brecciated and crudely Shear foliated and reoriented Subparallel to hostrock Schistosity (30 - 45°). Trace pyrite and Sphalerite. One late unbrecciated qtz - Carbonate Vein at 85° to C.A. at 107.73 - 107.80 with no visible mineralization.		
		109.07 - 114.85: 7-15% diffuse qtz - carbonate vein fragments with trace pyrite. Includes Section from 110.18 - 110.55 with 55% veining to 5cm and with trace Tetrahedrite, Sphalerite, pyrite.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property: Wind Flower | Project No.: 224 | Depth: 191.71m | Date Began: August 7/87
Hole No.: Win90 | Co ord.: 10158.3N | Horizontal Length: | Date Completed: August 15/87
Claim No.: L12481 | 4882.25E | Core Size: NQ | Drilled By: M.B. Drilling
Page 8 of 12 | Grid No.: | Angle & Grid Direction: -66° @ Grid S-35° East | Elevation: 1059.20m | Logged By: W. Stetteray

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
102.11 - 129.09		Graphitic Argillite (Continued)		
		114.76 - 115.04: Schistose, somewhat friable and vuggy graphitic argillite with 0.5-1cm wide massive Sulphide (pyrite) band running subparallel to core axis.		
		115.04 - 115.6 : Graphitic argillite with 4-5% pyrite as irregular patches to 2cm and as dustings of fine crystals on schistosity planes. 5% veins with trace - 1% pyrite.		
		115.60 - 115.82: Crumbly schistose graphitic argillite and sandy/clayey gouge with several percent pyrite. Less than 5% veining with trace pyrite.		
		116.82 - 119.61: 30-35% qtz-carbonate vein material in very rubbly/blocky ground including section from 117.55 - 118.26 (with 60% vein fragments. 1-4% pyrite in veins; usually concentrated in carbonate rich border fringe.		
		120.54 - 120.63: Includes 3.5cm qtz-carbonate vein at 55-60° to core axis with trace tetrahedrite.		
		120.99 - 121.15 : Includes 4cm vuggy qtz-carbonate vein at 40° to core axis. Trace pyrite.		
		121.58 - 124.35: 40% contorted and brecciated qtz-carbonate vein fragments in schistose graphitic argillite. Trace pyrite in veins throughout and irregular 2mm bleb of tetrahedrite in 2cm vein fragment at 121.61.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

Property: Windflower | Project No.: 224 | Depth: 191.71m | Date Began: August 7/87
Hole No.: Win 90 | Coord.: 10158.3N | Horizontal Length: | Date Completed: August 15/87
Claim No.: L12481 | 4882.25E | Core Size: NQ | Drilled By: MeB Drilling
ZONE: | Page 9 of 12 | Grid No.: | Angle & Grid Direction: -66° @ Grid S. 35° East | Elevation: 1059.20m | Logged By: W. Steeteraad

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
102.11 - 129.04		Graphitic Argillite (Continued)		
		124.35 - 125.77: Pebbly graphitic argillite (50%) and Qtz-Carbonate Vein (50%) rubble with 85% Core loss. Trace to 1% pyrite in argillite and Trace pyrite in Vein rubble except for 1 cm diameter Vein pebble with 10% pyrite.		
		125.77 - 126.79: Eight 1 to 4 cm pebbles of Silicified graphitic argillite and Sericitic dolomite recovered. 3-4% pyrite.		
		126.79 - 127.41: 45 cm of Sandy graphitic argillite gouge recovered. Gouge contains Several percent loose pyrite crystals.		
		Ground Conditions in argillite are moderate with 2-7 fractures/meter at Shallow to moderate Core angles. Exceptions are		
		102.11 - 103.93: Rubble with most Core fragments < 5cm.		
		104.85 - 105.71: Blocky with 15 fractures/meter at 35°.		
		110.95 - 112.67: Rubble and blocky Core with most fragments < 5cm.		
		112.67 - 113.25: Blocky with 10-15 fractures/meter and clayey gouge and friable graphitic argillite from 112.67 - 112.82.		
		116.82 - 119.61: Rubble and very blocky Core with most Core fragments < 4cm.		
		113.55 - 113.99: blocky with Several Thin friable graphitic Schist Sections at 35-40° to Core axis.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property: Wind Flower | Project No.: 224 | Depth: 191.71m | Date Began: August 7/87
Hole No.: Win 90 | Co ord.: 10158.3N | Horizontal Length: | Date Completed: August 15/87
Claim No.: L1248.1 | 4882.25E | Core Size: NQ | Drilled By: M.E.B. Drilling
Page 10 of 12 | Grid No.: | Angle & Grid Direction: -66° @ Grid S-35° East | Elevation: 1059.20m | Logged By: W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
102.11-129.04		Graphitic Argillite (Continued).		
		119.55-119.7: Mostly rubble from 115.60-119.7 with most core fragments < 4cm. Friable core and gouge from 115.60-115.82 and 119.09-119.14. Lost Core: 115.82-116.74 (45%), 116.74-117.65 (20%).		
		121.38-121.58: Blocky to rubbly core.		
		124.35-127.41: See previous description of Section.		
		127.41-128.77: Rubble and blocky ground with > 20 fractures/meter at 20-30° to core axis along closely spaced shear planes. 0.8 Meter lost core		
129.04-150.53'	DO	Sericitic Dolomite	MS PYSL	
		Grey carbonate rich discontinuous, whispy bands to 1cm alternate with equally thin sericitic horizons to give unit a crude striped look. Banding deformed by small scale folds with sheared limbs. Progressive shearing obliterates both folding and early banding locally. Trace-1% fine disseminated pyrite in dolomite.		
		2-5% thin qtz-carbonate veins to 2cm, most commonly at 60° to core axis. Most veins only core trace pyrite.		
		144.15-144.45: Includes 1cm qtz-carbonate vein at 10° to core axis with trace sphalerite, chalcopyrite.		
		Good ground for most part with 0-4 fractures/meter at 10° and 60° to core axis. Blocky ground from 131.99-133.12 (15-20 fract/m), 133.52-134.50 (10 fract/m), 135.44-135.94 (10-12 fract/m).		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

Property: Wind Flower | Project No.: 224 | Depth: 191.71m | Date Began: August 7/87
Hole No.: Win 90 | Co ord.: 10158.3N | Horizontal Length: | Date Completed: August 15/87
Claim No.: L12481 | 4882.25E | Core Size: NQ | Drilled By: M.E.B. Drilling
ZONE: | Page 11 of 12 | Grid No.: | Angle & Grid Direction: -66°@ Grid S-35° East | Elevation: 1059.20m | Logged By: W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
150.53-162.76	DD	Chlorite-Sericite Dolomite.	CHMS PYSL	QCVN
		Medium grey, moderately foliated, weakly chlorite and sericite dolomite. Chlorite and sericite mainly concentrated on closely spaced shear planes at 0°-20° To Core axis and along earlier disrupted banding planes. Unit as a whole contains 3-6% irregular, thin, disrupted qtz-carbonate veins with exception of:		
		150.53-151.98: 15% irregular disrupted veins to 2cm with trace pyrite. Trace chalcopyrite in vein at 151.88.		
		158.33: Two 5 mm qtz-carbonate veins at 30° To Core axis with trace chalcopyrite.		
		161.82-162.22: 20% sheared qtz-carbonate vein material at 15° and 50° To Core axis. Trace sphalerite, pyrite.		
		Good ground with 0-1 fracture/meter at 30° and irregular hackly angles To Core axis.		
162.76-191.71	DD	Sericite Dolomite	MS PY	QCVN
		As at 129.04-150.53 and with 2-3% diffuse qtz-carbonate veins over most of unit. Trace pyrite in veins and trace-1% in host rock.		
		168.12-173.60: Section is extensively permeated by 20-40% diffuse irregular carbonate (± quartz) patches and veins. Trace pyrite.		
		169.64-169.79: 80% qtz-carbonate veining from 1-3cm wide at 60° To Core axis. Trace pyrite.		
		179.60-179.80: Qtz-carbonate vein at 50°. Trace pyrite.		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property: Wind Flower | Project No.: 224 | Depth: 191.71 | Date Began: August 7/87

Hole No.: Win 90 | Co ord.: 10158.3N | Horizontal Length: | Date Completed: August 15/87

Claim No.: L12481 | 4882.25E | Core Size: NQ | Drilled By: M & B Drilling

Page 12 of 12 | Grid No.: | Angle & Grid Direction: -66° Grid S-35° East | Elevation: 1059.20m | Logged By: W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
162.36-191.71		Sericite Dolomite (Continued) Good ground with 0-3 fractures/meter at 20°-90° to core axis except for 166-168.70 which has 7-8 fractures/meter and 188.03-188.97 with 10 fractures/meter at 20°.		
191.71		End of Hole. Acid Test (Corrected): 151.23 meters - 68° 31', 187.76 meters - 69° HOLE CEMENTED - CASING REMOVED		

Core Angles

60 meters	65°	61 meters	55° Shear schistosity	138.99 meters	+10° Sericite Schistosity 0° Veining
9.0 "	55°	64 "	45° "	144.75 "	15° Sericite Schistosity
12.0 "	30°	68.63 "	50° "	149 "	Muscovite-Sericite Sch. +20° Shearing +10°
15.0 "	15°	70 "	50° "	153.80 "	Sericite Schistosity 0°
17.8 "	35°	72.41 "	55-60° "	158.80 "	" "
20.5 "	10-15°	75 "	45° "	161.82	bending +10° Shears +10°
21.5 "	50° Sheared Schistosity	81 "	40°-50° "	163.37 "	Shears 35°-40°
23.5 "	40° "	84 "	35° "	164.80	bending +15 To +50°, Shears -10° To -12°
27.8 "	50° Schistosity	86.5 "	50° "	169.40	Shears 20°
30.4 "	55° "	89.0 "	55° "	176	Shears 30°
33.0 "	55° bedding laminations	94 "	55° "	180	Shears 20°
37.0 "	48° bedding foliation	97 "	5° "	184	Shears 45°
41.45 "	90° Schistosity	104.23 "	5-10° "	187	Shears 30°
44.5 "	50° "	107.25 "	30-40° "	188.67	Shears 40°
47.0 "	50° bedding lamin.	112 "	40°	191.72	Sericite Schist 30°
51.0 "	40° Shear schistosity	114 "	30°		
53.0 "	20° "	117.20 "	45°		
57.0 "	40° "	129.84 "	40° bedding laminations		
58.75 "	50° "	132.89 "	15° Schistosity		
60 meters	50° "	135.91 "	+30°-10° bedding/foliation Shearing		
		142.04	15° Muscovite Schist		

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34601 - 34606 S

GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE 1/3

Property WINDFLOWER Project No. 224 Depth 63.09 m Date Began Aug 8/87 G

Hole No. WIN-91 Co ord. 9960 N Horizontal Length Date Completed Aug 10/87

Claim No. L5654 4993 E Core Size NQ Drilled By KOOTENAY DRILLING

Grid No. Angle & Direction -60° E Elevation ~~1967 m~~ 1038.14 Logged By M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY 1/m
0 — 3.05	CASING	3.05	0.00	0.0				
3.05 - 5.38	WASTE	2.33	0.00	0.0				
5.38 - 5.86	292 68	0.48	.81	.3				
5.86 - 6.22	292 69	0.36	1.81	1.4				.65
6.22 - 6.46	292 70	0.44	.03	.1				.01
6.46 - 6.96	292 71	0.50	1.07	.2				.15
6.96 - 7.36	292 72	0.40	.07	.1				1.16/1.30m
7.36 - 7.76	292 73	0.40	.08	.2				Au .90 grams/1.3m
7.76 - 8.06	292 74	0.30	.07	.1				
8.06 - 8.56	292 75	0.50	.08	.2				
8.56 - 9.06	292 76	0.50	.09	.2				
9.06 - 9.52	292 77	0.54	.08	.2				
9.52 - 9.87	292 78	0.35	.08	.1				
9.87 - 10.22	292 79	0.35	.07	.2				
10.22 - 10.72	292 80	0.50	.09	.1				
10.72 - 11.22	292 81	0.50	.08	.2				
11.22 - 11.72	292 82	0.50	.10	.2				
11.72 - 12.22	292 83	0.50	.08	.2				
12.22 - 12.62	292 84	0.40	.07	.3				
12.62 - 13.12	292 85	0.50	.08	.2				
13.12 - 13.62	292 86	0.50	.07	.2				
13.62 - 14.12	292 87	0.50	.08	.1				
14.12 - 14.62	292 88	0.50	.07	.2				
14.62 - 15.00	292 89	0.38	.08	.2				
15.00 - 15.50	292 90	0.50	.06	.1				
15.50 - 15.90	292 91	0.40	.05	.1				
15.90 - 16.40	292 92	0.50	.10	1.0				
16.40 - 16.87	292 93	0.47	.06	.6				
16.87 - 17.37	292 94	0.50	.08	.9				
17.37 - 17.84	292 95	0.47	.09	.8				
17.84 - 18.34	292 96	0.50	.07	.7				
18.34 - 18.70	292 97	0.36	.07	.8				
18.70 - 19.20	292 98	0.50	.07	.6				
19.20 - 21.10	WASTE	1.90	0.00	0.0				
21.10 - 21.60	292 99	0.50	.22	.7				
21.60 - 21.79	293 00	0.19	.08	.5				
21.79 - 22.07	293 01	0.28	.04	.5				
22.07 - 22.25	293 02	0.18	.10	.6				
22.25 - 22.84	293 03	0.59	.08	.5				
22.84 - 23.36	293 04	0.52	.66	.9				

AVERAGES

WIDTH	Au.	Ag.	Cu.	Zn.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,753

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE 2/3

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. W.IN-91 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Direction Elevation Logged By M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.	
23.36-23.86	29305	0.50	.174	.5			
23.86-24.23	29306	0.37	7.11	2.0			
24.23-24.53	29307	0.30	.95	1.2			
24.53-24.80	29308	0.27	.10	1.4			
24.80-25.13	29309	0.33	14.57	2.4			
25.13-25.41	29310	0.28	.12	.2			
25.41-25.60	29311	0.19	1.07	.3			
25.60-25.79	29312	0.19	.82	.9			
25.79-26.05	29313	0.26	2.13	.5			
26.05-26.36	29314	0.31	.03	.6			
26.36-26.66	29315	0.30	5.64	.8			
26.66-27.06	29316	0.40	16.49	7.2			
27.06-27.50	29317	0.44	.14	.4			
27.50-28.00	29318	0.50	.17	1.0			
28.00-28.50	29319	0.50	.36	.6			
28.50-31.95	WASTE	3.45	0.00	0.00			
31.95-32.45	29320	0.50	.14	1.2			
32.45-32.95	29321	0.50	.08	.9			
32.95-33.28	29322	0.33	.14	1.3			
33.28-33.64	29323	0.36	.12	1.1			
33.64-33.86	29324	0.22	.07	1.6			
33.86-34.30	29325	0.44	.09	1.6			
34.30-34.80	29326	0.50	.10	1.2			
34.80-41.32	WASTE	6.52	0.00	0.0			
41.32-41.82	29327	0.50	.10	1.0			
41.82-42.17	29328	0.35	.07	.8			
42.17-42.52	29329	0.35	<.03	1.1			
42.52-43.12	29330	0.60	<.03	1.3			
43.12-43.50	29331	0.38	.05	.9			
43.50-43.80	29332	0.30	<.03	1.3			
43.80-44.30	29333	0.50	<.03	.8			
44.30-44.80	29334	0.50	<.03	1.1			
44.80-45.30	29335	0.50	<.03	.9			
45.30-45.85	29336	0.55	.03	1.2			
45.85-46.40	29337	0.55	<.03	.9			
46.40-46.95	29338	0.55	<.03	.9			
46.95-47.45	29339	0.50	<.03	.7			
47.45-47.95	29340	0.50	<.03	.7			
47.95-48.45	29341	0.50	.03	1.3			
48.45-50.40	WASTE	1.95	0.00	0.0			

WIDTH X ASSAY

AVERAGES

WIDTH	Au.	Ag.	Cu.	Zn.	
3.20m	4.56				23.86-27.06

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE 3/3

Property WINDFLOWER Project No. 224 Depth ..... Date Began .....

Hole No. WN-91 Co ord. ..... Horizontal Length ..... Date Completed .....

Claim No. .... Core Size ..... Drilled By .....

Grid No. ..... Angle & Direction ..... Elevation ..... Logged By M. CANTWELL

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
50.40 - 50.90	29342	0.50	.06	1.5															
50.90 - 51.46	29343	0.56	<.03	.8															
51.46 - 51.96	29344	0.50	.05	1.6															
51.96 - 54.80	WASTE	2.84	0.00	0.0															
54.80 - 55.30	29345	0.50	.41	1.4															
55.30 - 55.60	29346	0.30	.98	1.0															
55.60 - 56.02	29347	0.42	.24	1.2															
56.02 - 56.52	29348	0.50	.33	1.8															
56.52 - 57.00	29349	0.48	.35	2.0															
57.00 - 57.40	29350	0.40	.40	1.2															
57.40 - 57.85	29351	0.45	.51	1.5															
57.85 - 58.35	29352	0.50	.78	.9															
58.35 - 58.85	29353	0.50	2.21	1.6										0.50m	2.21				
58.85 - 59.15	29354	0.30	.68	1.7															
59.15 - 59.68	29355	0.43	.72	1.2															
59.68 - 60.18	29356	0.50	.18	.2															
60.18 63.09	WASTE	2.91	0.00	0.0															
E.O.H.																			

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

SLUDGE

Property WINDFLOWER Project No. 224 Depth 63.04 Date Began AUG 8
Hole No. WIN 91 Co ord. 9960 N Horizontal Length Date Completed AUG 10
Claim No. L 5654 4993 E Core Size N.Q Drilled By Kootenay Drilling
Grid No. Angle & Direction -60E Elevation 1967 m Logged By T. LA FAVOR

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 3.05	CASING	3.06																	
3.05 - 47.85	34601	44.80																	
47.86 - 50.90	34602	3.05																	
50.90 - 53.95	34603	3.05																	
53.95 - 57.00	34604	3.06																	
57.00 - 60.05	34605	3.05																	
60.05 - 63.09	34606	3.05																	
E. O. H.																			
			HOLE	TO BE	CONTINUED														
			CASING	TO BE	REMOVED														
			SHOE		REMOVED														

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property WINDFLOWER Project No. 224 Depth 63.09 M Date Began Aug 8/87
Hole No. WIN 91 Co ord. 9960 N Horizontal Length Date Completed AUG 10/87
Claim No. L 5654 4993 E Core Size NQ Drilled By Kootenay Exploration Drilling
Page 1 of 6 Grid No. Angle & Grid Direction - 60° E Elevation 1038.14M ? Logged By B. GABOURY

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
0 - 3.03	CSG	Casing.		
3.03 - 49.95	AR	Medium Grey calcareous Argillite with at least 15% graphitic interbeds, ~ 2% dissem py overall and ≤ 15% qtz - carb veins.	PY	GASC
	QCSK	5.38 - 5.86 : ~ 50% qtz - carb stockworks with 1-2% dissem py. Most veining is concordant with fabric.	PY	
	QCVN	6.22 - 6.46 : qtz - carb vein (no wall-rock incls), rusty, py in selvages. Upper contact CA ~ 90° lower contact CA ~ 55°	PY	
	QCVN	7.76 - 8.06 : qtz - carb vein with ≤ 10% wallrock incls, tr - 1% py * two specks sphal Upper contact CA 30° (sharp) lower contact CA ~ 80° (irreg.)	PYSL	
		8.56 - 10.90 : increasing degree of contortion & shearing.		
	FTGA	10.90 - 13.12 : FAULT ZONE blocky, well-sheared graphitic argillite with 1-3% py and ~ 15% dismembered lensoid qtz - carb veinlets	PY	
	AR	13.12 - 15.00 : Dark grey calcareous argillite with ~ 20% graphitic interbeds, ~ 1% py, moderately well sheared, numerous concord qtz - carb lenses	PY	GA

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

Property: WINDFLOWER | Project No.: 224 | Depth: | Date Began:
Hole No.: WIN 91 | Co ord.: | Horizontal Length: | Date Completed:
Claim No.: | | Core Size: | Drilled By:
ZONE: | Page 2 of 6 | Grid No.: | Angle & Grid Direction: | Elevation: | Logged By:

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
✓	QCVNAR	15.00 - 15.90 : Silicified dark grey calcareous argillite with 1-2% med fine py & 50-60% diffuse qtz-carb veining, trace specks of Sphal. Upper contact CA ~20° lower contact CA ~40°	SI PYSL	
✓	GAARBK	15.90 - 16.87 : blocky section composed of roughly equal amounts of calcareous & graphitic argillite.		
	ARGA	16.87 - 47.95 : Calcareous argillite with 30-50% graphitic argillite interbeds, 2-3% med. fine to med. grained dissem py, generally fairly well contorted and contains ≤ 15% qtz carb veining overall:	PY	QCVN
✓	QCVN	17.84 - 18.70 : 20-25% discontinuous concordant lensoid qtz-carb veinlets with trace specks sphal.	SL	
✓	QCVN	21.60 - 21.79 ; diffuse qtz-carb vein, contorted, tr-1% py, few specks Sphal. upper contact CA too irreg. lower contact CA ~33°	SLPY	
✓	QCVN	22.07 - 22.25 ; 30-40% diffuse qtz-carb veining, tr-1% py, several specks sphal.	SLPY	
✓	ARGA	22.84 - 23.36 ; dark grey calcareous argillite & graphitic argillite with 1-3% py overall & 5-10% qtz-carb veinlets with tr-1% py. One speck cpy at ~22.88. Veinlets are discontinuous but appear to generally cut across foliation.	PYCP	QCVN

