

Observers Log	
---------------	--

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 24:00-24:00	

Line	MGL1601OBS01
Sequence	01
Direction	355

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9
Sub-array Separation	6 m
COS to COS	Single Source

Recording Parameters	
Record Length	NA
Total recording delay	NA
Sample Rate	NA
Polarity	NA
Low-Cut	NA
Hi-Cut	NA
File Format	NA

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

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

Observers Log

Vessel	Marcus G. Langseth
Client	NSF - Reece
Area	South Atlantic
Job Number	MGL1601

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 24:00-12:00	

	SOL	EOL
Tape #	N/A	N/A
SP #	901	1008

Line	MGL1601OBS02
Sequence	02
Direction	183

6

Streamer Parameters				
	1	2	3	4
Length (m)	NA			
Auxiliaries	NA			
Shotpoint Interval: (m)	150			
Offset CS - CNG (m)	NA			
Group Interval: (m)	NA			
Number of channels	NA			
Streamer Depth (m)	NA			
SOL Cable Noise, µB	NA			
EOL Cable Noise, µB	NA			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9
Sub-array Separation	6 m
COS to COS	Single Source

Recording Parameters	
Record Length	NA
Total recording delay	NA
Sample Rate	NA
Polarity	NA
Low-Cut	NA
Hi-Cut	NA
File Format	NA

Description	SOL/FGSP	EOL/LGSP
SP	901	1008
Date MM/DD/YY	01/18/16	01/18/16
Time UTC	14:14	16:36
Volume (cu in.)	6600in3	6600in3
Wind (kts)	17kts	17ktskts
Sea State (m)	1.5mm	1.5mm
Water Depth (m)	3679m	3493mm

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments
EOL at SP 1008 due to autofire on array 1 gun 8.
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable SP	LFFSP - Last Full Fold 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	

Observers Log

Vessel	Marcus G. Langseth
Client	NSF - Reece
Area	South Atlantic
Job Number	MGL1601

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 12:00-24:00	

	SOL	EOL
Tape #	01	
SP #	991	1400

Line	MGL1601OBS02R
Sequence	03
Direction	176

Streamer Parameters				
	1	2	3	4
Length (m)	NA			
Auxiliaries	NA			
Shotpoint Interval: (m)	150			
Offset CS - CNG (m)	NA			
Group Interval: (m)	NA			
Number of channels	NA			
Streamer Depth (m)	NA			
SOL Cable Noise, µB	NA			
EOL Cable Noise, µB	NA			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9
Sub-array Separation	6 m
COS to COS	Single Source

Recording Parameters	
Record Length	NA
Total recording delay	NA
Sample Rate	NA
Polarity	NA
Low-Cut	NA
Hi-Cut	NA
File Format	NA

Description	SOL/FGSP	EOL/LGSP
SP	991	1400
Date MM/DD/YY	01/18/16	01/19/2016
Time UTC	18:14	01:37
Volume (cu in.)	6600in3	6600in3
Wind (kts)	4.7kts	N 10kts
Sea State (m)	1.5m	2m
Water Depth (m)	3477.5m	3637m

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments
SP 991 - 1008 Reshoot of SEQ 002
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable SP	LFFSP - Last Full Fold 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	

Observers Log

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 24:00-12:00	

Line	MGL1601OBS03
Sequence	04
Direction	358

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9
Sub-array Separation	6 m
COS to COS	Single Source

Recording Parameters	
Record Length	NA
Total recording delay	NA
Sample Rate	NA
Polarity	NA
Low-Cut	NA
Hi-Cut	NA
File Format	NA

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FCSP - First Chargeable SP	LFESP - Last Full Fold 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	

Observers Log	
---------------	--

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 24:00-12:00	

Line	MGL1601OBS04
Sequence	05
Direction	178

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9
Sub-array Separation	6 m
COS to COS	Single Source

Recording Parameters	
Record Length	NA
Total recording delay	NA
Sample Rate	NA
Polarity	NA
Low-Cut	NA
Hi-Cut	NA
File Format	NA

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargeable SP
FCSP - First Chargeable SP	LFSP - Last Full Fold 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	

Observers Log	
---------------	--

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 24:00-12:00	

Line	MGL1601OBS05
Sequence	06
Direction	358

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9
Sub-array Separation	6 m
COS to COS	Single Source

Recording Parameters	
Record Length	NA
Total recording delay	NA
Sample Rate	NA
Polarity	NA
Low-Cut	NA
Hi-Cut	NA
File Format	NA

