

Observers Log

Vessel	Marcus G. Langseth
Client	Van Avendonk
Area	Blake Ridge MCS
Job Number	MGL2309

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis/Tawfik Naas	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309001Ptest
SEQUENCE	1
DIRECTION	27.0

	SP#	FFID	Raw SegD
SOL	2023	16	13
EOL	2283	246	1037

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	2023	2283
Date MM/DD/YY	07/19/2023	07/19/2023
Time UTC	11:42	13:17
Volume (cu in.)	80 in3	6600 in3
Wind (kts)	S 8 kts	SW 9 kts
Sea State (m)	1 m	1 m
Water Depth (m)	4500 m	4440 m

Cable	Dead Channels
1	61, 85, 501, 537, 624, 625, 636, 637, 668, 685, 789, 861
2	
3	
4	

[illegible][illegible]

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Van Avendonk
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Job Number	MGL2309

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis/Tawfik Naas	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309002P1001
SEQUENCE	2
DIRECTION	308.9

	SP#	FFID	Raw SegD
SOL	4890	247	1051
EOL	5976	1333	6099

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	4890	5976
Date MM/DD/YY	07/19/2023	07/19/2023
Time UTC	13:40	20:40
Volume (cu in.)	6600 in3	3300 in3
Wind (kts)	SW 7 kts	9 kts
Sea State (m)	1 m	1 m
Water Depth (m)	4435 m	4003 m

Cable	Dead Channels
1	61, 85, 501, 537, 624, 625, 636, 637, 668, 685, 789, 861
2	
3	
4	

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Abbreviations	
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NDR - No Data Recorded	ITB - Internal Time Break
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[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Van Avendonk
Area	Blake Ridge MCS
Job Number	MGL2309

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis/Tawfik Naas	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309003P1TST2
SEQUENCE	3
DIRECTION	127.4

	SP#	FFID	Raw SegD
SOL	6540	1334	6109
EOL	7027	1821	8941

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	6540	7027
Date MM/DD/YY	07/19/23	07/20/23
Time UTC	21:47	01:43
Volume (cu in.)	3300 in3	6600 in3
Wind (kts)	9 kts	8 kts
Sea State (m)	1 m	1 m
Water Depth (m)	4498 m	4494 m

Cable	Dead Channels
1	61, 85, 501, 537, 624, 625, 636, 637, 668, 685, 789, 861
2	
3	
4	

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone

General / Line Comments
Turn/Test line d/t airleak on String 4
SEAL failed to record fired SP 7028. LGSP 7027

Abbreviations	
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N.T.B.P. - Not To Be Processed	

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Vessel	Marcus G. Langseth
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Area	Blake Ridge MCS
Job Number	MGL2309

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis/Tawfik Naas	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309004P21001
SEQUENCE	4
DIRECTION	308.9

	SP#	FFID	Raw SegD
SOL	7508	1822	8960
EOL	15932	10215	48893

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	7508	15932
Date MM/DD/YY	07/20/2023	07/22/2023
Time UTC	02:21	10:01
Volume (cu in.)	6600 in3	6560 in3
Wind (kts)	8 kts	SW 12 kts
Sea State (m)	1 m	1 m
Water Depth (m)	4455 m	255 m

Cable	Dead Channels
1	61, 85, 501, 537, 624, 625, 636, 637, 668, 685, 789, 861

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone
string 3 Cluster 2 DEAD	

General / Line Comments
S4G3 disabled shortly after start of line. Most line with 35 guns, 6560 in3
False autofires on string 4 G3
Gun Depth Errors on Tail of String 4 SOL - EOL @ 11.1m
Multiple timing errors from S2G4
SP 9448-9461 (FFID 3762-3775) not valid and SP 9462-9492 missing because of Seal 428 failure.
SP: 10246 noise visible moving head to tail affecting first part of the streamer.
SP: 10483 noise no longer visible
Crossfeed visible on streamer on random SP's from SP 14305 to14331, also SP's 14421,14423, and 14425.
Channel 957 becomes noisy at SP 14375.
Current noise visible on streamer from SP 14900

Abbreviations	
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Observers Log	
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LINE	MGL2309005P11002
SEQUENCE	5
DIRECTION	237.4

	SP#	FFID	Raw SegD
SOL	16102	10216	48908
EOL	17618	11703	55278

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Cable	Dead Channels
1	61, 85, 501, 537, 624, 625, 636, 637, 668, 685, 789, 861

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone
string 3 Cluster 2 DEAD	

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
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FOLSP - First Overlap SP	Fa - Feather Angle
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Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis/Tawfik Naas	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309006P11003
SEQUENCE	6
DIRECTION	128.1

	SP#	FFID	Raw SegD
SOL	18060	11704	55309
EOL	28340	21979	102428

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	18060	28340
Date MM/DD/YY	07/22/23	07/25/23
Time UTC	19:59	13:27
Volume (cu in.)	6600 in3	6600 in3
Wind (kts)	SW 13 kts	SE3 kts
Sea State (m)	1 m	0.5 m
Water Depth (m)	383 m	4660 m

	Degraded/dead Channels
Dead	61,85,133,421.501,537,624,625,636,637,668,685,789,861
Weak	422, 600, 708, 751, 781, 830, 837, 900, 933
Noisy	943, 944, 955, (957), 958

