

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	02	03	FGSP	N/A
SP #	861	1046	LGSP	N/A

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7m GS3			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	09/13/11	09/13/11
Time UTC	1215	1302
Volume (cu in.)	1830in3	1830in3
Wind (kts)	8	8
Sea State (m)	.1m	1m
Water Depth (m)	43m	36m

General / Line Comments GUN STRING 3 as source
SOL SP
EOL SP
SOL NOISY CHANNELS
NO DATA RECORDED. MULTIPLE ERRORS ON SEISNET AND SYNTRAK UNABLE TO SYNC WITH EACH OTHER.
DO NOT PROCESS
EOL NOISY CHANNELS

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MCS1112MCS01A
Sequence	001
Direction	349.3

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	4	4	FGSP	N/A
SP #	2247	2402	LGSP	N/A

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7 GS3			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	09/13/11	09/13/11
Time UTC	13:57	1434
Volume (cu in.)	1830in3	1830in3
Wind (kts)	6	9.7
Sea State (m)	.5m	.5m
Water Depth (m)	43m	36.6m

General / Line Comments Gun String 3 as source
SOL SP
EOL SP
SOL NOISY CHANNELS
TEST LINE do not process
EOL NOISY CHANNELS

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MCS1112MCST2
Sequence	002
Direction	169

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	5	12	FGSP	822
SP #	822	2402	LGSP	2402

Line	MCS1112MCS01AR
Sequence	003
Direction	349.2

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	206m GS4			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	09/13/11	09/13/11
Time UTC	1546	2200
Volume (cu in.)	1830in3	1830in3
Wind (kts)	12.9	8
Sea State (m)	.5m	0.5m
Water Depth (m)	43m	37.9m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Gun String 4 used as source
SOL SP 822
EOL SP 2201
SOL NOISY CHANNELS
EOL NOISY CHANNELS 30, 135, 188, 192, 349

Abbreviations	
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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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	13	28	FGSP	1123
SP #	1123	4524	LGSP	4524

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	206.7 GS4			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	09/13/11	09/14/11
Time UTC	2212	1116
Volume (cu in.)	1830in3	1830in3
Wind (kts)	8	12
Sea State (m)	calm	.5m
Water Depth (m)	38m	63.1m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS01B
Sequence	004
Direction	13.8

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

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 Gun String 4 as source
SOL SP 1123
EOL SP 4524
SOL NOISY CHANNELS Not performed due to turn noise on cable
Power down for Seal SP1457, Resume full volume SP1460
Power down for Seal SP1820, Resume full volume SP1829
Power down for Seal SP2572, Resume full volume SP2650
SPECTRA Turn node locked up SP2870, Resumed normal triggers SP2949
EOL NOISY CHANNELS Not performed due to turn noise on cable

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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	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	29	69	FGSP	1023
SP #	1023	9800	LGSP	9800

Line	MGL1112MCS01C
Sequence	005
Direction	320.4

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	206.7m GS4			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, μ B				
EOL Cable Noise, μ B				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	9/14/11	9/15/11
Time UTC	1118	2045
Volume (cu in.)	1830in3	1830in3
Wind (kts)	12	10.7
Sea State (m)	.5m	0.5m
Water Depth (m)	62.1m	449m

Cable	EOL High Noise Channels (in u-bar)
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	Gun String 4 used as Source
SOL	SP 1023
EOL	SP 9800
SOL NOISY CHANNELS Not performed due to turn noise on cable	
Missed sps 3629, 4372, 4375, 437, 4462, 4548, 4591, 4824, 5325, 7875, 7877 d/t speed and/or signals	
EOL NOISY CHANNELS	
Noise test not performed d/t turn	

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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
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NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

Time UTC	FILE	SP	Tape	Description
1118	1	1023	29	SOL MGL1112MCS01C
1211	218	1240	30	Tape change
1303	435	1457	31	Tape change
1356	651	1673	32	Tape change
1448	869	1891	33	Tape change
1538	1086	2108	34	Tape change
1630	1303	2325	35	Tape change
1722	1519	2541	36	Tape change
1816	1736	2758	37	Tape change
1905	1953	2975	38	Tape change
1951	2171	3192	39	Tape change
2040	2388	3409	40	Tape change
2129	2605	3626	41	Tape change
2130	2608	3629	41	Dropped shot
2218	2822	3845	42	Tape Change
2307	3039	4062	43	Tape Change
2356	3256	4279	44	Tape change
0016	3348	4371	44	D/Error 3.3ms S4G01
0016	3349	4372	44	D/Error -2.3ms S4G02 Dropped shot
0017	3352	4375	44	Dropped shot d/t GPS jump
0017	3354	4377	44	Dropped shot d/t GPS jump
0037	3435	4462	44	Dropped shot d/t speed
0045	3473	4500	45	Tape change
0056	3520	4548	45	Dropped shot d/t speed
0106	3564	4591	45	Dropped shot d/t speed
0135	3690	4719	46	Tape change
0159	3794	4824	46	Dropped shot d/t signal
0224	3907	4937	47	Tape change
0314	4124	5154	48	Tape change
0353	4294	5325	48	Dropped shot d/t speed
0404	4341	5372	49	Tape change
0453	4558	5589	50	Tape change
0542	4775	5806	51	Tape change
0632	4992	6023	52	Tape change
0720	5208	6240	53	Tape change
0809	5426	6457	54	Tape change
0858	5643	6674	55	Tape change
0947	5859	6841	56	Tape change
1036	6076	7108	57	Tape change
1128	6293	7325	58	Tape change
1214	6510	7542	59	Tape change
1304	6727	7759	60	Tape change
1307	6840	7875	60	dropped shot d/t speed
1308	6841	7877	60	dropped shot d/t speed
1354	6944	7978	61	Tape change
1444	7161	8195	62	Tape change
1534	7380	8413	63	Tape change
1626	7595	8631	64	Tape change
1712	7812	8847	65	Tape change
1728	7885	8919	65	Daily BIST no depth updates to headers to SPECTRA
1736	7918	8952	65	Daily BIST depth header updating to SPECTRA
1802	8030	9064	66	Tape change
1849	8246	9281	67	Tape change
1940	8464	9499	68	Tape change
2022	8682	9617	68	Deploying gun string #3
2027	8670	9714	68	Low air pressure <1800 psi
2027	8671	9715	68	Low air pressure <1800 psi
2029	8681	9716	69	Tape change
2045	8766	9800	69	End of line

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	70	74	FGSP	1029
SP #	1029	2124	LGSP	2124

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7 GS3			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	9/15/11	9/16/11
Time UTC	2056	0048
Volume (cu in.)	1830in3	1830in3
Wind (kts)	10.5	11.4
Sea State (m)	0.5m	0.5m
Water Depth (m)	468m	1381.3m

General / Line Comments	Gun String 3 used as Source
SOL	SP 1029
EOL	SP 2124
SOL NOISY CHANNELS	
Intermittent low frequency seismic interference from sp 2040 to EOL	
No noise record d/t vessel turning	
Line truncated d/t ice	