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargeable SP
FCSP - First Chargeable SP	LFSP - Last Full Fold 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	

Observers Log

Vessel	Marcus G. Langseth
Client	NSF - Reece
Area	South Atlantic
Job Number	MGL1601

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 24:00-12:00	

	SOL	EOL
Tape #	01	4
SP #	722	4991

Line	MGL1601MCS1A
Sequence	07
Direction	090

Streamer Parameters				
	1	2	3	4
Length (m)	12600			
Auxiliaries	NA			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	217.7			
Group Interval: (m)	12.5			
Number of channels	1008			
Streamer Depth (m)	9			
SOL Cable Noise, µB	NA			
EOL Cable Noise, µB	NA			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9m
Sub-array Separation	6m
COS to COS	Single Source

Recording Parameters	
Record Length	15s
Total recording delay	-160ms
Sample Rate	2ms
Polarity	SEGD standard
Low-Cut	3Hz digital, 4.5Hz total
Hi-Cut	200Hz, 370dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	722	4991
Date MM/DD/YY	01/29/16	01/30/16
Time UTC	16:53	12:32
Volume (cu in.)	6600in3	6240in3
Wind (kts)	SSE 10kts	E 17kts
Sea State (m)	1.5m	1m
Water Depth (m)	4230m	5028m

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments
Channels 120, 140 Weak throughout line
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable SP	LFFSP - Last Full Fold 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	

Observers Log

Vessel	Marcus G. Langseth
Client	NSF - Reece
Area	South Atlantic
Job Number	MGL1601

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 24:00-12:00	

	SOL	EOL
Tape #	6	7
SP #	1817	2931

Line	MGL1601MCST0
Sequence	08
Direction	178

Streamer Parameters				
	1	2	3	4
Length (m)	12600			
Auxiliaries	NA			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	217.7			
Group Interval: (m)	12.5			
Number of channels	1008			
Streamer Depth (m)	9			
SOL Cable Noise, µB	NA			
EOL Cable Noise, µB	NA			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9m
Sub-array Separation	6m
COS to COS	Single Source

Recording Parameters	
Record Length	15s
Total recording delay	-160ms
Sample Rate	2ms
Polarity	SEGD standard
Low-Cut	3Hz digital, 4.5Hz total
Hi-Cut	200Hz, 370dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	1817	2931
Date MM/DD/YY	01/30/16	01/30/16
Time UTC	12:53:55	17:56:14
Volume (cu in.)	6240in3	6600in3
Wind (kts)	E 20kts	SE 18kts
Sea State (m)	1m	1m
Water Depth (m)	4711m	4777m

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments
Channels 120, 140 Weak throughout line
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargeable SP
FCSP - First Chargeable SP	LFFSP - Last Full Fold 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	

Observers Log

Vessel	Marcus G. Langseth
Client	NSF - Reece
Area	South Atlantic
Job Number	MGL1601

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 24:00-12:00	

	SOL	EOL
Tape #	8	10
SP #	668	2810

Line	MGL1601MCS05
Sequence	09
Direction	358

Streamer Parameters				
	1	2	3	4
Length (m)	12600			
Auxiliaries	NA			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	217.7			
Group Interval: (m)	12.5			
Number of channels	1008			
Streamer Depth (m)	9			
SOL Cable Noise, µB	NA			
EOL Cable Noise, µB	NA			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9m
Sub-array Separation	6m
COS to COS	Single Source

Recording Parameters	
Record Length	15s
Total recording delay	-160ms
Sample Rate	2ms
Polarity	SEGD standard
Low-Cut	3Hz digital, 4.5Hz total
Hi-Cut	200Hz, 370dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	668	2810
Date MM/DD/YY	01/30/16	01/31/16
Time UTC	19:04:47	05:05:23
Volume (cu in.)	6600in3	6600in3
Wind (kts)	SE 18kts	E 15kts
Sea State (m)	1.5m	0.5m
Water Depth (m)	4578.3m	5026m

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments
Random swell bursts visible throughout line.
Channels 120, 140 Weak throughout line
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable SP	LFFSP - Last Full Fold 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	

Observers Log

Vessel	Marcus G. Langseth
Client	NSF - Reece
Area	South Atlantic
Job Number	MGL1601