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone
string 3 Cluster 2 DEAD	Gun 3-3

[illegible]

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
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[illegible]

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Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis/Tawfik Naas	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309007P11004
SEQUENCE	7
DIRECTION	295.2 and 306.0

	SP#	FFID	Raw SegD
SOL	28896	21980	102484
EOL	38992	32076	153786

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	28896	38992
Date MM/DD/YY	07/25/23	07/28/23
Time UTC	17:30	16:45
Volume (cu in.)	6600 in3	6600 in3
Wind (kts)	0 kts	SE 13 kts
Sea State (m)	0 m	1 m
Water Depth (m)	4695 m	425 m

	Degraded/dead Channels
Dead	61,85,133,421, 501,537,624,625,636,637,668,685,789,861, 957
Weak	252, 600, 708, 751, 830, 837, 900, 933
Noisy	943, 944, 955, 958

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone
string 3 Cluster 2 DEAD	Gun 3-3

General / Line Comments	

This line has a "dog leg" and therefore two azimuth directions. At SP 34312 the direction changes from 295.2 to 306.0

Orca was enabled early, while the sources were disabled, waiting on PSO clearance. SP 28894 and 28895 exist in the Orca database but no shot was fired

From SP ~31900 - likely reflection from the Blake Plateau escarpment

Turn noise visible on front of streamer from SP 34316 to 34336.

Line deviated from preplot line for the last 260 shots due to strong Gulf Stream currents.

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[illegible]

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Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis/Tawfik Naas	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309008P11007
SEQUENCE	8
DIRECTION	126.0 and 159.6

	SP#	FFID	Raw SegD
SOL	39987	32077	153831
EOL	46738	38825	190206

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	40017	46738
Date MM/DD/YY	07/29/23	07/31/23
Time UTC	07:33	09:48
Volume (cu in.)	40 in3	6600 in3
Wind (kts)	S 18 kts	NW 10 kts
Sea State (m)	1.5 m	1 m
Water Depth (m)	495 m	1060 m

	Degraded/dead Channels
Dead	61,85,133,421, 501,537,624,625,636,637,668,685,789,861, 957
Weak	252, 600, 708, 751, 830, 837, 900, 933
Noisy	943, 944, 955, 958

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone
string 3 Cluster 2 DEAD	Gun 3-3

[illegible]

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NDR - No Data Recorded	ITB - Internal Time Break
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Time UTC	FILE	SP	Description
07:12	32077	39987	SOL MGL2309008P11007 - 1 Gun, 40 in3 - Soft Start
07:33	32107	40017	FGSP - Ramp up complete - First shot at full volume 36 guns, 6600in3
13:02	32253	40163	Deviated 10 degrees to port to try to increase forward progress against current
13:34	32277	40187	Deactivate all sources after compressor failure LGSP recorded 40187
13:36	32278	40188	Empty shot recorded without source
13:43	32279	40192	FGSP after restoring compressor and sources - 36 guns, 6600in3
15:58	32426	40339	Suspect autofire 52.7s into shot (possibly affected by lightening strike)
18:23	32593	40505	Shutdown for turtle sighting - LGSP 40505
18:39	32610	40523	Back to full volume - FGSP 40523
21:20	~32800	~40700	Approximate time of return to normal speed and course after fighting currents
23:59	33220	41133	Last shot of the day (28rd)
00:00	33221	41134	First shot of the day (29th)
23:59	37112	45025	Last shot of the day (29rd)
00:00	37113	45026	First shot of the day (30th)
00:40	37233	45146	First shot at beginning of the Dog leg deviation
04:09	37854	45767	Some minor shot overlaps because of speed
09:48	38825	46738	EOL MGL2309008P11007 - 36 Guns, 6600 in3

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Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis/Tawfik Naas	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309009P11009
SEQUENCE	9
DIRECTION	306.7

	SP#	FFID	Raw SegD
SOL	49756	38826	190226
EOL	51162	40232	197706

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	49756	51162
Date MM/DD/YY	07/31/23	08/01/23
Time UTC	15:37	02:00
Volume (cu in.)	40 in3	4950 in3
Wind (kts)	8.9 kts	SW 8.8 kts
Sea State (m)	1 m	1 m
Water Depth (m)	1133 m	888 m

	Degraded/dead Channels
Dead	61,85,133,421, 501,537,624,625,636,637,668,685,789,861, 957
Weak	252, 600, 708, 751, 830, 837, 900, 933
Noisy	943, 944, 955, 958

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone
NFH 3-2 Dead	Gun Cluster 3-3
NFH 4-3 Killed	Gun Cluster 4-5

[illegible]

Abbreviations	
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FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
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NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