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS01D
Sequence	006
Direction	348.2

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	75	79	FGSP	1026
SP #	1026	2136	LGSP	2136

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7 GS3			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	9/16/11	9/16/11
Time UTC	0122	0520
Volume (cu in.)	1830in3	1830in3
Wind (kts)	14	14.1
Sea State (m)	0.5m	0.5m
Water Depth (m)	1443.5m	1558m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

General / Line Comments Gun String 3 used as Source
SOL SP 1026
EOL SP 2136
SOL NOISY CHANNELS
No noise record @ SOL d/t streamer in bend
Weak seismic interference from astern @SOL--no longer noticed @SP 1130

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS0T3
Sequence	007
Direction	76.9

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

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 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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	80	103	FGSP	3311
SP #	3311	9373	LGSP	9373

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7 GS3			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	9/16/11	9/17/11
Time UTC	0523	0248
Volume (cu in.)	1830in3	1250in3
Wind (kts)	12	17
Sea State (m)	0.5m	0.5m
Water Depth (m)	1526.8m	217.5m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS01E
Sequence	008
Direction	133

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

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 Gun String 3 as Source
SOL SP 3311
EOL SP 9373
SOL NOISY CHANNELS-No noise record at SOL d/t noise from turn
Streamer in bend @ hd @SOL.
SP 3466 streamer straight
SP 8846 gun S3G2 disabled d/t bad shots Volume=1470 in3
SP 9160 gun S3G9 disabled d/t bad shots and no fires, vol=1250in3
EOL SP 9373, ended early d/t low volume--string 3 failure

Abbreviations	
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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	

Time UTC	FILE	SP	Tape	Description
0523	1	3311	80	SOL FSP-Streamer head in turn @ SOL MGL1112MCS01E gun string 3 as source
0556	157	3466	80	Streamer straight
0619	262	3571	81	Tape Change
0715	523	3832	82	Tape Change
0809	784	4095	83	Tape Change
0821	840	4150	83	Birds 21 and 22 are "porpoising" up and down some noise on tail of cable
0905	1047	4357	84	Tape Change
0927	1151	4465	84	SPECTRA not receiving differential GPS causing multiple triggers and errors
0909	1159	4473	84	Back to normal
0933	1180	4494	84	Dropped shot GPS issues unresolved
0933	1181	4495	84	Dropped shot GPS issues unresolved
0941	1210	4524	84	Dropped shot GPS issues unresolved
0941	1214	4528	84	Comm error S3G03
0942	1215	4529	84	Dropped shot GPS issues unresolved
0942	1219	4533	84	normal
1000	1303	4617	85	Tape Change
1057	1565	4879	86	Tape Change
1151	1828	5141	87	Tape Change
1322	2257	5570	88	Bird 20 being affected by the bouncing on the tail sections
1341	2349	5663	89	Tape Change
1358	2430	5743	88	Bird 20 less impacted by tail birds 21 and 22, 21 and 22 both still cyclical
1437	2612	5925	90	Tape Change
1444	2649	5962	90	Delta S3G02 3.9ms
1444	2651	5964	90	Delta S3G02 -7.7ms
1445	2653	5966	90	Delta S3G02 8.0ms
1445	2654	5967	90	Delta S3G02 -3.1ms
1446	2658	5971	90	Delta S3G02 2.1ms
1447	2661	5976	90	Delta S3G02-2.6 ms
1448	2665	5980	90	delta S3G02 -3.5
1531	2874	6187	91	Tape Change
1627	3133	6449	92	Tape Change
1722	3394	6706	93	Tape Change
1815	3640	6954	93	Delta S3G02 2.2ms
1815	3643	6957	93	Delta S3G02 -3.0ms
1818	3654	6968	94	Tape Change
1837	3745	7059	94	Delta S3G02 7.1ms
1837	3746	7060	94	Delta S3G02 -5.3ms
1848	3795	7109	94	Delta S3G02 7.8ms
1850	3805	7119	94	Delta S3G02 3.8ms
1850	3806	7120	94	Delta S3G02 -2.9ms
1902	3864	7178	94	Delta S3G02 2.4ms
1913	3915	7229	95	Tape Change
1915	3924	7238	95	Delta S3G02 -4.2ms
1915	3925	7239	95	Delta S3G02 3.7ms
1918	3940	7254	95	Delta S3G02 3.8 ms
1919	3941	7255	95	Delta S3G02 -2.7ms
1919	3942	7256	95	Delta S3G02 3.0 ms
1919	3943	7257	95	Delta S3G02 -2.8ms
1919	3945	7259	95	Delta S3G02 3.6ms
1920	3947	7261	95	Delta S3G02 -3.4ms
1920	3948	7262	95	Delta S3G02 2.8ms
1920	3950	7264	95	Delta S3G02 -2.9 ms
1922	4081	7395	95	Delta S3G02 -2.5ms
1922	4083	7397	95	Delta S3G02 -2.4ms
2003	4148	7462	95	Delta S3G02 4.0 ms
2003	4149	7463	95	Delta S3G02 -2.7 ms
2008	4177	7491	96	Tape Change
2057	4403	7715	96	Delta S3G02 2.2ms
2057	4405	7717	96	Delta S3G02 -2.2ms
2059	4412	7724	96	Delta S3G02 -2.6ms

