

Seq# 001		Line Name: MGL1708OBS02		NAVIGATION		DATE: 2017-11-01		Lamont-Doherty Earth Observatory	
		Line Brg : 129.654 °		LINE LOGS		JULIAN DAY: 305		COLUMBIA UNIVERSITY   EARTH INSTITUTE	
CLIENT: NSF - McIntosh, Bangs, Vanavendonk				SURVEY: SHIRE		AREA: New Zealand			
DC SOL : -6369.0 m		DEPTH SOL : 342.0 m		NAVIGATION SYSTEM USED: C-Nav3050 - Primary					
DC EOL : -33.5 m		DEPTH EOL : 44.5 m		NAVIGATION SYSTEM USED: SeaPath 200					
BSP SOL: 5.3 kts		FEATHER SOL: N/A		NAVIGATION SYSTEM USED: C-Nav2000					
BSP EOL: 4.6 kts		FEATHER EOL: N/A		NAVIGATION SYSTEM USED: POSMV					
WEATHER		MAX FEATHER: N/A		GRAVITY METER: BMG-II: used, SN223					
WIND SOL: NE 10-15 kts				MAGNETOMETER: GeoMetrics: used					
WIND EOL: NNE 15.0 kts									
SEAS SOL: 1m		shift hours 12:00 - 24:00 Alan Thompson		shift hours 12:00 - 24:00		watch personnel Gilles Guerin		watch personnel	
SEAS EOL: 1.5 m		00:00 - 12:00 Todd Jensvold		00:00 - 12:00		Ambrose Mavor-Parker			
SP	UTC	EVENT	COMMENTS			VESSEL POSITION			
937	17:23	SOL	Still approaching run-in from an angle			Shotpoints			
1050	19:29	OBS	crossed OBS 101			Latitude (N / +)			
1117	20:38	OBS	crossed OBS 102			Longitude (E / +)			
1183	21:48	OBS	crossed OBS 103			FSP 937 -37° 18' 37.412" 176° 21' 54.555"			
1251	22:57	OBS	crossed OBS 104			LSP 1546 -37° 52' 46.089" 177° 07' 06.278"			
1313	23:59	Traffic	slowing d/t fishing traffic			NAVIGATION OFFSET APPLIED			
1318	00:00	Midnight	Midnight sp			NRP - Stern 29.5m			
1384	01:31	OBS	crossed OBS 105			NRP - COS 235.0m			
1451	02:39	OBS	crossed OBS 106			NRP - CNG n/a			
1517	3:46	OBS	crossed OBS 107			COS - CNG n/a			
1546	4:16	EOL	EOL turning to avoid protected area			NRP - CMP n/a			
Posnet locations & remarks: good - none - intermittent									
Tailbuoy #1	none	Gun string #1	GOOD	acoustics					
Tailbuoy #2	none	Gun string #2	GOOD	SP spacing: 150.0m					
Tailbuoy #3	none	Gun string #3	GOOD	line status: Complete					
Tailbuoy #4	none	Gun string #4	GOOD						

Seq# 002		Line Name: MGL1708OBS07		NAVIGATION		DATE: 2017-11-02		Lamont-Doherty Earth Observatory COLUMBIA UNIVERSITY   EARTH INSTITUTE	
		Line Brg : 211.204 °		LINE LOGS		JULIAN DAY: 306			
CLIENT: NSF - McIntosh, Bangs, Vanavendonk				SURVEY: SHIRE		AREA: New Zealand			
DC SOL : 401.1 m		DEPTH SOL : 1080 m		NAVIGATION SYSTEM USED: C-Nav3050 - Primary					
DC EOL : 555.2 m		DEPTH EOL : 85.4 m		NAVIGATION SYSTEM USED: SeaPath 200					
BSP SOL: 4.9 kts		FEATHER SOL: N/A		NAVIGATION SYSTEM USED: C-Nav2000					
BSP EOL: 4.4 kts		FEATHER EOL: N/A		NAVIGATION SYSTEM USED: POSMV					
WEATHER		MAX FEATHER: N/A		GRAVITY METER: BMG-II: used, SN223					
WIND SOL: N 20 kts				MAGNETOMETER: GeoMetrics: used					
WIND EOL: N 18.5 kts									
SEAS SOL: 1 m		shift hours 12:00 - 24:00 Alan Thompson		shift hours 12:00 - 24:00		watch personnel Gilles Guerin		watch personnel	
SEAS EOL: 1.5 m		00:00 - 12:00 Todd Jensvold		00:00 - 12:00		Ambrose Mavor-Parker			
SP	UTC	EVENT	COMMENTS				VESSEL POSITION		
1710	18:19	SOL					Shotpoints		
1908	21:39	OBS	Passed OBS 349				Latitude (N / +)		
1974	22:46	OBS	Passed OBS 348				Longitude (E / +)		
	22:48	GPS	String 1 GPS began working				FSP	1710	-37° 55' 40.059"
2040	23:53	OBS	Passed OBS 347				LSP	2395	-38° 43' 03.383"
2047	00:00	Midnight					NAVIGATION OFFSET APPLIED		
2107	01:00	OBS	Passed OBS 346				NRP - Stern 29.5m		
2154	01:48	OBS	Passed OBS 345				NRP - COS 235.0m		
2229	03:05	OBS	Passed OBS 344				NRP - CNG n/a		
2395	05:55	EOL					COS - CNG n/a		
							NRP - CMP n/a		
Posnet locations & remarks: good - none - intermittent									
Tailbuoy #1	none	Gun string #1	INTERMITTENT		acoustics				
Tailbuoy #2	none	Gun string #2	GOOD						
Tailbuoy #3	none	Gun string #3	GOOD						
Tailbuoy #4	none	Gun string #4	GOOD						
SP spacing: 150.0m							line status: Complete		