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DIAMOND DRILL LOG

ZONE:

Page 3 of 6

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN 91 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Grid Direction Elevation Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
	QCVN	23.36 - 24.23 : Qtz - carb vein with ~10% wall rock incls ~ 1% fine py (concentrated near vein selvages). One large fleck visible gold plus one speck tetrahedrite at top selvage and several smaller flecks visible gold plus a few specks tetrahed. & sphal at bottom selvage. Upper contact CA ~32° lower contact CA diffuse	VGTTSL	
	QCVN	24.80 - 25.13 : Qtz - carb vein with 20-30% wallrock incls, 1-3% fine py, several specks sphal and several flecks visible gold. CA : upper contact ~60° diffuse CA : lower contact ~40°	VGTTPY	
	QCVN	25.41 - 25.60 : 1-2 cm irreg qtz - carb vein with tr-1% py, one speck cpy and one of tetrahed. CA ~ 10-15°	PYTT	
	QCVN	25.60 - 25.79 : Irregular 1 cm wide qtz - carb veinlet with tr - 1% py plus one small fleck visible gold. Cuts foliation at 43° to core axis.	VG PY	
		26.05 - 26.38 : Irregular 2 cm wide qtz-carb veinlet with tr py & few specks sphal, cuts core axis at 20°	SL	

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Page 4 of 6

Property: WINDFLOWER | Project No.: 224 | Depth: | Date Began:

Hole No.: WIN 91 | Co ord.: | Horizontal Length: | Date Completed:

Claim No.: | | Core Size: | Drilled By:

Grid No.: | Angle & Grid Direction: | Elevation: | Logged By:

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
	QCVN	26.38 - 26.66 : a 0.5 cm qtz - carb. vein with few specks sphal & cpy plus two flecks visible gold. Connects with another vein 3.5 cm wide with tr py. CA (first vein) ~ +30° (foliation at this point is ~ 5° to core axis) Second vein CA ~ +40°	VGSL	
	QCVN	26.66 - 27.50 : 2-4 cm wide qtz-carb vein with tr py & one speck tetrahed. follows core axis // fol.	TT	
	QCVN	33.64 - 33.86 : qtz-carb vein with ≤ 10% wallrock incls, numerous specks sphal & tetrahed. (1% combined), tr-1% fine py CA's ~ 40°	SLTT	
	AR	41.82 - 42.17 : silicified light grey calc. argillite, minor qtz-carb stockworks.	SI	QCSK
	QCVN	43.12 - 47.95 : 50 - 60% diffuse qtz-carb veining with tr-1% py plus trace specks sphal.	PYSL	
	FTGA	47.95 - 59.15 : FAULT ZONE in Graphitic Argillite generally blocky graphitic argillite with up to 15% qtz-carb veinlets and lenses generally concordant to shearing, 1-3% dissem py overall.	PY	QCVN

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Page 5 of 6

Property: WINDFLOWER | Project No.: 224 | Depth: | Date Began:

Hole No.: WIN 91 | Co ord.: | Horizontal Length: | Date Completed:

Claim No.: | | Core Size: | Drilled By:

Grid No.: | Angle & Grid Direction: | Elevation: | Logged By:

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
	QCVN	55.30 - 56.02 : 3-6 cm wide qtz-carb vein with several specks sphal & tetrahed plus 1-3% py CA ~ 0°	PYSLTT	
	QCVN	57.00 - 57.85 : qtz - carb vein with 40-50% wallrock incls and up to 5% med fine dissem. py, several specks sphal & tetrahed CA ~ 0°.	PYSLTT	
	QCVN	57.85 - 58.85 : qtz - carb vein with 3-5% med fine py, sphal, tetrahed. and 1 fleck visible gold. upper contact CA ?, lower contact CA ~ 30°	VG PY SLTT	
	AR	59.15 - 63.09 : Light grey calcareous argillite with minor graphitic interbeds, tr - 1% dissem py and ≤ 15% qtz - carb veins.	PY	QCVN
63.09		END OF HOLE.		
		ACID @ 63.09 = 59°		
		HOLE TO BE CEMENTED		
		CASING to be PULLED		
		SHOE REMOVED.		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE: Page 6 of 6

Property WIND FLOWER Project No. 224 Depth Date Began

Hole No. WIN 91 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Grid Direction Elevation Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		Core Angles		
		4.50 M — 0° fol // bed.		
		7.30 M — 20° fol // bed.		
		8.50 M — 15° fol		
		11.0 M — 0° shearing		
		13.0 M — 0° shearing		
		13.8 M — 17° fol // bed.		
		15.20 M — 0° fol		
		18.3 M — 0° fol		
		18.70 M — 32° fol		
		19.50 M — severely contorted		
		22.50 M — 35° (fol // bed)		
		24.25 M — 0° fol		
		25.80 M — 0-5° bed // fol (contorted)		
		26.38 M — 0-5° fol // bed.		
		29.60 M — 28° fol // bed.		
		31.10 M — 15° fol // bed.		
		32.61 M — 0° fol // bed.		
		33.6 M — 40° fol // bed.		
		35.0 M — 8-10° fol // bed.		
		37.61 M — 15-20° fol // bed (contorted)		
		40.2 M — 25° fol // bed.		
		41.0 M — 0° fol // bed		
		42.52 M — 10-15° fol // bed.		
		43.9 M — 42° fol		
		45.0 M — 47° fol		
		47.0 M — 55° fol		
		48.3 M — 10-15° shearing		
		50.0 M — 0-5° shearing		
		52.4 M — 20° fol		
		55.30 M — 0° fol		
		56.40 M — 20° fol		
		58.85 M — 30° fol		
		59.2 M — 40° fol		
		60.18 M — 30° fol		
		62.0 M — 30° fol		

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29455 -C - COMPLETE
34607 - 34627 -S

GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE 1/3

Property WINDFLOWER Project No. 224 Depth 68.88 Date Began Aug 10/87

Hole No. WIN - 92 Co ord. 9960 N Horizontal Length Date Completed Aug 11/87

Claim No. L5654 4993 E Core Size NQ Drilled By KOOTENAY DRILLING

Grid No. Angle & Direction -90° Elevation 1039.14 Logged By M CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 4.27	CASING	4.27	0.00	0.0			
4.27 - 4.80	WASTE	0.53	0.00	0.0			
4.80 - 5.30	29357	0.50	.14	.5			
5.30 - 5.60	29358	0.30	4.77	1.8			
5.60 - 6.20	29359	0.60	.19	.8			
6.20 - 6.80	29360	0.40	.09	.6			
6.80 - 7.30	29361	0.50	<.03	.5			
7.30 - 7.47	29362	0.17	1.68	.4			
7.47 - 7.92	29363	0.45	.05	.4			
7.92 - 10.70	WASTE	2.78	0.00	0.0			
10.70 - 11.10	29364	0.40	<.03	.1			
11.10 - 11.50	29365	0.40	<.03	.3			
11.50 - 12.00	29366	0.50	<.03	.1			
12.00 - 14.27	WASTE	2.27	0.00	0.0			
14.27 - 14.77	29367	0.50	.05	.1			
14.77 - 15.07	29368	0.30	.10	.3			
15.07 - 15.37	29369	0.30	<.03	.3			
15.37 - 15.57	29370	0.20	.04	.3			
15.57 - 18.57	WASTE	2.00	0.00	0.0			
17.57 - 18.07	29371	0.50	<.03	.1			
18.07 - 18.35	29372	0.28	<.03	.1			
18.35 - 18.85	29373	0.50	.03	.6			
18.85 - 19.35	29374	0.50	.13	.8			
19.35 - 19.55	29375	0.20	.03	.4			
19.55 - 20.05	29376	0.50	<.03	.3			
20.05 - 25.31	WASTE	5.26	0.00	0.0			
25.31 - 25.81	29377	0.50	.08	1.4			
25.81 - 25.90	29378	0.09	.08	5.1			
25.90 - 26.40	29379	0.50	.17	1.7			
26.40 - 26.79	29380	0.39	.05	1.1			
26.79 - 26.95	29381	0.16	.30	.7			
26.95 - 27.45	29382	0.50	.06	1.6			
27.45 - 27.95	29383	0.50	.19	2.0			
27.95 - 28.30	29384	0.35	.05	1.9			
28.30 - 28.57	29385	0.27	.12	2.0			
28.57 - 29.07	29386	0.50	.14	1.2			
29.07 - 29.46	29387	0.39	.05	.9			
29.46 - 29.86	29388	0.40	<.03	1.8			
29.86 - 30.00	29389	0.14	<.03	1.4			
30.00 - 30.50	29390	0.50	.04	1.5			

WIDTH X ASSAY

AVERAGES

WIDTH	Au.	Ag.	Cu.	Zn.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

18,753

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE 2/3

Property: WINDFLOWER | Project No.: 224 | Depth: | Date Began:

Hole No.: WIN-92 | Co ord.: | Horizontal Length: | Date Completed:

Claim No.: | Core Size: | Drilled By:

Grid No.: | Angle & Direction: | Elevation: | Logged By: M. CANTWELL

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.	
30.50 - 32.51	WASTE	2.01	0.00	0.0															
32.51 - 33.01	29391	0.50	<.03	1.0															
33.01 - 33.30	29392	0.29	.31	.9															
33.30 - 33.80	29393	0.50	<.03	.6															
33.80 - 34.86	WASTE	1.06	0.00	0.0															
34.86 - 35.36	29394	0.50	<.03	.3															
35.36 - 35.64	29395	0.30	<.03	.2															
35.64 - 36.44	29396	0.80	<.03	.6															
36.44 - 37.10	29397	0.66	<.03	.3															
37.10 - 37.40	29398	0.30	<.03	.3															
37.40 - 37.90	29399	0.50	.27	.5															
37.90 - 38.40	29400	0.50	<.03	.4															
38.40 - 38.90	29401	0.50	<.03	.3															
38.90 - 39.40	29402	0.50	<.03	.3															
39.40 - 39.90	29403	0.50	<.03	.3															
39.90 - 40.40	29404	0.50	<.03	.5															
40.40 - 40.90	29405	0.50	.04	.3															
40.90 - 41.45	29406	0.55	.04	.4															
41.45 - 41.95	29407	0.50	.03	.9															
41.95 - 42.45	29408	0.50	.23	.8															
42.45 - 42.95	29409	0.50	.04	.7															
42.95 - 43.45	29410	0.50	<.03	.4															
43.45 - 44.00	29411	0.55	<.03	.5															
44.00 - 44.50	29412	0.50	1.04	.7				.52	.819										
44.50 - 45.05	29413	0.55	.13	.4				.07	255										
45.05 - 45.55	29414	0.50	.37	.4				.18											
45.55 - 46.05	29415	0.50	1.22	.7				.61											
46.05 - 46.55	29416	0.50	1.36	.9				.68											
46.55 - 47.45	29417	0.90	.48	.7															
47.45 47.95	29418	0.50	.46	.4															
47.95 - 54.34	WASTE	6.39	0.00	0.0															
54.34 - 54.84	29419	0.50	.04	.4															
54.84 - 55.03	29420	0.19	.05	.4															
55.03 - 55.53	29421	0.50	<.03	.3															
55.53 - 58.95	WASTE	3.42	0.00	0.0															
58.95 - 59.45	29422	0.50	.11	.6															
59.45 - 60.00	29423	0.55	.08	.2															
60.00 - 60.60	29424	0.60	.17	.6															
60.60 - 61.10	29425	0.50	4.72	.5															
61.10 - 63.30	WASTE	2.20	0.00	0.0															

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DIAMOND DRILL RECORD

CORE 3/3

Property WINDFLOWER Project No. 224 Depth ..... Date Began .....

Hole No. WIN - 92 Co ord. ..... Horizontal Length ..... Date Completed .....

Claim No. .... Core Size ..... Drilled By .....

Grid No. ..... Angle & Direction ..... Elevation ..... Logged By M. CANTWELL

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
63.30 - 63.80	29426	0.50	.08	.2															
63.80 - 64.30	29427	0.50	.06	.5															
64.30 - 64.80	29428	0.50	<.03	.3															
64.80 - 65.30	29429	0.50	<.03	.1															
65.30 - 65.70	29430	0.40	<.03	.5															
65.70 - 66.12	29431	0.42	<.03	.7															
66.12 - 66.62	29432	0.50	<.03	.4															
66.62 - 67.12	29433	0.50	.23	.6															
67.12 - 67.72	29434	0.60	<.03	.8															
67.72 - 68.22	29435	0.50	.09	.9															
68.22 - 68.88	WASTE	0.66	0.00	0.0															
E.O.H																			

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DIAMOND DRILL RECORD

Property WINHT-LOWER Project No. 224 Depth 68.88 Date Began NOV-11
Hole No. WIN 92 Co ord. 9960 N Horizontal Length Date Completed AUG
Claim No. L 5654 4935 E Core Size N.Q. Drilled By Kootenay Drilling
Grid No. Angle & Direction -90° Elevation Logged By J.G. McFARLANE

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY	AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.
0 - 4.88	~~315~~ NC	4.88											
4.88 - 7.92	31607	3.05											
7.92 - 10.97	316 08	3.05											
10.97 - 14.02	316 09	3.05											
14.02 - 17.07	316 10	3.05											
17.07 - 20.12	316 11	3.05											
20.12 - 23.16	316 12	3.05											
23.16 - 26.21	316 13	3.05											
26.21 - 29.26	316 14	3.05											
29.26 - 32.31	316 15	3.05											
32.31 - 35.36	316 16	3.05											
35.36 - 38.40	316 17	3.05											
38.40 - 41.45	316 18	3.05											
41.45 - 44.50	316 19	3.05											
44.50 - 47.55	316 20	3.05											
47.55 - 51.00	316 21	3.45											
51.00 - 53.64	316 22	2.64											
53.64 - 56.69	316 23	3.05											
56.69 - 59.74	316 24	3.05											
59.74 - 62.79	316 25	3.05											
62.79 - 65.84	316 26	3.05											
65.84 - 68.88	316 27	3.05											
E.O.H.													
			ACID @ 67m =					88°					
			HOLE to be CEMENTED										
			CASING to be PULLED.					SHOE REMOVED.					

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Page 1 of 4

Property WINDFLOWER | Project No. 224 | Depth 68.88 | Date Began AUG. 10/87

Hole No. WIN 92 | Co ord. 9960 N | Horizontal Length | Date Completed AUG. 11/87

Claim No. L 5654 | 4993 E | Core Size NQ | Drilled By KOOTENAY EXPLORATION DRILLI

Grid No. | Angle & Grid Direction -90° | Elevation 1038.14 | Logged By B. GRBOURY

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
0 - 4.31	CSG	Casing		
4.31 - 68.88'	AR	Grey Calcareous Argillite contains 15-20% graphitic argillite interbeds up to several dm thickness, 1-2% fine dissem py, ~15% qtz carb veins (usually concordant with foliation).	PY	GARC
	FTBK	4.31 - 13.60M : FAULT ZONE generally blocky, well sheared, more graphitic (≥ 20% graphitic "beds").		
	QCVN	5.30 - 5.60 : rusty, qtz-carb vein with 1-3% fine to med fine py, one small fleck visible gold. Irregular CA's concordant with fol?	VGPY	
	QCVN	11.10 - 11.50 : 30% diffuse qtz-carb veining with tr-1% py plus several specks sphal & tetrahed.	PYSLTT	
	ARBK	13.00 - 15.07 : Grey Calcareous Argillite (as before)	PYCP	QCVN
		14.27 - 14.5 : Minor shear zone (blocky)		
		14.77 - 15.07 : qtz-carb vein with 20-30% wallrock inclds, tr-1% py, one speck cpy, irreg CA's concordant with fol?		
	FTAR'GA	15.07 - 17.20 : FAULT ZONE blocky, calcareous & graphitic argillite with minor clayey & sandy seams.		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN 92 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Page 2 of 4 Grid No. Angle & Grid Direction Elevation Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
	AR	17.20 - 20.48 : Grey Calcareous Argillite (as before)	PY	QCVN
		18.07 - 18.35 : diffuse qtz - carb veining (40-50% of interval), tr-1% PY, generally concordant with foliation.		
	FTGA	20.48 - 22.80 : FAULT ZONE sand seam and blocky sheared graphitic argillite.		
	AR	22.80 - 47.45 : Grey Calcareous Argillite (as before)	PYTISL	QCVN
		25.81 - 25.90 : diffuse qtz -carb vein (20-30% wallrock incls), ~1% fine PY, one speck sphal. upper contact CA ≈ 90° lower contact CA ≈ 80°		
		26.79 - 26.95 : qtz - carb vein with tr-1% PY (mainly at selvages), one large fleck tetrahed. upper contact CA ~ 25° lower " " ?		
*		28.30 - 28.57 : 20 - 25% qtz - carb stockworks with abundant sphal, cpy & tetrahed.		
*		29.86 - 30.00 : 6-7 cm wide qtz-carb vein with ~10% wallrock incls, tr-1% PY, abundant sphal, cpy & tetrahed. upper contact CA ~ 45° irreg. lower contact CA ~45°		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Page 3 of 4

Property: WINDFLOWER | Project No.: 224 | Depth: | Date Began:

Hole No.: WIN 92 | Co ord.: | Horizontal Length: | Date Completed:

Claim No.: | | Core Size: | Drilled By:

Grid No.: | Angle & Grid Direction: | Elevation: | Logged By:

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES		MINOR GEOLOGICAL CODE
		33.01 - 33.30 : fractured blocky qtz-carb vein with 1-2% fine py, tr tetrahed ?			
		35.36 - 35.64 ; ~60-70% diffuse qtz-carb veins with tr-1% fine py, plus few specks cpy & sphal. Although some veins cross-cut foliation the majority are concordant. (CA's ~25-30°)			
		× 37.40 - 47.45 : Grey calcareous argillite with graphitic argillite interbeds (as before) with 15-20% concordant qtz-carb veins up to 4 cm wide. Veins carry tr-1% py and the occassional rare speck sphal.			
/	AR	47.45 - 65.84 : Light grey calcareous argillite with minor (<10%) graphitic argillite interbeds, <10% qtz-carb veins (usually concordant with fabric)	S1	PYSL	GAQCVN
		54.84 - 55.03 : qtz-carb vein with 40% wallrock incls, ~1% fine disscm py upper contact CA ≈ 80° (irreg.) lower contact CA ~55°			
		59.45 - 59.74 : Qtz-carb vein with ~30% wallrock incls, tr-1% py, concord.			
		59.74 - 60.00 : ~20% qtz-carb stockworks in silicified calcareous argillite.			