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 24:00-12:00	

	SOL	EOL
Tape #	11	11
SP #	877	1787

Line	MGL1601MCST1
Sequence	010
Direction	178

Streamer Parameters				
	1	2	3	4
Length (m)	12600			
Auxiliaries	NA			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	217.7			
Group Interval: (m)	12.5			
Number of channels	1008			
Streamer Depth (m)	9			
SOL Cable Noise, µB	NA			
EOL Cable Noise, µB	NA			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9m
Sub-array Separation	6m
COS to COS	Single Source

Recording Parameters	
Record Length	15s
Total recording delay	-160ms
Sample Rate	2ms
Polarity	SEGD standard
Low-Cut	3Hz digital, 4.5Hz total
Hi-Cut	200Hz, 370dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	877	1787
Date MM/DD/YY	01/31/16	01/31/16
Time UTC	06:03:10	10:20:50
Volume (cu in.)	6600in3	6600in3
Wind (kts)	E 17kts	E 17kts
Sea State (m)	1m	1m
Water Depth (m)	5020m	4920m

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments
Swell noise visible on streamer.
Channels 120, 140 Weak throughout line
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable SP	LFFSP - Last Full Fold 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	

Observers Log

Vessel	Marcus G. Langseth
Client	NSF - Reece
Area	South Atlantic
Job Number	MGL1601

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 24:00-12:00	

	SOL	EOL
Tape #	12	17
SP #	640	5930

Line	MGL1601MCS1B
Sequence	011
Direction	088

Streamer Parameters				
	1	2	3	4
Length (m)	12600			
Auxiliaries	NA			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	217.7			
Group Interval: (m)	12.5			
Number of channels	1008			
Streamer Depth (m)	9			
SOL Cable Noise, µB	NA			
EOL Cable Noise, µB	NA			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9m
Sub-array Separation	6m
COS to COS	Single Source

Recording Parameters	
Record Length	15s
Total recording delay	-160ms
Sample Rate	2ms
Polarity	SEGD standard
Low-Cut	3Hz digital, 4.5Hz total
Hi-Cut	200Hz, 370dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	640	5930
Date MM/DD/YY	01/31/16	02/01/16
Time UTC	10:32:31	10:32:57
Volume (cu in.)	6600in3	6600in3
Wind (kts)	E 12kts	NE 13kts
Sea State (m)	1m	0.5m
Water Depth (m)	4860m	4681m

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments
Channels 120, 140 Weak throughout line
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable SP	LFFSP - Last Full Fold 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	

Observers Log

Vessel	Marcus G. Langseth
Client	NSF - Reece
Area	South Atlantic
Job Number	MGL1601

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 24:00-12:00	

	SOL	EOL
Tape #	18	19
SP #	1887	2931

Line	MGL1601MCST2
Sequence	012
Direction	178

Streamer Parameters				
	1	2	3	4
Length (m)	12600			
Auxiliaries	NA			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	217.7			
Group Interval: (m)	12.5			
Number of channels	1008			
Streamer Depth (m)	9			
SOL Cable Noise, µB	NA			
EOL Cable Noise, µB	NA			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9m
Sub-array Separation	6m
COS to COS	Single Source

Recording Parameters	
Record Length	15s
Total recording delay	-160ms
Sample Rate	2ms
Polarity	SEGD standard
Low-Cut	3Hz digital, 4.5Hz total
Hi-Cut	200Hz, 370dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	1887	2931
Date MM/DD/YY	02/01/16	02/01/16
Time UTC	11:11:38	15:55:16
Volume (cu in.)	6600in3	6600in3
Wind (kts)	NE 5-10kts	N 8kts
Sea State (m)	1.5m	1.5m
Water Depth (m)	4670m	4687m

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments
Channels 120, 140 Weak throughout line
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable SP	LFFSP - Last Full Fold 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	

Observers Log

Vessel	Marcus G. Langseth
Client	NSF - Reece
Area	South Atlantic
Job Number	MGL1601

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 24:00-12:00	

	SOL	EOL
Tape #	20	22
SP #	643	2763

Line	MGL1601MCS04
Sequence	013
Direction	358

Streamer Parameters				
	1	2	3	4
Length (m)	12600			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	217.7			
Group Interval: (m)	12.5			
Number of channels	1008			
Streamer Depth (m)	9.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9
Sub-array Separation	6 m
COS to COS	Single Source

Recording Parameters	
Record Length	15s
Total recording delay	-160ms
Sample Rate	2ms
Polarity	SEGD standard
Low-Cut	3Hz digital, 4.5Hz total
Hi-Cut	200Hz, 370dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	643	2763
Date MM/DD/YY	02/01/16	02/02/16
Time UTC	16:57:17	02:30:51
Volume (cu in.)	6600in3	6600in3
Wind (kts)	N 8kts	N 7kts
Sea State (m)	1.5m	calm
Water Depth (m)	4529m	4550m