2104	4438	7752	97	Tape change
2106	4446	7760	97	Delta S3G02 -7.0ms
2106	4447	7761	97	Delta S3G02 3.9ms
2106	4448	7762	97	Delta S3G02 -3.4ms
2108	4458	7772	97	Delta S3G02 -3.1ms
2108	4459	7773	97	Delta S3G02 3.5ms
2109	4462	7776	97	Delta S3G02 2.6ms
2110	4463	7777	97	Delta S3G02 2.3ms
2124	4530	7844	97	Delta S3G02 2.5ms
2124	4532	7846	97	Delta S3G02 3.3ms
2125	4534	7848	97	Delta S3G02 -3.3ms
2200	4699	8011	98	Tape Change
2250	4938	8250	98	Delta S3G02 2.6ms
2251	4941	8253	98	Delta S3G02 2.3ms
2251	4942	8254	98	Delta S3G02 -6.0ms
2252	4946	8258	98	Delta S3G02 7.2ms
2253	4947	8259	98	Delta S3G02 -5.4ms
2257	4960	8272	99	Tape Change
2346	5201	8513	99	Delta S3G02 2.8ms
2346	5202	8514	99	Delta S3G02 -2.1ms
2350	5221	8533	100	Tape Change
0000	5267	8579	100	Delta S3G02 2.7ms
0048	5482	8794	101	Tape Change
0048	5500	8812	101	Delta S3G02 2.5ms
0049	5502	8814	101	Delta S3G02 2.1ms
0051	5504	8816	101	Delta S3G02 2.6ms
0052	5506	8823	101	Delta S3G02 2.3ms
0052	5507	8829	101	Delta S3G02 -2.8ms
0048	5511	8839	101	Delta S3G02 2.1ms
0049	5514	8840	101	Delta S3G02 2.1ms
0051	5516	8841	101	Delta S3G02 2.1ms
0052	5517	8843	101	Delta S3G02 2.1ms
0054	5524	8846	101	Gun S3G02 disabled new vol=1470 in3
0056	5529	8851	101	Delta Gun S3G09 -3.8ms
0056	5530	8852	101	Delta S3G09 2.6ms
0056	5531	8853	101	Delta S3G09 -3.2ms
0057	5539	8861	101	Delta S3G09 -4.1ms
0059	5540	8868	101	Delta S3G09 -2.8ms
0059	5541	8869	101	Delta S3G09 -2.3ms
0112	5622	8927	101	Delta S3G09 -3.9ms
0126	5676	8988	101	Delta S3G09 4.7ms
0126	5677	8989	101	Delta S3G09 7.2ms
0127	5678	8990	101	Delta S3G09 -4.5ms
0134	5711	9025	101	Delta S3G09 6.8ms
0134	5712	9026	101	Delta S3G09 -5.1ms
0136	5720	9034	101	Delta S3G09 5.5ms
0136	5721	9035	101	Delta S3G09 10.1ms
0137	5722	9036	101	Delta S3G09 -2.2ms
0140	5743	9055	102	Tape Change
0159	5831	9143	102	Delta S3G09
0159	5832	9144	102	Delta S3G09
0201	5840	9152	102	Delta S3G09 3.1ms
0202	5841	9153	102	Delta S3G09 5.9
0202	5842	9154	102	Delta S3G09 -5.7
0202	5843	9155	102	Delta S3G09 -7.1
0203	5844	9156	102	Delta S3G09 -3.2ms
0203	5845	9157	102	Delta S3G09 -9.3
0203	5846	9158	102	Delta S3G09 1.5
0203	5847	9159	102	Delta S3G01 -1.4
0204	5848	9160	102	Gun S3G09 disabled d/t bad shots Volume=1250 in3
0216	6005	9313	103	Tape Change
0248	6065	9373	103	End of line, line ended early d/t low volume--string 3 failure

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	104	117	FGSP	9384
SP #	9384	13020	LGSP	13020

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	206.7 GS4			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	9/17/11	09/17/11
Time UTC	0250	1544
Volume (cu in.)	1830in3	1830in3
Wind (kts)	17	20
Sea State (m)	0.5m	2m
Water Depth (m)	204.1m	113.7m

General / Line Comments Gun String 4 as source
SOL SP9384 Gun string 4 continues survey line after Gun String 3 had failed guns S3G02 and S3G09
EOL SP13020
SOL NOISY CHANNELS Not performed due to turn noise
EOL NOISY CHANNELS Not performed due to turn noise

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS01EA
Sequence	009
Direction	133

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	118	124	FGSP	1022
SP #	1022	2657	LGSP	2657

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	206.7 GS4			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	09/17/11	09/17/11
Time UTC	1546	2135
Volume (cu in.)	1830in3	1830in3
Wind (kts)	20	18.8
Sea State (m)	2m	2m
Water Depth (m)	121.6m	271.3m

General / Line Comments Gun String 4 as source
SOL SP1022 Turn noised evident on cable, gone @sp 1197
EOL SP 2657
SOL NOISY CHANNELS
EOL NOISY CHANNELS--immediate start new line precluded noise test

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS01T
Sequence	010
Direction	49.6

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	125	163	FGSP	1003
SP #	1003	11185	LGSP	11185

Line	MGL1112MCS02
Sequence	011
Direction	324.3

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	206.7 GS4			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	09/17/11	09/19/11
Time UTC	2137	0955
Volume (cu in.)	1830in3	1830in3
Wind (kts)	13.5	19
Sea State (m)	1-2m	1m
Water Depth (m)	274.9m	1982m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Gun String 4 as source
SOL SP 1003
EOL SP11185 ended line early due to visible ice and expected thicker precentage of ice further up the survey line
Streamer in bend @ SOL, straight @ SP 1099
Gun string #4=source
EOL NOISY CHANNELS Not performed due to early termination of survey line.

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	

Time UTC	FILE	SP	Tape	Description
2137	1	1003	125	SOL Line MGL111202 (String 4 source) Streamer in bend @ SOL d/t vessel turning
2202	96	1099	125	Streamer straight
2239	262	1265	126	Tape Change
2331	523	1527	127	Tape Change
0027	784	1789	128	Tape Change
0122	1045	2050	129	Tape Change
0221	1306	2311	130	Tape Change
0313	1567	2572	131	Tape Change
0410	1828	2833	132	Tape Change
0507	2089	3094	133	Tape Change
0604	2350	3355	134	Tape Change
0659	2611	3616	135	Tape Change
0756	2871	3877	136	Tape Change
0849	3132	4138	137	Tape Change
1040	3394	4399	138	Tape Change
1135	3914	4921	139	Tape Change
1231	4177	5182	141	Tape Change
1334	4438	5443	142	Tape Change
1420	4699	5704	143	Tape Change
1515	4960	5965	144	Tape Change
1611	5221	6226	145	Tape Change
1707	5482	6487	146	Tape Change
1803	5741	6748	147	Tape Change
1858	6004	7009	148	Tape Change
1954	6265	7270	149	Tape Change
2049	6526	7531	150	Tape Change
2144	6787	7792	151	Tape Change
2240	7048	8053	152	Tape Change
2335	7309	8314	153	Tape Change
0035	7570	8575	154	Tape Change
0134	7831	8836	155	Tape Change
0230	8092	9097	156	Tape Change
0325	8353	9358	157	Tape Change
0419	8614	9619	158	Tape Change
0519	8875	9880	159	Tape Change
0614	9136	10141	160	Tape Change
0706	9397	10402	161	Tape Change
0803	9656	10663	162	Tape Change
0856	9906	10913	162	Vessel maneuvering to avoid ice
0858	9917	10924	163	Tape Change
0950	10156	11164	163	Start of turn to starboard
0955	10176	11183	163	Turn noise evident on cable
0956	10178	11185	163	EOL line terminated due to ice flow expected at 60% further up survey line

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	164	166	FGSP	1030
SP #	1030	1717	LGSP	1717

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	206.7 GS4			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	09/19/11	09/19/11
Time UTC	1005	1247
Volume (cu in.)	1830in3	1830in3
Wind (kts)	14	9.7
Sea State (m)	1m	.5m
Water Depth (m)	2026m	2095m

General / Line Comments Gun String 4 as source
SOL SP 1030
EOL SP 1717 Line terminated early due to ice and no longer parallel with line.
SOL NOISY CHANNELS Not performed due to early termination of previos line due to ice flow
EOL NOISY CHANNELS Not performed due to exccessive turn noise on cable

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112T4
Sequence	012
Direction	47.5

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	167	168	FGSP	1040
SP #	1040	1361	LGSP	1361

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	206.7 GS4			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	09/19/11	09/19/11
Time UTC	1351	1501
Volume (cu in.)	1830in3	1830in3
Wind (kts)	6.3	11.2
Sea State (m)	0.5m	1m
Water Depth (m)	1949m	1514m