Time UTC	FILE	SP	Description
15:37	38826	49756	SOL MGL2309009P11009 - 1 Gun, 40 in3 - Soft Start
15:58	38874	49804	Ramp-up complete - First shot at full volume: 36 guns, 6600 in3
16:29	38948	49878	String 3 disabled - New volume: 27 guns - 4950 in3
16:36	38962	49892	Back to full volume - 36 guns - 6600 in3
16:38	38967	49897	String 3 disabled - New volume: 27 guns - 4950 in3
17:16	39027	49957	Back to full volume - 36 guns - 6600 in3
23:59	39999	50929	Last shot of the day (07/31)
00:00	40000	50930	First shot of the day (08/01)
00:46	40106	51036	Gun 3-9 No Fire
00:47	40108	51038	S3-G9 disabled d/t no fire. New source volume 35 guns 6380 in3
01:01	40141	51071	Gun String 3 disabled to recover and repair. 27 guns, 4950 in3
02:00	40232	51162	EOL MGL2309009P11009 - 27 Guns, 4950 in3

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Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis/Tawfik Naas	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309010P1TST3
SEQUENCE	10
DIRECTION	126.7

	SP#	FFID	Raw SegD
SOL	51536	40233	197740
EOL	51885	40566	199068

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	51536	51885
Date MM/DD/YY	08/01/23	08/01/23
Time UTC	02:50	04:41
Volume (cu in.)	2950 in3	6600 in3
Wind (kts)	SW 9.9 kts	NW 17 kts
Sea State (m)	1 m	1 m
Water Depth (m)	901 m	927 m

	Degraded/dead Channels
Dead	61,85,133,421, 501,537,624,625,636,637,668,685,789,861, 957
Weak	252, 600, 708, 751, 830, 837, 900, 933
Noisy	943, 944, 955, 958

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone
NFH 3-2 Dead	Gun Cluster 3-3
NFH 4-3 Killed	Gun Cluster 4-5

[illegible]

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Van Avendonk
Area	Blake Ridge MCS
Job Number	MGL2309

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis/Tawfik Naas	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309011P21009
SEQUENCE	11
DIRECTION	306.4

	SP#	FFID	Raw SegD
SOL	52748	40567	199109
EOL	54205	42024	206512

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	52748	54205
Date MM/DD/YY	08/01/23	08/01/23
Time UTC	05:31	18:48
Volume (cu in.)	6600 in3	4950 in3
Wind (kts)	NW 5 kts	NW 9 kts
Sea State (m)	1 m	1 m
Water Depth (m)	930 m	820 m

	Degraded/dead Channels
Dead	61,85,133,421, 501,537,624,625,636,637,668,685,789,861, 957
Weak	252, 600, 708, 751, 830, 837, 900, 933
Noisy	943, 944, 955, 958

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone
NFH 3-2 Dead	Gun Cluster 3-3
NFH 4-3 Killed	Gun Cluster 4-5

[illegible]

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Van Avendonk
Area	Blake Ridge MCS
Job Number	MGL2309

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis/Tawfik Naas	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309012P31009
SEQUENCE	12
DIRECTION	306.4

	SP#	FFID	Raw SegD
SOL	54780	42025	206536
EOL	55538	42783	209856

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	54780	55538
Date MM/DD/YY	08/01/23	08/02/23
Time UTC	20:03	00:40
Volume (cu in.)	40 in3	3300 in3
Wind (kts)	8.6 kts	N 5 kts
Sea State (m)	1 m	1 m
Water Depth (m)	833 m	812 m

	Degraded/dead Channels
Dead	61,85,133,421, 501,537,624,625,636,637,668,685,789,861, 957
Weak	252, 600, 708, 751, 830, 837, 900, 933
Noisy	943, 944, 955, 958

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone
NFH 3-2 Dead	Gun Cluster 3-3
NFH 4-3 Killed	Gun Cluster 4-5

General / Line Comments
Continuation of line 1009, Sequences 9 and 11
Line started with ramp-up - FGSP at full volume: 54834
Line ended due to air leak on Gunstring 1

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Van Avendonk
Area	Blake Ridge MCS
Job Number	MGL2309

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis/Tawfik Naas	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309013P1TST4
SEQUENCE	13
DIRECTION	123.8

	SP#	FFID	Raw SegD
SOL	55983	42784	209877
EOL	56453	43254	211957

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	55983	56453
Date MM/DD/YY	08/02/23	08/02/23
Time UTC	01:37	04:30
Volume (cu in.)	3300 in3	3300 in3
Wind (kts)	NE 7 kts	N 3 kts
Sea State (m)	1 m	0.5 m
Water Depth (m)	811 m	820 m

	Degraded/dead Channels
Dead	61,85,133,421, 501,537,624,625,636,637,668,685,789,861, 957
Weak	252, 600, 708, 751, 830, 837, 900, 933
Noisy	943, 944, 955, 958

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone
NFH 3-2 Dead	Gun Cluster 3-3
NFH 4-3 Killed	Gun Cluster 4-5

General / Line Comments
Turn/test line to repair guns and return to line 1009

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

Observers Log

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis/Tawfik Naas	
Navigation	Sara Pierson	Claire Mayorga	

	SP#	FFID	Raw SegD
SOL	58166	43255	212007
EOL	59757	44846	218862

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone
NFH 3-2 Dead	Gun Cluster 3-3
NFH 4-3 Killed	Gun Cluster 4-5

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Van Avendonk
Area	Blake Ridge MCS
Job Number	MGL2309

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis/Tawfik Naas	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309015P51009
SEQUENCE	15
DIRECTION	306.4