Seq# 003		Line Name: MGL1708OBS09		NAVIGATION		DATE: 2017-11-03		Lamont-Doherty Earth Observatory COLUMBIA UNIVERSITY   EARTH INSTITUTE	
		Line Brg : 128.484 °		LINE LOGS		JULIAN DAY: 307			
CLIENT: NSF - McIntosh, Bangs, Vanavendonk      SURVEY: SHIRE      AREA: New Zealand									
DC SOL : -110.1 m		DEPTH SOL : 79.1 m		NAVIGATION SYSTEM USED: C-Nav3050 - Primary					
DC EOL : 13.9 m		DEPTH EOL : 3505.4 m		NAVIGATION SYSTEM USED: SeaPath 200					
BSP SOL: 4.7 kts		FEATHER SOL: N/A		NAVIGATION SYSTEM USED: C-Nav2000					
BSP EOL: 4.6 kts		FEATHER EOL: N/A		NAVIGATION SYSTEM USED: POSMV					
WEATHER		MAX FEATHER: N/A		GRAVITY METER: BMG-II: used, SN223					
WIND SOL: N 14.5 kts				MAGNETOMETER: GeoMetrics: used					
WIND EOL: NNW 23.3 kts									
SEAS SOL: 1.0 m		shift hours 12:00 - 24:00 Alan Thompson		shift hours 12:00 - 24:00		watch personnel Gilles Guerin		watch personnel	
SEAS EOL: 2.0 m		00:00 - 12:00 Todd Jensvold		00:00 - 12:00		Ambrose Mavor-Parker			
SP	UTC	EVENT	COMMENTS				VESSEL POSITION		
2450	06:47	SOL	Crossed OBS 110				Shotpoints		
2494	07:33	OBS	Crossed OBS 111				Latitude (N / +)		
2554	08:34	OBS	Crossed OBS 112				Longitude (E / +)		
2595	09:16	XBT	XBT-T7 Seq001				FSP	2450	-38° 40' 45.670"
2615	09:36	OBS	Crossed OBS 113				LSP	3353	-39° 35' 49.477"
2675	10:38	OBS	Crossed OBS 114				NAVIGATION OFFSET APPLIED		
2735	11:39	OBS	Crossed OBS 115				NRP - Stern 29.5m		
2795	12:42	OBS	Crossed OBS 116				NRP - COS 235.0m		
2855	13:42	OBS	Crossed OBS 117				NRP - CNG n/a		
2915	14:44	OBS	Crossed OBS 118				COS - CNG n/a		
2975	15:46	OBS	Crossed OBS 119				NRP - CMP n/a		
3035	16:47	OBS	Crossed OBS 120						
3095	17:48	OBS	Crossed OBS 121						
3155	18:49	OBS	Crossed OBS 122						
3215	19:50	OBS	Crossed OBS 123						
3275	20:51	OBS	Crossed OBS 124						
3335	21:52	OBS	Crossed OBS 125						
3395	22:52	OBS	Crossed OBS 126						
3455	23:53	OBS	Crossed OBS 127						
3462	00:00	Midnight							
3515	00:55	OBS							
3353	01:34	EOL							
Posnet locations & remarks: good - none - intermittent      acoustics									
Tailbuoy #1	none	Gun string #1	GOOD	SP spacing: 150.0m					
Tailbuoy #2	none	Gun string #2	GOOD	line status: Complete					
Tailbuoy #3	none	Gun string #3	GOOD						
Tailbuoy #4	none	Gun string #4	GOOD						