General / Line Comments Gun String 4 as Source
SOL SP 1040
EOL SP 1361
SOL NOISY CHANNELS Not performed due to evasive ice maneuvers
Excessive failures of S4G01 timing errors.
EOL NOISY CHANNELS Not Performed due to evasive ice maneuvers

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112T5
Sequence	013
Direction	70

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	169	172	FGSP	1322
SP #	1319	2105	LGSP	2105

Line	MGL1112T6
Sequence	014
Direction	75

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7 (GS3)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	9/19/2011	9/19/2011
Time UTC	1708	2016
Volume (cu in.)	1830in3	1830in3
Wind (kts)	9.3	12.4
Sea State (m)	1m	1m
Water Depth (m)	572m	373.8m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 1319
EOL SP 2105
SOL NOISY CHANNELS Not performed due to turn noise
Streamer in bend and noisy@ SOL, SP 1487 abated
Begin turn to nw line @ SP 2067, turn noise present on streamer @ EOL
EOL NOISY CHANNELS-No noise record d/t bend in streamer-noise

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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	173	173	FGSP	1172
SP #	1172	1340	LGSP	1340

Line	MGL1112MCS03B
Sequence	015
Direction	139.5

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7 (GS3)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	9/19/11	9/19/11
Time UTC	2018	2054
Volume (cu in.)	1830in3	1830in3
Wind (kts)	10.7	9.5
Sea State (m)	1m	1m
Water Depth (m)	366.9m	363.3m

Cable	EOL High Noise Channels (in u-bar)
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

[illegible]

Abbreviations	
SOL/EOL - Start/End of Line	<i>LGSP - Last Good SP</i>
<i>FGSP- First Good SP</i>	<i>LCSP - Last Chargable SP</i>
<i>FCSP - First Chargable SP</i>	<i>LFFSP - 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.P. - Not To Be Processed</i>	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	174	208	FGSP	1349
SP #	1349	10377	LGSP	10377

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7 (GS3)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	9/19/11	9/20/11
Time UTC	2056	0449
Volume (cu in.)	1830in3	1830in3
Wind (kts)	12.6	15.8
Sea State (m)	1m	0.5m
Water Depth (m)	345.3m	2959.4m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

General / Line Comments Gun String 3 as Source
SOL SP 1349
EOL SP 10377
SOL NOISY CHANNELS-Streamer in bend @ SOL
Tail end of streamer intermittent porposing throughout line
SP 9537 lost compressor d/t vibration sensor, guns off
SP 9538 FSP mitigation gun olly, volume=40in3 Switching to port compressor
SP 9618 Port compressor full volume, first SP @ 2000 psi=9618
EOL NOISY CHANNELS-Streamer in turn @ EOL

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS03BA
Sequence	016
Direction	139.5

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

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 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	

Time UTC	FILE	SP	Tape	Description
2059	1	1349	174	Start of line MGL111203BA
2155	262	1610	175	Tape Change
2247	523	1871	176	Tape Change
2310	620	1968	176	Nav jump-no missed shots
2311	628	1976	176	Nav corrected
2332	784	2132	177	Tape Change
0039	1045	2393	178	Tape Change
0136	1306	2654	179	Tape Change
0237	1567	2915	180	Tape Change
0320	1828	3176	181	Tape Change
0357	1983	3331	181	S3G03 comm error
0422	2089	3437	182	Tape Change
0432	2149	3497	182	S3G09 Timing error 2.9ms
0432	2150	3498	182	S3G09 Timing error -2.6ms
0518	2350	3698	183	Tape change
0608	2585	3933	183	S3G02 timing error -5.5ms
0608	2586	3934	183	S3G02 timing error 4.3ms
0613	2611	3959	184	Tape Change
0703	2853	4201	184	S3G02 timing error -5.4ms
0703	2854	4202	184	S3G02 timing error 9.0ms
0703	2855	4203	184	S3G02 timing error -2.7ms
0710	2872	4220	185	Tape Change
0733	2991	4339	185	S3G02 timing error 5.3ms
0733	2993	4341	185	S3G02 timing error 2.1ms
0739	3018	4369	185	S3G092.1 ms
0801	3126	4477	185	S3G09 2.2 ms
0803	3132	4483	186	Tape Change
0812	3178	4529	186	S3G09 3ms
0816	3193	4544	186	S3G02 -4.9 ms
0816	3194	4545	186	S3G02 3.8 ms
0824	3231	4582	186	S3G09 2.8ms
0825	3238	4589	186	S3G09 2.3ms
0845	3332	4683	186	S3G09 2.2 ms
0846	3336	4687	186	S3G09 2.3ms
0847	3341	4692	186	S3G09 2.3ms
0849	3353	4704	186	S3G09 3.0 ms
0850	3354	4705	186	S3G09 -2.1 ms
0852	3366	4717	186	S3G09 3.6 ms
0852	3367	4718	186	S3G09 -2.7 ms
0853	3368	4719	186	S3G09 2.1 ms
0855	3380	4731	186	S3G09 2.7 ms
0837	3393	4744	187	Tape Change
0901	3410	4761	187	S3G09 2.6 ms
0906	3431	4782	187	S3G09 2.5 ms
0914	3472	4823	187	S3G09 2.2 ms
0915	3477	4828	187	S3G09 2.2 ms
0927	3533	4884	187	S3G09 2.2 ms
0928	3534	4885	187	S3G09 -2.2 ms
0931	3548	4899	187	S3G09 2.2 ms
0935	3567	4919	187	S3G09 2.2 ms
0935	3571	4922	187	S3G09 2.1 ms
0937	3576	4927	187	S3G09 2.4 ms
0939	3587	4938	187	S3G09 2.6 ms
0941	3595	4946	187	S3G09 2.7 ms
0942	3602	4953	187	S3G09 2.7 ms
0942	3603	4954	187	S3G09 -2.2 ms
0943	3607	4958	187	S3G09 2.4ms
0944	3609	4960	187	S3G09 2.4ms