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments
Channels 120, 140 Weak throughout line
S2G1 suspected autofiring SP 1401 - 1654
Gunstring 2 disabled SP1655 - 2068 for gun maintenance
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable SP	LFFSP - Last Full Fold 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	

Observers Log

Vessel	Marcus G. Langseth
Client	NSF - Reece
Area	South Atlantic
Job Number	MGL1601

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 24:00-12:00	

	SOL	EOL
Tape #	23	23
SP #	964	1787

Line	MGL1601MCST3
Sequence	014
Direction	195

Streamer Parameters				
	1	2	3	4
Length (m)	12600			
Auxiliaries	NA			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	217.7			
Group Interval: (m)	12.5			
Number of channels	1008			
Streamer Depth (m)	9			
SOL Cable Noise, µB	NA			
EOL Cable Noise, µB	NA			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9m
Sub-array Separation	6m
COS to COS	Single Source

Recording Parameters	
Record Length	15s
Total recording delay	-160ms
Sample Rate	2ms
Polarity	SEGD standard
Low-Cut	3Hz digital, 4.5Hz total
Hi-Cut	200Hz, 370dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	964	1787
Date MM/DD/YY	02/02/16	02/02/16
Time UTC	04:10:18	08:05:52
Volume (cu in.)	6600in3	6600in3
Wind (kts)	N 8kts	NW 10kts
Sea State (m)	calm	0.5m
Water Depth (m)	4321m	4396m

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments
Channels 120, 140 Weak throughout line
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable SP	LFFSP - Last Full Fold 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	

Observers Log

Vessel	Marcus G. Langseth
Client	NSF - Reece
Area	South Atlantic
Job Number	MGL1601

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 24:00-12:00	

	SOL	EOL
Tape #	24	35
SP #	667	12384

Line	MGL1601MCS1C
Sequence	015
Direction	088

Streamer Parameters				
	1	2	3	4
Length (m)	12600			
Auxiliaries	NA			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	217.7			
Group Interval: (m)	12.5			
Number of channels	1008			
Streamer Depth (m)	9			
SOL Cable Noise, µB	NA			
EOL Cable Noise, µB	NA			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9m
Sub-array Separation	6m
COS to COS	Single Source

Recording Parameters	
Record Length	15s
Total recording delay	-160ms
Sample Rate	2ms
Polarity	SEGD standard
Low-Cut	3Hz digital, 4.5Hz total
Hi-Cut	200Hz, 370dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	667	12384
Date MM/DD/YY	02/02/16	04/02/16
Time UTC	08:24	13:38
Volume (cu in.)	6600in3	6600in3
Wind (kts)	NW 10kts	WSW 14kts
Sea State (m)	0.5m	1.5m
Water Depth (m)	4721m	4321m

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments
Channels 120, 140 Weak throughout line
T4
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable SP	LFFSP - Last Full Fold 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	

Observers Log

Vessel	Marcus G. Langseth
Client	NSF - Reece
Area	South Atlantic
Job Number	MGL1601

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 24:00-12:00	

	SOL	EOL
Tape #	36	36
SP #	1963	2930

Line	MGL1601MCST4
Sequence	016
Direction	178

Streamer Parameters				
	1	2	3	4
Length (m)	12600			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	217.7			
Group Interval: (m)	12.5			
Number of channels	1008			
Streamer Depth (m)	9.5			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9
Sub-array Separation	6 m
COS to COS	Single Source

Recording Parameters	
Record Length	15s
Total recording delay	-160ms
Sample Rate	2ms
Polarity	SEGD standard
Low-Cut	3Hz digital, 4.5Hz total
Hi-Cut	200Hz, 370dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	1963	2930
Date MM/DD/YY	02/04/2016	02/04/2016
Time UTC	14:39:57	19:04:27
Volume (cu in.)	3300in3	6600in3
Wind (kts)	WSW 15kts	WSW 21kts
Sea State (m)	1-2m	1.5m
Water Depth (m)	4277m	4201m

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments
Channels 120, 140 Weak throughout line
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable SP	LFFSP - Last Full Fold 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	

Observers Log

Vessel	Marcus G. Langseth
Client	NSF - Reece
Area	South Atlantic
Job Number	MGL1601