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Seq# 006	Line Name:	MGL1708MC12	NAVIGATION		DATE:	2017-11-05	Lamont-Doherty Earth Observatory COLUMBIA UNIVERSITY   EARTH INSTITUTE
	Line Brg :	211.559 °	LINE LOGS		JULIAN DAY:	309	
CLIENT: NSF - McIntosh, Bangs, Vanavendonk		SURVEY: SHIRE		AREA: New Zealand			
DC SOL : 21.7 m		DEPTH SOL : 119.9 m		NAVIGATION SYSTEM USED: C-Nav3050 - Primary			
DC EOL : 1893.9 m		DEPTH EOL : 2559.9 m		NAVIGATION SYSTEM USED: SeaPath 200			
BSP SOL: 4.6 kts		FEATHER SOL: 20.9 °		NAVIGATION SYSTEM USED: C-Nav2000			
BSP EOL: 5.5 kts		FEATHER EOL: 09.8 °		NAVIGATION SYSTEM USED: POSMV			
WEATHER		MAX FEATHER: 20.9 °		GRAVITY METER: BMG-II: used, SN223			
WIND SOL: S 14 kts				MAGNETOMETER: GeoMetrics: used			
WIND EOL: NE 14.8 kts							
SEAS SOL: 1.0 m		12:00 - 24:00 Alan Thompson		12:00 - 24:00 Gilles Guerin		watch personnel	
SEAS EOL: 3.0 m		00:00 - 12:00 Todd Jensvold		00:00 - 12:00 Ambrose Mavor-Parker			
SP	UTC	EVENT	COMMENTS				
7628	23:32	SOL					
7704	00:00	Midnight	11/6/2017				
	01:46	Deviation	Begin deviating d/t shallow water hazards				
	02:15	Deviation	Begin parallel course to line				
8069	02:17	OBS	Crossed OBS 341				
	02:30	Deviation	Begin returning to line				
8299	03:43	OBS	Crossed OBS 340				
8500	04:54	OBS	Crossed OBS 339				
8701	06:02	OBS	Crossed OBS 338				
8900	07:07	OBS	Crossed OBS 337				
8912	07:11	Deviation	Begin deviating d/t shallow water hazards				
9100	08:21	OBS	Crossed OBS 336				
9295	09:34	OBS	Crossed OBS 335				
9496	10:50	OBS	Crossed OBS 334				
9696	12:16	OBS	Crossed OBS 333				
9900	13:28	OBS	Crossed OBS 332				
10100	14:56	OBS	Crossed OBS 331				
10300	16:09	OBS	Crossed OBS 330				
10499	17:20	OBS	Crossed OBS 329				
10699	18:36	OBS	Crossed OBS 328				
10899	19:53	OBS	Crossed OBS 327				
11000	20:31	OBS	Crossed OBS 326				
11300	22:15	OBS	Crossed OBS 325				
11499	23:22	OBS	Crossed OBS 324				
11611	00:00	Midnight	11/7/2017				
11698	00:28	OBS	Crossed OBS 323				
11898	01:35	OBS	Crossed OBS 322				
12098	02:41	OBS	Crossed OBS 321				
12298	03:49	OBS	Crossed OBS 320				
12497	04:57	OBS	Crossed OBS 319				
12697	06:05	OBS	Crossed OBS 318				
12898	07:19	OBS	Crossed OBS 317				
13098	08:35	OBS	Crossed OBS 316				
13298	09:53	OBS	Crossed OBS 315				
13498	11:15	OBS	Crossed OBS 314				
13698	12:32	OBS	Crossed OBS 313				
13899	13:48	OBS	Crossed OBS 312				
14098	15:04	OBS	Crossed OBS 311				
14298	16:22	OBS	Crossed OBS 310				
14498	17:40	OBS	Crossed OBS 309				
14711	19:05	OBS	Crossed OBS 308				
14899	20:26	OBS	Crossed OBS 307				
15098	22:11	OBS	Crossed OBS 306				
15298	23:55	OBS	Crossed OBS 305				
15307	00:00	Midnight	11/8/2017				
15498	01:43	OBS	Crossed OBS 304				
15697	03:34	OBS	Crossed OBS 303				
	04:30	Streamer	Very large following swell causing tail of streamer to surface				
15839	04:57	GPS	String 1 GPS failed, power short in power to pod				
15874	05:17	GPS	String 3 GPS began working				
15897	05:30	OBS	Crossed OBS 302				
15899	05:31	Source	Disable S1G2 d/t timing errors				
15901	05:32	Source	Disable S1,2,3,4 G3's enable S1,2,3,4G5's 6440cubic inches 32 guns				
15915	05:39	XBT	XBT-T5 Seq005				