0944	3610	4961	187	S3G09 -2.4 ms
0944	3611	4962	187	S3G09 2.2 ms
0944	3612	4963	187	S3G09 -2.2 ms
0944	3613	4964	187	S3G09 2.4 ms
0945	3614	4965	187	S3G09 -2.4 ms
0945	3615	4966	187	S3G09 2.3 ms
0945	3616	4967	187	S3G09 -2.2 ms
0951	3644	4995	187	S3G09 2.5 ms
0952	3648	4999	187	S3G09 2.2 ms
0953	3654	5005	188	Tape Change
0955	3660	5011	188	S3G09 2.5 ms
0955	3664	5015	188	S3G09 2.1 ms
1001	3691	5042	188	S3G09 2.3 ms
1005	3709	5060	188	S3G09 2.1 ms
1007	3720	5071	188	S3G09 2.2 ms
1008	3722	5073	188	S3G09 2.1 ms
1025	3805	5156	188	S3G09 2.1ms
1029	3845	5173	188	S3G09 2.1 ms
1029	3846	5174	188	S3G09 -2.1 ms
1029	3847	5175	188	S3G09 2.4 ms
1029	3848	5176	188	S3G09 -2.1 ms
1030	3851	5179	188	S3G09 2.8 ms
1030	3853	5181	188	S3G09 2.4 ms
1031	3854	5182	188	S3G09 -2.2 ms
1033	3867	5195	188	S3G09 3.0 ms
1034	3868	5196	188	S3G09 -2.4 ms
1048	3915	5266	189	Tape Change
1144	4176	5529	190	Tape Change
1239	4437	5788	191	Tape Change
1334	4698	6051	192	Tape Change
1430	4959	6312	193	Tape Change
1524	5220	6571	194	Tape Change
1620	5481	6832	195	Tape Change
1622	5491	6843	195	Dropped shot due to GPS jump
1716	5742	7094	196	Tape Change
1810	6003	7355	197	Tape Change
1905	6264	7616	198	Tape Change
1915	6438	7705	198	Nav jump-no missed shots
1915	6439	7706	198	Nav jump-no missed shots
2000	6526	7968	199	Tape Change
2055	6787	8139	200	Tape Change
2123	6913	8267	200	Nav jump Missed sp
2123	6914	8268	200	Missed sp
2124	6915	8269	200	Missed sp
2149	7048	8403	201	Tape Change
2245	7309	8664	202	Tape Change
2238	7570	8925	203	Tape Change
0033	7831	9186	204	Tape Change
0127	8092	9447	205	Tape Change
0145	8182	9537	205	Lost compressor d/t vibration sensor
0145	8183	9538	205	Mitigation gun only volume=40in3
0150	8204	9559	205	Full volume shot to avoid ramp-up
0156	8243	9590	205	Full volume shot to avoid ramp-up
0204	8259	9613	205	Full volume shot to avoid ramp-up
0205	8264	9618	205	Pt. compressor on and @ 2000psi; first full volume shot
0225	8353	9708	206	Tape change
0235	8396	9751	206	Missed sp d/t sped
0324	8614	9970	207	Tape change
0420	8875	10231	208	Tape Change
0449	9020	10377	208	End of line--streamer in turn

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	209	215	FGSP	1009
SP #	1009	2636	LGSP	2636

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7 (GS3)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	9/21/11	09/21/11
Time UTC	0525	1103
Volume (cu in.)	1830in3	1830in3
Wind (kts)	13.3	13.9
Sea State (m)	0.5mm	.5m
Water Depth (m)	3034m	3837m

General / Line Comments Gun String 3 as Source
SOL SP 1009- streamer in sharp turn @ SOL
EOL SP 2636
SOL NOISY CHANNELS Not performed due to turn noise in cable
EOL NOISEY CHANNELS Not performed due to turn noise in cable

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS03T
Sequence	017
Direction	50.5

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	216	246	FGSP	1048
SP #	1048	9010	LGSP	9010

Line	MGL1112MCS04
Sequence	018
Direction	327.4

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7 GS3			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	09/21/11	09/22/2011
Time UTC	1115	1452
Volume (cu in.)	1830in3	1830in3
Wind (kts)	8.9 nw	15 n
Sea State (m)	.5m	0m
Water Depth (m)	3845m	684m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Gun String 3 as Source
SOL SP1048
EOL SP 9010
SOL NOISY CHANNELS Not performed due to turn noise in cable
S3G01 started going bad @ SP8663
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	

Time UTC	FILE	SP	Tape	Description
1115	1	1048	216	SOL MGL111204 Turn noise evident on cable (Gun string #3=Source)
1147	156	1203	216	Turn noise out of cable
1153	183	1230	216	Lost compressor
1153	184	1231	216	S3G07 no fire
1153	185	1232	216	S3G07 no fire
1154	186	1233	216	S3G07 no fire
1154	187	1234	216	S3G07 S3G09 no fire
1157	199	1246	216	Compressor back online full volum shot 1830in3
1211	261	1309	217	Tape change
1305	522	1570	218	Tape change
1359	783	1831	219	Tape change
1454	1044	2092	220	Tape change
1549	1305	2353	221	Tape change
1643	1566	2614	222	Tape change
1737	1827	2874	223	Tape change
1831	2088	3135	224	Tape change
1926	2349	3396	225	Tape change
2019	2611	3657	226	Tape change
2029	2458	3705	226	S3G9 Misfire +6.3ms
2029	245	3706	226	S3G9 Misfire -4.4ms
2052	2767	3815	226	Spectra NCC lock-up
2056	2771	3831	226	Spectra NCC running normally-missed sps 3815 through 3830 d/t Spectra
2117	2872	3934	227	Tape change
2212	3133	4195	228	Tape change
2305	3394	4456	229	Tape change
0031	3655	4717	230	Tape change
0053	3916	4978	231	Tape change
0148	4177	5239	232	Tape change
0242	4438	5500	233	Tape change
0340	4699	5761	234	Tape change
0436	4960	6022	235	Tape change
0529	5221	6283	236	Tape change
0620	5475	6539	236	Missed sp d/t loss of nav GPS
0623	5482	6546	237	Tape change
0715	5743	6807	238	Tape change
0809	6003	7069	239	Tape change
0903	6265	7330	240	Tape change
0958	6526	7591	241	Tape change
1146	7048	8113	243	Tape change
1241	7307	8374	244	Tape change
1334	7568	8635	245	Tape change
1340	7599	8663	245	S3G01 Timing Error @ -8.3
1340	7600	8664	245	S3G01 Timing Error @ 5.6
1340	7601	8665	245	S3G01 Timing Error @ 7.7
1341	7603	8667	245	S3G01 Timing Error @ 4.8
1341	7604	8668	245	S3G01 Timing Error @ 11.5
1341	7605	8669	245	S3G01 Timing Error @ -6.4
1341	7606	8670	245	S3G01 Timing Error @ 11.8
1342	7607	8671	245	S3G01 Timing Error @ -9.1