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 24:00-12:00	

	SOL	EOL
Tape #	037	39
SP #	667	2763

Line	MGL1601MCS03
Sequence	017
Direction	358

Streamer Parameters				
	1	2	3	4
Length (m)	12600			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	217.7			
Group Interval: (m)	12.5			
Number of channels	1008			
Streamer Depth (m)	9.5			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9
Sub-array Separation	6 m
COS to COS	Single Source

Recording Parameters	
Record Length	15s
Total recording delay	-160ms
Sample Rate	2ms
Polarity	SEGD standard
Low-Cut	3Hz digital, 4.5Hz total
Hi-Cut	200Hz, 370dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	667	2763
Date MM/DD/YY	02/04/16	02/05/16
Time UTC	20:16:25	05:50:29
Volume (cu in.)	6600in3	6600in3
Wind (kts)	23kts	S 12kts
Sea State (m)	1.5m	3m
Water Depth (m)	4328m	4125m

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments
Channels 120, 140 Weak throughout line
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable SP	LFFSP - Last Full Fold 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	

Observers Log

Vessel	Marcus G. Langseth
Client	NSF - Reece
Area	South Atlantic
Job Number	MGL1601

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 24:00-12:00	

	SOL	EOL
Tape #	40	40
SP #	970	1152

Line	MGL1601MCST5
Sequence	018
Direction	088

Streamer Parameters				
	1	2	3	4
Length (m)	12600			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	217.7			
Group Interval: (m)	12.5			
Number of channels	1008			
Streamer Depth (m)	15.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9
Sub-array Separation	6 m
COS to COS	Single Source

Recording Parameters	
Record Length	15s
Total recording delay	-160ms
Sample Rate	2ms
Polarity	SEGD standard
Low-Cut	3Hz digital, 4.5Hz total
Hi-Cut	200Hz, 370dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	970	1752
Date MM/DD/YY	02/05/16	02/05/16
Time UTC	07:36:10	11:17:38
Volume (cu in.)	3300in3	6600in3
Wind (kts)	SE 17kts	S 5-10kts
Sea State (m)	2m	2-3m
Water Depth (m)	4247m	4311m

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments
Streamer at 15 meters for depth control in deep swell
Strong swell noise visible on streamer throughout line.
Channels 120, 140 Weak throughout line
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable SP	LFFSP - Last Full Fold 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	

Observers Log

Vessel	Marcus G. Langseth
Client	NSF - Reece
Area	South Atlantic
Job Number	MGL1601

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 24:00-12:00	

	SOL	EOL
Tape #	41	51
SP #	895	10191

Line	MGL1601MCS1D
Sequence	019
Direction	088

Streamer Parameters				
	1	2	3	4
Length (m)	12600			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	217.7			
Group Interval: (m)	12.5			
Number of channels	1008			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9
Sub-array Separation	6 m
COS to COS	Single Source

Recording Parameters	
Record Length	15s
Total recording delay	-160ms
Sample Rate	2ms
Polarity	SEGD standard
Low-Cut	3Hz digital, 4.5Hz total
Hi-Cut	200Hz, 370dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	895	10191
Date MM/DD/YY	02/05/16	02/07/16
Time UTC	12:34:15	07:21:27
Volume (cu in.)	6600in3	6600in3
Wind (kts)	S 12kts	W 7kts
Sea State (m)	1m	0.5m
Water Depth (m)	4351m	3823m

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments
Channels 120, 140 Weak throughout line
Streamer at 12 meters for depth control in deep swell at SOL
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable SP	LFFSP - Last Full Fold 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	

Observers Log

Vessel	Marcus G. Langseth
Client	NSF - Reece
Area	South Atlantic
Job Number	MGL1601

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 24:00-12:00	

	SOL	EOL
Tape #	52	52
SP #	1980	2930

Line	MGL1601MCST6
Sequence	020
Direction	178

Streamer Parameters				
	1	2	3	4
Length (m)	12600			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	217.7			
Group Interval: (m)	12.5			
Number of channels	1008			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9
Sub-array Separation	6 m
COS to COS	Single Source

Recording Parameters	
Record Length	15s
Total recording delay	-160ms
Sample Rate	2ms
Polarity	SEGD standard
Low-Cut	3Hz digital, 4.5Hz total
Hi-Cut	200Hz, 370dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	1980	2930
Date MM/DD/YY	02/07/16	.02/07/16
Time UTC	08:25:39	12:47:57
Volume (cu in.)	3300in3	6600in3
Wind (kts)	W 8kts	W 4kts
Sea State (m)	1.5m	1.5m
Water Depth (m)	3880m	3621.1m