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Page 4 of 4

Property: WINDFLOWER | Project No. 224 | Depth | Date Began
Hole No. WIN 92 | Co ord. | Horizontal Length | Date Completed
Claim No. | Core Size | Drilled By
Grid No. | Angle & Grid Direction | Elevation | Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		60 - 60.60 : ~50% qtz veining with ~5% py blocky.		
		64.30 - 65.30 : Qtz - carb vein with 10-15% wall-rock incls, 1-2% py, trace sphgl. Upper contact CA 40°, lower 30°.		
	AR	65.84 - 68.88 : Calcareous grey argillite with ≥ 15% graphitic interbeds :	PY	QCSK
		65.84 - 67.72 : 20-25% qtz-carb stockworks tr-2% py in veinlets, generally concordant.		
68.88		END OF HOLE. ACID @ 67m = 88°, HOLE to be CEMENTED CASING to be PULLED - SHOP Removed		
		CORE ANGLES		
		6.20 M - 40° shearing (slight contort.)		
		7.42 M - 15° shearing		
		9.00 M - 35° shearing		
		10.70 M - 35° shearing		
		12.50 M - 20° shearing		
		14.07 M - 25° shearing		
		16.0 M - 20-25° fol		
		18.35 M - 25° fol		
		20.0 M - 30° fol		
		23.0 M - ~45° fol (bed. contorted)		
		25.2 M - 23° fol // bed.		
		26.0 M - 25° fol // bed.		
		27.9 M - 5° fol // bed.		
		29.07 M - ~40° fol (contorted)		
		32.0 M - ~35° fol (bed. contorted)		
		33.7 M - 17° fol		
		34.5 M - 25° fol		
		37.50 M - 50° fol // bed.		
		38.90 M - 45° fol // bed.		
		40.40 M - 40° fol // bed.		
		41.55 M - 50° fol		
		42.80 M - 25° fol		
		45.55 M - 45° fol		
		47.90 M - 37° fol (bed. contort.)		
		52.0 M - 55° bed // fol		
		53.44 M - 35° fol // bed.		
		54.5 M - 60° fol // bed.		
		56.6 M - ~45° fol // bed.		
		59.74 M - 45° fol		
		61.10 M - 25° fol		
		63.80 M - 40° fol (// bed)		
		65.70 M - 45° fol		
		66.62 M - 50° fol		
		68.0 M - 25° fol (contorted)		

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S-30154 - 30162

GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE PAGE 1 of 6

Property: WINDFLOWER | Project No.: 224 | Depth: 170.69 | Date Began: AUG 11/87
Hole No.: WIN 93 | Co ord.: 10230 N | Horizontal Length: | Date Completed: SEPT 7/87
Claim No.: L12481 | 5085.77 E | Core Size: N.Q. | Drilled By: M & B
Grid No.: | Angle & Direction: -45° W | Elevation: 1061.39 M | Logged By: J. LAFAVOR

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.	WIDTH X ASSAY	AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.
0-2.62	CASING	2.62	0.00	0.0								
2.62-2.88	28694	.26	.04	.2								
2.88-3.28	95	.50	.52	<.1								
3.28-4.40	WASTE	1.12	0.00	0.0								
4.40-4.70	96	.30	.05	.3								
4.70-4.91	97	.21	.06	.3								
4.91-5.41	98	.50	.03	.2								
5.41-5.60	28699	.19	.02	.1								
5.60-5.90	28700	.30	.15	.2								
5.90-7.67	WASTE	1.77	0.00	0.0								
7.67-8.06	01	.39	.07	.3								
8.06-8.21	02	.15	.06	.5								
8.21-8.53	03	.32	.05	.3								
8.53-9.03	04	.50	.06	.2								
9.03-9.60	28705	.57	.04	.1								
9.60-9.95	06	.35	.04	.2								
9.95-10.15	07	.20	2.00	.6								
10.15-10.65	08	.50	.24	.2								
10.65-10.80	09	.15	.46	.3								
10.80-11.30	28710	.50	.05	.1								
11.30-13.00	WASTE	1.70	0.00	0.0								
13.00-13.50	11	.50	.21	.1								
13.50-13.85	12	.35	.50	<.1								
13.85-14.32	13	.47	.21	.1								
14.32-15.96	WASTE	1.64	0.00	0.0								
15.96-16.46	14	.50	.07	.1								
16.46-16.75	28715	.29	.10	.3								
16.75-17.25	16	.50	.09	.1								
17.25-34.58	WASTE	17.33	0.00	0.0								
34.58-35.08	17	.50	.51	.3								
35.08-35.58	18	.50	.51	.7								
35.58-35.88	19	.30	.11	.3								
35.88-36.38	28720	.50	.16	.5								
36.38-36.73	21	.35	.08	.2								
36.73-37.10	22	.37	.16	.6								
37.10-37.60	23	.50	.19	.3								
37.60-41.13	WASTE	3.53	0.00	0.0								
41.13-41.63	24	.50	.08	.3								
41.63-42	28725	.37	.05	.2								
42-42.40	28726	.40	.10	.5								

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE PAGE 2 OF 6

Property WINDFLOWER Project No. 224 Depth 170.67M Date Began AUG 11/87
Hole No. WIN 93 Co ord. 10230 N Horizontal Length Date Completed SEPT 7/87
Claim No. L 12481 5085.77 E Core Size N.Q Drilled By M.E.B
Grid No. Angle & Direction -45° W Elevation 1061.39 Logged By J. MEAVOR

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
42.40-42.70	28727	.30	.07	.4															
42.70-43.20	28	.50	.09	.4															
43.20-43.70	29	.50	.30	.3															
43.70-44.20	28730	.50	.40	.3															
44.20-44.70	31	.50	.21	.4															
44.70-45.25	32	.55	.29	.5															
45.25-45.62	33	.37	.09	<.1															
45.62-45.82	34	.20	.37	.1															
45.82-46.11	28735	.29	.14	<.1															
46.11-46.60	36	.49	.29	.4															
46.60-46.90	37	.30	.46	.1															
46.90-47.40	38	.50	.12	.3															
47.40-49.18	WASTE	1.79	0.00	0.0															
49.18-49.69	39	.50	.09	.2															
49.69-49.91	28740	.22	.07	<.1															
49.91-50.19	41	.28	.03	.3															
50.19-50.69	42	.50	.07	.1															
50.69-52.34	WASTE	1.65	0.00	0.0															
52.34-52.84	43	.50	.09	.2															
52.84-53.20	44	.36	.06	.2															
53.20-53.70	28745	.50	.06	<.1															
53.70-55.10	46	1.40	.03	<.1															
55.10-55.52	47	.42	.06	.1															
55.52-56.03	48	.51	.04	.1															
56.03-56.30	28749	.27	.06	.3															
56.30-56.70	28750	.40	.07	.2															
56.70-56.88	51	.18	.07	.3															
56.88-57.28	52	.40	.09	.4															
57.28-57.43	53	.15	.05	.2															
57.43-57.76	54	.33	.20	<.1															
57.76-58.26	28755	.50	.06	<.1															
58.26-61.46	WASTE	3.20	0.00	0.0															
61.46-61.76	56	.30	.06	.1															
61.76-62.04	57	.28	.07	.1															
62.04-62.44	58	.40	.03	-1.0															
62.44-63.54	WASTE	1.10	0.00	0.0															
63.54-64.38	59	.84	.03	<.1															
64.38-64.62	28760	.24	.04	<.1															
64.62-65.02	61	.40	.10	.2															
65.02-65.27	28762	.35	.06	.1															

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DIAMOND DRILL RECORD

CORE PAGE 3 OF 6

Property WINDFLOWER Project No. 224 Depth 170.69 m Date Began AUG 11/87
Hole No. WIN 93 Co ord. 10230 N Horizontal Length Date Completed SEPT 7/87
Claim No. L 12481 5085.77 E Core Size N-Q Drilled By M.E.B.
Grid No. Angle & Direction -45° W Elevation 1061.39 m Logged By T. LAFAVOR

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
65.37-71.18	WASTE	5.71	0.00	0.0															
71.18-71.48	28763	.30	.15	.2															
71.48-71.57	64	.09	.17	.2															
71.57-71.87	28765	.30	.09	.1															
71.87-72.36	66	.49	.09	.3															
72.36-72.62	67	.26	.12	<.1															
72.62-72.86	68	.14	.07	.1															
72.86-73.41	69	.55	.09	.1															
73.41-73.56	28770	.15	.08	.3															
73.56-73.75	71	.19	.05	.1															
73.75-74	72	.25	.07	<.1															
74-74.23	73	.23	.08	<.1															
74.23-74.40	74	.17	.07	.3															
74.40-74.87	28775	.47	.05	.2															
74.87-75.17	76	.30	.09	.6															
75.17-75.47	77	.30	.07	.5															
75.47-76.70	WASTE	1.23	0.00	0.0															
76.70-77.00	78	.30	.05	.6															
77-77.28	79	.28	.04	.3															
77.28-77.58	28780	.30	.03	.4															
77.58-78.74	WASTE	1.16	0.00	0.0															
78.74-79.04	81	.30	.07	.2															
79.04-79.50	82	.46	.08	.1															
79.50-79.76	83	.26	.04	.1															
79.76-80.10	84	.34	.05	.1															
80.10-80.47	28785	.37	.04	.1															
80.47-81.82	WASTE	1.35	0.00	0.0															
81.82-82.12	86	.30	.03	<.1															
82.12-82.30	87	.18	.05	<.1															
82.30-82.60	88	.30	.07	.2															
82.60-85.34	WASTE	2.74	0.00	0.0															
85.34-85.79	89	.45	.42	.1															
85.79-86.19	28790	.40	.22	.1															
86.19-86.53	91	.34	.19	.1															
86.53-86.75	92	.22	.15	<.1															
86.75-87.25	93	.50	.13	.2															
87.25-88.95	WASTE	1.70	0.00	0.0															
88.95-89.45	94	.50	.10	.2															
89.45-89.75	95	.30	.11	.1															
89.75-90.11	28796	.36	.16	.3															

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DIAMOND DRILL RECORD

CORE PAGE 4 OF 6

Property WINDFLOWER Project No. 224 Depth 170.69 M Date Began AUG 11/87

Hole No. W1N 93 Co ord. 10230 N Horizontal Length Date Completed SEP 7/87

Claim No. L12481 5085.77 E Core Size N.Q. Drilled By M & B

Grid No. Angle & Direction -45° W Elevation 1061.39 M Logged By J. LAFAVOR

INTERVAL [redacted]/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.		
90.11-90.56	28797	.45	.09	.1																
90.56-91.06	98	.50	.08	.2																
91.06-91.59	28799	.53	.12	.2																
91.59-92.09	28800	.50	1.02	.1																
92.09-92.59	01	.50	.20	.1																
92.59-93.18	02	.59	.13	.1																
93.18-93.68	03	.50	.12	<.1																
93.68-94.18	04	.50	.10	.1																
94.18-94.68	28805	.50	.11	.1																
94.68-95.18	06	.50	.07	.6																
95.18-100	WASTE	4.82	0.00	0.0																
100-100.50	07	.50	.35	.3																
100.50-101	08	.50	2.85	.7																
101-101.50	09	.50	63.70	11.6										1.91M	42.61	12.71				100.50-102
101.50-102	28810	.50	86.10	24.7																
102-102.41	11	.41	12.35	14.1																
102.41-103.02	12	.61	.17	.3																
103.02-103.45	13	.43	<.03	.2																
103.45-104.05	14	.60	.04	.2																
104.05-109.67	WASTE	5.62	0.00	0.0																
109.67-110.17	28815	.50	.13	1.4																
110.17-110.45	16	.28	.09	.8																
110.45-110.85	17	.40	.10	.7																
110.85-112.89	WASTE	2.04	.12	1.1																
112.89-113.35	18	.46	.12	1.1																
113.35-113.56	19	.21	.14	.3																
113.56-114	28820	.44	.29	.2																
114-114.50	21	.50	.25	.4																
114.50-116.60	22	2.10	.38	.4																
116.60-117.04	23	.44	1.25	.9																
117.04-117.54	24	.50	.20	.3																
117.54-118.06	28825	.52	.18	.3																
118.06-118.57	26	.51	.26	.2																
118.57-118.87	27	.30	.35	.1																
118.87-119.48	28	.61	.15	.2										0.61M	2.96	4.7				
119.48-120.09	29	.61	2.96	4.7																
120.09-120.40	28830	.31	1.01	.7																
120.40-120.80	31	.40	.11	.2																
120.80-121.05	32	.25	.09	.3																
121.05-121.55	28833	.50	<.03	.2																

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

Property WINDFLOWER Project No. 224 Depth 170.69m Date Began AUG 11/87
Hole No. WIN 93 Co ord. 10230 N Horizontal Length Date Completed SEP 7/87
Claim No. L 12481 5085.77 E Core Size NQ Drilled By MF B
Grid No. Angle & Direction -45° W Elevation 1061.39m Logged By D. LA FAVOR

CORE PAGE 5 OF 6

INTERVAL ~~FEET~~ / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES						
														WIDTH	Au.	Ag.	Cu.	Zn.		
121.55 - 122.03	288 34	.48	<.03	.3																
122.03 - 122.53	36	.50	<.03	.1																
122.53 - 122.80	36	.27	<.03	.3																
122.80 - 124.42	37	1.62	<.03	.3																
124.42 - 124.89	38	.47	.05	.1																
124.89 - 125.08	39	.19	54.90	23.1																
125.08 - 125.58	28840	.50	.96	.7										1.16M	9.81	4.08				124.89 - 126.05
125.58 - 126.05	41	.47	1.00	.8									INCL.	0.19	54.90	23.1				
126.05 - 126.55	42	.50	.09	.4																
126.55 - 127.05	43	.50	.07	.3																
127.05 - 127.55	44	.50	.04	.4																
127.55 - 128.05	28845	.50	.35	6.7																
128.05 - 128.25	46	.20	.11	2.6																
128.25 - 128.50	47	.25	.12	18.2																
128.50 - 128.77	48	.27	.20	2.3																
128.77 - 132.48	WASTE	3.71	0.00	0.0																
132.48 - 132.98	49	.50	.23	.4																
132.98 - 133.08	29800	.10	.10	1.9																
133.08 - 133.18	01	.10	.51	9.1																
133.18 - 133.68	02	.50	.10	<.1																
133.68 - 139.90	WASTE	6.22	0.00	0.0																
139.90 - 140.44	03	.54	.05	.2																
140.44 - 140.88	04	.44	.44	.7																
140.88 - 141.34	29805	.46	.06	.8																
141.34 - 142.30	WASTE	.96	0.00	0.0																
142.30 - 142.87	06	.57	.08	1.0																
142.87 - 143.37	07	.50	<.03	<.1																
143.37 - 152.10	WASTE	8.73	0.00	0.0																
152.10 - 152.60	08	.50	.23	2.2																
152.60 - 152.88	09	.28	.04	.1																
152.88 - 153.38	29810	.50	.20	.2																
153.38 - 153.88	11	.50	.28	.6																
153.88 - 154.22	12	.34	.55	1.2																
154.22 - 154.38	13	.16	3.19	8.1										0.69M	1.64	3.49				154.22 - 154.91
154.38 - 154.91	14	.53	1.18	2.1																
154.91 - 155.50	29815	.59	.64	2.6																
155.50 - 155.80	16	.30	.52	1.0																
155.80 - 156.37	17	.57	.42	.2																
156.37 - 156.47	18	.10	<.03	<.3																
156.47 - 156.97	29819	.50	<.03	.1																

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DIAMOND DRILL RECORD

CORE PAGE 6 OF 6

Property WINDFLOWER Project No. 224 Depth 170.69M Date Began AUG 11/87

Hole No. WIN 93 Co ord. 10230 N Horizontal Length Date Completed SEP 7/87

Claim No. L 12481 5065.77 E Core Size N.Q. Drilled By MSB

Grid No. Angle & Direction -45° W Elevation 1061.39m Logged By J. LAFAVOR

INTERVAL ~~FEET~~/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.	WIDTH X ASSAY						AVERAGES						
													WIDTH	Au.	Ag.	Cu.	Zn.		
156.97-157.47	29820	.50	2.97	1.2															
157.47-158	21	.53	4.49	2.1															
158-158.50	22	.50	1.05	.9															
158.50-159.11	23	.61	2.20	1.6									3.34M	2.39	1.50				156.97-160.31
159.11-159.51	24	.40	1.79	1.6															
159.51-159.81	29825	.30	3.35	2.1															
159.81-160.31	26	.50	1.07	1.2															
160.31-160.81	27	.50	.53	1.8															
160.81-161.20	28	.39	.90	1.7															
161.20-161.70	29	.50	.52	2.0															
161.70-162.20	29830	.50	.54	.4															
162.20-162.70	31	.50	9.44	2.7															
162.70-163.07	32	.37	1.28	2.1															
163.07-163.64	33	.57	1.21	3.1															
163.64-164.20	34	.56	2.11	2.2									3.00M	2.95	2.31				162.20-165.20
164.20-164.70	29835	.50	1.73	2.8								INCL.	2.00M	3.53	2.56				162.20-164.70
164.70-165.20	36	.50	1.82	.8															
165.20-165.50	37	.30	.46	.5															
165.50-166.11	38	.61	.24	1.2															
166.11-166.38	39	.27	.16	.5															
166.38-166.78	29840	.40	2.64	10.2									0.40M	2.64	1.02				166.38-166.78
166.78-167.23	41	.47	.50	9.0															
167.23-167.53	42	.30	.17	1.3															
167.53-167.89	43	.36	.20	4.5															
167.89-168.25	44	.36	.35	1.4															
168.25-168.75	29845	.50	.48	1.3															
168.75-168.96	46	.21	.17	.3															
168.96-169.47	47	.51	.09	.5															
169.47-170.69	WASTE	1.22	0.00	0.0															
E.O.H.																			

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DIAMOND DRILL RECORD

SLUDGE

Property WINDFLOWER Project No. ..... Depth 110.67 Date Began AUG 11/87

Hole No. WIN 93 Co ord ..... Horizontal Length ..... Date Completed SEP 7/87

Claim No. L12481 ..... Core Size NQ Drilled By MRB

Grid No. ..... Angle & Direction ..... Elevation ..... Logged By J. LAFAVOR

INTERVAL ~~FEET~~ METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 2.62	CASING	2.62																	
2.62 - 19.51	NORET	16.89																	
19.51 - 22.56	30154	3.05																	
22.56 - 25.60	55	3.05																	
25.60 - 28.65	56	3.05																	
28.65 - 31.70	57	3.05																	
31.70 - 34.75	58	3.05																	
34.75 - 37.80	59	3.05																	
37.80 - 40.84	30160	3.05																	
40.84 - 43.89	61	3.05																	
43.89 - 46.94	30162	3.05																	
46.94 - 170.69	NORET	123.75																	
E.O.H																			

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DIAMOND DRILL LOG

ZONE:

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Property WINDFLOWER | Project No. 224 | Depth 170.69 M | Date Began AUG 11/87

Hole No. WIN 93 | Co ord. 10230N | Horizontal Length | Date Completed SEPT 7/87 !

Claim No. L12481 | 5085.77E | Core Size NQ | Drilled By M & B

Grid No. | Angle & Grid Direction −45°W | Elevation 1061.39M | Logged By B. GABOURY

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
0 − 2.62	CSG	Casing.		
2.62 − 55.52	AR	Grey laminated, Calcareous Argillite. poorly laminated with laminae 2-3 mm thick. Contains 10-15% thin graphitic argillite interbeds, ~1% disseminated py, ~15% qtz-carb veins	FUMS PYT	QCGA
		2.62 − 2.88 : rubbly qtz-carb vein with 2% dissem. py.		
		2.88 − 4.50 : section with ~20% yellow carb-sericite schlieren, 1-3% dissem. py, 1-3% fuchsite & < 10% thin qtz-carb veinlets (diffuse).		
		4.70 − 4.91 : 20-30% qtz-carb veins, concordant (CA's ~ 70-75°), tr py & cpy. (2-4% py in hostrock.)		
		5.41 − 5.60 : 3.5 cm qtz-carb vein, 1% med. coarse grained py, tr tetrahed. CA's = 40-45°		
		8.06 − 8.21 : diffuse qtz-carb vein, tr py, CA's 40°		
		9.95 − 10.15 : diffuse qtz-carb vein with 20-30% wallrock incls, tr py? upper contact CA = 65° lower contact CA = 70°		
		13.50 − 14.32 : 75-80% diffuse concordant qtz-carb veining, tr py.		
		16.46 − 16.75 : Qtz-carb vein with 15-20% wallrock incls, tr py CA's ~ 75°		
		35.08 − 35.88 : white qtz-carb vein with 10-20% wallrock incls, 1-2% fine to med. fine py (concentrated near vein selvages). CA's ~ 75°		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE: Page 2 of 11

Property WINDFLOWER Project No. 224 Depth Date Began
Hole No. WIN 93 Co ord. Horizontal Length Date Completed
Claim No. Core Size Drilled By
Grid No. Angle & Grid Direction Elevation Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		35.88 - 36.38 : 7cm wide qtz-carb vein with tr-1% py concordant with fol.		
		36.38 - 37.10 : Qtz - carb vein with 30-40% wallrock incls, 1-3% dissem py. CA's ~75°		
		41.63 - 42.00 : Qtz - carb vein with 30-40% wallrock incls, tr py ; CA's 45-50°		
		43.70 - 44.70 : 20% diffuse qtz-carb veins, tr-1% py (irregular.)		
		45.82 - 46.11 : 3-5 cm wide qtz-carb vein, ~1% dissem. py (concentrated near vein selvage)		
		* one speck tetrahed., several specks sphal. CA = 5-10° (cross-cuts foliation)		
		46.60 - 46.90 : qtz-carb vein with 30% wallrock incls, 1-2% py, tr sphal., diffuse concordant contacts		
		49.69 - 49.91 : diffuse qtz-carb vein, tr-1% py. upper contact CA = 90° lower contact CA = 85°		
		52.84 - 53.20 : ~50% diffuse qtz-carb veining with ~1% dissem py upper contact CA = 50° lower contact CA = 35°		
55.52-62.59	DO GA	Interbedded calcareous graphitic argillite & Dolomite.	MO PYSL	QCVN
		Thinly bedded graphitic argillite sections (Thin bands graphitic argillite & dolomite) comprise 70% of unit and are interbedded with thicker massive dolomite & sericitic dolomite bands from 6-24 cm wide. Graphitic argillite sections are from 2-20 cm wide; 1-3% dissem py in argillite & dolomite; 5-7% thin qtz-carb veining overall:		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property: WINDFLOWER | Project No.: 224 | Depth: | Date Began:

Hole No.: WIN 93 | Co-ord.: | Horizontal Length: | Date Completed:

Claim No.: | | Core Size: | Drilled By:

 | Grid No.: | Angle & Grid Direction: | Elevation: | Logged By:

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		55.52 - 56.03 : 30% qtz - carb veins, tr py CA's ~ 50° veins up to 7cm wide		
		56.73 - 56.88 : 50% qtz-carb veins (up to 3cm wide), tr py, CA's ~ 60°.		
		57.28 - 57.45 : 50% qtz-carb veins (up to 3.5cm wide), tr py, irreg CA's.		
		57.76 - 58.26 : 40% qtz-carb veins & brecciated vein material (up to 11cm wide), tr py, CA's 75°		
		61.76 - 62.44 : 20% qtz vein fragments, tr py & sphal.		
62.59 - 65.53	DOMX	Yellow Sericitic Dolomite.	MSFU PYCP	QCVN
		Fine grained massive unit with 5-10% diffuse, fragmented carbonate - qtz veining, tr py & several blebs cpy (to several mm) in .25 cm carb - qtz veh at 20° to core axis at 64.95 - 65.02, occassional clot of fuchsite.		
		64.38 - 64.62 : qtz - carb vein, 1-2% fine to med grained py, irreg CA's.		
65.53 - 71.16	ARDOGA	Thickly Bedded Grey Laminated Calcareous Argillite to Dolomite and calcareous graphitic argillite:	PY	QCVN
		65.53 - 66.63 : blocky, rubbly thinly banded graphitic argillite and dolomite, tr py, <5% qtz vein fragments with tr py		
		66.63 - 67.37 : massive to weakly laminated medium grained sandy textured slightly graphitic dolomite. Rare qtz-carb vein (<.5cm) with tr py Dolomite locally leached & pitted.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