	SP#	FFID	Raw SegD
SOL	60426	44847	218892
EOL	62290	46711	226930

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	60426	62290
Date MM/DD/YY	08/02/23	08/03/23
Time UTC	20:44	07:53
Volume (cu in.)	40 in3	6600 in3
Wind (kts)	E 13 kts	E 9 kts
Sea State (m)	1 m	1 m
Water Depth (m)	807 m	745 m

	Degraded/dead Channels
Dead	61,85,133,421, 501,537,624,625,636,637,668,685,789,861, 957
Weak	252, 600, 708, 751, 830, 837, 900, 933
Noisy	943, 944, 955, 958

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone
NFH 2-1 Dead	Gun Cluster 2-2
NFH 2-3 Killed	Gun Cluster 2-5
NFH 3-2 Dead	Gun Cluster 3-3
NFH 4-3 Killed	Gun Cluster 4-5

General / Line Comments
Continuation of line 1009, Sequences 9, 11, 12 and 14
Start with ramp-up. First shot at full volume: SP 60485

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Van Avendonk
Area	Blake Ridge MCS
Job Number	MGL2309

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis/Tawfik Naas	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309016P11010
SEQUENCE	16
DIRECTION	216.9

	SP#	FFID	Raw SegD
SOL	63058	46712	226946
EOL	63777	47431	232132

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	63058	63777
Date MM/DD/YY	08/03/23	08/03/23
Time UTC	08:22	15:34
Volume (cu in.)	6600 in3	4950 in3
Wind (kts)	E 11 kts	E 7 kts
Sea State (m)	1 m	1 m
Water Depth (m)	750 m	830 m

	Degraded/dead Channels
Dead	61,85,133,421, 501,537,624,625,636,637,668,685,789,861, 957
Weak	252, 600, 708, 751, 830, 837, 900, 933
Noisy	943, 944, 955, 958

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone
NFH 2-1 Dead	Gun Cluster 2-2
NFH 2-3 Killed	Gun Cluster 2-5
NFH 3-2 Dead	Gun Cluster 3-3
NFH 4-3 Killed	Gun Cluster 4-5

General / Line Comments
Noise turn at start, propagating from head to tail of streamer
Array 2 disabled at end of line 27 guns active, 4950 in3

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Van Avendonk
Area	Blake Ridge MCS
Job Number	MGL2309

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis/Tawfik Naas	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309017P11011
SEQUENCE	17
DIRECTION	124.7

	SP#	FFID	Raw SegD
SOL	64023	47432	232150
EOL	67180	50589	245722

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	64023	67180
Date MM/DD/YY	08/03/23	08/04/23
Time UTC	15:46	10:36
Volume (cu in.)	6600 in3	3300 in3
Wind (kts)	E 9 kts	SE 6 kts
Sea State (m)	1 m	1 m
Water Depth (m)	835 m	830 m

	Degraded/dead Channels
Dead	61,85,133,421, 501,537,624,625,636,637,668,685,789,861, 957
Weak	252, 600, 708, 751, 830, 837, 900, 933
Noisy	943, 944, 955, 958

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone
NFH 2-1 Dead	Gun Cluster 2-2
NFH 2-3 Killed	Gun Cluster 2-5
NFH 3-2 Killed	Gun Cluster 3-3
NFH 4-3 Killed	Gun Cluster 4-5

General / Line Comments
Noise turn at start, propagating from head to tail of streamer
Line ended because of gun failure on array1 (S1G4)

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Van Avendonk
Area	Blake Ridge MCS
Job Number	MGL2309

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis/Tawfik Naas	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309018P21011
SEQUENCE	18
DIRECTION	126.0

	SP#	FFID	Raw SegD
SOL	70780	50590	245744
EOL	73984	53794	259552

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	70780	73984
Date MM/DD/YY	08/04/23	08/05/23
Time UTC	15:26	10:37
Volume (cu in.)	40 in3	6380 in3
Wind (kts)	S 8 kts	S 13 kts
Sea State (m)	0.5 m	0.5 m
Water Depth (m)	820 m	1160 m

	Degraded/dead Channels
Dead	61,85,133,421, 501,537,624,625,636,637,668,685,789,861, 957
Weak	252, 600, 708, 751, 830, 837, 900, 933
Noisy	943, 944, 955, 958

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone
NFH 2-1 Dead	Gun Cluster 2-2
NFH 2-3 Killed	Gun Cluster 2-5
NFH 3-2 Killed	Gun Cluster 3-3
NFH 4-3 Killed	Gun Cluster 4-5

General / Line Comments
The sequence is a continuation of sequence 17 after repairing sources
Start of line with ramp-up. First shot at full volume: SP 70839
S3G9 disabled at end of line. 35 guns, 6380 in3

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Van Avendonk
Area	Blake Ridge MCS
Job Number	MGL2309

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis/Tawfik Naas	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309019P11012
SEQUENCE	19
DIRECTION	198.2

	SP#	FFID	Raw SegD
SOL	75062	53795	259572
EOL	76005	54738	264386

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	75062	76005
Date MM/DD/YY	08/05/23	08/05/23
Time UTC	11:05	17:46
Volume (cu in.)	6380 in3	4950 in3
Wind (kts)	S 12 kts	SW 15 kts
Sea State (m)	0.5 m	0.5 m
Water Depth (m)	1190 m	1047 m

