



<b>Seq# 002</b>		<b>Line Name:</b> MGL2408002OPFe2		<b>NAVIGATION</b>		<b>DATE:</b> 2024-08-07		<b>Lamont-Doherty Earth Observatory</b>												
		<b>Line Brg :</b> 96 °		<b>LINE LOGS</b>		<b>JULIAN DAY:</b> 220		<b>COLUMBIA UNIVERSITY   EARTH INSTITUTE</b>												
<b>CLIENT:</b> Stephen Jones			<b>SURVEY:</b> MGL2408			<b>AREA:</b> IMPULSE - Iceland														
<b>DC SOL:</b> -149.6 m		<b>DEPTH SOL :</b> 1429.2 m		<b>NAVIGATION SYSTEM USED:</b> C-Nav3050 - Primary																
<b>DC EOL:</b> 115.5 m		<b>DEPTH EOL :</b> 2279.8 m		<b>NAVIGATION SYSTEM USED:</b> SeaPath 330																
<b>BSP SOL:</b> 3.2 kts		<b>FEATHER SOL:</b> N/A °		<b>NAVIGATION SYSTEM USED:</b> C-Nav3050-Stern Mounted																
<b>BSP EOL:</b> 4.1 kts		<b>FEATHER EOL:</b> N/A °		<b>GRAVITY METER:</b> BMG-II: used, SN223																
<b>WEATHER</b>		<b>MAGNETOMETER:</b> Geometrics 882																		
<b>WIND SOL:</b> E 12 kts		<b>shift hours</b>		<b>Nav</b>		<b>shift hours</b>		<b>Acq</b>												
<b>WIND EOL:</b> SW 8 kts		0:00-12:00		Koray Ergun		0:00-12:00		Gilles Guerin												
<b>SEAS SOL:</b> 1 m		12:00 - 24:00		Cody Bahlau		12:00 - 24:00		Riley Lopez												
<b>SEAS EOL:</b> 1 m																				
<b>SP</b>	<b>Orca Ref</b>	<b>UTC</b>	<b>EVENT</b>	<b>COMMENTS</b>				<b>VESSEL POSITION</b>												
2001	2001	21:09	SOL	MGL2408002OPFe2 - 35 Guns, 6420 cuin																
2004	2004	21:12		Gun 4-4 enabled - New Volume = 36 Guns, 6600 cuin				<b>Shotpoints</b>	<b>Latitude (N)</b>	<b>Longitude (W)</b>										
							FSP	2001	60°17'16.32"	29°40'06.95"										
							LSP	3732	59°57'37.88"	25°04'36.63"										
2171	2171	23:59	MSP	Midnight shotpoint																
							FSP	2001	60.287867	-29.668597										
							LSP	3732	59.960523	-25.076842										
							<table border="1"> <tr><td><b>NRP – Stern</b></td><td><b>29.2m</b></td></tr> <tr><td><b>NRP – COS</b></td><td><b>276.0m</b></td></tr> <tr><td><b>NRP – CNG</b></td><td><b>N/A</b></td></tr> <tr><td><b>COS – CNG</b></td><td><b>N/A</b></td></tr> <tr><td><b>NRP – CMP</b></td><td><b>N/A</b></td></tr> </table>				<b>NRP – Stern</b>	<b>29.2m</b>	<b>NRP – COS</b>	<b>276.0m</b>	<b>NRP – CNG</b>	<b>N/A</b>	<b>COS – CNG</b>	<b>N/A</b>	<b>NRP – CMP</b>	<b>N/A</b>
<b>NRP – Stern</b>	<b>29.2m</b>																			
<b>NRP – COS</b>	<b>276.0m</b>																			
<b>NRP – CNG</b>	<b>N/A</b>																			
<b>COS – CNG</b>	<b>N/A</b>																			
<b>NRP – CMP</b>	<b>N/A</b>																			
3729	3729	1:57		Vessel starts slight deviation off preplot line																
3732	3732	2:00	EOL	MGL2408002OPFe2 - Guns, 6600 cuin																
<b>Posnet locations &amp; remarks:</b> good - absent - intermittent - partial				<b>Forward</b>	<b>Center</b>															
<b>Tailbuoy #1</b>	N/A		<b>Gun string #1</b>	GOOD	GOOD															
<b>Head Float #1</b>	N/A		<b>Gun string #2</b>	GOOD	GOOD															
			<b>Gun string #3</b>	GOOD	GOOD															
			<b>Gun string #4</b>	GOOD	GOOD															
<b>Compasses</b>	N/A																			
<b>D.I.s</b>	N/A																			
							<b>Line Status:</b>	Complete												
<b>Processing Comments</b>							<b>Acronyms key</b>													
SP 3729: Vessel commences slight deviation to STBD, not affecting positioning							<b>DC SOL</b>	Distance Crossed at Start of Line												
							<b>DC EOL</b>	Distance Crossed at End of Line												
							<b>BSP</b>	Bottom Speed, aka SOG: Speed Over Ground												
							<b>FEATHER</b>	The angle from the boat to the TB (Tail Buoy)												
							<b>NRP</b>	Navigation Reference Point												
							<b>COS</b>	Center of Source												
							<b>CNG</b>	Center Near Group												
							<b>CMP</b>	Common Mid-point												
<b>Overall Comments</b>	Good vessel and source positioning with all GPS nodes fully active through out the line.																			