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments
SOL Gun strings 3 and 4 on board for maintenance.
Channels 120, 140 Weak throughout line
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable SP	LFFSP - Last Full Fold 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	

Observers Log

Vessel	Marcus G. Langseth
Client	NSF - Reece
Area	South Atlantic
Job Number	MGL1601

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 24:00-12:00	

	SOL	EOL
Tape #	53	55
SP #	667	2085

Line	MGL1601MCS02
Sequence	021
Direction	358

Streamer Parameters				
	1	2	3	4
Length (m)	12600			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	217.7			
Group Interval: (m)	12.5			
Number of channels	1008			
Streamer Depth (m)	9.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9
Sub-array Separation	6 m
COS to COS	Single Source

Recording Parameters	
Record Length	15s
Total recording delay	-160ms
Sample Rate	2ms
Polarity	SEGD standard
Low-Cut	3Hz digital, 4.5Hz total
Hi-Cut	200Hz, 370dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	667	2085
Date MM/DD/YY	02/07/16	02/08/16
Time UTC	13:59:46	00:07:49
Volume (cu in.)	6600in3	6600in3
Wind (kts)	NNE 5kts	N 15kts
Sea State (m)	1m	1m
Water Depth (m)	3765m	3559m

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments
Channels 120, 140 Weak throughout line
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable SP	LFFSP - Last Full Fold 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	

Observers Log

Vessel	Marcus G. Langseth
Client	NSF - Reece
Area	South Atlantic
Job Number	MGL1601

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 24:00-12:00	

	SOL	EOL
Tape #	56	56
SP #	1150	1771

Line	MGL1601MCST7
Sequence	022
Direction	192

Streamer Parameters				
	1	2	3	4
Length (m)	12600			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	217.7			
Group Interval: (m)	12.5			
Number of channels	1008			
Streamer Depth (m)	9.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9
Sub-array Separation	6 m
COS to COS	Single Source

Recording Parameters	
Record Length	15s
Total recording delay	-160ms
Sample Rate	2ms
Polarity	SEGD standard
Low-Cut	3Hz digital, 4.5Hz total
Hi-Cut	200Hz, 370dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	1150	1771
Date MM/DD/YY	02/08/16	02/08/16
Time UTC	02:48:38	05:44:39
Volume (cu in.)	6600in3	6600in3
Wind (kts)	NW 20kts	NW 17kts
Sea State (m)	1m	1m
Water Depth (m)	3803m	3595m

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments
Channels 120, 140 Weak throughout line
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable SP	LFFSP - Last Full Fold 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	

Observers Log	
---------------	--

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 24:00-12:00	

Line	MGL1601MCS1E
Sequence	023
Direction	083

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9
Sub-array Separation	6 m
COS to COS	Single Source

Recording Parameters	
Record Length	15s
Total recording delay	-160ms
Sample Rate	2ms
Polarity	SEGD standard
Low-Cut	3Hz digital, 4.5Hz total
Hi-Cut	200Hz, 370dB/octave
File Format	SEGD

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargeable SP
FCSP - First Chargeable SP	LFSP - Last Full Fold 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	

Observers Log

Vessel	Marcus G. Langseth
Client	NSF - Reece
Area	South Atlantic
Job Number	MGL1601

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 24:00-12:00	

	SOL	EOL
Tape #	63	64
SP #	1862	2930

Line	MGL1601MCST8
Sequence	024
Direction	088

Streamer Parameters				
	1	2	3	4
Length (m)	12600			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	217.7			
Group Interval: (m)	12.5			
Number of channels	1008			
Streamer Depth (m)	9.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9
Sub-array Separation	6 m
COS to COS	Single Source

Recording Parameters	
Record Length	15s
Total recording delay	-160ms
Sample Rate	2ms
Polarity	SEGD standard
Low-Cut	3Hz digital, 4.5Hz total
Hi-Cut	200Hz, 370dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	1862	2930
Date MM/DD/YY	02/09/16	02/09/16
Time UTC	06:57:28	11:51:19
Volume (cu in.)	6600in3	6600in3
Wind (kts)	S 16kts	S 12kts
Sea State (m)	1m	1m
Water Depth (m)	3288m	3315m

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments
Channels 120, 140 Weak throughout line
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable SP	LFFSP - Last Full Fold 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	

Observers Log

Vessel	Marcus G. Langseth
Client	NSF - Reece
Area	South Atlantic
Job Number	MGL1601