	Degraded/dead Channels
Dead	61,85,133,421, 501,537,624,625,636,637,668,685,789,861, 957
Weak	252, 600, 708, 751, 830, 837, 900, 933
Noisy	943, 944, 955, 958

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone
NFH 2-1 Dead	Gun Cluster 2-2
NFH 2-3 Killed	Gun Cluster 2-5
NFH 3-2 Killed	Gun Cluster 3-3
NFH 4-3 Killed	Gun Cluster 4-5

General / Line Comments
S3G9 disabled at start of line
Array 3 disabled at end of line

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Van Avendonk
Area	Blake Ridge MCS
Job Number	MGL2309

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis/Tawfik Naas	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309020P11013
SEQUENCE	20
DIRECTION	304.2

	SP#	FFID	Raw SegD
SOL	77288	54739	264446
EOL	81258	58708	284260

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	77288	81258
Date MM/DD/YY	08/05/23	08/06/23
Time UTC	18:04	21:L38
Volume (cu in.)	4950 in3	4910 in3
Wind (kts)	SW 10 kts	SW 10 kts
Sea State (m)	0.5 m	0.5 m
Water Depth (m)	1046 m	815 m

	Degraded/dead Channels
Dead	61,85,133,421, 501,537,624,625,636,637,668,685,789,861, 957
Weak	252, 600, 708, 751, 830, 837, 900, 933
Noisy	943, 944, 955, 958

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone
NFH 2-1 Dead	Gun Cluster 2-2
NFH 2-3 Killed	Gun Cluster 2-5
NFH 3-2 Killed	Gun Cluster 3-3
NFH 4-3 Killed	Gun Cluster 4-5

General / Line Comments
Gun Control Unit (GCU) 4 failed after SP 81058 - replaced and back online after SP 81103
Line ended early because of airleak on string 3

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

Time UTC	FILE	SP	Description
18:04	54739	77288	SOL MGL2309020P11013 - 27 Guns 4950 in3
20:49	54990	77539	Enabled array 3, 36 guns @ 6600 in3
21:37	55094	77643	S4G3 disabled d/t timming errors.New Port Array Volume 6560 in3.
23:59	55410	77959	Last shot for 08/05
00:00	55411	77960	First shot for 08/06
15:51	57824	80373	Lighting strike visible on streamer like crossfeed one shot only
20:01	58510	81059	String 4 Disabled after GCU failure - 27 Guns, 4950 in3
20:10	58532	81081	String 3 Disabled while handling GCU 4 - 18 Guns, 3300 in3
20:16	58543	81092	String 3 Enabled vol 4950 in3
20:19		81097	Missed shot point while replacing GCU4
20:22	58553	81103	String 4 Enabled (except gun 3) - 35 Guns, 6560 in3
20:44	58606	81156	String 3 Gun 9 Disabled - 34 Guns, 6340 in3
20:55	58632	81182	String 3 Disabled - 26 Guns, 4910 in3
21:03	58647	81197	Gun 3-9 Enabled - 27 Guns, 5130 in3

Observers Log

Vessel	Marcus G. Langseth
Client	Van Avendonk
Area	Blake Ridge MCS
Job Number	MGL2309

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis/Tawfik Naas	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309021P1TST5
SEQUENCE	21
DIRECTION	124.1

	SP#	FFID	Raw SegD
SOL	82086	58709	284306
EOL	82427	59050	285829

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	82086	82427
Date MM/DD/YY	08/06/23	08/07/23
Time UTC	23:46	01:53
Volume (cu in.)	40 in3	6560 in3
Wind (kts)	SW 12 kts	SW 9.0 kts
Sea State (m)	1 m	1 m
Water Depth (m)	819 m	839 m

	Degraded/dead Channels
Dead	61,85,133,421, 501,537,624,625,636,637,668,685,789,861, 957
Weak	252, 600, 708, 751, 830, 837, 900, 933
Noisy	943, 944, 955, 958

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone
NFH 2-1 Dead	Gun Cluster 2-2
NFH 2-3 Killed	Gun Cluster 2-5
NFH 3-2 Killed	Gun Cluster 3-3
NFH 4-3 Killed	Gun Cluster 4-5

General / Line Comments
Test line recorded while looping back to Line 1013

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Van Avendonk
Area	Blake Ridge MCS
Job Number	MGL2309

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis/Tawfik Naas	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309022P21013
SEQUENCE	22
DIRECTION	304.2

	SP#	FFID	Raw SegD
SOL	82771	59051	285850
EOL	83120	59400	287574

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	82771	59400
Date MM/DD/YY	08/07/23	08/07/23
Time UTC	02:26	04:49
Volume (cu in.)	6560 in3	4910 in3
Wind (kts)	SW 10 kts	SW 7 kts
Sea State (m)	1 m	1 m
Water Depth (m)	834 m	813 m

	Degraded/dead Channels
Dead	61,85,133,421, 501,537,624,625,636,637,668,685,789,861, 957
Weak	252, 600, 708, 751, 830, 837, 900, 933
Noisy	943, 944, 955, 958