Property: WINDFLOWER | Project No.: 224 | Depth | Date Began
Hole No.: WIN 93 | Co ord. | Horizontal Length | Date Completed
Claim No. | Core Size | Drilled By
ZONE: | Page 4 of 11 | Grid No. | Angle & Grid Direction | Elevation | Logged By

INTERVAL FEET (METRES)	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		61.37 - 71.16 : 60% graphitic argillite interbedded with laminated grey argillite to dolomite, 5% diffuse qtz-carb veining, tr py → 2% py in graphitic argillite, tr py in calcareous argillite/dolomite.		
71.16 - 103.02	GADO	Interbedded Calcareous Graphitic Argillite & Dolomite.	PYSL	QCVN
		similar to 55.52 - 62.59 with 40% massive to thinly laminated dolomite or laminated calcareous grey argillite sections from <1cm to ~50cm wide, alternating with thinly banded sections (mm to cm scale) graphitic argillite and grey laminated calcareous argillite; 1-3% py in graphitic sections & tr - 1% py in dolomite, ~10% qtz-carb veining overall:		
		71.48 - 71.57 : qtz-carb vein, tr py CA ~ 70°		
		72.36 - 72.62 : 50% qtz-carb veining (up to 5cm wide), tr py & sphal, irreg CA's.		
		72.86 - 73.41 : 30% qtz-carb veining (up to 3.5cm wide) tr py & sphal, CA's 55-70°		
		73.56 - 73.75 : Slightly brecciated qtz-carb vein, tr py CA's ~ 75°		
		74.00 - 75.47 : 25-30% qtz-carb veins (up to 7cm wide) tr py CA's 20° - 80°		
		77.00 - 77.28 : 50% irreg-qtz-carb veining; tr py & sphal (veins up to 12cm wide) CA's ~ 80°		
		79.04 - 80.10 : 20% diffuse folded qtz-carb veining, tr py.		
		82.12 - 82.60 : 60% qtz-carb veining (up to 22cm wide), tr py, CA's ~ 65°.		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

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Property: WINDFLOWER | Project No.: 224 | Depth: | Date Began:

Hole No.: WIN 93 | Co ord: | Horizontal Length: | Date Completed:

Claim No.: | Core Size: | Drilled By:

Grid No.: | Angle & Grid Direction: | Elevation: | Logged By:

INTERVAL FEET ~~METRES~~	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		86.19 – 86.75 : silicified section with ~ 75% qtz-carb veining ; tr py upper contact CA = 65° lower contact CA = 80°		
		90.11 – 90.56 : Silicified section with 60-70% qtz-carb veining , tr py , CA's = 65°		
		91.06 – 91.59 : 60-70% diffuse qtz-carb veining with tr py ; CA's = 50°		
/ **	QCVNSX	101.00 – 103.02 : Qtz-carb vein with < 5% wall-rock inds , overall tr-1% py , numerous irregular graphite-lined fractures ;	GR	VGTTCP
*		101.00 – 101.50 : fragmented, blaky qtz with several splashes & flecks tetrahed & numerous splashes and flecks of visible gold.	VGTT	
*		101.50 – 102.00 : ~ 1% cpy as blebs and fine fracture linings ; one splash sphal. with visible gold.	VG CP	
*		102.00 – 102.41 : bull white qtz with one large splash tetrahed.	TT	
*		102.41 – 103.02 : rubbly, broken qtz with abundant irreg. graphite-lined fractures, few specks sphal & tetrahed, 1-2% fine 'dissem py.	SC TT PY	

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE: Page 6 of 11

Property: WINDFLOWER Project No. 224 Depth: Date Began:

Hole No.: WIN 93 Co ord: Horizontal Length: Date Completed:

Claim No.: Core Size: Drilled By:

Grid No.: Angle & Grid Direction: Elevation: Logged By:

INTERVAL FEET (METRES)	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
103.02 - 105.40	DO	Light Grey Dolomite. unfoliated, med fine grained with coarser grained recrystallized portions, tr-1% dissem. py, ~1% fuchsite as fracture linings ≤ 5% qtz - carb veinlets.	FU PY	
105.40 - 120.40	GA	Graphitic Argillite. well laminated with ~10% grey calcareous argillite interbeds, usually as thin laminae (≤ 1mm wide), 1-2% dissem & stringer py, ~10-15% qtz-carb veins & vein fragments:	PY	ARQCVN
		105.40 - 112.89: generally contorted & drag-folded section:		
		110.17 - 110.45: qtz-carb vein, tr py CA's ~40°.		
*	FTQC	112.89 - 120.40: qtz-carb vein with 10-20% wall-rock inds and graphitic stringers, tr-1% py, tr sphal.; blocky, pebbly sections ± graphitic fault gouge (FAULT ZONES):	PYSL	
		113.69 - 114.0: ~80% core recovery		
		114.50 - 116.60: ~10% core recovery		
		116.60 - 117.04: 40-50% core recovery		
		117.04 - 118.57: 40-50% core recovery		
		118.57 - 118.87: 50% core recovery		
		118.87 - 119.48: 30% core recovery		
		119.48 - 120.40: ~40% core recovery		
120.40 - 122.80	DO	Light Grey Dolomite medium grained, poorly foliated, 3-5% fuchsite as fracture linings, ~1% py except in silicified portions near contacts or	FU SI PY	QCVN

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Page 7 of 11

Property: WINDFLOWER | Project No.: 224 | Depth: | Date Began:

Hole No.: WIN 93 | Co ord.: | Horizontal Length: | Date Completed:

Claim No.: | | Core Size: | Drilled By:

Grid No.: | Angle & Grid Direction: | Elevation: | Logged By:

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		near qtz-carb veins where py may rise to 2-4%:		
		120.80 - 121.05: 3-5 cm wide qtz vein with abundant beige carbonate (coarse), tr py. CA's 10-15°		
		121.05 - 121.55: ~5 cm wide qtz-carb vein with abundant beige carbonate (coarse), tr py; CA's 10-15°		
122.80 - 127.56	MDBX	Black Cherty Mudstone	SI	
		brecciated, silicic very fine grained non-laminated rock with tr fine py; ~ 30% qtz-carb stockworks with tr fine py	PYSL	QCSK
**	QCVN	124.42 - 126.05: Qtz-carb vein with tr-1% py overall, numerous specks of tetrahed. & sphal. CA's are probably ~ 20°:	VGTTSI	
*		124.89 - 125.08: section with a fracture at ~22° to core axis, lined with several flecks of visible gold.		
*		125.08 - 125.58: numerous parallel graphite-lined fractures with associated tetrahed. fractures oriented ~15° to core axis.		
*		125.58 - 126.05: rubbly portion with tr-1% py, graphite fractures with tetrahed.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE: Page 8 of 11

Property: WINDFLOWER Project No.: 224 Depth: Date Began:
Hole No.: WIN 93 Co ord.: Horizontal Length: Date Completed:
Claim No.: Core Size: Drilled By:
Grid No.: Angle & Grid Direction: Elevation: Logged By:

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		126.05 - 127.56 : 30% qtz - carb stockworks, barren		
127.56 - 131.60	DO	Grey Dolomite poorly laminated, poorly foliated, 3-5% bedded dissem. py (up to 10% locally), 10-15% qtz-carb veins.	PY	QCVN
131.60 - 132.98	GA	Graphitic Argillite (as before), ~5% bedded dissem. py, ≤5% qtz veinlets & vein fragments up to 2cm wide.	PY	QCVN
132.98 - 136.90	MD	Black Cherty Mudstone. silicic, brecciated, non laminated, non foliated, 10-15% qtz-carb stockworks (non-mineralized) 133.08 - 133.18 : fine grained grey dolomite with 60-70% fine py.	SI PY	QCSK
136.90 - 140.43	DO	Sericitic Dolomite. grey & yellow, crudely mottled, 1-3% medium fine dissem py, <5% thin (≤1cm wide) qtz-carb veins, poorly developed foliation, generally contorted.	MS PY	
140.43 - 142.87	GA	Graphitic Argillite generally well foliated, but contorted with ~10% grey argillite interbeds, 1-3% fine to medium grained dissem. py, 10-15% qtz-carb veinlets & vein fragments up to 3cm wide; occassional band of sericitic dolomite (yellow) up to several tens of cm wide.	MS PY	QCAR

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

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Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN 93 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Grid Direction Elevation Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		140.44 - 140.84 : ~ 50% qtz - carb veining with 1-2% medium fine grained, dissem. py, generally fragmented & rubbly.		
		142.30 - 142.87 : 30% qtz - carb veins up to 3cm wide with tr fine to medium fine py. CA's generally ~ 70°. One vein at 20° to core axis with 1-2% medium fine to medium coarse py.		
142.87 - 145.48	DO	Yellow Sericitic Dolomite non laminated, very poorly foliated.	MS	
145.48 - 152.60	GA	Graphitic Argillite well - banded with 10-15% laminated grey calcareous argillite interbands up to several cm wide, 5-10% concordant qtz - carb veinlets & vein fragments up to ≤ 3cm wide, overall 1-2% fine dissem. py (usually concentrated in certain bands).	PY	AR @ CVN
152.60 - 154.22	DO	Yellow Sericitic Dolomite numerous cross-cutting curved qtz veinlets ≤ 3mm wide, tr - 1% fine dissem. py.	MS PY	
154.22 - 168.25		MAIN ZONE		
	GA @ C	154.22 - 155.80 : graphitic argillite with ~ 30% qtz - carb veins, tr - 1% medium to medium fine grained py plus the occassional bleb of cpy & CA's ~ 55°	PY CP	

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Page 10 of 11

Property: WINDFLOWER | Project No.: 224 | Depth: | Date Began:

Hole No.: WIN 93 | Co ord.: | Horizontal Length: | Date Completed:

Claim No.: | | Core Size: | Drilled By:

Grid No.: | Angle & Grid Direction: | Elevation: | Logged By:

INTERVAL FEET (METRES)	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
/	QZ	155.80 - 156.97 : bull white qtz vein, few grains py.		
*/	QCVN	156.97 - 159.11 : qtz - carb vein with 10-15% graphitic & grey calcareous argillite wallrock incls, 1-2% med. fine py plus the occassional speck of cpy or sphal (some larger grains of py).	PYCPSL	GAAR
*/	QCVN	159.11 - 161.20 : graphitic argillite with ~30% qtz - carb veins up to 1cm wide, 2-4% dissem py; this section is generally contorted.	PY	GA
/	QCBR	161.20 - 166.11 : rubbly qtz - carb vein with 30-40% graphitic argillite wallrock incls, 1-2% med. fine py (concentrated in graphitic stringers;	PY	GA
		161.20 - 164.70 : 60-65% core recovery		
		165.20 - 166.11 : tr-1% fine py.		
/		166.11 - 166.38 : yellow sericitic carbonate with minor irregular qtz veinlets up to ~1cm wide.	MSCB	
/	QCBR	166.38 - 168.25 : rubbly qtz - carb vein with 30-35% graphitic argillite wallrock incls:	PYTT	GA
		166.38 - 166.78 : 10-15% py as a massive coarse grained band ~5cm wide; ~66% core recovery		
		166.78 - 167.23 : 1-2% fine to med. fine py; ~66% core recovery		
		167.23 - 167.53 : graphitic argillite.		
		167.53 - 167.89 : 1-2% fine to med. fine py; ~66% core recovery.		
		167.89 - 168.25 : 1-2% fine to med. fine py plus several pieces with tetrahed.		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN 93 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Grid Direction Elevation Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
168.25 - 170.69	GA CR	Graphitic Argillite		
		as before, very contorted		
170.69		End of Hole (Hole cemented bottom to top)		

CORE ANGLES

4.00 M : 70° to
10.18 M : 80° to
11.60 M : 82° to
13.50 M : 65° to
14.32 M : 85° to
19.45 M : 75° to // bed
21.56 M : 70° to // bed
24.60 M : 60° to // bed
28.00 M : 80° to // bed
31.00 M : 65° to // bed
35.08 M : ~75° to // bed
37.45 M : 90° to // bed
38.00 M : 35° to // bed
39.80 M : 0° to // bed
41.00 M : 20° to
42.60 M : 82° to // bed
44.80 M : 80° to
45.62 M : 60° to (poor)
47.00 M : 70° to
48.70 M : 75° to // bed
51.30 M : ~90° to // bed
52.84 M : 50° to
53.70 M : 80° to // bed
54.60 M : 68° to // bed
57.30 M : 75° to
64.00 M : 77° to (poor)
66.00 M : 80° to
67.00 M : 65° to
69.00 M : 75° to
72.00 M → 77.00 contorted

77.42 M : 80° to
78.84 M : 70° to
82.60 M : 70° to
86.10 M : 65° to
90.50 M : 65° to
92.59 M : 37° to
93.68 M : 52° to
98.14 M : 90° to // bed.
100.40 M : 70° to // bed.
105.70 M : 77° to // bed
110.00 M : 50° to // bed
112.89 M : 90° to
121.60 M : 60° to
128.25 M : 48° to // bed.
130.90 M : 70° to // bed.
132.00 M : 65° to // bed.
140.30 M : 90° to // bed.
145.95 M : 75° to // bed
148.50 M : 57° to // bed
151.00 M : 65° to // bed.

ACID TEST 131.37 M : 41°
@ 170.68 M :

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34628 - 34651 5

GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE PAGE 1 of 4

Property WINDFLOWER Project No. 224 Depth 105.46 Date Began AUG 10/87
Hole No. WIN 24 Co ord. 9940 N Horizontal Length Date Completed AUG 16/87
Claim No. L5654 4988 E Core Size NQ Drilled By Kootenay Drilling
Grid No. Angle & Direction -45° E Elevation 1010.78 M Logged By T. LA FAVOR

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.	WIDTH X ASSAY
0 - 5.85	CASING	5.85	0.00	0.0			
5.85 - 6.05	5818	.20	0.04	0.0			
6.05 - 6.55	29436	.50	12.15	1.7			
6.55 - 6.80	29437	.25	4.83	1.1			
6.80 - 7.30	29438	.50	<.03	.5			
7.30 - 9.22	WASTE	1.92	0.00	0.0			
9.22 - 9.72	29439	.50	.38	.3			
9.72 - 10.12	29440	.40	<.03	.3			
10.12 - 10.47	29441	.35	<.03	.3			
10.47 - 10.97	29442	.50	<.03	.4			
10.97 - 11.47	29443	.50	.11	.3			
11.47 - 17.40	WASTE	5.93	0.00	0.0			
17.40 - 17.90	29444	.50	.03	.5			
17.90 - 18.40	29445	.50	<.03	.5			
18.40 - 18.78	29446	.38	.02	.2			
18.78 - 19.28	29447	.50	.03	.5			
19.28 - 21.27	WASTE	1.99	0.00	0.0			
21.27 - 21.82	29448	.55	.26	.9			
21.82 - 21.97	29449	.15	2.40	.7			
21.97 - 22.47	29450	.50	.33	.6			
22.47 - 22.82	29451	.35	.06	.7			
22.82 - 23.30	29452	.48	.16	.8			
23.30 - 23.65	29453	.35	.49	.7			
23.65 - 24.15	29454	.50	.05	.9			
24.15 - 26.56	WASTE	2.41	0.00	0.0			
26.56 - 27.06	29455	.60	.13	.7			
27.06 - 27.58	29456	.52	<.03	.5			
27.58 - 27.92	29457	.34	<.03	.5			
27.92 - 28.47	29458	.55	<.03	.4			
28.47 - 28.92	29459	.45	<.03	.5			
28.92 - 29.40	29460	.48	<.03	.4			
29.40 - 29.90	29461	.50	.27	.8			
29.90 - 30.11	29462	0.21	1.39	.7			
30.11 - 30.40	29463	.29	.56	.6			
30.40 - 30.70	29464	.30	10.40	7.4			
30.70 - 31.09	29465	.39	<.03	.4			
31.09 - 31.29	29466	.20	.13	.6			
31.29 - 31.82	29467	.53	.64	.9			
31.82 - 31.97	29468	.15	<.03	.5			
31.97 - 32.20	29469	.23	.03	.5			

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,753

AVERAGES	WIDTH	Au.	Ag.	Cu.	Zn.
6.05 - 6.80	0.75M	9.94	1.5		
21.82 - 21.97	0.15M	2.40	0.7		
29.90 - 30.7	0.80M	4.47	3.17		

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...IAMOND DRILL RECORD

...E PAGE 2 of 4

Property WINDFLOWER Project No. 224 Depth 105.46 Date Began AUG 10/87

Hole No. WIN 94 Co ord. 9940 N Horizontal Length Date Completed AUG 16/87

Claim No. 256544 4988 E Core Size NQ Drilled By Kootenay Drilling

Grid No. Angle & Direction -45° E Elevation 1010.78 M Logged By T. LAFAVOR

...AL ...TRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES						
														WIDTH	Au.	Ag.	Cu.	Zn.		
...32.34	29470	.14	.46	.5																
32.34 - 32.56	29471	.22	<.03	.7																
32.56 - 32.81	29472	.25	<.03	.3																
32.81 - 33.31	29473	.50	.11	.3																
33.31 - 33.76	29474	.45	.33	.4																
33.76 - 34.29	29475	.53	.53	.5																
34.29 - 34.79	29476	.50	<.03	.1																
34.79 - 40.70	WASTE	5.91	0.00	0.0																
40.70 - 41.20	29477	.50	<.03	.3																
41.20 - 41.70	29478	.50	.11	.4																
41.70 - 41.97	29479	.27	5.60	7.2																
41.97 - 42.16	29480	.19	.48	1.0																
42.16 - 42.54	29481	.38	59.20	24.0																
42.54 - 42.84	29482	.30	.45	.2										2.14M	15.57					41.70 - 43.8
42.84 - 43.34	29483	.50	2.00	1.8																
43.34 - 43.84	29484	.50	16.00	13.6																
43.84 - 44.40	29485	.56	.07	.3																
44.40 - 44.74	29486	.34	.20	.3																
44.74 - 45.24	29487	.50	.18	1.0																
45.24 - 45.69	29488	.45	1.30	1.0																
45.69 - 46.11	29489	.42	1.51	.7																
46.11 - 46.41	29490	.30	.10	.4																
46.41 - 46.91	29491	.50	<.03	1.0																
46.91 - 47.13	29492	.22	.21	1.1																
47.13 - 47.33	29493	.20	<.03	.4																
47.33 - 47.85	29494	.52	.64	1.9																
47.85 - 48.25	29495	.40	.13	.7																
48.25 - 48.57	29496	.32	.10	.8																
48.57 - 48.67	29497	.10	<.03	.3																
48.67 - 49.15	29498	.48	<.03	.2																
49.15 - 49.65	29499	.50	<.03	.6																
49.65 - 50.05	29500	.40	<.03	.3																
50.05 - 51.00	29501	.95	<.03	.4																
51.00 - 51.40	29502	.40	<.03	1.9																
51.40 - 51.80	29503	.40	.07	.2																
51.80 - 52.08	29504	.28	.06	.3																
52.08 - 52.30	29505	.22	.09	.3																
52.30 - 52.80	29506	.50	.05	.3																
52.80 - 53.15	29507	.35	.09	.2																
53.15 - 53.44	29508	.29	.78	.9																

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DIAMOND DRILL RECORD

CORE PAGE 3 OF 4

Property WINDFLOWER Project No. 224 Depth 105.46 Date Began AUG 10/87
Hole No. WIN 94 Co ord. 9940 N Horizontal Length Date Completed AUG 16/
Claim No. L 5654 4988 E Core Size NQ Drilled By Kootenay Drilling
Grid No. Angle & Direction -45°E Elevation 1010.7819 Logged By T. LAFAVOR

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
53.14 - 53.48	29509	.54	.15	.2															
53.48 - 54.35	29510	.37	.23	.3															
54.35 - 54.87	29511	.52	.08	.6															
54.87 - 55.24	29512	.37	.05	.2															
55.24 - 55.49	29513	.25	.07	1.0															
55.49 - 55.63	29514	.14	.36	.4															
55.63 - 56.13	29515	.50	.45	.2															
56.13 - 56.69	29516	.56	.18	.1															
56.69 - 56.84	29517	.15	.22	.2															
56.84 - 57.34	29518	.50	.10	.3															
57.34 - 57.68	29519	.34	.14	.3															
57.68 - 57.92	29520	.24	.05	.5															
57.92 - 58.27	29521	.35	.10	2.7															
58.27 - 58.67	29522	.40	.16	.6										0.40	.16	.6			
58.67 - 59.17	29523	.50	.06	.1			DIFFERENT VALUES IN ETK 412-46 TO 412-48							0.50	.06	.1			
59.17 - 59.74	29524	.57	.09	.2										0.57	.69	.2			
59.74 - 59.84	29525	.10	2.21	1.1															
59.84 - 60.00	29526	.16	.11	.2															
60.00 - 60.24	29527	.24	.08	.2															
60.24 - 60.64	29528	.40	.09	.2															
60.64 - 60.84	29529	.20	1.09	2.8															
60.84 - 61.34	29530	.50	1.09	.9															
61.34 - 61.84	29531	.50	2.60	1.0															
61.84 - 62.28	29532	.44	1.16	.8															
62.28 - 62.78	29533	.50	.26	.4															
62.78 - 62.95	29534	.17	.70	1.1															
62.95 - 63.20	29535	.25	.24	1.1															
63.20 - 63.70	29536	.50	.20	.4															
63.70 - 64.20	29537	.50	<.03	.3															
64.20 - 64.54	29538	.34	.11	.7															
64.54 - 64.73	29539	.19	<.03	.3															
64.73 - 64.94	29540	.21	<.03	.5															
64.94 - 65.34	29541	.40	.04	1.0															
65.34 - 65.84	29542	.50	<.03	.2															
65.84 - 66.34	29543	.50	.03	.2															
66.34 - 66.84	29544	.50	.11	.2															
66.84 - 67.34	29545	.50	.13	.2															
67.34 - 67.84	29546	.50	.12	.1															
67.84 - 68.38	29547	.54	.08	.2															
68.38 - 68.88	29548	.50	.07	.2															

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DIAMOND DRILL RECORD

Property WINDFLOWER Project No. 224 Depth 105.46 Date Began AUG 10/87

Hole No. WIN 94 Co ord. 9940 N Horizontal Length Date Completed AUG 16/87

Claim No. L 5654 4988 E Core Size N Q Drilled By Kootenay Drilling

Grid No. Angle & Direction -45° E Elevation 1010.78 M Logged By T. LAFAVOR

CORE PAGE 4 OF 4

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
68.88-69.00	29549	.12	.05	.2															
69.00-69.50	29550	.50	.05	.1															
69.50-70.00	29551	.50	.03	.1															
70.00-72.73	WASTE	2.73	0.00	0.0															
72.73-73.25	29552	.53	.07	.2															
73.25-73.51	29553	.26	<.03	.2															
73.51-73.89	29554	.38	.09	.2															
73.89-74.47	29555	.58	.07	.2															
74.47-74.98	29556	.51	.14	.3															
74.98-75.48	29557	.50	.08	.3															
75.48-75.98	29558	.50	.07	.3															
75.98-76.50	29559	.52	.04	.4															
76.50-77.00	29560	.50	.05	.1															
77.00-77.50	29561	.50	.06	.3															
77.50-78.03	29562	.53	.03	.3															
78.03-78.39	29563	.36	.04	.3															
78.39-78.91	29564	.52	.11	.2															
78.91-79.43	29565	.52	.55	.5															
79.43-79.83	29566	.40	.14	.3															
79.83-80.17	29567	.34	.05	.2															
80.17-80.51	29568	.34	.05	.2															
80.51-81.08	29569	.57	.04	.4															
81.08-81.58	29570	.50	.07	.3															
81.58-82.08	29571	.50	.07	.7															
82.08-82.48	29572	.40	.12	.2															
82.48-82.87	29573	.39	.07	.1															
82.87-83.57	29574	.70	.08	.3															
83.57-105.46	WASTE	21.89	0.00	0.0															
E.O.H.																			
			ACID @ 76.2 = 42°																
			HOLE CEMENTED TOP to BOTTOM																
			CASING PULLED.																