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 24:00-12:00	

	SOL	EOL
Tape #	65	67
SP #	667	2763

Line	MGL1601MCS01
Sequence	025
Direction	355

Streamer Parameters				
	1	2	3	4
Length (m)	12600			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	217.7			
Group Interval: (m)	12.5			
Number of channels	1008			
Streamer Depth (m)	9.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9
Sub-array Separation	6 m
COS to COS	Single Source

Recording Parameters	
Record Length	15s
Total recording delay	-160ms
Sample Rate	2ms
Polarity	SEGD standard
Low-Cut	3Hz digital, 4.5Hz total
Hi-Cut	200Hz, 370dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	667	2763
Date MM/DD/YY	02/09/16	02/09/16
Time UTC	13:04:07	23:06:20
Volume (cu in.)	6600in3	6600in3
Wind (kts)	S 15kts	ESE 13kts
Sea State (m)	1.5m	1.5m
Water Depth (m)	3157.6m	3233m

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments
Channels 120, 140 Weak throughout line
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable SP	LFFSP - Last Full Fold 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	

Observers Log

Vessel	Marcus G. Langseth
Client	NSF - Reece
Area	South Atlantic
Job Number	MGL1601

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 24:00-12:00	

	SOL	EOL
Tape #	68	68
SP #	774	1767

Line	MGL1601MCST9
Sequence	026
Direction	178

Streamer Parameters				
	1	2	3	4
Length (m)	12600			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	217.7			
Group Interval: (m)	12.5			
Number of channels	1008			
Streamer Depth (m)	9.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9
Sub-array Separation	6 m
COS to COS	Single Source

Recording Parameters	
Record Length	15s
Total recording delay	-160ms
Sample Rate	2ms
Polarity	SEGD standard
Low-Cut	3Hz digital, 4.5Hz total
Hi-Cut	200Hz, 370dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	774	1767
Date MM/DD/YY	02/10/16	02/10/16
Time UTC	00:03:10	04:55:15
Volume (cu in.)	6600in3	6600in3
Wind (kts)	ESE 13kts	ENE 11kts
Sea State (m)	1.5m	1.5m
Water Depth (m)	3305.5m	3314m

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments
Channels 120, 140 Weak throughout line
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable SP	LFFSP - Last Full Fold 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	

Observers Log

Vessel	Marcus G. Langseth
Client	NSF - Reece
Area	South Atlantic
Job Number	MGL1601

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 24:00-12:00	

	SOL	EOL
Tape #	69	76
SP #	0631	7956

Line	MGL1601MCS1F
Sequence	027
Direction	083

Streamer Parameters				
	1	2	3	4
Length (m)	12600			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	217.7			
Group Interval: (m)	12.5			
Number of channels	1008			
Streamer Depth (m)	9.0			
SOL Cable Noise, μ B				
EOL Cable Noise, μ B				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9
Sub-array Separation	6 m
COS to COS	Single Source

Recording Parameters	
Record Length	15s
Total recording delay	-160ms
Sample Rate	2ms
Polarity	SEGD standard
Low-Cut	3Hz digital, 4.5Hz total
Hi-Cut	200Hz, 370dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	0631	7230
Date MM/DD/YY	02/10/16	02/11/16
Time UTC	05:03:42	15:27:56
Volume (cu in.)	6600in3	6600in3
Wind (kts)	NE 10kts	NNE 26kts
Sea State (m)	2m	1.5m
Water Depth (m)	3311m	3159m

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments
Channels 120, 140 Weak throughout line
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable SP	LFFSP - Last Full Fold 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	

Observers Log

Vessel	Marcus G. Langseth
Client	NSF - Reece
Area	South Atlantic
Job Number	MGL1601

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 24:00-12:00	

	SOL	EOL
Tape #	77	80
SP #	950	4813

Line	MGL1601MCS06
Sequence	028
Direction	262

Streamer Parameters				
	1	2	3	4
Length (m)	12600			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	217.7			
Group Interval: (m)	12.5			
Number of channels	1008			
Streamer Depth (m)	9.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9
Sub-array Separation	6 m
COS to COS	Single Source

Recording Parameters	
Record Length	15s
Total recording delay	-160ms
Sample Rate	2ms
Polarity	SEGD standard
Low-Cut	3Hz digital, 4.5Hz total
Hi-Cut	200Hz, 370dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	950	4813
Date MM/DD/YY	02/11/16	02/12/16
Time UTC	16:54:12	11:13:40
Volume (cu in.)	6600in3	6600in3
Wind (kts)	NNE 18kts	NW 15kts
Sea State (m)	1.5m	1m
Water Depth (m)	3112m	3370m