VESSEL POSITION		
Shotpoints	Latitude (N / °)	Longitude (E / °)
FSP 7628	-38° 35' 28.162"	178° 29' 18.996"
LSP 16440	-41° 55' 52.650"	175° 41' 28.187"

NAVIGATION OFFSET APPLIED	
NRP - Stern	29.5m
NRP - COS	235.0m
NRP - CNG	423.00m
COS - CNG	188.00m
NRP - CMP	329.00m

16093	07:02	MMO	Power down for Seal sighting, last full volume shot point
16095	07:03	MMO	First shot on mitigation 40 cubic inches
16097	07:04	OBS	Crossed OBS 301 on mitigation gun
16134	07:22	MMO	Last mitigation gun shot point, cleared to ramp up
16135	07:22		Begin ramp up
16188	07:42		Ramp up complete
16189	07:43	FGSP	Return to shooting 32 guns 6440 cubic inches
16212	07:52	Tail buoy	Tail buoy GPS failed
16440	09:21	EOL	
Posnet locations & remarks: good - none - intermittent			acoustics
Tailbuoy #1	Failed	Gun string #1	Intermittent
Tailbuoy #2	none	Gun string #2	GOOD
Tailbuoy #3	none	Gun string #3	Intermittent
Tailbuoy #4	none	Gun string #4	GOOD

SP spacing:		50.0m
line status:		Complete

Seq# 007	Line Name: MGL1708MC14		NAVIGATION		DATE: 2017-11-08	Lamont-Doherty Earth Observatory COLUMBIA UNIVERSITY   EARTH INSTITUTE
	Line Brg : 330.650 °		LINE LOGS		JULIAN DAY: 312	
CLIENT: NSF - McIntosh, Bangs, Vanavendonk			SURVEY: SHIRE		AREA: New Zealand	
DC SOL : -65.0 m		DEPTH SOL : 2550.7 m		NAVIGATION SYSTEM USED: C-Nav3050 - Primary		
DC EOL : 445.5 m		DEPTH EOL : 1222.0 m		NAVIGATION SYSTEM USED: SeaPath 200		
BSP SOL: 6.2 kts		FEATHER SOL: 119.7 °		NAVIGATION SYSTEM USED: C-Nav2000		
BSP EOL: 4.1 kts		FEATHER EOL: -12.5 °		NAVIGATION SYSTEM USED: POSMV		
WEATHER		MAX FEATHER:		GRAVITY METER: BMG-II: used, SN223		
WIND SOL: NE 14.8 kts				MAGNETOMETER: GeoMetrics: not used		
WIND EOL: N15 kts						
SEAS SOL: 3.0 m		12:00 - 24:00 Alan Thompson		12:00 - 24:00 Gilles Guerin		
SEAS EOL: 1.5 m		00:00 - 12:00 Todd Jensvold		00:00 - 12:00 Ambrose Mavor-Parker		
SP	UTC	EVENT	COMMENTS		VESSEL POSITION	
16546	09:33	SOL	Increased shot point interval d/t strong pushing currents		Shotpoints Latitude (N / °) Longitude (E / °)	
16896	12:19	EOL			FSP 16546 -41° 55' 16.957" 175° 40' 03.184"	
					LSP 16896 -41° 42' 46.701" 175° 31' 06.075"	
					NAVIGATION OFFSET APPLIED	
					NRP - Stern 29.5m	
					NRP - COS 235.0m	
					NRP - CNG 423.00m	
					COS - CNG 188.00m	
					NRP - CMP 329.00m	
Posnet locations & remarks: good - none - intermittent			acoustics			
Tailbuoy #1	Failed	Gun string #1	Failed			
Tailbuoy #2	none	Gun string #2	GOOD			
Tailbuoy #3	none	Gun string #3	GOOD			
Tailbuoy #4	none	Gun string #4	GOOD			
				SP spacing: 75.0m		
				line status:		Complete