1342	7608	8672	245	S3G01 Timing Error @ -9.9
1342	7609	8673	245	S3G01 Timing Error @ 11.8
1342	7610	8674	245	S3G01 No Fire
1342	7611	8675	245	S3G01 Timing Error @ 7.3
1342	7612	8676	245	S3G01 Timing Error @ -5.5
1343	7613	8677	245	S3G01 Timing Error @ 2.6
1343	7614	8678	245	S3G01 No Fire
1343	7615	8679	245	S3G01 No Fire
1343	7616	8680	245	S3G01 No Fire
1344	7617	8681	245	S3G01 No Fire
1344	7618	8682	245	S3G01 Timing Error @ 7.0
1344	7619	8683	245	S3G01 Timing Error @ -10.6
1345	7624	8688	245	S3G01 Timing Error @ 4.1
1345	7625	8689	245	S3G01 Timing Error @ -3.0
1346	7627	8691	245	S3G01 Timing Error @ 2.3
1346	7628	8692	245	S3G01 Timing Error @ -6.0
1349	7643	8707	245	S3G01 Timing Error @ -2.2
1357	7681	8746	245	S3G01 Timing Error @ 2.9
1357	7682	8747	245	S3G01 Timing Error @ -10.6
1357	7683	8748	245	S3G01 No Fire
1358	7684	8749	245	S3G01 No Fire
1358	7685	8750	245	S3G01 Timing Error @ 11.9
1358	7687	8752	245	S3G01 Timing Error @ -10.8
1359	7688	8753	245	S3G01 No Fire
1359	7689	8754	245	S3G01 No Fire
1359	7690	8755	245	S3G01 Timing Error @ 11.0
1359	7691	8756	245	S3G01 Timing Error @ -3.7
1400	7695	8759	245	S3G01 Timing Error @ 7.2
1400	7696	8760	245	S3G01 Timing Error @ -5.6
1400	7698	8762	245	S3G01 Timing Error @ -11.0
1401	7700	8764	245	S3G01 Timing Error @ -11.2
1401	7701	8765	245	S3G01 Timing Error @ -2.9
1401	7702	8766	245	S3G01 No Fire
1401	7703	8767	245	S3G01 Timing Error @ 1.4
1402	7705	8769	245	S3G01 Timing Error @ 9.9
1402	7706	8770	245	S3G01 Timing Error @ -3.9
1402	7707	8771	245	S3G01 No Fire
1403	7709	8773	245	S3G01 Timing Error @ -10.3
1403	7710	8774	245	S3G01 Timing Error @ -11.8
1403	7711	8775	245	S3G01 Timing Error @ -2.9
1429	7831	8896	246	Tape change
1452	7945	9010	246	EOL

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	247	248	FGSP	9054
SP #	9054	9471	LGSP	9471

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	206.7 GS4			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	09/22/11	9/22/11
Time UTC	1501	1638
Volume (cu in.)	1830in3	1830in3
Wind (kts)	15 N	13.7
Sea State (m)	0m	1m
Water Depth (m)	684.3m	559.2m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS04A
Sequence	019
Direction	327.4

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

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 Gun String 4 as Source
SOL SP 9054
EOL SP
SOL NOISY CHANNELS
DO NOT PROCESS, SIGNIFICANT GPS NAVIGATION ERRORS UNABLE TO ESTIMATE SHIPS POSITION CORRECTLY
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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	249	255	FGSP	1002
SP #	1001	2304	LGSP	2304

Line	MGL111204B
Sequence	020
Direction	327.4

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	12.8			
Offset CS - CNG (m)	206.7 GS4			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	9/22/11	9/22/11
Time UTC	1650	2240
Volume (cu in.)	1830in3	1830in3
Wind (kts)	14	8
Sea State (m)	1m	calm
Water Depth (m)	545.1m	441.4m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Gun String 4 as Source
SOL SP1001 Unable to get proper GPS Nav line shot on time interval of 12.8 seconds Missed first shot as digishot was not in external
EOL SP 2304
Shooting on time d/t lack of GPS solution (From SOL) GS4 source offset 206.7m
SP 1667 power down for seal, sp 1670 lost sight of seal, sp 1737 begin ramp up, sp 1831 ramp up complete-full volume shot
Streamer in bend @EOL

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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	256	262	FGSP	1001
SP #	1001	2287	LGSP	2287

Line	MGL1112MCS04T
Sequence	021
Direction	103.8

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	12.8			
Offset CS - CNG (m)	206.7 (GS4)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	9/22/11	9/23/11
Time UTC	2308	0511
Volume (cu in.)	1830in3	1830in3
Wind (kts)	5.9	5.1
Sea State (m)	calm	calm
Water Depth (m)	549m	1036m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 1001-streamer in bend d/t sharp turn onto line. Shooting on 12.8 sec time interval d/t no diff GPS (d/t high latitude)
Streamer in sharp bend @ SOL, noise apparent; streamer straight, noise gone @ SP 1150
SP 1398 NCC lock up Reset unit causing sps to begin at 1001
SP Gun S4G10 disabled d/t bad shots and no fires. Volume=1610 in3
EOL SP 2287

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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	263	263	FGSP	1117
SP #	1117	1131	LGSP	1131

Line	MGL1112MCS05
Sequence	022
Direction	232

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7 (GS3)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	9/23/11	9/23/11
Time UTC	0544	0552
Volume (cu in.)	1830in3	1830in3
Wind (kts)	9.1	7
Sea State (m)	calm	calm
Water Depth (m)	1124m	1118m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 1117
EOL SP 1131
DO NOT PROCESS ---Spectra re-started effected after SOL
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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	264	272	FGSP	1164
SP #	1155	3193	LGSP	3440

Line	MGL1112MCS05A
Sequence	023
Direction	232.3

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7 (GS3)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	9/23/11	9/23/11
Time UTC	0552	1350
Volume (cu in.)	1830in3	1830in3
Wind (kts)	7.2	4.9
Sea State (m)	calm	calm
Water Depth (m)	1088m	772.3m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 1155 FGSP 1164 (corrected offset)
EOL SP 3193 Ended line early due to GPS differential drop out. Re-estimate position jumped SP3447 back to SP3182
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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	273	273	FGSP	1001
SP #	1001	1196	LGSP	1196

Line	MGL111205B
Sequence	024
Direction	232.3

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (T)	12.8 sec			
Offset CS - CNG (m)	226.7 GS3			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	9/23/11	9/23/11
Time UTC	1356	1438
Volume (cu in.)	1830in3	1830in3
Wind (kts)	4.4	4.6
Sea State (m)	calm	0.5m
Water Depth (m)	720.2m	379.0m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Gun String 3 as source
SOL SP Shot on time interval 12.8 Previous line was ended early due to GPS drop out
EOL SP 1196 Ended line early, DGPS active
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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	274	277	FGSP	3728
SP #	3700	4648	LGSP	4648

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.65 GS3			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	09/23/2011	9/23/11
Time UTC	1447	1757
Volume (cu in.)	1830in3	1830in3
Wind (kts)	2.5NW	2.5NW
Sea State (m)	0.5m	0.5m
Water Depth (m)	376.2m	284.2m

General / Line Comments
SOL SP 3700
EOL SP 4648
SOL NOISY CHANNELS
DGPS dropout- went to time shooting
EOL NOISY CHANNELS

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS05C
Sequence	025
Direction	232.3

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 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	

[illegible]

Observers Log									
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Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	278	281	FGSP	1001
SP #	1001	1973	LGSP	1973

Line	MGL1112MCS05D
Sequence	026
Direction	232.3

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (t)	12.8 sec			
Offset CS - CNG (m)	226.65 GS3			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, μ B				
EOL Cable Noise, μ B				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	9/23/11	9/23/11
Time UTC	1800	2127
Volume (cu in.)	1830in3	1830in3
Wind (kts)	2.5nw	2.9 ne
Sea State (m)	0.5m	<0.5m
Water Depth (m)	277.1m	218.8m