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone
NFH 2-1 Dead	Gun Cluster 2-2
NFH 2-3 Killed	Gun Cluster 2-5
NFH 3-2 Killed	Gun Cluster 3-3
NFH 4-3 Killed	Gun Cluster 4-5

General / Line Comments
GS4G3 disabled at start of line- 35 guns, 6560 in3
Continuation of Seq 20 MGL2309020P11011
Aborted because of air leak on string 2

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Van Avendonk
Area	Blake Ridge MCS
Job Number	MGL2309

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis/Tawfik Naas	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309023P1TST6
SEQUENCE	23
DIRECTION	125.1

	SP#	FFID	Raw SegD
SOL	84125	59401	287585
EOL	84360	59636	288865

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	84125	84360
Date MM/DD/YY	08/07/23	08/07/23
Time UTC	06:07	07:54
Volume (cu in.)	4910 in3	6560 in3
Wind (kts)	SW 9 kts	S 13 kts
Sea State (m)	1 m	1 m
Water Depth (m)	820 m	835 m

	Degraded/dead Channels
Dead	61,85,133,421, 501,537,624,625,636,637,668,685,789,861, 957
Weak	252, 600, 708, 751, 830, 837, 900, 933
Noisy	943, 944, 955, 958

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone
NFH 2-1 Dead	Gun Cluster 2-2
NFH 2-3 Killed	Gun Cluster 2-5
NFH 3-2 Killed	Gun Cluster 3-3
NFH 4-3 Killed	Gun Cluster 4-5

General / Line Comments
Array 2 and S4G3 disabled at start - 26 guns - 4910 in3
Test line to loop back to line 1013 after failure/leak of string 2
Array 2 back online @ SP 84261

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Van Avendonk
Area	Blake Ridge MCS
Job Number	MGL2309

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis/Tawfik Naas	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309024P31013
SEQUENCE	24
DIRECTION	305.0

	SP#	FFID	Raw SegD
SOL	84928	59637	288882
EOL	86135	60844	294580

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	84928	86135
Date MM/DD/YY	08/07/23	08/07/23
Time UTC	09:25	17:19
Volume (cu in.)	6560 in3	6560 in3
Wind (kts)	SW 18 kts	W 10 kts
Sea State (m)	1.5 m	1 m
Water Depth (m)	825 m	797 m

	Degraded/dead Channels
Dead	61,85,133,421, 501,537,624,625,636,637,668,685,789,861, 957
Weak	252, 600, 708, 751, 830, 837, 900, 933
Noisy	943, 944, 955, 958

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone
NFH 2-1 Dead	Gun Cluster 2-2
NFH 2-3 Killed	Gun Cluster 2-5
NFH 3-2 Killed	Gun Cluster 3-3
NFH 4-3 Killed	Gun Cluster 4-5

General / Line Comments
Continuation of sequences 20 and 22, line 1013, after gun maintenance
S4G3 disabled - 35 guns, 6560 in3
Strong noise turn at start of line
S3G1 intermitent through sequence

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Van Avendonk
Area	Blake Ridge MCS
Job Number	MGL2309

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309025P41013
SEQUENCE	25
DIRECTION	304.2

	SP#	FFID	Raw SegD
SOL	91754	60845	294622
EOL	92156	61247	297040

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	91754	92156
Date MM/DD/YY	08/09/23	08/09/23
Time UTC	17:43	21:04
Volume (cu in.)	40 in3	5880 in3
Wind (kts)	W 11 kts	W 6 kts
Sea State (m)	1 m	1 m
Water Depth (m)	797 m	937 m

	Degraded/dead Channels
Dead	61,85,133,421, 501,537,624,625,636,637,668,685,789,861, 957
Weak	252, 600, 708, 751, 830, 837, 900, 933
Noisy	943, 944, 955, 958

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone
NFH 1-1 Dead	Gun Cluster 1-2
NFH 2-3 Killed	Gun Cluster 2-5
NFH 3-2 Killed	Gun Cluster 3-3
NFH 4-3 Killed	Gun Cluster 4-5

General / Line Comments
Line acquired mostly for testing after return from Jacksonville and redeployment of the streamer

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Van Avendonk
Area	Blake Ridge MCS
Job Number	MGL2309

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309026P11014
SEQUENCE	26
DIRECTION	35.2

	SP#	FFID	Raw SegD
SOL	93018	61248	297057
EOL	99247	67477	329744

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	93018	99247
Date MM/DD/YY	08/09/23	08/11/23
Time UTC	21:11	18:34
Volume (cu in.)	5880 in3	5880 in3
Wind (kts)	W 7 kts	SW 7 kts
Sea State (m)	1 m	1 m
Water Depth (m)	798 m	849 m

	Degraded/dead Channels
Dead	13,37,61,85,133, 241, 249, 421, 501, 537, 624, 637, 668, 685, 789, 861, 957
Weak	252, 600, 708, 751, 830, 837, 900, 933
Noisy	

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone
NFH 1-1 Dead	Gun Cluster 1-2
NFH 2-3 Killed	Gun Cluster 2-5
NFH 3-2 Killed	Gun Cluster 3-3
NFH 4-3 Killed	Gun Cluster 4-5

General / Line Comments
S3G1-2 disabled - 34 guns, 5880 in3

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Van Avendonk
Area	Blake Ridge MCS
Job Number	MGL2309