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<div> <div>Seq# 023</div> <div> <div>Line Name:</div> <div>MGL1708MC58</div> </div> <div> <div>Line Brg :</div> <div>120.499 °</div> </div> </div>		<div> <div>NAVIGATION</div> <div>LINE LOGS</div> </div>		<div> <div>DATE:</div> <div>2017-11-21</div> </div> <div> <div>JULIAN DAY:</div> <div>325</div> </div>		<div> <div>Lamont-Doherty Earth Observatory</div> <div>COLUMBIA UNIVERSITY   EARTH INSTITUTE</div> </div>	
<div> <div>CLIENT: NSF - McIntosh, Bangs, Vanavendonk</div> <div>SURVEY: SHIRE</div> <div>AREA: New Zealand</div> </div>							
<div> <div>DC SOL : -62.9 m</div> <div>DC EOL : -460.5 m</div> <div>BSP SOL: 4.5 kts</div> <div>BSP EOL: 4.6 kts</div> <div>WEATHER</div> <div>WIND SOL: S 21.8 kts</div> <div>WIND EOL: S 8.6 kts</div> <div>SEAS SOL: 2.0 m</div> <div>SEAS EOL: 1.5 m</div> </div>		<div> <div>DEPTH SOL : 179.3 m</div> <div>DEPTH EOL : 3224.8 m</div> <div>FEATHER SOL: 36.1 °</div> <div>FEATHER EOL: 03.1 °</div> <div>MAX FEATHER: 36.1 °</div> </div>		<div> <div>NAVIGATION SYSTEM USED: C-Nav3050 - Primary</div> <div>NAVIGATION SYSTEM USED: SeaPath 200</div> <div>NAVIGATION SYSTEM USED: C-Nav2000</div> <div>NAVIGATION SYSTEM USED: POSMV</div> <div>GRAVITY METER: BMG-II: used, SN223</div> <div>MAGNETOMETER: GeoMetrics: used</div> </div>			
<div> <div>shift hours</div> <div>12:00 - 24:00</div> </div>		<div> <div>shift leaders</div> <div>Alan Thompson</div> </div>		<div> <div>shift hours</div> <div>12:00 - 24:00</div> </div>		<div> <div>watch personnel</div> <div>Gilles Guerin</div> </div>	
<div> <div>00:00 - 12:00</div> <div>Todd Jensvold</div> </div>		<div> <div>00:00 - 12:00</div> <div>Ambrose Mavor-Parker</div> </div>					
<div> <div>SP</div> <div>UTC</div> <div>EVENT</div> <div>COMMENTS</div> </div>				<div> <div>VESSEL POSITION</div> <div>Shotpoints</div> <div>Latitude (N / °)</div> <div>Longitude (E / °)</div> <div>FSP</div> <div>LSP</div> <div>Shotpoints</div> <div>NAVIGATION OFFSET APPLIED</div> <div>NRP - Stern</div> <div>NRP - COS</div> <div>NRP - CNG</div> <div>COS - CNG</div> <div>NRP - CMP</div> </div>			
<div> <div>54675</div> <div>04:33</div> <div>SOL</div> <div></div> </div>				<div> <div>54675</div> <div>-39° 50'</div> <div>21.095"</div> </div>			
<div> <div>54974</div> <div>06:23</div> <div>Sighting</div> <div>Power down for whale sighting, last full volume shot point.</div> </div>				<div> <div>54974</div> <div>-40° 38'</div> <div>33.098"</div> </div>			
<div> <div>55022</div> <div>06:42</div> <div>Ramp Up</div> <div>Begin ramp up of source</div> </div>				<div> <div>55022</div> <div>-40° 38'</div> <div>33.098"</div> </div>			
<div> <div>55078</div> <div>07:02</div> <div>Ramp Up</div> <div>Ramp up complete</div> </div>				<div> <div>55078</div> <div>-40° 38'</div> <div>33.098"</div> </div>			
<div> <div>55079</div> <div>07:02</div> <div>FGSP</div> <div></div> </div>				<div> <div>55079</div> <div>-40° 38'</div> <div>33.098"</div> </div>			
<div> <div>55106</div> <div>07:13</div> <div>Sighting</div> <div>Power down for whale sighting, last full volume shot point.</div> </div>				<div> <div>55106</div> <div>-40° 38'</div> <div>33.098"</div> </div>			
<div> <div>55128</div> <div>07:21</div> <div>Ramp Up</div> <div>Begin ramp up of source</div> </div>				<div> <div>55128</div> <div>-40° 38'</div> <div>33.098"</div> </div>			
<div> <div>55184</div> <div>07:41</div> <div>Ramp Up</div> <div>Ramp up complete</div> </div>				<div> <div>55184</div> <div>-40° 38'</div> <div>33.098"</div> </div>			
<div> <div>55185</div> <div>07:42</div> <div>FGSP</div> <div></div> </div>				<div> <div>55185</div> <div>-40° 38'</div> <div>33.098"</div> </div>			
<div> <div>57922</div> <div>00:00</div> <div>Midnight</div> <div>11/22/2017</div> </div>				<div> <div>57922</div> <div>-40° 38'</div> <div>33.098"</div> </div>			
<div> <div>58255</div> <div>01:56</div> <div>EOL</div> <div></div> </div>				<div> <div>58255</div> <div>-40° 38'</div> <div>33.098"</div> </div>			
<div> <div>Posnet locations &amp; remarks: good - none - intermittent</div> <div>acoustics</div> </div>				<div> <div>SP spacing:</div> <div>50.0m</div> </div>			
<div> <div>Tailbuoy #1</div> <div>Good</div> <div>Gun string #1</div> <div>Failed</div> </div>				<div> <div>line status:</div> <div>Complete</div> </div>			
<div> <div>Tailbuoy #2</div> <div>none</div> <div>Gun string #2</div> <div>Intermittent</div> </div>							
<div> <div>Tailbuoy #3</div> <div>none</div> <div>Gun string #3</div> <div>Failed</div> </div>							
<div> <div>Tailbuoy #4</div> <div>none</div> <div>Gun string #4</div> <div>GOOD</div> </div>							