Cable	EOL High Noise Channels (in u-bar)
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

[illegible]

Abbreviations	
SOL/EOL - Start/End of Line	<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>LFFSP - 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.P. - Not To Be Processed</i>	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	282	296	FGSP	5671
SP #	1001	9330	LGSP	9330

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7 (GS3)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	9/23/11	09/24/11
Time UTC	2128	1015
Volume (cu in.)	1830in3	1610in3
Wind (kts)	4 ENE	10.3 NE
Sea State (m)	<0.5m	1m
Water Depth (m)	222.5m	355.5m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS05E
Sequence	027
Direction	232.3

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

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 SP 1001 Now shooting on distance--sps 1001, 1002, 1003 then position estimate run, giving us a first good (corrected) shot of 5671
FGSP 5671
EOL SP 9330
Gun 10 failed so string 3 brought in at end of line
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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	297	301	FGSP	1049
SP #	1049	2263	LGSP	2263

Line	MGL1112MCS05T
Sequence	028
Direction	135.04

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	206.7 GS04			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	09/24/11	09/24/11
Time UTC	1031	1444
Volume (cu in.)	1830in3	1830in3
Wind (kts)	16 SE	20.6
Sea State (m)	0.5m	0.5m
Water Depth (m)	354.4m	222.5m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 1049
EOL SP 2263
SOL NOISY CHANNELS
GS4 is source
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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	302	327	FGSP	1055
SP #	1055	7745	LGSP	7745

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	206.7 GS4			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	09/24/11	9/25/11
Time UTC	1459	1342
Volume (cu in.)	1830in3	1830in3
Wind (kts)	18.3	10.7
Sea State (m)	1m	1m
Water Depth (m)	209.5m	834.5m

General / Line Comments Gun string 4 as source
SOL SP 1055
EOL SP 7745 ended line early due to loss of GPS inputs.
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS06
Sequence	029
Direction	44.2

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	328	333	FGSP	1001
SP #	1001	2548	LGSP	2548

Line	MGL1112MCS06A
Sequence	030
Direction	44.2

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (T)	12.0 sec			
Offset CS - CNG (m)	206.7 GS4			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	09/25/11	9/25/11
Time UTC	1344	1854
Volume (cu in.)	1830in3	1830in3
Wind (kts)	6	1
Sea State (m)	1m	1m
Water Depth (m)	840m	1552m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP1001 Shot interval set by TIME of 12.0 seconds
EOL SP 2548
SOL NOISY CHANNELS Not performed due to ending previous line early
EOL NOISY CHANNELS not performed due to turn noise in cable

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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	334	338	FGSP	1001
SP #	1001	2268	LGSP	2268

Line	MGL1112MCS06T
Sequence	031
Direction	144.5

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (T)	12.0 sec			
Offset CS - CNG (m)	206.7 GS4			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	9/25/11	9/25/11
Time UTC	1907	2320
Volume (cu in.)	1830in3	1830in3
Wind (kts)	calm	cal
Sea State (m)	flat m	calm
Water Depth (m)	1809m	2123.6mm

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Gun String 4 as Source
SOL SP1001 Shot interval set by TIME 12.0 sec Turn noise in cable from previous line
SP 2150 Noise @ hd of streamer d/t maneuvering to avoid ice
SP 2220 Streamer noise abated
SP 2250 Noise @ hd of streamer d/t turn on to next line
EOL LSP=2268 Streamer in turn @ End of line
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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	339	340	FGSP	1068
SP #	1068	1335	LGSP	1335

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	206.7m (GS4)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	9/25/11	9/26/11
Time UTC	2335	0029
Volume (cu in.)	1830in3	1830in3
Wind (kts)	4.8SW	3.2SW
Sea State (m)	calm	calm
Water Depth (m)	2126.3m	2124m

General / Line Comments
SOL SP 1067 Shooting on distance, 37.5m interval; Source GS4, 206.7m offset
Streamer in strong bend @ SOL, heavy noise.
SP 1200 streamer straight, noise off records
Line truncated d/t loss of GPS diff corrections, LSP=1335

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS07
Sequence	032
Direction	233.3

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	341	343	FGSP	1006
SP #	1001	1058	LGSP	1058

Line	MGL1112MCS07A
Sequence	033
Direction	233.3

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	12.0			
Offset CS - CNG (m)	206.7m (GS4)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	9/26/11	9/26/11
Time UTC	0031	0252
Volume (cu in.)	1830in3	1830in3
Wind (kts)	3.2SW	5.7SW
Sea State (m)	calm	calm
Water Depth (m)	2121.8m	1520.7m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 1001 FGSP=1006 d/t reset interval to 12 sec--SHOOTING ON TIME D/T LOSS OF DIFF GPS
SP 1111 lost compressor, all guns off, compressor back on SP 1124; missed sp 1111, sps 1112-1123 mit gun only, vol=40in3
After SP 1648, shots reset to 1001 d/t estimate position
SP 1058 end of line LSP=1058, ended early to begin new line on distance, diffs now solid

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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	344	371	FGSP	2034
SP #	2034	9245	LGSP	9245

Line	MGL1112MCS07B
Sequence	034
Direction	233.3

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	206.7 GS4			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	9/26/11	9/27/11
Time UTC	0253	0325
Volume (cu in.)	1830in3	1830in3
Wind (kts)	7.2SW	11.2NE
Sea State (m)	calm	1m
Water Depth (m)	1625.8m	178.9m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 2034 Shooting on distance. 37.5m shot interval, GS4 offset 206.7m
EOL LSP=9245
Streamer in turn @ EOL
Dead Channels 169,257,294,343,377,396,437