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309027P11015
SEQUENCE	27
DIRECTION	128.6

	SP#	FFID	Raw SegD
SOL	100031	67478	329758
EOL	102461	69908	342183

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	100031	102461
Date MM/DD/YY	08/11/23	08/12/23
Time UTC	18:47	12:02
Volume (cu in.)	5880 in3	5880 in3
Wind (kts)	SW 8 kts	S 15 kts
Sea State (m)	1 m	1.5 m
Water Depth (m)	841 m	3075 m

	Degraded/dead Channels
Dead	13,37,61,85,133, 241, 249, 421, 501, 537, 624, 637, 668, 685, 789, 861, 957
Weak	252, 600, 708, 751, 830, 837, 900, 933
Noisy	

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone
NFH 1-1 Dead	Gun Cluster 1-2
NFH 2-3 Killed	Gun Cluster 2-5
NFH 3-2 Killed	Gun Cluster 3-3
NFH 4-3 Killed	Gun Cluster 4-5

General / Line Comments
S3G1-2 disabled - 34 guns, 5880 in3

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Van Avendonk
Area	Blake Ridge MCS
Job Number	MGL2309

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309028P11016
SEQUENCE	28
DIRECTION	220.4

	SP#	FFID	Raw SegD
SOL	103120	69909	342193
EOL	103575	70364	344154

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	103120	103575
Date MM/DD/YY	08/12/23	08/12/23
Time UTC	13:01	15:44
Volume (cu in.)	4950 in3	6240 in3
Wind (kts)	SW 33 kts	SW 13 kts
Sea State (m)	1.5 m	1.5 m
Water Depth (m)	3125 m	3080 m

	Degraded/dead Channels
Dead	13,37,61,85,133, 241, 249, 421, 501, 537, 624, 637, 668, 685, 789, 861, 957
Weak	252, 600, 708, 751, 830, 837, 900, 933
Noisy	

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone
NFH 1-2 Dead	Gun Cluster 1-2
NFH 2-3 Killed	Gun Cluster 2-5
NFH 3-2 Killed	Gun Cluster 3-3
NFH 4-3 Killed	Gun Cluster 4-5

General / Line Comments
Array 3 onboard at start of line - 27 guns, 4950 in3
Once array 3 onboard, S3G2 never able to fire - final volume: 35 guns, 6240 in3

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Van Avendonk
Area	Blake Ridge MCS
Job Number	MGL2309

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309029P11017
SEQUENCE	29
DIRECTION	307.2

	SP#	FFID	Raw SegD
SOL	104085	70365	344169
EOL	108187	74467	368879

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	104085	108187
Date MM/DD/YY	08/12/23	08/14/23
Time UTC	16:12	02:31
Volume (cu in.)	6420 in3	6600 in3
Wind (kts)	W 13 kts	S 15 kts
Sea State (m)	1 m	0.5 m
Water Depth (m)	3000 m	406 m

	Degraded/dead Channels
Dead	13, 37, 61, 85, 133, 241, 249, 421, 501, 537, 624, 637, 668, 685, 789, 861, 957
Weak	252, 600, 708, 751, 830, 837, 900, 933
Noisy	

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone
NFH 1-1 Dead	Gun Cluster 1-2
NFH 2-3 Killed	Gun Cluster 2-5
NFH 3-2 Killed	Gun Cluster 3-3
NFH 4-3 Killed	Gun Cluster 4-5

General / Line Comments
S3G2 disabled - 35 guns, 6420 in3
Array 3 recovered after SP 107899 (27 guns, 1650 in3) and redeployed after SP 108012 (36 guns, 6600 in3)
Very slow end with high feather against gulf stream (SOG < 2kts, feather ~60deg)

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Van Avendonk
Area	Blake Ridge MCS
Job Number	MGL2309

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309030P11018
SEQUENCE	30
DIRECTION	214.3

	SP#	FFID	Raw SegD
SOL	109017	74468	368899
EOL	109470	74921	374418

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	109017	109470
Date MM/DD/YY	08/14/23	08/14/23
Time UTC	02:48	10:27
Volume (cu in.)	6600 in3	6600 in3
Wind (kts)	S 18 kts	S 15 kts
Sea State (m)	0.5 m	1 m
Water Depth (m)	425 m	480 m

	Degraded/dead Channels
Dead	13,37,61,85,133, 241, 249, 421, 501, 537, 624, 637, 668, 685, 789, 861, 957
Weak	252, 600, 708, 751, 830, 837, 900, 933
Noisy	

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone
NFH 1-1 Dead	Gun Cluster 1-2
NFH 2-3 Killed	Gun Cluster 2-5
NFH 3-2 Killed	Gun Cluster 3-3
NFH 4-3 Killed	Gun Cluster 4-5

General / Line Comments
Turn line, against gulf stream - slow progress (SOG < 2kts, even < 1kt at times)

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Van Avendonk
Area	Blake Ridge MCS
Job Number	MGL2309

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309031P21003
SEQUENCE	31
DIRECTION	129.5