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Seq# 026	Line Name:	MGL1708MC52	NAVIGATION	DATE:	2017-11-23	
	Line Brg :	43.392 °	LINE LOGS	JULIAN DAY:	327	
CLIENT: NSF - McIntosh, Bangs, Vanavendonk			SURVEY: SHIRE		AREA: New Zealand	
DC SOL : -3.3 m DC EOL : 227.7 m BSP SOL: 4.7 kts BSP EOL: 4.7 kts WEATHER WIND SOL: E 2.5 kts WIND EOL: ESE 4.2 kts SEAS SOL: 0.5 m SEAS EOL: 0.5 m			DEPTH SOL : 59.5 m DEPTH EOL : 63.1 m FEATHER SOL: 55.0 ° FEATHER EOL: 02.7 ° MAX FEATHER: 55.0 °		NAVIGATION SYSTEM USED: C-Nav3050 - Primary NAVIGATION SYSTEM USED: SeaPath 200 NAVIGATION SYSTEM USED: C-Nav2000 NAVIGATION SYSTEM USED: POSMV GRAVITY METER: BMG-II: used, SN223 MAGNETOMETER: GeoMetrics: used	
shift hours 12:00 - 24:00 00:00 - 12:00			shift leaders Alan Thompson Todd Jensvold		shift hours 12:00 - 24:00 00:00 - 12:00	
watch personnel Gilles Guerin Ambrose Mavor-Parker			watch personnel			
SP 63568 63790			UTC 06:44 08:01		EVENT SOL EOL	
COMMENTS			VESSEL POSITION Shotpoints FSP LSP			
COMMENTS			Shotpoints NAVIGATION OFFSET APPLIED NRP - Stern NRP - COS NRP - CNG COS - CNG NRP - CMP			
Posnet locations & remarks: good - none - intermittent			acoustics		SP spacing: 50.0m	
Tailbuoy #1 Tailbuoy #2 Tailbuoy #3 Tailbuoy #4			Good none none none		Gun string #1 Gun string #2 Gun string #3 Gun string #4	
Failed Intermittent Failed GOOD			line status:		Complete	