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments
Channels 120, 140 Weak throughout line
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable SP	LFFSP - Last Full Fold 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	

Observers Log

Vessel	Marcus G. Langseth
Client	NSF - Reece
Area	South Atlantic
Job Number	MGL1601

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 24:00-12:00	

	SOL	EOL
Tape #	81	84
SP #	4864	8153

Line	MGL1601MCS6A
Sequence	029
Direction	262

Streamer Parameters				
	1	2	3	4
Length (m)	12600			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	217.7			
Group Interval: (m)	12.5			
Number of channels	1008			
Streamer Depth (m)	9.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9
Sub-array Separation	6 m
COS to COS	Single Source

Recording Parameters	
Record Length	14s
Total recording delay	-160ms
Sample Rate	2ms
Polarity	SEGD standard
Low-Cut	3Hz digital, 4.5Hz total
Hi-Cut	200Hz, 370dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	4864	8153
Date MM/DD/YY	02/12/16	02/13/16
Time UTC	11:28:40	02:47:14
Volume (cu in.)	6600in3	6600in3
Wind (kts)	NW 14kts	SE 12kts
Sea State (m)	1m	1m
Water Depth (m)	3268m	3186m

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments
Started new line with record length shortened to 14 seconds
Channels 120, 140 Weak throughout line
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable SP	LFFSP - Last Full Fold 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	

Observers Log

Vessel	Marcus G. Langseth
Client	NSF - Reece
Area	South Atlantic
Job Number	MGL1601

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 24:00-12:00	

	SOL	EOL
Tape #	85	90
SP #	667	6040

Line	MGL1601MCS08
Sequence	030
Direction	082

Streamer Parameters				
	1	2	3	4
Length (m)	12600			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	217.7			
Group Interval: (m)	12.5			
Number of channels	1008			
Streamer Depth (m)	9.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9
Sub-array Separation	6 m
COS to COS	Single Source

Recording Parameters	
Record Length	12s
Total recording delay	-160ms
Sample Rate	2ms
Polarity	SEGD standard
Low-Cut	3Hz digital, 4.5Hz total
Hi-Cut	200Hz, 370dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	667	6040
Date MM/DD/YY	02/13/16	02/14/16
Time UTC	05:32:53	05:59:53
Volume (cu in.)	6600in3	6600in3
Wind (kts)	SE 13kts	SE 14kts
Sea State (m)	1m	1m
Water Depth (m)	3396m	3189m
		2

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments
Started new line with record length shortened to 12 seconds
Channels 120, 140 Weak throughout line
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable SP	LFFSP - Last Full Fold 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	

Observers Log

Vessel	Marcus G. Langseth
Client	NSF - Reece
Area	South Atlantic
Job Number	MGL1601

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 24:00-12:00	

	SOL	EOL
Tape #		
SP #		

Line	MGL1601MCSXXX
Sequence	XXX
Direction	XXX

Streamer Parameters				
	1	2	3	4
Length (m)	12600			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226			
Group Interval: (m)	12.5			
Number of channels	1008			
Streamer Depth (m)	9.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9
Sub-array Separation	6 m
COS to COS	Single Source

Recording Parameters	
Record Length	15s
Total recording delay	-160ms
Sample Rate	2ms
Polarity	SEGD standard
Low-Cut	3Hz digital, 4.5Hz total
Hi-Cut	200Hz, 370dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP		
Date MM/DD/YY		
Time UTC		
Volume (cu in.)		
Wind (kts)		
Sea State (m)		
Water Depth (m)		

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments
Channels 120, 140 Weak throughout line
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable SP	LFFSP - Last Full Fold 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	

Observers Log	
---------------	--

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson 12:00-24:00	Todd Jensvold 24:00-12:00	
Acquisition Leader	Graeme Stewart 12:00-24:00	Klayton Curtis 24:00-12:00	
Navigation Leader	David Martinson 12:00-24:00	Shane Traceski 24:00-12:00	

Line	MGL1601OBSxxx
Sequence	
Direction	

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	9
Sub-array Separation	6 m
COS to COS	Single Source

Recording Parameters	
Record Length	NA
Total recording delay	NA
Sample Rate	NA
Polarity	NA
Low-Cut	NA
Hi-Cut	NA
File Format	NA

Cable	Dead Channels
1	
2	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargeable SP
FCSP - First Chargeable SP	LFFSP - Last Full Fold 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	