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

Sludge

Property WINDFLOWER Project No. 224 Depth 105.46 m Date Began AUG 10/87
Hole No. WIN 94 Co ord. 9940 N Horizontal Length Date Completed AUG 16/87
Claim No. L5654 4988 E Core Size N.Q. Drilled By Kootenay Drilling
Grid No. Angle & Direction -45° E Elevation 1010.78 m Logged By T. Schauer

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 5.85	CASING	5.85																	
5.85 - 7.29	34628	1.44																	
7.29 - 10.97	29	3.68																	
10.97 - 14.02	34630	3.05																	
14.02 - 17.07	31	3.05																	
17.07 - 20.12	32	3.05																	
20.12 - 23.16	33	3.05																	
23.16 - 26.21	34	3.05																	
26.21 - 29.26	34635	3.05																	
29.26 - 32.31	36	3.05																	
32.31 - 35.36	37	3.05																	
35.36 - 38.40	38	3.05																	
38.40 - 41.45	39	3.05																	
41.45 - 44.50	34640	3.05																	
44.50 - 47.55	41	3.05																	
47.55 - 50.60	42	3.05																	
50.60 - 53.64	43	3.05																	
53.64 - 56.69	44	3.05																	
56.69 - 59.74	34645	3.05																	
59.74 - 62.79	46	3.05																	
62.79 - 65.84	47	3.05																	
65.84 - 68.88	48	3.05																	
68.88 - 71.93	49	3.05																	
71.93 - 74.98	34650	3.05																	
74.98 - 78.03	34651	3.05																	
78.03 - 105.46	34651A	27.43																	
E.O.H.																			

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Page 1 of 10

Property: WINDFLOWER | Project No.: 224 | Depth: 105.46 M. | Date Began: AUG. 10/87
Hole No.: WIN 94 | Co ord.: 9940N | Horizontal Length: | Date Completed: AUG. 16/87
Claim No.: L5654 | 4988E | Core Size: NQ | Drilled By: KOOTENAY EXPLORATION DRILLIN
Grid No.: | Angle & Grid Direction: -45 E | Elevation: 1010.78 M | Logged By: B. GABOURY

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
0 - 5.85	CSG	Casing		
5.85 - 93.27	ARBN	Banded Light Grey Argillite. contains < 10% graphitic interbands, tr - 1% py and 15 - 20% qtz - carb veining overall.	PY	GAQC
**	QCBK	6.05 - 6.80 : qtz - carb vein with ~10% wallrock incls, blocky, contains tr - 1% fine py, traces of tetrahedrite (including one large splash.) several small flecks visible gold. lower contact CA ~ 90°	VG TTPY	
	QCVN	9.72 - 10.97 : Qtz - carb vein with ~40% wallrock incls, tr - 1% py, generally concordant (CA's up to 40°)	PY	
	QCVN	17.90 - 18.78 : Qtz - carb vein with tr py upper contact CA = 0° lower contact CA = 40° (both are concordant).		
	ARBK	21.27 - 26.5 : blocky section of calcareous argillite with ~15% graphitic argillite interbands.	TT	GAQC
X	QCVN	21.82 - 21.97 : 7cm wide qtz - carb vein with one splash tetrahed. and ~1% py (concentrated at vein selvages) CA's ~ 35°	TTPY	
	QCBK	23.30 - 23.65 : Blocky diffuse qtz - carb veining cpy in hostrock near vein		

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DIAMOND DRILL LOG

Property: WINDFLOWER | Project No.: 224 | Depth: | Date Began:

Hole No.: WIN 94 | Co ord.: | Horizontal Length: | Date Completed:

Claim No.: | | Core Size: | Drilled By:

ZONE: | Page 2 of 10 | Grid No.: | Angle & Grid Direction: | Elevation: | Logged By:

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		selvage, Concordant with fabric CA's ~30°.		
	ARBN	26.5 – 41.45 : Banded, light Grey calcareous Argillite (as before), < 10% graphitic argsillite, interbands, 15-20% qtz-carb veining.	PYSL	QCGA
	QCVN	27.06 – 27.58 : Qtz-carb vein with ≤10% wallrock incls. 1-3% py, & several specks tetrahed.? upper contact CA = 40° in opposite direction to fol. lower contact CA = 45° in opposite direction to fol.	PYSL	
	QCCR	27.58 – 27.92 : contorted section with several diffuse qtz-carb veinlets plus one larger vein with lower contact at 60° to core axis; in opposite direction to fol.		
	QCVN	31.40 – 31.70 : Qtz-carb vein with ~20% wallrock incls, 1-2% fine to med. grained py upper contact CA = 90° lower contact diffuse.	PY	
	QCVN	31.82 – 31.97 : 3.5 cm wide qtz-carb vein with tr-1% py (concentrated at selvages), several specks sphal. CA's 60° in opposite direction to fol.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

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Property: WINDFLOWER Project No.: 224 Depth: Date Began:
Hole No.: WIN 94 Co ord.: Horizontal Length: Date Completed:
Claim No.: Core Size: Drilled By:
Grid No.: Angle & Grid Direction: Elevation: Logged By:

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
	QCVN	32.20 - 32.34 : Qtz - carb vein with 20-30% wallrock incls upper contact CA diffuse (lost steep) lower contact CA ~ 90°		
	QCVN	32.56 - 32.81 : diffuse concordant qtz - carb vein with tr py.		
	QCVN	33.76 - 34.29 : 40-50% diffuse qtz - carb veining, ~1% dissem. py, one speck sphal.	PYSL	
	ARGC	41.45 - 49.15 : Grey calcareous argillite with < 10% graphitic argillite bands (as befor) containing ~60% qtz - carb veining;		GA
*	QCVN	41.70 - 42.54: qtz - carb vein with 20-30% wallrock incls, 1-2% fine to coarse py, one speck tetrahed. upper contact CA ~ 70° lower contact irreg.	PYTT	
*	QCVN	42.84 - 44.40 : qtz - carb vein, 1-2% fine to coarse py, tr speck sphal., numerous later stage cross-cutting qtz - carb veinlets & tension gashes upper contact CA 80-90° (irregular). lower contact; diffuse.	PYSL	

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

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Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN 94 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Grid Direction Elevation Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
	QCVN	44.74 - 45.24 : concordant qtz-carb vein with 20-30% wallrock incls, 3-5% fine to med. grained py; some later stage cross-cutting qtz veining	PY	
	QCVN	45.69 - 46.11 : Silicified section with diffuse qtz-carb veining, 1-2% fine to med. fine py	SI PY	
	QCVN	46.41 - 47.13 : Qtz-carb vein with 1-2% py, numerous splashes & specks of tetrahed plus few specks sphal; upper contact CA ~40° (very irreg). lower contact CA ~45° (irreg)	PYSL	
	QCVN	47.33 - 47.85 : 30-40% diffuse qtz-carb veining with 1-3% fine to med fine py, tr specks of tetrahed. & sphal.	PYTTSL	
	QCVN	47.85 - ~~48.82~~ 48.67 : Qtz-carb vein with 10-20% wallrock incls, 3-5% fine to med grained py, numerous splashes & specks of tetrahed, few specks sphal and one fleck visible gold. upper contact CA 20-25° lower contact CA 30° (concordant to fol.)	VGTTSL	

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

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Property: WINDFLOWER | Project No.: 224 | Depth: | Date Began:

Hole No.: WIN 94 | Co ord.: | Horizontal Length: | Date Completed:

Claim No.: | Core Size: | Drilled By:

Grid No.: | Angle & Grid Direction: | Elevation: | Logged By:

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
	QCBK	48.67 - 49.15 : qtz - carb vein with 1-3% py, blocky & rusty. CA's ~ 15° (// fol).	PY	
	G1	49.15 - 54.87 : Grey calcareous argillite (as before) with 10 - 15% qtz - carb veining;		QCVN
	QCVNBK	51.00 - 51.40 : Qtz - carb vein (blocky) with 3-5% fine to med. fine py, ~1% tetrahed. several specks cpy & sphal, coarse carb, 1 tine speck bornite. Concordant with fabric; upper contact CA ~ 45° lower contact CA ~ 30°	PY TR CPY	
	QCVN	51.80 - 52.08 : 2-4 cm wide qtz - carb vein with ~1% py, several specks sphal & tetrahed. Also several carb - rich tension gashes at ~0° to core axis with tetrahed. CA's ~ 25°	PY SL TR	
	QCVN	52.80 - 53.15 : Carb - rich Qtz - carb vein (approximately 8-10 cm true width), ~1% fine py, several specks sphal & tetrahed. CA's ~ 22 - 25°	PY SL	
	BK	53.15 - 53.25 : rusty blocky zone.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

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Property: WINDFLOWER | Project No. 224 | Depth | Date Began
Hole No. WIN 94 | Co ord. | Horizontal Length | Date Completed
Claim No. | Core Size | Drilled By
Grid No. | Angle & Grid Direction | Elevation | Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
	QCVN	53.34 - 53.44 : irreg. qtz-carb vein with 1-2% fine to med grained py; numerous specks sphal & tetrahed. Vein cross-cuts fol at ~ 80° to core axis. *	PYSLTT	
	QCVN	54.35 - 54.87 : ~30% diffuse qtz-carb veining, 1-2% py, several specks sphal, tet & cpy. CA's are irregular but veins cross-cut fol. *	PYSLTTCP	
	AR	54.87 - 60.84 : Bleached and generally silicified calcareous light grey argillite with 1-3% py, ~25% qtz-carb veining (some cross-cutting qtz-carb veinlets & stockworks).	SILM PY	QCVN
	QCVN	55.49 - 55.63 : 2-3 cm wide qtz-carb vein with 1-2% fine py (conc. at selvages), several specks cpy, sphal & tetrahed. CA's ~50° (concord to fol) *	PYCPSLTT	
*	QCVN	56.69 - 56.84 : one 2cm wide & one 5cm wide qtz-carb vein with ~1% py, few specks sphal & tetrahed. CA's ~35° (concord. w fol). *	PYSLTT	
	QCVN	57.92 - 58.27 : 1-3cm wide qtz-carb vein, ~1% py, numerous specks tetrahed, few specks sphal. CA ~ 5° (cross-cutting) *	PYTTSL	

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

Property: WINDFLOWER Project No.: 224 Depth: Date Began:
Hole No.: WIN 94 Co ord.: Horizontal Length: Date Completed:
Claim No.: Core Size: Drilled By:
ZONE: Page 7 of 10 Grid No.: Angle & Grid Direction: Elevation: Logged By:

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
	QCVN	58.27 - 58.67 : ~ 20% diffuse qtz - carb veining, 1-2% fine to med. grained py. CA's Irreg.	PY	
	QCVN	58.67 - 59.74 : qtz - carb vein with 10-20% wallrock incls, 1-2% fine to med. grained py, few specks cpy & tetrahed, tr fuchsite upper contact CA ~45° lower contact CA ~65°	FU PYCPTI	
	QCVN	59.84 - 60.01 : qtz - carb vein, tr py upper contact CA = 40° in direction opposite tol. lower contact CA = 90°		
		60.22 : 4 cm wide qtz - carb vein with 1-2% py CA ~ 90°		
	QCVN	60.64 - 60.84 : ~ 60% diffuse qtz - carb veining with 1-2% fine to med. grained py, several specks sphal & cpy.	PYSLCP	
	AR	60.84 - 62.28 : Grey calcareous argillite (as before); 1-2% py, occassional speck sphal & tetrahed; 30% qtz - carb veining (diffuse).	PYSLTT	QCVN
	AR QCVN	62.28 - 69.00 : Silicified light grey calcareous argillite with <2 10% graphitic argillite interbands, 1-2% disseminated py overall plus 35-40% qtz - carb veining;	PYSLTT	

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DIAMOND DRILL LOG

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN 94 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

ZONE: Page 8 of 10 Grid No. Angle & Grid Direction Elevation Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		63.20 - 63.70 : qtz-carb vein with 20-30% wallrock incls, 1-3% fine to med. grained py, tr specks sphal. Upper contact CA = 75° in direction opposite to lower contact diffuse.		
		64.20 - 64.54 : 6-8 cm concordant qtz-carb. vein with 1-3% fine to med. grained py, several specks cpy, sphal ? tetrahed.		
		64.73 - 65.34 : very silicified section with ≥ 5% fine to med fine py, numerous specks tetrahed.		
		66.84 - 69.00 : very silicified section with ~ 50% qtz-carb veining, 1-3% fine to med. grained py, tr cpy. CA's ~ 45°		
	AR	69.00 - 85.4 : Grey calcareous argillite (as before)		@CVN
		73.25 - 73.89 : 30-40% diffuse qtz-carb veining, tr py ~ concordant.		
		77.00 - 77.50 : several cross-cutting qtz-carb veinlets with abundant coarse yellow carb, tr specks tetrahed. comprise ~ 20% of this interval		

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DIAMOND DRILL LOG

ZONE:

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN 94 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

 Grid No. Angle & Grid Direction Elevation Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		77.50 - 78.39 : 20% diffuse qtz - carb veinlets, tr py, occassional speck tetrahed. or sphal. generally concordant.		
		* 78.91 - 79.83 : Qtz - carb veinlet with 1-2% fine to coarse py, few specks tetrahed. CA's ≈ 0°		
		79.83 - 80.57 : bleached, silicified interval with ~15-20% diffuse qtz - carb veining, tr py		
		80.82 - 82.87 : bleached silicified interval with 40-60% diffuse qtz - carb veining, tr py; locally concordant with fol.		
	FTAR	85.4 - 93.27 : FAULT Zone		GA
		85.4 - 86.5 : blocky, fractured & fragmented light grey argillite.		
		88.5 - 89.17 : blocky, fractured & fragmented grey argillite.		
		89.17 - 93.27 : grey argillite with 10-15% graphitic argillite interbands (blocky & fragmented from 90.22 to 93.27)		
93.27 - 99.36	GW	Banded light Grey Arenite: (Greywacke) silicic, med. fine grained arenite with minor thin argillaceous	SIAL	

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DIAMOND DRILL LOG

ZONE: Page 10 of 10

Property WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN 94 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No. Angle & Grid Direction Elevation Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION
		interbands. Contains 15-20% rounded bluish qtz fragments, ≤ 1mm dia plus some darker chloritic clasts, of equivalent size and frequency. Minor concordant & discordant qtz-carb veinlets, usually ≤ 5mm wide. The first metre of this interval contains numerous finely banded argillite bands which grade into the arenite (grain size increases & banding diminishes).
99.36-105.46	AR	Grey calcareous argillite (as before) contains 10-15% graphitic argillite interbands.
105.46		END OF HOLE.
		ACID @ 76.2 = 42° HOLE CEMENTED - TOP to BOTTOM - CASING PULLED

CORE ANGLES.

7.30 M - 12° fol // bed
9.00 M - 14° fol
10.12 M - 22° fol
10.97 M - 40° fol
11.35 M - 20° fol // bed.
14.05 M - 20° fol.
14.05 M → 16.0 M : contorted.
16.8 M - 55° fol
17.4 M - 20° fol
17.60 → 18.20 M : contorted.
19.8 M - 12° fol
21.25 M - 10° fol
22.0 M - 40° fol
24.15 M - 15° fol
26.21 M - 25° fol
26.6 M - 0° drag folding
27.0 M - 17° fol
27.8 M - 15° fol
28.2 M - 0° fol
28.2 → 29.6 : contorted.
29.6 M - 42° slight contort.

31.1 → 31.4 - contorted.
31.70 M - 15° fol
32.56 - abrupt change in fol. direction (steepens to 20°)
32.85 - 45° irreg.
33.76 - 30° fol
36.40 M - 20° fol
38.30 M - 25° fol
39.50 M - 35° fol
41.60 M - 37° fol
44.60 M - 11° fol
46.16 M - 35° fol
47.17 M - 25° fol (contorted)
49.15 M - 20° fol
49.15 → 55.24 M : contorted.
51.00 M - 45° fol
53.25 M - 25° fol
55.24 M - 33° fol
56.13 M - 50° fol
56.84 M - 35° fol
58.00 M - 55° fol

59.80 M - 60° fol
61.10 M - 10° fol
61.90 M - 0° fol (slight contorted)
63.10 M - 45° fol
63.70 M - 60° fol
64.73 M - 70° fol
65.84 M - 50° fol
72.0 M - 45° fol
72 → 74.9 M : contorted
74.9 M - 70° fol
76.0 M - 30°
77.85 M - 42° fol
78.39 M - 28° fol
78.39 → 80 M : contorted.
81.40 M - 70° fol.
83.57 M - 0° fol
84.12 → 85.4 : contorted
92.2 M - 35° fol
94.5 M - 48° fol
96.2 M - 35° fol
96.5 M - 20° fol

98.0 M - 46° fol
100.6 M - 25° fol // bed.
102.0 M - 40° fol // bed.
103.0 M - 45° fol // bed.
104.0 M - 50° fol // bed.
105.0 M - 0° fol // bed
105.46 M - 50° fol (contorted).