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<b>Seq#</b> 028	<b>Line Name:</b>	MGL1708MC54	<b>NAVIGATION</b>	<b>DATE:</b>	2017-11-24	Lamont-Doherty Earth Observatory COLUMBIA UNIVERSITY   EARTH INSTITUTE		
	<b>Line Brg :</b>	29.822 °	<b>LINE LOGS</b>	<b>JULIAN DAY:</b>	328			
<b>CLIENT:</b> NSF - McIntosh, Bangs, Vanavendonk			<b>SURVEY:</b> SHIRE	<b>AREA:</b> New Zealand				
DC SOL : -1.4 m DC EOL : -157.9 m BSP SOL: 4.7 kts BSP EOL: 4.7 kts <b>WEATHER</b> WIND SOL: NNE 11.8 kts WIND EOL: N 11.2 kts SEAS SOL: 1.0 m SEAS EOL: 1.0 m			DEPTH SOL : 3231.2 m DEPTH EOL : 3329.4 m FEATHER SOL: -29.5 ° FEATHER EOL: 01.0 ° MAX FEATHER: -29.5 °			NAVIGATION SYSTEM USED: C-Nav3050 - Primary NAVIGATION SYSTEM USED: SeaPath 200 NAVIGATION SYSTEM USED: C-Nav2000 NAVIGATION SYSTEM USED: POSMV GRAVITY METER: BMG-II: used, SN223 MAGNETOMETER: GeoMetrics: used		
			shift hours shift leaders shift hours watch personnel shift hours watch personnel			12:00 - 24:00 Alan Thompson 12:00 - 24:00 Gilles Guerin 00:00 - 12:00 Todd Jensvold 00:00 - 12:00 Ambrose Mavor-Parker		
SP	UTC	EVENT	COMMENTS					
68683	08:11	SOL						
69060	10:22	EOL						
			VESSEL POSITION					
			Shotpoints Latitude (N / +) Longitude (E / +)					
			FSP	68683		-40° 09' 40.744"	179° 24' 52.413"	
			LSP	69060		-39° 59' 47.634"	179° 31' 21.445"	
			Shotpoints					
			NAVIGATION OFFSET APPLIED					
			NRP - Stern	29.5m				
			NRP - COS	235.0m				
			NRP - CNG	423.00m				
			COS - CNG	188.00m				
			NRP - CMP	329.00m				
Posnet locations & remarks: good - none - intermittent			acoustics					
Tailbuoy #1	Good	Gun string #1	Failed					
Tailbuoy #2	none	Gun string #2	Intermittent					
Tailbuoy #3	none	Gun string #3	Failed					
Tailbuoy #4	none	Gun string #4	GOOD					
			SP spacing: 50.0m					
			line status:		Complete			

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Seq# 036	Line Name:	MGL1708MH24	NAVIGATION	DATE:	2017-11-27		
	Line Brg :	119.959 °	LINE LOGS	JULIAN DAY:	331		
CLIENT: NSF - McIntosh, Bangs, Vanavendonk			SURVEY: SHIRE		AREA: New Zealand		
DC SOL : 25.6 m DC EOL : 439.0 m BSP SOL: 4.5 kts BSP EOL: 4.3 kts WEATHER WIND SOL: NNE 18.8 kts WIND EOL: N 10 kts SEAS SOL: 1.0 m SEAS EOL: 0-2			DEPTH SOL : 351.3 m DEPTH EOL : 3590.0 m FEATHER SOL: 11.4 ° FEATHER EOL: -04.8 ° MAX FEATHER: 11.4 ° shift hours 12:00 - 24:00 00:00 - 12:00			NAVIGATION SYSTEM USED: C-Nav3050 - Primary NAVIGATION SYSTEM USED: SeaPath 200 NAVIGATION SYSTEM USED: C-Nav2000 NAVIGATION SYSTEM USED: POSMV GRAVITY METER: BMG-II: used, SN223 MAGNETOMETER: GeoMetrics: used	
shift leaders Alan Thompson Todd Jensvold			shift hours 12:00 - 24:00 00:00 - 12:00		watch personnel Gilles Guerin Ambrose Mavor-Parker		
SP UTC EVENT 80980 05:23 SOL 84400 21:02 EOL			COMMENTS				
			VESSEL POSITION Shotpoints Latitude (N / °) Longitude (E / °) FSP 80980 -38° 37' 27.790" 178° 37' 12.855" LSP 84400 -39° 11' 51.256" 179° 54' 14.697"				
			Shotpoints NAVIGATION OFFSET APPLIED NRP - Stern 29.5m NRP - COS 235.0m NRP - CNG 423.00m COS - CNG 188.00m NRP - CMP 329.00m				
Posnet locations & remarks: good - none - intermittent			acoustics				
Tailbuoy #1 Failed Gun string #1 Failed Tailbuoy #2 none Gun string #2 Intermittent Tailbuoy #3 none Gun string #3 Failed Tailbuoy #4 none Gun string #4 GOOD			SP spacing: 37.5m line status: Complete				