	SP#	FFID	Raw SegD
SOL	111234	74922	374429
EOL	114846	78534	389776

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	111234	1148
Date MM/DD/YY	08/14/23	08/15/23
Time UTC	11:51	09:10
Volume (cu in.)	6600 in3	6600 in3
Wind (kts)	S 13 kts	S 18 kts
Sea State (m)	1 m	1 m
Water Depth (m)	550 m	2830 m

	Degraded/dead Channels
Dead	13,37,61,85,133, 241, 249, 421, 501, 537, 624, 637, 668, 685, 789, 861, 957
Weak	252, 600, 708, 751, 830, 837, 900, 933
Noisy	

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone
NFH 1-1 Dead	Gun Cluster 1-2
NFH 2-3 Killed	Gun Cluster 2-5
NFH 3-2 Killed	Gun Cluster 3-3
NFH 4-3 Killed	Gun Cluster 4-5

General / Line Comments
Extreme noise and feathering at start of line in gulf stream - tapering down along the line
S3G1 with multiple errors - disabled after the end of line

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Van Avendonk
Area	Blake Ridge MCS
Job Number	MGL2309

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309032P11028
SEQUENCE	32
DIRECTION	216.2

	SP#	FFID	Raw SegD
SOL	115069	78535	389783
EOL	120770	84223	413755

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6240 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	115069	120770
Date MM/DD/YY	08/15/23	08/16/23
Time UTC	09:32	18:53
Volume (cu in.)	6240 in3	6240 in3
Wind (kts)	S 18 kts	S 8 kts
Sea State (m)	1.5 m	1.5 m
Water Depth (m)	2830 m	883 m

	Degraded/dead Channels
Dead	13,37,61,85,133, 241, 249, 421, 501, 537, 624, 637, 668, 685, 789, 861, 957
Weak	252, 600, 708, 751, 830, 837, 900, 933
Noisy	

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone
NFH 1-1 Dead	Gun Cluster 1-2
NFH 2-3 Killed	Gun Cluster 2-5
NFH 3-2 Killed	Gun Cluster 3-3
NFH 4-3 Killed	Gun Cluster 4-5

General / Line Comments
S3G1 disabled before start of line - 35 guns, 6240 in3
Compressor failure between SP 117784 and 117809 - SP 117784-117797 (FFID 81249-81262) recorded without source
Missed SP 117798-117808 during compressor failure and SP 117810 at start of ramp-up

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Van Avendonk
Area	Blake Ridge MCS
Job Number	MGL2309

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309033P11029
SEQUENCE	33
DIRECTION	305.4

	SP#	FFID	Raw SegD
SOL	121026	84224	413776
EOL	122078	85276	418841

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6240 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	121026	122078
Date MM/DD/YY	08/16/23	08/17/23
Time UTC	19:04	02:05
Volume (cu in.)	6240 in3	6240 in3
Wind (kts)	SW 12 kts	E 14 kts
Sea State (m)	1.5 m	1.5 m
Water Depth (m)	881 m	808 m

	Degraded/dead Channels
Dead	13,37,61,85,133, 241, 249, 421, 501, 537, 624, 637, 668, 685, 789, 861, 957
Weak	252, 600, 708, 751, 830, 837, 900, 933
Noisy	

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone
NFH 1-1 Dead	Gun Cluster 1-2
NFH 2-3 Killed	Gun Cluster 2-5
NFH 3-2 Killed	Gun Cluster 3-3
NFH 4-3 Killed	Gun Cluster 4-5

General / Line Comments
S3G1 disabled - 35 guns, 6240 in3

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Van Avendonk
Area	Blake Ridge MCS
Job Number	MGL2309

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Gilles Guerin/Riley López	Klayton Curtis	
Navigation	Sara Pierson	Claire Mayorga	

LINE	MGL2309034P11033
SEQUENCE	34
DIRECTION	36.3

	SP#	FFID	Raw SegD
SOL	123019	85277	418858
EOL	126361	88619	434533

Streamer Parameters				
	1	2	3	4
Length (m)	12000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	50			
Offset COS - CNG (m)	112.2			
Group Interval: (m)	12.5			
Number of channels	960			
Streamer Depth (m)	12			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	10 m
Sub-array Separation	6 m
COS to COS	single source

Recording Parameters	
Record Length	20 s
Total recording delay	0
Sample Rate	2 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	123019	126361
Date MM/DD/YY	08/17/23	08/17/23
Time UTC	02:12	23:57
Volume (cu in.)	6240 in3	5520 in3
Wind (kts)	SE 14 kts	SW 20 kts
Sea State (m)	1.5 m	2 m
Water Depth (m)	807 m	830 m

	Degraded/dead Channels
Dead	13,37,61,85,133, 241, 249, 421, 501, 537, 624, 637, 668, 685, 789, 861, 957
Weak	252, 600, 708, 751, 830, 837, 900, 933
Noisy	

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone
NFH 1-1 Dead	Gun Cluster 1-2
NFH 2-3 Killed	Gun Cluster 2-5
NFH 3-2 Killed	Gun Cluster 3-3
NFH 4-3 Killed	Gun Cluster 4-5

General / Line Comments
Gun S3G1 disabled - 35 guns, 6240 in3
Noise from lightning strikes on several shots near start of line and possibly through most of sequence
S2G1 then S1G2 disabled during sequence - final source: 33 guns, 5520 in3

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]