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE PAGE 1 OF 4

Property WINAFLOWER Project No. 224 Depth 129.82 M Date Began AUG 16/87
Hole No. WIN 95 Co ord. 9940 N Horizontal Length Date Completed AUG 19/87
Claim No. L 5654 4958 E Core Size NQ & BQ Drilled By Kootenay Drilling
Grid No. Angle & Direction -45° E Elevation 1009.57 Logged By T. LA FAVOR

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 4.92	CASING	4.92	0.00	0.0															
4.92 - 5.47	29575	.55	.95	.9															
5.47 - 5.97	29576	.50	.14	.2															
5.97 - 6.47	29577	.50	.03	.4															
6.47 - 6.82	29578	.35	<.03	<.1															
6.82 - 7.48	29579	.66	<.03	.2															
7.48 - 7.98	29580	.50	<.03	.3															
7.98 - 9.00	WASTE	1.02	0.00	0.0															
9.00 - 9.47	29581	.47	<.03	.1															
9.47 - 9.70	29582	.23	<.03	<.1															
9.70 - 10.20	29583	.50	1.28	1.6															
10.20 - 15.71	WASTE	5.51	0.00	0.0															
15.71 - 16.21	29584	.50	2.03	.5															
16.21 - 16.63	29585	.42	.60	1.2															
16.63 - 17.13	29586	.50	.35	.7															
17.13 - 17.58	29587	.45	.13	.5															
17.58 - 17.75	29588	.17	.06	.8															
17.75 - 18.25	29589	.50	.04	.4															
18.25 - 18.75	29590	.50	.10	.6															
18.75 - 21.95	WASTE	3.20	0.00	0.0															
21.95 - 22.56	29591	.61	.03	.5															
22.56 - 23.04	29592	.48	<.03	.5															
23.04 - 23.46	29593	.42	3.82	1.8										0.68M	4.12				23.04 - 23.72
23.46 - 23.72	29594	.26	4.85	.9															
23.72 - 23.92	29595	.20	.46	.7															
23.92 - 24.37	29596	.45	.34	.2															
24.37 - 24.87	29597	.50	.31	.9															
24.87 - 25.37	29598	.50	<.03	.4															
25.37 - 34.32	WASTE	8.95	0.00	0.0															
34.32 - 34.82	29599	.50	<.03	.4															
34.82 - 35.08	29600	.26	.04	.1															
35.08 - 35.44	29601	.36	.04	<.1															
35.44 - 35.94	29602	.50	.05	<.1															
35.94 - 37.90	WASTE	1.96	0.00	0.0															
37.90 - 38.45	29603	.55	.04	<.1															
38.45 - 38.70	29604	.25	.05	<.1															
38.70 - 39.20	29605	.50	.04	<.1															
39.20 - 45.90	WASTE	6.70	0.00	0.0															
45.90 - 46.40	29606	.50	.12	.1															
46.40 - 46.85	29607	.45	.64	.1															

GEOLOGICAL BRANCH
ASSESSMENT REPORT

10,753

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DIAMOND DRILL RECORD

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Property WINDFLOWER Project No. 224 Depth 129.82 M. Date Began AUG 16/87
Hole No. WIN 95 Co ord. 9940 N Horizontal Length Date Completed AUG 19/87
Claim No. L5654 4958 E Core Size NQ & BQ Drilled By Kootenay Drilling
Grid No. Angle & Direction -45° E Elevation Logged By J. LAFAVE

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES						
														WIDTH	Au.	Ag.	Cu.	Zn.		
46.85-47.30	29608	.45	.75	.1																
47.30-47.70	29609	.40	.09	.6																
47.70-48.20	29610	.50	<.03	.1																
48.20-63.89	WASTE	15.69	0.00	0.0																
63.89-64.34	29611	.50	.10	1.3																
64.34-65.00	29612	.61	<.03	.2																
65.00-65.45	29613	.45	.12	.8																
65.45-66.84	29614	.39	.30	.6																
65.84-66.14	29615	.30	.09	.5																
66.14-66.64	29616	.50	2.36	1.7																
66.64-66.91	29617	.27	.31	.6																
66.91-67.41	29618	.50	1.29	.6										3.04M	3.95					66.14 – 69.18
67.41-68.01	29619	.60	5.95	2.1																
68.01-68.63	29620	.62	1.69	.7									INCL.	1.77M	5.71					67.41 – 69.18
68.63-68.88	29621	.25	1.17	1.5																
68.88-69.18	29622	.30	17.30	.5																
69.18-69.68	29623	.50	.19	.6																
69.68-70.60	29624	.92	.07	1.4																
70.60-71.10	29625	.50	.16	2.3																
71.10-71.59	29626	.49	.10	1.1																
71.59-71.93	29627	.34	.71	1.1										0.33M	3.89	1.5				
71.93-72.26	29628	.33	3.89	1.5																
72.26-72.76	29629	.60	.16	1.6																
72.76-73.98	29630	1.22	.13	1.5																
73.98-74.48	29631	.50	.13	1.7																
74.48-74.98	29632	.50	.17	1.5										0.42M	23.32	2.9				
74.98-75.40	29633	.42	23.32	2.9																
75.40-75.90	29634	.50	.86	1.8																
75.90-76.40	29635	.50	.60	1.8																
76.40-76.90	29636	.50	.15	1.1																
76.90-77.52	29637	.62	.16	1.0																
77.52-78.14	29638	.62	.09	1.0																
78.14-78.64	29639	.50	<.03	.3																
78.64-79.17	29640	.53	<.03	.6																
79.17-79.67	29641	.50	.06	.7																
79.67-79.90	29642	.23	<.03	.4																
79.90-80.37	29643	.47	<.03	.3																
80.37-80.87	29644	.50	.05	.9																
80.87-84.87	WASTE	4.00	0.00	0.0																
84.87-85.37	29645	.50	<.03	.2																

GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE PAGE 2 of 4

Property WINDFLOWER Project No. 224 Depth 129.82 M Date Began AUG 16/87

Hole No. WIN 95 Co ord. 9940 N Horizontal Length Date Completed AUG 19/87

Claim No. L 5654 4958 E Core Size NQ & BQ Drilled By Kootenay Drilling

Grid No. Angle & Direction -45° E Elevation Logged By J. LaFleur

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
86.37-85.82	29646	.45	<.03	.3															
85.82-86.32	29647	.50	<.03	.5															
86.32-89.57	WASTE	3.25	0.00	0.0															
89.57-90.07	29648	.50	.105	.3															
90.07-90.18	29649	.11	.03	.7															
90.18-93.27	WASTE	3.09	0.00	0.0															
93.27-93.77	29650	.50	.23	.5															
93.77-94.24	29651	.47	.16	<.1															
94.24-94.54	29652	.30	118	.6															
94.54-94.79	29653	.25	.12	<.1															
94.79-94.89	29654	.10	.13	.3															
94.89-95.32	29655	.43	.24	.4															
95.32-95.82	29656	.50	.20	.8															
95.82-99.72	WASTE	3.90	0.00	0.0															
99.72-100.22	29657	.50	.15	.3															
100.22-100.62	29658	.40	.18	.2															
100.62-100.97	29659	.35	.14	.3															
100.97-101.50	29660	.53	.15	.4															
101.50-102.00	29661	.50	.12	.4															
102.00-102.50	29662	.50	.14	.5															
102.50-103.00	29663	.50	.09	.3															
103.00-103.51	29664	.51	<.03	.3															
103.51-104.05	29665	.54	<.03	.1															
104.05-104.21	29666	.16	<.03	.2															
104.21-104.50	29667	.29	.03	.5															
104.50-105.46	29668	.94	.08	.2															
105.46-115.66	WASTE	10.20	0.00	0.0															
115.66-116.16	29669	.50	.04	.2															
116.16-116.60	29670	.44	.05	.1															
116.60-117.10	29671	.50	.09	.3															
117.10-117.65	29672	.55	.11	.2															
117.65-117.90	29673	.25	.08	.2															
117.90-118.35	29674	.45	.09	<.1															
118.35-118.84	29675	.44	.06	.2															
118.84-119.24	29676	.40	.08	.3															
119.24-119.57	29677	.33	.09	.4															
119.57-119.91	29678	.34	.08	.2															
119.91-120.30	29679	.39	.04	.3															
120.30-120.53	29680	.23	.12	.3															
120.53-120.88	29681	.35	.15	.4															

GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE PAGE 4 OF 4

Property WINDFLOWER Project No. 224 Depth 129.82 m Date Began AUG 16/87
Hole No. WIN 95 Co ord. 9940 N Horizontal Length Date Completed AUG 19/87
Claim No. L 5654 4958 E Core Size NQ & B.Q Drilled By Kootenay Drilling
Grid No. Angle & Direction -45° E Elevation Logged By T. LaChance

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
120.88-121.38	29682	.50	.07	14															
121.38-121.88	29683	.50	.05	5															
121.88-122.50	29684	.62	.03	4															
122.50-123.10	29685	.60	.05	<.1															
123.10-123.60	29686	.50	.03	12															
123.60-127.58	WASTE	3.98	0.00	0.0															
127.58-128.08	29687	.50	<.03	1															
128.08-128.18	29688	.10	.06	3															
128.18-128.68	29689	.50	.07	12															
128.68-129.82	WASTE	1.14	0.00	0.0															
E.O.H.																			
			AC10 @ 106.0 = 40°																
			HOLE CEMENTED																
			CASING REMOVED																

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

Property WINDFLOWER Project No. 224 Depth 124.82M Date Began AUG 16

Hole No. WIN 95 Co ord. 9940 N Horizontal Length Date Completed AUG 19/87

Claim No. L 5654 4958 E Core Size NQ+ BQ Drilled By Kootenay Drilling

Grid No. Angle & Direction -45°E Elevation Logged By T. St. Laver

Sludge

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 4.92	CASING	4.92																	
4.92 - 8.23	34652	3.31																	
8.23 - 10.97	53	2.74																	
10.97 - 14.02	54	3.05																	
14.02 - 17.06	34655	3.05																	
17.06 - 20.11	56	3.05																	
20.11 - 23.16	57	3.05																	
23.16 - 26.21	58	3.05																	
26.21 - 29.26	59	3.05																	
29.26 - 32.31	34660	3.05																	
32.31 - 35.36	61	3.05																	
36.36 - 38.40	62	3.05																	
38.40 - 41.45	63	3.05																	
41.46 - 44.50	64	3.05																	
44.50 - 47.55	34665	3.05																	
47.55 - 51.00	66	3.45																	
51.00 - 53.64	67	2.64																	
53.64 - 56.69	68	3.05																	
56.69 - 59.74	69	3.05																	
59.74 - 62.79	34670	3.05																	
62.79 - 65.84	71	3.05																	
65.84 - 68.89	72	3.05																	
68.89 - 71.93	73	3.05																	
71.93 - 74.98	74	3.05																	
74.98 - 78.02	34675	3.05																	
78.02 - 81.07	76	3.05																	
81.07 - 84.12	77	3.05																	
84.12 - 87.17	78	3.05																	
87.17 - 90.22	79	3.05																	
90.22 - 93.27	34680	3.05																	
93.27 - 99.36	81	6.09																	
99.36 - 102.41	82	3.05																	
102.41 - 105.46	83	3.05																	
105.46 - 108.51	84	3.05																	
108.51 - 114.60	34685	6.09																	
114.60 - 117.65	34686	3.05																	
117.65 - 129.82	Mineral.	12.17																	
E.O.H.																			

GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Page 1 of 8

Property	WINDFLOWER	Project No.	224	Depth	129.82 M
Hole No.	WIN 95	Co-ord.	9940 N	Horizontal Length	
Claim No.	L5654		4958 E	Core Size	Nq (+Bq)
Grid No.		Angle & Grid Direction	-45° E	Elevation	1009.57

Date Began: AUG 16
Date Completed: AUG 21
Drilled By: KOOTENAY EXPLORATION DRILLING
Logged By: B. GABOURY

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
0 - 4.92	CSG	Casing		
4.92 - 129.84	AR BN	Banded Grey Calcareous Argillite	MS CB	G4 BC
		Contains ~ 15% graphitic argillite interbeds plus the occassional band of light greenish grey arenite, minor bands and schlieren of yellow sericitic carbonate, overall 1% dissem. py (up to 5% in graphitic argillite bands, ≤ 15% qtz-carb veins;		
		4.92 - 5.47 : qtz - carb vein, 30% wallrock incls, 1-2% py, diffuse contacts.		
		6.82 - 7.48 : 50% diffuse, blocky and fragmented qtz-carb. veining, tr py		
		11.4 - 12.4 : light green qtz-rich arenite band (15-20% visible sand sized blue qtz clasts). No mineralization		
		14.32 - 14.80 : light grey arenite with ~ 40% qtz clasts demonstrates graded bedding indicating tops to the east. No mineralization.		
		16.21 - 17.13 : 50 - 60% concordant qtz - carb veins (CA's ~ 45-50°), 1-2% fine to med. fine py, tr specks sphal, tr fuchsite, some yellow sericite-carb schlieren.		
		17.13 - 17.58 : Bull white qtz vein (10-20% wallrock incls), ~1% fine to med. fine py concentrated at vein selvages, one specks tetrahed. Upper contact CA ~ 20° lower contact CA ~ 80°		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE: Page 2 of 8

Property: WINDFLOWER Project No. 224 Depth Date Began

Hole No. WIN 95 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By

Grid No Angle & Grid Direction Elevation Logged By

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		17.58 - 18.25 : qtz - carb vein with 20-25% wallrock inclds, 2-3% fine to med. fine py. CA's irreg. and diffuse.		
		21.95 - 22.56 : fragmental, diffuse qtz - carb veining, tr py, tr specks sphal		
✓	QCVN	23.04 - 23.46 : 20-30% qtz - carb veining (diffuse), 1-3% py.		
✓	QCSK	23.46 - 23.72 : 30-40% qtz - carb stockworks, ~1% dissem py (fine to med. fine), few specks py, sph & tetrahed, one fleck visible gold. All possible CA's.	VGPYTTSL	
✓	QCVN	23.72 - 24.37 : Qtz - carb vein with 10% wallrock inclds, tr - 1% py (some wisps of fine py), few specks sphal. Upper contact CA = 50° lower contact CA = 25°		
✓	QCVN	34.82 - 35.44 : 30-40% qtz - carb veining, 1-2% fine dissem py, couple of specks of tetrahed & ? sphal. Several possible CA's.		
✓	AR	39.20 - 50.30 : Grey calcareous argillite (as before) with ~20% graphitic argillite banding.		C.A
✓	FT	44.50 - 50.30 : FAULT ZONE — 44.50 - 44.75 ; blocky, fragmented. 45.80 - 45.90 ; blocky, fragmental. 46.40 - 47.70 ; blocky, fragmental, 70% recovery 50.70 - 50.30 ; blocky, fragmental + clay.		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Page 3 of 8

Property: WINDFLOWER | Project No.: 224 | Depth: | Date Began:

Hole No.: WIN 95 | Co ord.: | Horizontal Length: | Date Completed:

Claim No.: | Core Size: | Drilled By:

Grid No.: | Angle & Grid Direction: | Elevation: | Logged By:

INTERVAL FEET / ~~METRES~~	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
	AR	50.30 – 129.84 : Grey calcareous argillite with 10-15% graphitic argillite interbands (as in interval 4.72-39.20M);		GA
	FT	55.19 – 58.80 : FAULT ZONE ; 55.19 - 55.75 : blocky, fragmental. 55.75 - 57.00 : fractured & crushed. 58.00 - 58.30 ; blocky, fragmental 58.30 - 58.80 ; fractured & crushed.		
	FT	60.10 - 65.00 : FAULT ZONE 60.10 - 61.00 : blocky, fragmented. 61.00 - 61.50 : fractured. 61.50 - 62.19 : blocky, fragmented graphitic interval. 62.79 - 63.65 : blocky, fragmented graphitic interval. 64.39 - 65.00 : pebbly qtz with 1-3% py, 20% recovery		
*	QCVN	66.91 - 68.63 : Qtz - carb vein with 10-20% wallrock incls, 1-2% fine to med fine py, several specks sphal & tetrahed. Vein is fractured and has pebbly sections; 67.41 - 68.01 : 66% recovery 68.01 - 68.63 : 50% recovery upper contact CA 27° lower contact CA ~50°	PY SLTT	
*	QCVN	68.88 - 69.18 : ~14 cm wide qtz - carb vein with 10% wallrock incls (plus several smaller diffuse qtz veinlets), 1-2% fine to med fine py. upper contact CA 65° (diffuse) lower contact CA 65° (diffuse)	PY	

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property: WINDFLOWER | Project No.: 224 | Depth: | Date Began:

Hole No.: WIN 95 | Co ord.: | Horizontal Length: | Date Completed:

Claim No.: | | Core Size: | Drilled By:

 | Grid No.: | Angle & Grid Direction: | Elevation: | Logged By:

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
*	QCVN	71.59 - 72.26 : irregular 2-4 cm wide qtz-carb vein, 1-2% py, couple specks sphal, CA ~ 0°		
*	FT.	72.50 - 77.40 : FAULT ZONE 72.50 - 74.28 : blocky, fragmented. 74.58 - 75.08 : blocky fragmental with 2-4cm wide qtz-carb vein; tr-1% py, several specks sphal & tetrahed.; CA's ~ 0°. 75.08 - 77.40 : blocky, Fragmented.		
*	BCVN	78.14 - 79.17 ; 50-60% diffuse qtz-carb veining & stkwks, tr-1% py, somewhat fragmented, 80% core recovery.		
*		85.37 - 85.82 : several irregular .5-2.0 cm wide qtz-carb veins, ~1% py, numerous specks sphal. & tetrahed. CA's ~ 0°		
		88.77 - 90.18 : light grey qtz-rich (~50% qtz clasts in a feldspathic matrix with thin chloritic layers), grainsize decrease downhole indicates tops to the east: 90.07 - 90.18 : 2-3 cm qtz-carb vein with 1-2% py (concentrated at vein selvages), 2 large splashes tetrahed. CA's ~ 90°. upper contact of arenite band is sharp with CA = 35°.		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE: Page 5 of 8

Property: WINDFLOWER Project No.: 224 Depth: Date Began:

Hole No.: WIN 95 Co ord.: Horizontal Length: Date Completed:

Claim No.: Core Size: Drilled By:

Grid No.: Angle & Grid Direction: Elevation: Logged By:

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		93.77 - 94.24 : 15-20% diffuse qtz-carb veining, 1% py, several specks sphal & tetrahed. *		
		94.54 - 94.79 : 15% diffuse qtz-carb veining with several small specks sphal.		
		Note: 94.79 ⇒ reduce to Bq core.		
		94.79 - 94.89 : qtz-carb vein, tr-1% py, couple specks sphal & tetrahed. CA's ~ 55° *		
		94.89 - 95.32 : 1-2 cm wide irreg qtz-carb vein, tr-1% py, couple specks sph & tetrahed. CA's ~ 0°		
		95.68 - 96.90 : Light grey arenite (as before) coarser at top of interval becomes finer toward 96.32 then coarsens again. Change in foliation through this interval suggests a fold.		
		96.90 - 97.70 : graphitic argillite band with ~1% py, ~15% diffuse qtz-carb veining		
		97.76 - 98.20 : Light grey arenite (same as (95.68 - 96.90). Change in foliation indicates another fold.		
		98.20 - 98.60 : graphitic argillite band (as before) (another fold in this band)		
		98.60 - 100.20 : Light grey arenite (as before) gradational decrease in grainsize to siltstone at lower contact.		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

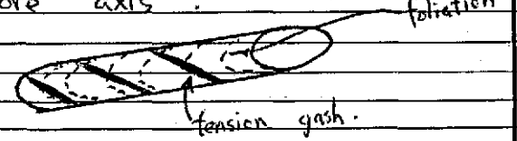
ZONE: Page 6 of 8

Property: WINDFLOWER Project No.: 224 Depth: Date Began:

Hole No.: WIN 95 Co ord.: - Horizontal Length: Date Completed:

Claim No.: Core Size: Drilled By:

Grid No.: Angle & Grid Direction: Elevation: Logged By:

INTERVAL FEET / (METRES)	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		100.22 - 100.97 : 40% diffuse qtz - carb veining, tr py, tr sphal ; concordant?		
		103.51 - 104.05 : Qtz - carb vein with 30% wallrock incls, tr py upper contact CA 50° lower contact CA ~55°		
		104.24 - 104.52 : Qtz - carb vein with 30% wallrock incls, tr py. upper contact CA = 35° lower contact CA = 30°		
		113.36 - 113.75 : Small Shear (crushed blocky fragmented graphitic argillite.)		
		114.60 - 115.66 : numerous parallel thin tension gashes cutting fol (CA = 45°) at ~ 20° to core axis : 		
		116.16 - 118.15 : 20-25% diffuse qtz - carb veining with tr py, tr sphal, tr cpy appears to be generally concordant		
		119.57 - 119.91 : qtz - carb vein with 20% wallrock incls, tr py ; diffuse contacts.		
		119.91 - 120.30 : ~50% diffuse qtz - carb veining (concordant) plus qtz - carb stock-works, tr py.		
		120.53 - 120.88 : qtz - carb vein with 10-20% wallrock incls, tr py ; upper CA = 25° lower CA = 90°		

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE: Page 7 of 8

Property: WINDFLOWER Project No.: 224 Depth: Date Began:

Hole No.: WIN 95 Co ord.: Horizontal Length: Date Completed:

Claim No.: Core Size: Drilled By:

Grid No.: Angle & Grid Direction: Elevation: Logged By:

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		121.88 – 123.10 : blocky section with several narrow irregular qtz-carb veins, 1% py, few specks sphal & tetrahed. CA's ~ 0° * 50% core recovery		
		123.10 – 124.00 : tension gashes as described for interval 114.60 – 115.66. Assuming a south plunge for drag folds observed in foliation in core; these tension gashes would be steeply dipping or vertical and striking almost normal to the main zone * Glory shear zones (ie CA's ~ 20°)		
		128.08 – 128.18 : qtz-carb vein 3-5cm wide with several specks sphal & tetrahed. CA's ~ 90°		
129.84		End of Hole.		
		casing removed; hole cemented top to bottom.		