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<div> <div>Seq# 052</div> <div> <div>Line Name:</div> <div>MGL1708MC04</div> </div> <div> <div>Line Brg :</div> <div>234.145 °</div> </div> </div>		<div> <div>NAVIGATION</div> <div>LINE LOGS</div> </div>		<div> <div>DATE:</div> <div>2017-12-04</div> </div> <div> <div>JULIAN DAY:</div> <div>338</div> </div>		<div> <div>Lamont-Doherty Earth Observatory</div> <div>COLUMBIA UNIVERSITY   EARTH INSTITUTE</div> </div>	
<div> <div>CLIENT: NSF - McIntosh, Bangs, Vanavendonk</div> <div>SURVEY: SHIRE</div> <div>AREA: New Zealand</div> </div>				<div> <div>NAVIGATION SYSTEM USED: C-Nav3050 - Primary</div> <div>NAVIGATION SYSTEM USED: SeaPath 200</div> <div>NAVIGATION SYSTEM USED: C-Nav2000</div> <div>NAVIGATION SYSTEM USED: POSMV</div> <div>GRAVITY METER: BMG-II: used, SN223</div> <div>MAGNETOMETER: GeoMetrics: used</div> </div>			
<div> <div>DC SOL : -93.2 m</div> <div>DC EOL : 340.9 m</div> <div>BSP SOL: 4.7 kts</div> <div>BSP EOL: 4.5 kts</div> <div>WEATHER</div> <div>WIND SOL: N 5 kts</div> <div>WIND EOL: N 6.2 kts</div> <div>SEAS SOL: 1.0 m</div> <div>SEAS EOL: 1.0 m</div> </div>				<div> <div>DEPTH SOL : 537.9 m</div> <div>DEPTH EOL : 57.5 m</div> <div>FEATHER SOL: -56.3 °</div> <div>FEATHER EOL: -02.2 °</div> <div>MAX FEATHER: -56.3 °</div> </div>			
<div> <div>shift hours</div> <div>12:00 - 24:00</div> <div>00:00 - 12:00</div> </div>				<div> <div>shift leaders</div> <div>Alan Thompson</div> <div>Todd Jensvold</div> </div>			
<div> <div>shift hours</div> <div>12:00 - 24:00</div> <div>00:00 - 12:00</div> </div>				<div> <div>watch personnel</div> <div>Gilles Guerin</div> <div>Ambrose Mavor-Parker</div> </div>			
<div> <div>SP</div> <div>UTC</div> <div>EVENT</div> </div>				<div> <div>COMMENTS</div> </div>			
<div> <div>112814</div> <div>16:27</div> <div>SOL</div> </div>				<div> <div>VESEL POSITION</div> </div>			
<div> <div>114033</div> <div>23:55</div> <div>Sighting</div> </div>				<div> <div>Shotpoints</div> <div>Latitude (N / °)</div> <div>Longitude (E / °)</div> </div>			
<div> <div>114035</div> <div>23:56</div> <div>Sighting</div> </div>				<div> <div>FSP</div> <div>112814</div> <div>-37° 23' 44.226"</div> <div>178° 04' 55.385"</div> </div>			
<div> <div>114044</div> <div>00:00</div> <div>Midnight</div> </div>				<div> <div>LSP</div> <div>114438</div> <div>-37° 50' 03.124"</div> <div>177° 18' 13.957"</div> </div>			
<div> <div>114072</div> <div>00:11</div> <div>Source</div> </div>				<div> <div>Shotpoints</div> </div>			
<div> <div>114125</div> <div>00:31</div> <div>Source</div> </div>				<div> <div>NAVIGATION OFFSET APPLIED</div> </div>			
<div> <div>114126</div> <div>00:31</div> <div>FGSP</div> </div>				<div> <div>NRP - Stern</div> <div>29.5m</div> </div>			
<div> <div>00:41</div> <div>Engine</div> </div>				<div> <div>NRP - COS</div> <div>235.0m</div> </div>			
<div> <div>02:19</div> <div>Engine</div> </div>				<div> <div>NRP - CNG</div> <div>423.00m</div> </div>			
<div> <div>114498</div> <div>02:58</div> <div>EOL</div> </div>				<div> <div>COS - CNG</div> <div>188.00m</div> </div>			
<div> <div>repairs made, starboard main engine re-engaged</div> </div>				<div> <div>NRP - CMP</div> <div>329.00m</div> </div>			
<div> <div>Posnet locations &amp; remarks: good - none - intermittent</div> </div>				<div> <div>acoustics</div> </div>			
<div> <div>Tailbuoy #1</div> <div>GOOD</div> <div>Gun string #1</div> <div>Failed</div> </div>				<div> <div>SP spacing:</div> <div>50.0m</div> </div>			
<div> <div>Tailbuoy #2</div> <div>none</div> <div>Gun string #2</div> <div>GOOD</div> </div>				<div> <div>line status:</div> <div>Complete</div> </div>			
<div> <div>Tailbuoy #3</div> <div>none</div> <div>Gun string #3</div> <div>Failed</div> </div>							
<div> <div>Tailbuoy #4</div> <div>none</div> <div>Gun string #4</div> <div>Intermittent</div> </div>							

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