Seq# 008		Line Name: MGL2408008MPFew1 Line Brg : 35 °		NAVIGATION LINE LOGS		DATE: 2024-09-02 JULIAN DAY: 246		Lamont-Doherty Earth Observatory COLUMBIA UNIVERSITY   EARTH INSTITUTE													
CLIENT: Stephen Jones		SURVEY: MGL2408		AREA: IMPULSE - Iceland																	
DC SOL:	507.1 m	DEPTH SOL :	2604.8 m	NAVIGATION SYSTEM USED: C-Nav3050 - Primary																	
DC EOL:	265.4 m	DEPTH EOL :	2265.0 m	NAVIGATION SYSTEM USED: SeaPath 330																	
BSP SOL:	4.4 kts	FEATHER SOL:	-1.95 °	NAVIGATION SYSTEM USED: C-Nav3050-Stern Mounted																	
BSP EOL:	4.5 kts	FEATHER EOL:	78.01 °	GRAVITY METER: BMG-II: used, SN223 MAGNETOMETER: Geometrics 882																	
WEATHER																					
WIND SOL:	SW 7 kts	<u>shift hours</u>		<u>Nav</u>	<u>shift hours</u>		<u>Acq</u>														
WIND EOL:	SW 31 kts	0:00-12:00	Koray Ergun	0:00-12:00	Gilles Guerin																
SEAS SOL:	2 m	12:00 - 24:00	Cody Bahlau	12:00 - 24:00	Riley Lopez																
SEAS EOL:	2.5 m																				
SP	Orca Ref	UTC	EVENT	COMMENTS				VESSEL POSITION													
29400	401	21:19	SOL	MGL2408008MPFew1 - 36 Guns, 6600 cuin																	
29824	825	23:59	MSP	Midnight ShotPoint				Shotpoints	Latitude (N)	Longitude (W)											
							FSP	29400	60°24'55.94"	33°07'32.88"											
29936	937	0:43		Online Orca publish for updated compass S/N's				LSP	37950	59°59'33.36"	25°27'34.71"										
30174	1175	2:17		Orca timing check failed																	
31139	2140	8:16		Missed shot. SRV < 20sec																	
33116	4117	19:51		Disabled Strings 3 & 4 due to broken tow rope - 18 guns 3300ci				FSP	29400	60.415538	-33.125799										
33167	4168	20:14		Enabled Strings 3 & 4 following repair - 36 guns 6600ci				LSP	37950	59.9926	-25.459643										
33785	4786	23:59	MSP	Midnight ShotPoint																	
35787	6788	12:28		Disabled all arrays in Gunlink to swap gun 3-7 to different channels																	
35801	6802	12:34		Enabled all arrays																	
36335	7336	15:56		Disabled gun 3-7																	
								<table border="1"> <tr><td>NRP – Stern</td><td>29.2m</td></tr> <tr><td>NRP – COS</td><td>276.0m</td></tr> <tr><td>NRP – CNG</td><td>454.20m</td></tr> <tr><td>COS – CNG</td><td>178.20m</td></tr> <tr><td>NRP – CMP</td><td>365.10m</td></tr> </table>				NRP – Stern	29.2m	NRP – COS	276.0m	NRP – CNG	454.20m	COS – CNG	178.20m	NRP – CMP	365.10m
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COS – CNG	178.20m																				
NRP – CMP	365.10m																				
37801	8802	1:27	LFFSP	Last Full Fold ShotPoint																	
37922	8923	2:11		Vessel start turning 2°/min STBD to next line heading																	
37950	8951	2:22	EOL	MGL2408008MPFew1 - 35 Guns, 6540 cuin																	
rGPS Remarks		Forward	Center																		
Tailbuoy #1	GOOD	Gun string #1	GOOD	GOOD																	
Head Float #1	GOOD	Gun string #2	GOOD	GOOD																	
		Gun string #3	GOOD	GOOD																	
		Gun string #4	GOOD	GOOD																	
Compasses	N/A																				
D.I.s	S1D17 KO'ed (bad D.I.), S1C14 KO'ed (biased)																				
Line Status:				Complete																	
Processing Comments				Acronyms key																	
WX quite marginal throughout line getting worse toward EOL				DC SOL Distance Crossed at Start of Line																	
TB rGPS absent for short periods at times dt weather conditions, along with other rGPS units suffering outage but much less				DC EOL Distance Crossed at End of Line																	
S1C3, S1C14, S1C36, S1C39 rejected from solution				BSP Bottom Speed, aka SOG: Speed Over Ground																	
Unit Variance and in-line/cross-line instability high at EOL dt turn				FEATHER The angle from the boat to the TB (Tail Buoy)																	
TB rGPS out of radial range at EOL once turn commences after SP 37922				NRP Navigation Reference Point																	
SP 37933-37950: Large jump in TB position at EOL dt turn and absent TB data				COS Center of Source																	
				CNG Center Near Group																	
Overall Comments				CMP Common Mid-point																	
Marginal WX. Starting turn at EOL causing high UV, large SMA at tail and TB position jump at SP 37933-EOL (last 18 SP's)																					