CORE ANGLES

5.47 M : CA = 35° fol (bed contorted)
7.48 M : CA = 15° fol // bed.
12.4 – 13.4 M contorted.
13.6 M : CA = 0°
16.0 M : CA = 20° fol // bed.
18.75 M : CA = 45° fol // bed
20.61 M : CA = 30° fol // bed
23.04 M : CA = 0° fol // bed (contorted)
24.37 – 24.95 M contorted.
24.95 M : CA = 15° fol // bed. } fold.
25.40 M : CA = -20° fol // bed. }
27.5 M : CA = -20° } fold
29.5 M : CA = 0°

32.0 – 36.64 M : contorted CA are 0°
36.64 M : 17° fol // bed.
37.90 M : 20° fol // bed.
48.20 M : CA = 30° fol // bed.
50.90 M : CA = 35° fol // bed.
53.00 M : CA = 22° fol // bed.
53.75 M : CA = 32° fol.
59.74 M : CA = 18° fol // bed
64.39 M : CA = 45° fol // bed.
66.14 M : CA = 32° fol // bed
66.9 M : CA = 20° fol // bed
70.9 M : CA = 30° fol // bed
71.59 M : CA = 40° fol // bed

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GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE: Page 8 of 8

Property: WINDFLOWER Project No.: 224 Depth: Date Began:

Hole No.: WIN 95 Co ord.: Horizontal Length: Date Completed:

Claim No.: Core Size: Drilled By:

Grid No.: Angle & Grid Direction: Elevation: Logged By:

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
		CORE ANGLES		
		71.59 - 78.02 M : contorted fol CA averages 0°		
		79.17 M : CA = 16° fol // bed (contorted)		
		79.67 - 80.87 M : contorted.		
		80.87 M : CA = 30°		
		81.07 - 81.25M : Kink banding → incipient shearing at 57° to core axis.		
		82.97 M : 45° fol // bed.		
		84.12 M : 30° fol // bed.		
		86.0 M : 36° fol // bed.		
		90.40 M : 35° fol // bed.		
		92.0 - 92.5 M : folds CA's : -45° → 0° → +20° → 0° → -15°		
		93.5 M : 50° fol // bed.		
		94.79 M : 45° fol		
		95.68 — 96.90 : folds CA's : -15° → 0° → -5° → 0° → +20°		
		97.76 — 98.20 M : fold CA's +10° → 0° → -40°		
		100.50 M : CA = 25° fol // bed		
		101.75 M : CA = 15° fol // bed.		
		102.75 M : CA = 40° fol // bed.		
		104.1 M : CA = 30° fol		
		104.60 M : CA = 50° fol		
		107.70 M : CA = 40° fol		
		111.56 M : CA = 40° fol		
		113.75 M : CA = 30° fol.		
		116.0 M : CA = 20° fol		
		119.0 M : CA = 20° fol // bed.		
		120.30 M : CA = 47° fol.		
		123.60 M : CA = 35° fol.		
		126.0 M : CA = 25° fol // bed.		
		127.70 M : CA = 20° fol // bed.		
		DIP TEST 106.7 M : 40°		
		CASING REMOVED.		
		HOLE CEMENTED.		

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30950 - 30988 S

GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE PAGE 1 of 4

Property WINDFLOWER Project No. 224 Depth 131.06m Date Began AUG 16/87
Hole No. WIN 96 Co ord. 10067.9N Horizontal Length Date Completed AUG 19/87
Claim No. L 12481 4971.53E Core Size NQ Drilled By MB Drilling
Grid No. Angle & Direction -46°N 35W Elevation 1018.2m Logged By T. La Flamme

GEOLOGICAL BRANCH
ASSESSMENT REPORT
10,753

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY	AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 6.10	CASING	6.10	0.00	0.0										
6.10 - 6.70	31700	.60	.46	.7										
6.70 - 6.95	31701	.25	.52	.5										
6.95 - 7.16	31702	.21	1.09	2.3										
7.16 - 7.38	31703	.22	.06	.4										
7.38 - 7.67	31704	.29	3.88	1.3										
7.67 - 8.53	31705	.86	1.03	.7										
8.53 - 8.73	31706	.20	7.43	3.8										
8.73 - 9.14	31707	.41	1.71	1.4										
9.14 - 9.75	31708	.61	1.50	1.8					3.25M	3.62				7.38 - 10.63
9.75 - 10.19	31709	.44	10.90	2.3										
10.19 - 10.63	31710	.44	4.20	2.9										
10.63 - 10.95	31711	.32	.43	.5										
10.95 - 11.11	31712	.16	.44	.8										
11.11 - 11.40	31713	.29	.46	.4										
11.40 - 12.50	WASTE	1.10	0.00	0.0										
12.50 - 12.80	31714	.30	.91	.9										
12.80 - 13.11	31715	.31	11.10	2.7					0.31M	11.10				
13.11 - 13.47	31716	.36	.23	1.6										
13.47 - 13.85	31717	.38	.26	.8										
13.85 - 15.85	WASTE	2.00	0.00	0.0										
15.85 - 16.15	31718	.30	1.18	.4										
16.15 - 16.65	31719	.50	1.21	.9										
16.65 - 16.95	31220	.30	.44	.8										
16.95 - 17.61	31721	.66	.14	.5										
17.61 - 17.80	31722	.19	.20	.2										
17.81 - 18.10	31723	.29	3.72	1.1										
18.10 - 18.90	WASTE	.80	0.00	0.0										
18.90 - 19.30	31724	.40	1.19	1.3										
19.30 - 19.60	31725	.30	2.80	1.5										
19.60 - 20.10	31726	.50	.47	.9										
20.10 - 20.73	31727	.63	.26	.5										
20.73 - 22.59	WASTE	1.86	0.00	0.0										
22.59 - 22.99	31728	.40	.04	<.1										
22.99 - 23.23	31729	.24	.02	<.1										
23.23 - 23.54	31730	.31	.08	<.1										
23.64 - 23.69	31731	.15	.05	.1										
23.69 - 24.12	31732	.43	.07	.3										
24.12 - 24.57	31733	.45	.03	<.1										
24.57 - 24.85	31734	.28	.04	<.1										

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GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE PAGE 2 OF 4

Property WINDFLOWER Project No. 214 Depth 131.06 M Date Began AUG 16/87
Hole No. WIN 96 Co ord. 10067.9N Horizontal Length Date Completed AUG 19/87
Claim No L 56554 4971.53E Core Size NQ Drilled By MEB DRILLING
Grid No. Angle & Direction -45°N 35E Elevation 1018.2 M Logged By T. La Flamme

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
24.85-25.60	31736	.75	.14	<.1															
25.60-25.68	WASTE	.08	0.00	0.0															
25.68-26.25	31736	.57	.46	<.1															
26.25-26.67	31737	.42	.14	.2															
26.67-27.59	WASTE	.92	0.00	0.0															
27.54-27.89	31738	.30	.67	.1															
27.89-28.19	31739	.30	1.12	.5															
28.19-28.50	31740	.31	.04	<.1															
28.50-29.06	31741	.56	.42	<.1															
29.06-29.23	31742	.17	1.19	.5															
29.23-29.78	31743	.55	1.01	1.0															
29.78-30.41	31744	.63	.91	.8															
30.41-30.74	31745	.33	2.11	1.4															
30.74-31.24	31746	.50	2.01	1.3															
31.24-32.00	31747	.76	.29	.1															
32.00-32.50	31748	.50	.94	.6															
32.50-33.06	31749	.56	1.53	1.5															
33.06-33.70	31750	.64	1.27	1.3															
33.70-34.37	31751	.67	1.72	1.1															
34.37-34.80	31752	.43	1.40	1.5															
34.80-35.17	31753	.37	2.89	2.6															
35.17-35.60	31754	.43	1.53	1.0															
35.60-35.74	31755	.19	.76	1.0															
35.74-36.17	31756	.36	.72	.7															
36.17-36.47	31757	.30	<.03	.6															
36.47-81.23	WASTE	44.76	0.00	0.0															
81.23-81.73	31758	.50	<.03	.1															
81.73-82.16	31759	.43	.04	.2															
82.16-82.66	31760	.50	<.03	.4															
82.66-83.23	31761	.57	.09	.3															
83.23-83.82	31762	.59	<.03	.2															
83.82-84.50	31763	.68	<.03	<.1															
84.50-85.12	31764	.62	<.03	.1															
85.12-85.55	31765	.43	<.03	.2															
85.55-85.98	31766	.43	<.03	.3															
85.98-86.43	31767	.45	<.03	.3															
86.43-86.87	31768	.44	.05	.4															
86.87-87.55	31769	.68	.04	.3															
87.55-88.03	31770	.48	.03	.2															
88.03-88.53	31771	.50	.03	.3															

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GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

CORE

PAGE 3 of 4

Property: WINDFLOWER Project No. 224 Depth: 131.06 M Date Began: AUG 16/87

Hole No.: WIN 96 Co ord.: 10067.9 N Horizontal Length: Date Completed: AUG 18/87

Claim No.: L 5654 4971.53 E Core Size: NQ Drilled By: M & B Drilling

Grid No.: Angle & Direction: -45° N 35 E Elevation: 1018.2 Logged By: T. [illegible]

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.		
88.33-90.30	WASTE	1.77	0.00	0.0																
90.30-90.60	31772	.30	.05	.5																
90.60-90.88	31773	.28	.11	.8																
90.88-91.33	31774	.45	<.03	.3																
91.33-91.73	31775	.40	.05																	
91.73-92.96	WASTE	1.23	0.00	0.0																
92.96-93.24	31776	.28	.05	.5																
93.24-93.58	31777	.34	.03	.4																
93.58-93.88	31778	.30	.10	.7																
93.88-94.47	31779	.59	.07	.6																
94.47-94.77	31780	.30	<.03	.3																
94.77-94.91	31781	.14	<.03	.2																
94.91-95.21	31782	.30	.07	.4																
95.21-96.61	WASTE	1.40	0.00	0.0																
96.61-96.70	31783	.09	.08	.3																
96.70-96.98	31784	.28	.06	.7																
96.98-97.15	31785	.17	.07	.2																
97.15-97.55	WASTE	.40	0.00	0.0																
97.55-97.80	31786	.25	.04	<.1																
97.80-98.14	31787	.34	<.03	<.1																
98.14-101.00	WASTE	2.86	0.00	0.0																
101.00-101.30	31788	.30	<.03	.1																
101.30-101.87	31789	.57	<.03	.1																
101.87-102.17	31790	.30	<.03	<.1																
102.17-106.24	WASTE	4.07	0.00	0.0																
106.24-106.54	31791	.30	.11	.7																
106.54-106.74	31792	.20	.06	.1																
106.74-107.00	31793	.26	.22	.7																
107.00-107.59	31794	.59	3.24	5.2																
107.59-108.00	31795	.41	19.10	5.0										1.50M	7.64					107.00-108.
108.00-108.50	31796	.50	3.45	2.7																
108.50-111.13	WASTE	2.63	0.00	0.0																
111.13-111.43	31797	.30	.23	1.1																
111.43-111.80	31798	.37	.19	.9																
111.80-112.15	31799	.35	.27	.7																
112.15-112.50	31800	.35	.16	.1																
112.50-112.68	31801	.18	.10	.3																
112.68-113.23	WASTE	.55	0.00	0.0																
113.23-113.56	31802	.33	.11	.6																
113.56-114.12	31803	.56	.23	.8																

GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

Property: WINDFLOWER | Project No.: 224 | Depth: 131.06 M | Date Began: AUG 16/87

Hole No.: WIN 96 | Co ord.: 10 067.9 N | Horizontal Length: | Date Completed: AUG 19/87

Claim No.: L 5654 | 4971.53 E | Core Size: NQ | Drilled By: M&B Drilling

Grid No.: | Angle & Direction: -45° N 35 E | Elevation: 1018.2 M | Logged By: J. LaLaur

Core

PAGE 4 of 4

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.		
114.12-114.50	WASTE	.38	0.00	0.0																
114.50-114.86	31804	.36	.14	.6																
114.86-115.48	31805	.62	.11	.3																
115.48-115.84	31806	.36	.34	.5																
115.84-116.14	31807	.30	.10	.6																
116.14-117.26	WASTE	1.12	0.00	0.0																
117.26-117.56	31808	.30	1.29	3.0										0.42M	2.43					117.26-117.68
117.56-117.68	31809	.12	5.30	3.0																
117.68-118.21	WASTE	.53	0.00	0.0																
118.21-118.34	31810	.13	.16	.4																
118.34-119.03	31811	.69	.25	.9																
119.03-119.42	31812	.39	.11	.9																
119.42-119.72	31813	.30	.20	1.3																
119.72-120.48	WASTE	.76	0.00	0.0																
120.48-120.82	31814	.34	.27	1.6																
120.82-121.12	31815	.30	.32	.4																
121.12-122.07	WASTE	.95	0.00	0.0																
122.07-122.37	31816	.30	.24	<.1																
122.37-122.53	31817	.16	.05	4.7																
122.53-122.83	31818	.30	.26	.3																
122.83-123.33	31819	.50	.18	.1																
123.33-123.63	31820	.30	.24	<.1																
123.63-123.80	31821	.17	.14	.1																
123.80-124.10	31822	.30	.20	.1																
124.10-125.54	WASTE	1.44	0.00	0.0																
125.54-125.70	31823	.16	.45	.4																
125.70-126.02	31824	.32	.43	.2																
126.02-126.49	31825	.47	.35	.6																
126.49-126.59	31826	.10	.17	<.1																
126.59-126.89	31827	.30	.21	.3																
126.89-131.06	WASTE	4.17	0.00	0.0																

E.O.H.

ACID TEST @ 131.06 = 43°

HOLE CEMENTED - TOP to BOTTOM

CASING REMOVED

GRANGES EXPLORATION LTD.

DIAMOND DRILL RECORD

Property WINDFLOWER Project No. 224 Depth 131.06 m Date Began AUG 16/87

Hole No. WIN96 Co ord. 10067.9N Horizontal Length Date Completed AUG 19/87

Claim No. L 12481 4971.53 E Core Size NQ Drilled By MB DRILLING

Grid No. Angle & Direction -45°N 355W Elevation 1018.2 m Logged By T. LaFlamme

Sludge PAGE 1 OF 2

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
0 - 6.10	CASING	6.10																	
6.10 - 9.14	30950	3.04																	
9.14 - 13.72	51	4.58																	
13.72 - 16.76	52	3.05																	
16.76 - 19.81	53	3.05																	
19.81 - 22.86	54	3.05																	
22.86 - 25.91	30955	3.05																	
25.91 - 28.96	56	3.05																	
28.96 - 32.00	57	3.05																	
32.00 - 35.05	58	3.05																	
35.05 - 38.10	59	3.05																	
38.10 - 41.15	30960	3.05																	
41.15 - 44.20	61	3.05																	
44.20 - 47.24	62	3.05																	
47.24 - 50.29	63	3.05																	
50.29 - 53.34	64	3.05																	
53.34 - 56.39	30965	3.05																	
56.39 - 59.44	66	3.05																	
59.44 - 62.48	67	3.05																	
62.48 - 65.53	68	3.05																	
65.53 - 68.58	69	3.05																	
68.58 - 71.63	30970	3.05																	
71.63 - 74.68	71	3.05																	
74.68 - 77.72	72	3.05																	
77.72 - 80.77	73	3.05																	
80.77 - 83.82	74	3.05																	
83.82 - 86.87	30975	3.05																	
86.87 - 89.92	76	3.05																	
89.92 - 92.96	77	3.05																	
92.96 - 96.01	78	3.05																	
96.01 - 99.06	79	3.05																	
99.06 - 102.11	30980	3.05																	
102.11 - 105.16	81	3.05																	
105.16 - 108.20	82	3.05																	
108.20 - 111.25	83	3.05																	
111.25 - 114.30	84	3.05																	
114.30 - 117.35	30985	3.05																	
117.35 - 120.40	86	3.05																	
120.40 - 126.49	87	6.09																	
126.49 - 129.54	88	3.05																	

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DIAMOND DRILL RECORD

PAGE 2 OF 2

Property WIND FLOWER Project No. 224 Depth 131.06M Date Began AUG 16/87

Hole No. WIN 87-6 Co ord. 10067.9N Horizontal Length Date Completed AUG 19/87

Claim No. L 12481 4971.53E Core Size N.Q. Drilled By M.B. Drilling

Grid No. Angle & Direction -45°N 35E Elevation 1018.2M Logged By J. Lawer

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES					
														WIDTH	Au.	Ag.	Cu.	Zn.	
129.54-131.06	no ret.	1.52																	
E.O.H.																			

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property: Windflower | Project No.: 224 | Depth: 131.06 m. | Date Began: August 16/87
Hole No.: W.F.96 | Co ord.: 10067.9N | Horizontal Length: | Date Completed: August 19/87
Claim No.: L.12481 | 4971.53E | Core Size: NQ | Drilled By: M.B. Drilling
Page: 1 of 8 | Grid No.: | Angle & Grid Direction: -45° @ Grid N 35°W | Elevation: 1018.2 m. | Logged By: W. Steeteraad

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
0 - 6.10	CSG	No Core Recovery - Overburden.		
6.10 - 7.38	QCVN	Quartz - Carbonate Vein	PYTSLCP	
		Blocky quartz carbonate vein with most core fragments < 5cm. Contains 1-4% pyrite mainly concentrated into diffuse irregular fine grained chlorite patches and carbonatized argillite inclusions. Between 6.70 - 9.95 has 1-2% Pyrrhotite as fracture coatings over 2 cm surface as well as Trace - 1% Sphalerite and Trace Chalcopyrite. Fractures mainly @ 70°.		
7.38 - 38.11	ARGA	Interbedded laminated Grey Calcareous Argillite and Graphitic Argillite.		QCVN
		Grey finely laminated calcareous argillite sections to 46 cm alternate with black graphitic argillite sections to 80 cm (34.37 - 35.17). Graphitic Argillite sections comprise approximately 20-25% of overall unit. Calcareous argillite beds contain Trace - 1% pyrite whereas graphitic argillite beds contain 1-4% pyrite as euhedral disseminated grains and isolated, fragmented, semi massive sulphide beds to several mm wide. 5-10% thin diffuse carbonate - quartz veining and carbonate veining over most of unit. More concentrated and/or thicker veining in following intervals:		
X	QCVN	7.67 - 8.73: Pebbly rubble for most part with 50% quartz - carbonate vein component which bears Trace Sphalerite, 1% pyrite. 30% core loss	SLPY	
X	QCVN	9.75 - 10.63: 35-40% contorted and variably dismembered qtz - carbonate veins to 4.5cm. Most intact veins at 50° to core axis. Trace pyrite.		
X	QCVN	10.95 - 11.11: 30% irregular qtz - carbonate veining to 3 cm trending subparallel to core axis. Trace pyrite		
X	QCVN	12.80 - 13.47: 35-40% quartz - carbonate veins to 9 cm. Veins weakly brecciated and foliated with argillite inclusion material. Foliation and contacts at 50-60°. Trace - 1% pyrite.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE: Page 2 of 8

Property: WINDFLOWER Project No. 224 Depth 131.06 Date Began August 16/87
Hole No. WIN - 96 Co ord. 10067.9N Horizontal Length Date Completed Aug. 19
Claim No. L 622481 4971.53E Core Size N.Q. Drilled By M & B Drilling
Grid No. Angle & Grid Direction -45° N 35° W Elevation 1018.2 Logged By W. Stotfral

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
7.38 - 88.11		Interbedded Laminated Grey Calcareous Argillite and Graphitic Argillite (Cont'd)		
	QCVN	16.15 - 16.65: 80% Quartz - Carbonate Veins to 23cm at 55-60° To Core axis. 25% irregular hostrock inclusions and irregular chloritic and/or graphitic fracture coating. 1% disseminated pyrite.		
	QCVN	17.61 - 17.80: Includes 2cm qtz - Carbonate Vein at 20° To Core axis. Trace Pyrite.		
	QCVN	19.30 - 19.60: Rubble and Seady gouge with 35% quartz - Carbonate Vein Material. Trace Pyrite.		
	QCVN	20.10 - 20.73: 20-25% quartz Carbonate Veining To 1cm at 25° To Core axis. Trace pyrite. 20.37 - 20.73 is rubble.		
	QCVN	22.99 - 23.20: 30% quartz Carbonate Veins To 2.5cm at 55-60° To Core axis. Slightly brecciated and with Trace Tetrahedrite, pyrite		
	QCBX	24.32 - 24.69: 45% brecciated quartz - Carbonate Vein Material in bands To 7cm wide. No visible mineralization.		
		23.54 - 23.66: Includes 8cm qtz - Carbonate Vein at 50° To Core axis. No visible mineralization		
	QCBX	25.68 - 26.25: 70% moderately brecciated qtz - Carbonate Veins To 18cm at 50-60° To Core axis. Trace - 1% pyrite and Trace Chalcopyrite		

GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property: Wind Flower | Project No.: 224 | Depth: 131.06m | Date Began: August 16/87
Hole No.: W.in.96 | Co-ord.: 10067.9N | Horizontal Length: | Date Completed: August 19/87
Claim No.: L 12481 | 9971.53 E | Core Size: NQ | Drilled By: M.B. Drilling
Page: 3 of 8 | Grid No.: | Angle & Grid Direction: -45° @ Grid N 35°W | Elevation: 1018.2m | Logged By: W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
7.38 – 38.11		Interbedded (Laminated) Grey Calcareous Argillite and Graphite Argillite (Cont'd)		
		27.89 – 28.19: 20% qtz-carbonate veins to 2.5 cm at 50-60° to core axis. Trace pyrite.		
		From 29.06 to 36.17 the Argillite contains approximately 20% quartz-carbonate veins at variable irregular attitudes to core axis in a stockwork type development. Veins are irregular anastamosing with abrupt changes in width and direction. Only trace pyrite in veins generally and trace chalcopyrite locally as at 31.95. Most concentrated veining at 29.06 – 29.23 (70%), 29.78 – 30.40 (70%), 32.50 – 33.06 (45%), 33.70 – 34.37 (75%), 35.17 – 35.60 (80%), 35.79 – 36.17 (55%). Individual veins to 4 cm as at 35.17 – 35.60.		
		Ground conditions as follows:		
		7.38 – 9.75: Mostly pebbly rubble with several core fragments 5 to 8 cm. 50% lost core from 7.67 – 8.53. 30% lost core from 9.14 – 9.75		
		9.75 – 17.05: Moderate ground with 5-7 fractures/meter at 50-60° to core axis. Narrow blocky sections at 9.91 – 10.17, 10.63 – 12.22, 13.22 – 13.31, 13.85 – 14.02, 15.90 – 16.15		
		17.05 – 22.03: Blocky core and rubble/gouge. Most core fragments < 3 cm. Rubble/sandy gouge at 19.32 – 19.85, 20.42 – 22.03. 50% lost core from 20.42. 25% lost core from 20.42 – 23.03.		
		22.03 – 23.69: Moderate ground with 5-8 fractures/meter at 60°, 25° to core axis.		
		23.69 – 38.11: Poor ground overall: Blocky core sections with 10-15 fractures/meter at 40°, 70-80° and occasionally 15-20° to core axis, alternating with rubbly sections from 23.69 – 25.68, 26.25 – 27.13 (40% friable gouge), 28.19 – 28.60, 28.96 – 29.06, 30.13 – 30.33, 30.74 – 32.10, 33.70 – 34.10, 34.93 – 35.05, 36.88 – 37.28.		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property: Wind Flower | Project No. 224 | Depth 131.06 m | Date Began August 16/87
Hole No. Win 96 | Co ord. 10067.9N | Horizontal Length | Date Completed August 19/87
Claim No. L12481 | 4971.53E | Core Size NQ | Drilled By M.e.B. Drilling
Page 4 of 8 | Grid No. | Angle & Grid Direction -45° E Grid N 35W | Elevation 1018.2 m | Logged By W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
38.11 - 69.29	GA	Graphitic Argillite.	MSCB PY	QCVNAR
		Black, moderately schistose with 6-7% finegrained yellow sericite-carbonate bands from 5 to cm wide. Only minor (5-8%) thin diffuse quartz-carbonate veins throughout with largest individual vein 3.0 cm. Argillite contains 10-15% thin laminated calcareous bands to several cm wide. Trace-2% disseminated euhedral pyrite in argillite and trace pyrite in veins. Moderate-good ground with 3-6 fractures at 60-65° to core axis along lamination-foliation planes. Rubble sections from 38.11-38.44, 39.68-40.05. Blocky core sections from 38.44-39.01 (10 fract/m), 41.45-42.45 (10-15 fract/m), 43.09-43.69 (12 fract/m), 46.22-46.47 (20-25 fract/m), 50.29-51.00 (15-17 fract/m), 52.40-53.30 (20-25 fract/m), 59.14-60.66 (>20 fract/m to rubble), 66.23-66.93 (15 fract/m), 68.93-69.29 (crumbly graphitic argillite)		
69.29 - 81.23	DO	Dolomite.	FU PY	
		Grey, massive to weakly foliated unit with rare quartz-carbonate veins to 0.5 cm at variable angles to core axis. Veins carry rare pyrite specks. Dolomite has 1-3% disseminated euhedral pyrite. Weak fuchsitic alteration from 69.29 - 69.79.		
81.23 - 97.55	GA	Graphitic Argillite.	FU	QCVN
		Weakly schistose with occasional calcareous banded horizons and yellow sericite-carbonate-(± fuchsite) horizons. 5-10% diffuse thin (mostly <0.5 cm) qtz-carbonate veining with more concentrated veining as follows.		
		81.55 - 85.12: 20% thin carbonate-quartz vein permeating a shattered looking massive graphitic argillite. Veins at all angles to core axis and contain only rare pyrite grain.		
		85.98 - 86.87: 15-20% thin diffuse veining (carbonate-quartz) subparallel to local foliation and variable angles to core axis. Trace pyrite. Local foliation-schistosity at 65-70°. Good ground with 1-4 fractures/meter at 20°, 60°, 80° to core axis except for sandy kaolinitic gouge and blocky core from 72.92-74.76; blocky core from 75.73-77.26 with several sandy gouge seams to 10 cm		

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GRANGES EXPLORATION LTD.
DIAMOND DRILL LOG

ZONE:

Property: Wind Flower | Project No. 224 | Depth 131.06m | Date Began August 16/87
Hole No. Win96 | Co ord. 10067.9N | Horizontal Length | Date Completed August 19/87
Claim No. L12481 | 4971.53E | Core Size NQ | Drilled By M.e.B. Drilling
Page 5 of 8 | Grid No. | Angle & Grid Direction -45° @ Grid N35°W | Elevation 1018.2m | Logged By W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
81.23 - 97.55		Graphitic Argillite (Continued)		
		90.88 - 91.33: Brecciated Carbonate qtz vein with 20% hostrock inclusions and 25-30° Contacts. Trace Pyrite at Contacts		
		93.24 - 93.58: 35-40% irregular qtz-Carbonate veins to 7cm with general attitudes at 70-75° to Core axis. Trace Pyrite		
		94.77 - 94.91: qtz - Carbonate vein with irregular Contacts at Shallow angle to Core axis. Trace Pyrite.		
		Good Ground with 2-5 Fractures/meter at 65-70°, 45°, 20-30° to Core axis.		
97.55 - 106.54	DO	Dolomite:		
		As at 69.29 - 81.23. Patchy Fuchsitic alteration and Silicification to 100.12 associated with 2 % fig. ≤ mig. euhedral pyrite. 2-3% pyrite disseminated through rest of unit. From 101.30 - 101.87 is carbonate vein breccia with subrounded fragments to 2cm in a Silicified fig. Carbonate rich dark matrix. Breccia Contains Trace pyrite. Other Smaller breccia intervals to several cm wide occur throughout Dolomite. Good ground with 0-2 Fract/m at 50-60° to Core axis.		
* 106.54 - 107.00	QCSX	Quartz and Carbonate Veins and Sulphide band - Main Zone.	PY	
		106.54 - 106.76 - Bull qtz vein with Trace pyrite within 2-3% irregular graphitic inclusions.		
		106.76 - 107.00 - Slightly brecciated Carbonate with 1cm massive Pyrite vein at 40° Contact with quartz vein.		

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DIAMOND DRILL LOG

ZONE:

Property: Wind Flower | Project No.: 224 | Depth: 131.06m | Date Began: August 16/87

Hole No.: Win. 96 | Co ord.: 10067.9N | Horizontal Length: | Date Completed: August 19/87

Claim No.: L12481 | 4971.53E | Core Size: NQ | Drilled By: M.B. Drilling

Page: 6 of 8 | Grid No.: | Angle & Grid Direction: -45° @ Grid N 35° W | Elevation: 1018.2m | Logged By: W. Stoesser

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
107.00 - 108.00	SX	Massive Pyrite - Main Zone		
		Massive fine grained earthy pyrite with overgrowths of later coarse-grained euhedral pyrite. 5% disrupted graphitic argillite bands.	PY	GA
108.00 - 127.21	GA BK	Graphitic Argillite.		QCVN
		Generally blocky, sheared, moderately schistose graphitic argillite with 10% disrupted calcareous bands to 5cm and 10-15% quartz-carbonate veins in various stages of dismemberment. Best veining occurs at		
		111.72 - 111.80: 40% carbonate - quartz vein fragments at variable angles to core axis. No visible mineralization.		
		112.50 - 112.68: 50% qtz-carbonate veining to 3.5cm at 15° to core axis. Odd speck pyrite at argillite contact.		
		114.50 - 114.86: 20% qtz-carbonate vein fragments and irregular thin veins with trace pyrite		
		113.50 - 114.12: Angular rubble with 50% carbonate - quartz vein fragments and trace pyrite.		
*		117.26 - 117.59: 15% irregular qtz-carbonate veining at 2° to core axis. Trace - 1% pyrite.		
		119.03 - 119.42: 20-25% irregular qtz-carbonate veins to 3 cm at shallow (<30°) core angles. 1% pyrite in veins overall		
		123.63 - 123.80: 15% irregular quartz-carbonate veins to 20cm with trace sphalerite, pyrite.		
		125.54 - 125.70: Graphitic gouge with 15% quartz-carbonate vein fragments with trace pyrite.		
		From 108.00 - 108.50 graphitic argillite contains 15-20% pyrite as irregular microfracture fillings, and with disrupted carbonate - quartz bands.		

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DIAMOND DRILL LOG

ZONE:

Property: Windflower | Project No.: 224 | Depth: 131.06m | Date Began: August 16/87
Hole No.: Win96 | Co ord.: 10067.9N | Horizontal Length: | Date Completed: August 19/87
Claim No.: L12481 | 9971.53E | Core Size: NQ | Drilled By: M.E.B. Drilling
Page: 7 of 8 | Grid No.: | Angle & Grid Direction: -45° @ Grid N 35° W | Elevation: 1018.2m | Logged By: W. Steeread

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE
108.00 - 121.21		Graphitic Argillite (Continued) Most of Core is blocky with 10-15 fractures/meter at angles subparallel to local Schistosity - foliation. Rubble Zones from 108.58 - 108.70, 112.68 - 114.50, 117.06 - 117.26, 122.31 - 122.53. Pebbly graphitic gouge and friable graphitic schist from 125.11 - 125.70.		
121.21 - 131.06	ARDO	Grey Laminated Calcareous Argillite to Dolomite. Medium grained, grey and yellow striped with with thin yellow Sericitic slip faces separating slightly thicker (to 0.5cm) calcareous argillite - Dolomitic bands. Small scale drag folding and variable core angles throughout core. 1-3% disseminated pyrite throughout. Blocky ground throughout with most core fragments < 10cm. Vugs locally and Kaolinite-Sericite on fractures. Fractures at ~70°.	MS AY	
131.06		End of Hole.		

GRANGES EXPLORATION LTD.

DIAMOND DRILL LOG

ZONE:

Property: Wind Flower | Project No.: 224 | Depth: 131.06m | Date Began: August 16/87

Hole No.: W.in 96 | Co ord.: 10067.9N | Horizontal Length: | Date Completed: August 19/87

Claim No.: L12481 | 4971.9 E | Core Size: NQ | Drilled By: M & B Drilling

Page: 8 of 8 | Grid No.: | Angle & Grid Direction: -45° @ Grid N 35° W | Elevation: 1018.2 M. | Logged By: W. Stoeterau

INTERVAL FEET / METRES	MAJOR GEOLOGICAL CODE	DESCRIPTION	INTERVAL FEET / METRES	MINOR GEOLOGICAL CODE

Core Angles.

9.14 meters	Schistosity 20°	68.58 meters	banding 90°
10.63 "	Schistosity 70°	71 "	Foliation 65°
13.47 "	Laminations 55°	74.30 "	Foliation 60°
14.35 "	Laminations 60°	80.77 "	Foliation 80°
17.61 "	Laminations 60°	83.82 "	Massive Argillite
20.10 "	Schistosity 65°	86.50 "	Schistosity, Diffuse Veining 60°
22.99 "	Schist/lam. 50°	89.00 "	Foliation/banding 60°
24.12 "	Laminations 80°	93.58 "	Shears 45-50°
28.96 "	Schistosity 75°	96.70 "	Schistosity 65-70°
32.00 "	Laminations 80°	99.06 "	Foliation 0°
33.06 "	Schist/lam. 75°	102.11 "	Foliation 55-60°
36.27 "	Variable Schist/lam.	105.50 "	Foliation 40-50°
38.50 "	Lamin. +50°, Schist +25°	108.50 "	Schistosity 0°
43.59 "	Schistosity 40°	111.25 "	banding 0°, Shears 25°
47.51 "	Laminations 45°	115.84 "	Schistosity/banding 40°
51.79 "	Foliation/Lamin. 70°	120.40 "	Schistosity 50°
54.28 "	banding/Shearing 60°	124.30 "	banding 0°, Shearing 60°
58.83 "	Transposed banding 65°	126.89 "	Schistosity 40°
62.48 "	banding 55°	128.02 "	Sericite Shears 40°
65.53 "	banding 70°	131.06 "	Shears 40°

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DIAMOND DRILL RECORD

CORE PAGE 1 OF 4

Property WIND FLOWER Project No. 227 Depth 131.06M Date Began Aug. 1/87
Hole No. WIN 96 Co ord. 10067.9N Horizontal Length Date Completed Aug 19/87
Claim No. L 12481 4971.53E Core Size N.Q Drilled By M+B DRILLING
Grid No. Angle & Direction -75° N 35W Elevation 1019.72 Logged By G. WRIGHT

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES						
														WIDTH	Au.	Ag.	Cu.	Zn.		
0 - 6.10	CASING	6.10																		
6.10 - 6.70	31700	.60	0.46																	
6.70 - 6.95	01	.25	0.59																	
6.95 - 7.16	02	.21	1.09											0.21	1.09					6.95 - 7.16
7.16 - 7.38	03	.22	1.06																	
7.38 - 7.67	04	.24	3.88																	
7.67 - 8.53	31705	.86	1.03																	
8.53 - 8.73	06	.20	7.43																	
8.73 - 9.14	07	.41	1.71																	
9.14 - 9.75	08	.61	1.50																	
9.75 - 10.19	09	.44	10.90																	
10.19 - 10.63	31710	.44	4.20											3.25	3.62					7.38 - 10.63
10.63 - 10.95	11	.32	.43																	
10.95 - 11.11	12	.16	.44																	
11.11 - 11.40	13	.29	.46																	
* 11.40 - 12.00	5810	.60	.23																	
* 12.00 - 12.50	5811	.50	.27																	
12.50 - 12.80	31714	.30	.91																	
12.80 - 13.11	31715	.31	11.10											0.31	11.10					12.8 - 13.11
13.11 - 13.47	16	.36	.23																	
13.47 - 13.85	17	.38	.26																	
* 13.85 - 14.35	5812	.50	1.33						.665											
* 14.35 - 14.85	5813	.50	1.85						.925	1.59				1.0	1.59					13.85 - 14.85
* 14.85 - 15.35	5814	.50	.66																	
15.35 - 15.85	5815	.50	.42																	
15.85 - 16.15	31718	.30	1.18						.354											
16.15 - 16.65	19	.50	1.21						.605	.959				0.80	1.198					15.85 - 16.65
16.65 - 16.95	31720	.30	.44																	
16.95 - 17.61	21	.66	.14																	
17.61 - 17.80	22	.19	.20																	
17.80 - 18.10	23	.29	3.72											0.29	3.72					17.81 - 18.10
18.10 - 18.45	5816	.35	.29																	
18.45 - 18.90	5817	.45	.68																	
18.90 - 19.30	24	.40	1.19						.476											
19.30 - 19.60	31725	.30	2.80						.840	1.316				0.70	1.88					18.90 - 19.60
19.60 - 20.10	26	.50	.47																	
20.10 - 20.73	27	.63	.26																	
20.73 - 22.59	WASTE	1.86																		
22.59 - 22.99	28	.40	.04																	
22.99 - 23.23	29	.24	.02																	

GRANGES EXPLORATION LTD.
DIAMOND DRILL RECORD

CORE PAGE 2 OF 4

Property WIND FLOWER Project No. 224 Depth Date Began

Hole No. WIN 96 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By M & B DRILLING

Grid No. Angle & Direction Elevation Logged By G. WRIGHT

INTERVAL FEET/METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES						
														WIDTH	Au.	Ag.	Cu.	Zn.		
23.23 - 23.54	31730	.31																		
23.54 - 23.69	31	.15																		
23.69 - 24.12	32	.43																		
24.12 - 24.57	33	.45																		
24.57 - 24.85	34	.28																		
24.85 - 25.60	31735	.75	.114																	
25.60 - 25.68	WASTE	.08																		
25.68 - 26.25	36	.57	.146																	
26.25 - 26.67	37	.42	.114																	
26.67 - 27.59	WASTE	.92																		
27.59 - 27.89	38	.30	.107																	
27.89 - 28.19	39	.30	1.12											0.30	1.12					27.89 - 28.19
28.19 - 28.50	31740	.31	.104																	
28.50 - 29.06	41	.56	.142																	
29.06 - 29.23	42	.17	1.19						.202											
29.23 - 29.78	43	.55	1.01						.555											
29.78 - 30.41	44	.63	.91						.573											
30.41 - 30.74	31745	.33	2.11						.696											
30.74 - 31.24	46	.50	2.01						1.005											
31.24 - 32.00	47	.76	.129						.220											
32.00 - 32.50	48	.50	.94						.470											
32.50 - 33.06	49	.56	1.53						.857											
33.06 - 33.70	31750	.64	1.27						.813											
33.70 - 34.37	51	.67	1.72						1.152											
34.37 - 34.80	52	.43	.40						.172											
34.80 - 35.17	53	.37	2.89						1.069											
35.17 - 35.60	54	.43	1.53						.658	7.29				6.54	1.11	g/mt				29.06 - 35.60
35.60 - 35.79	31755	.19	.176																	
35.79 - 36.17	56	.36	.72																	
36.17 - 36.47	57	.30	.103																	
36.47 - 81.23	WASTE	44.76																		
81.23 - 81.73	58	.50	.103																	
81.73 - 82.16	59	.43	.104																	
82.16 - 82.66	31760	.50	2.03																	
82.66 - 83.23	61	.57																		
83.23 - 83.82	62	.59																		
83.82 - 84.50	63	.68																		
84.50 - 85.12	64	.62																		
85.12 - 85.55	31765	.43																		
85.55 - 85.98	66	43																		

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DIAMOND DRILL RECORD

CORE PAGE 3 OF 9

Property WINFLOWER Project No. 224 Depth Date Began

Hole No. WIN 96 Co ord. Horizontal Length Date Completed

Claim No. Core Size Drilled By M+B DRILLING

Grid No. Angle & Direction Elevation Logged By G. WRIGHT

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES						
														WIDTH	Au.	Ag.	Cu.	Zn.		
85.98 - 86.43	67	.45																		
86.43 - 86.87	68	.44																		
86.87 - 87.55	69	.68																		
87.55 - 88.03	31770	.48																		
88.03 - 88.33	71	.30																		
88.33 - 90.30	WASTE	1.97																		
90.30 - 90.60	72	.30	0.05																	
90.60 - 90.88	73	.28	0.11																	
90.88 - 91.33	74	.45	< .03																	
91.33 - 91.73	31775	.40																		
91.73 - 92.96	WASTE	1.23																		
92.96 - 93.24	76	.28																		
93.24 - 93.58	77	.34																		
93.58 - 93.88	78	.30																		
93.88 - 94.47	79	.59																		
94.47 - 94.77	31780	.30																		
94.77 - 94.91	81	.14																		
94.91 - 95.21	82	.30																		
95.21 - 96.61	WASTE	1.40																		
96.61 - 96.70	83	.01																		
96.70 - 96.98	84	.28																		
96.98 - 97.15	31785	.17																		
97.15 - 97.55	WASTE	.40																		
97.55 - 97.80	86	.25																		
97.80 - 98.14	87	.34																		
98.14 - 101.00	WASTE	2.86																		
101.00 - 101.30	88	.30																		
101.30 - 101.87	89	.57																		
101.87 - 102.17	31790	.30																		
102.17 - 106.24	WASTE	4.07																		
106.24 - 106.54	91	.30																		
106.54 - 106.74	92	.20																		
106.74 - 107.00	93	.26	0.22																	
107.00 - 107.59	94	.59	3.24																	
107.59 - 108.00	31795	.41	19.10																	
108.00 - 108.50	96	.50	3.45											1.5 m	7.64					107.00 - 108.5
108.50 - 108.95	5819	.45																		
108.95 - 109.40	5820	.45																		
109.40 - 111.13	WASTE	1.73																		
111.13 - 111.43	31797	.30	0.23																	

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DIAMOND DRILL RECORD

CORE PAGE 4 OF 4

Property WIND FLOWER Project No. 224 Depth ____ Date Began ____

Hole No. WIN 96 Co ord. ____ Horizontal Length ____ Date Completed ____

Claim No. ____ ____ Core Size ____ Drilled By M+T DRILLING

Grid No. ____ Angle & Direction ____ Elevation ____ Logged By G. WRIGHT

INTERVAL FEET / METRES	NUMBER	WIDTH	Au.	Ag.	Cu.	Zn.		WIDTH X ASSAY						AVERAGES WIDTH	Au.	Ag.	Cu.	Zn.		
111.43-111.80	98	.37	0.19																	
111.80-112.15	99	.35	0.23																	
112.15-112.50	31800	.35	0.16																	
112.50-112.68	01	.18	0.10																	
112.68-113.23	WASTE	.55																		
113.23-113.56	02	.33	0.11																	
113.56-114.12	03	.56	0.23																	
114.12-114.50	WASTE	.38																		
114.50-114.86	04	.36	0.14																	
114.86-115.48	31805	.62	0.11																	
115.48-115.84	06	.36	0.34																	
115.84-116.14	07	.30	0.10																	
116.14-117.26	WASTE	1.12																		
117.26-117.56	08	.30	1.29																	
117.56-117.68	09	.12	5.30											0.42	2.43					117.26-117.68
* 117.68-118.21	WASTE	.53																		
118.21-118.34	31810	.13	0.16																	
118.34-119.03	11	.69																		
119.03-119.42	12	.39																		
119.42-119.72	13	.30																		
119.72-120.48	WASTE	.76																		
120.48-120.82	14	.34																		
120.82-121.12	31815	.30																		
121.12-122.07	WASTE	.95																		
122.07-122.37	16	.30																		
122.37-122.53	17	.16																		
122.53-122.83	18	.30																		
122.83-123.33	19	.50																		
123.33-123.63	31820	.30																		
123.63-123.80	21	.17																		
123.80-124.10	22	.30																		
124.10-125.54	WASTE	1.44																		
125.54-125.70	23	.16																		
125.70-126.02	24	.32																		
126.02-126.49	31825	.47																		
126.49-126.59	26	.10																		
126.59-126.89	27	.30																		
126.89-131.06	WASTE	4.17																		
131.06-EOH.																				

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