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	

Time UTC	FILE	SP	Tape	Description
0253	1	2034	344	SOL MGL1112MCS07B Shooting on distance, 37.5m interval, GS4 offset=206.7m
0346	262	2293	345	Tape Change
0442	523	2554	346	Tape Change
0532	784	2815	347	Tape Change
0626	1045	3076	348	Tape Change
0720	1306	3337	349	Tape Change
0812	1566	3598	350	Tape Change
0906	1827	3859	351	Tape Change
0959	2088	4120	352	Tape Change
1036	2769	4301	352	S4G06 auto fire 1004.5 ms (false???)
1053	2369	4381	353	Tape Change
1106	2415	4447	353	S4G10 -2.1 ms
1146	2630	4642	354	Tape Change
1203	2694	4727	354	Dropped shot GPS jump
1240	2872	4905	355	Tape Change
1333	3133	5166	356	Tape Change
1526	3394	5427	357	Tape Change
1519	3655	5688	358	Tape Change
1612	3916	5949	359	Tape Change
1705	4177	6210	360	Tape Change
1711	4209	6242	360	Bad GPS adjust
1712	4210	6244	360	Bad GPS adjust
1759	4438	6474	361	Tape Change
1838	4627	6661	361	Bird 18 at 3.3m
1840	4639	6674	361	Bird 18 back at 9 m
1852	4699	6735	362	Tape Change
1946	4960	6995	363	Tape Change
1952	4991	7027	363	S4G10 misfire -2.2ms
1957	5017	7053	363	S4G6 (false?) autofire
2018	5121	7156	363	S4G10 misfire -2.1ms
2029	5174	7209	363	S4G10 misfire -2.8ms
2124	5221	7256	364	Tape Change
2110	5373	7408	364	S4G10 misfire -2.1ms
2132	5482	7517	365	Tape Change
2135	5497	7532	365	S4G10 misfire -2.1ms
2225	5743	7778	366	Tape Change
2238	5801	7836	366	S4G10 misfire 2.3ms
2239	5806	7841	366	S4G10 misfire 2.1ms
2334	6004	8039	367	Tape Change
0012	6265	8300	368	Tape Change
0017	6289	8324	368	S4G10 misfire 2.1ms
0020	6306	8341	368	S4G10 misfire -2.4ms
0039	6396	8431	368	S4G10 misfire -2.8ms
0044	6416	8452	368	Missed sp
0108	6526	8562	369	Tape Change
0118	6584	8620	369	S4G10 misfire 2.1ms
0130	6621	8677	369	False autofire
0143	6688	8744	369	S4G10 misfire 2.4ms
0147	6709	8765	369	S4G10 misfire -2.2ms
0200	6787	8823	370	Tape Change
0207	6820	8856	370	S4G10 misfire 2.7ms
0259	7048	9084	371	Tape Change
0303	7098	9134	371	S4G10 misfire -2.6ms
0304	7103	9139	371	S4G10 misfire -2.2ms
0305	7109	9145	371	S4G10 misfire -2.2ms
0313	7151	9187	371	S4G10 misfire -2.4ms
0325	7209	9245	371	End of line

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	372	373	FGSP	1059
SP #	1059	1399	LGSP	1399

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	206.7 (GS4)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	9/27/11	9/2711
Time UTC	0341	0452
Volume (cu in.)	1830in3	1830in3
Wind (kts)	14.1 NE	12.9 NE
Sea State (m)	1m	1m
Water Depth (m)	176.9m	177.1m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS07T
Sequence	035
Direction	132.4

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

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 SP 1059-streamer in turn @ SOL, noise present, sp 1143 streamer straight
EOL SP 1399-Ended early d/t changing gun strings from #4 to #3
Dead channels 169, 257, 294, 343, 396, 437

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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	374	376	FGSP	1412
SP #	1412	2193	LGSP	2193

Line	MGL1112MCS07TA
Sequence	036
Direction	132.4

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7 (GS3)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	9/27/11	9/27/11
Time UTC	0454	0734
Volume (cu in.)	1830in3	1830in3
Wind (kts)	14.3	13.7
Sea State (m)	1m	1m
Water Depth (m)	173.1m	181m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 1412 Source is now gun string 3, offset=226.7m
Low frequency strum noise present throughout line
LSP=2193 Hd of streamer in turn @ EOL
Dead channels 169, 257, 294, 343, 396, 437

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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	377	396	FGSP	1052
SP #	1052	6228	LGSP	6228

Line	MGL1112MCS08
Sequence	037
Direction	46.9

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7 (GS3)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	9/27/11	9/28/11
Time UTC	0748	0155
Volume (cu in.)	1830in3	1830in3
Wind (kts)	17.3	14.1
Sea State (m)	1m	1m
Water Depth (m)	179.9m	1713.2m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Gun String as Source
SOL SP 1052
EOL SP 6228-Line ended early d/t spectra DLN crash requiring restart of line
Dead channels 169,257,301,343,377,396,437

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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	397	397	FGSP	6281
SP #	6274	6348	LGSP	6348

Line	MGL1112MCS08A
Sequence	038
Direction	46.9

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7 (GS3)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, μ B				
EOL Cable Noise, μ B				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	9/28/11	9/28/11
Time UTC	0204	0219
Volume (cu in.)	1830in3	1830in3
Wind (kts)	14.1	15.3
Sea State (m)	1m	1m
Water Depth (m)	1670m	1669.2m

Cable	EOL High Noise Channels (in u-bar)
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

[illegible]

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	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	398	408	FGSP	6394
SP #	6394	9187	LGSP	9187

Line	MGL1112MCS08B
Sequence	039
Direction	46.9

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7 (GS3)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, μ B				
EOL Cable Noise, μ B				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	9/28/11	9/28/11
Time UTC	0229	1208
Volume (cu in.)	1830in3	1830in3
Wind (kts)	12.9 NW	11.6 w
Sea State (m)	1m	1m
Water Depth (m)	1786.5m	2038m

Cable	EOL High Noise Channels (in u-bar)
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

[illegible]

Abbreviations	
SOL/EOL - Start/End of Line	<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>LFFSP - 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.P. - Not To Be Processed</i>	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	409	413	FGSP	1063
SP #	1063	2238	LGSP	2238

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7 GS3			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	9/28/11	9/28/11
Time UTC	1220	1621
Volume (cu in.)	1830in3	1830in3
Wind (kts)	11.4 w	13 SSW
Sea State (m)	1m	1m
Water Depth (m)	1871m	591.1m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS08T1
Sequence	040
Direction	80

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

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 Gun String 3 as Source
SOL SP1063
EOL SP 2238
DEAD CHANNELS 169,257,301,343,377,396,437
Ended line early to dropped DGPS

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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	414	414	FGSP	1001
SP #	1001	1224	LGSP	1224

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (T)	12.0 sec			
Offset CS - CNG (m)	226.7 GS3			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	09/28/11	9/28/11
Time UTC	1623	1708
Volume (cu in.)	1830in3	1830in3
Wind (kts)	12.0 S	17.3 W
Sea State (m)	1m	1m
Water Depth (m)	584m	587.7m

General / Line Comments Gun String 3 as Source
SOL SP 1001 Shot point interval is 12.0 sec on time
EOL SP 1224
DEAD CHANNELS 169,257,301,343,377,396,437

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS08T1A
Sequence	041
Direction	80

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	415	419	FGSP	1064
SP #	1064	2202	LGSP	2202

Line	MGL1112MCS08T2
Sequence	042
Direction	173.2

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7 GS3			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	9/28/2011	9/28/11
Time UTC	1724	2121
Volume (cu in.)	1830in3	1830in3
Wind (kts)	12	21.2
Sea State (m)	1m	1m
Water Depth (m)	584m	949.1m

Cable	EOL High Noise Channels (in u-bar)
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

[illegible]

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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	420	423	FGSP	1001
SP #	1001	1933	LGSP	1933

Line	MGL1112MCS09T1
Sequence	043
Direction	268

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	12			
Offset CS - CNG (m)	226.7 (GS3)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	09/28/11	09/29/11
Time UTC	2132	0039
Volume (cu in.)	1830in3	1830in3
Wind (kts)	18 SW	19.6 SW
Sea State (m)	2-3m	2m
Water Depth (m)	886.1m	1429m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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=SP 1001 Shooting on time d/t loss of differential GPS 12 sec shot int., streamer in bend @ SOL, sp 1150 streamer straight
Dead channels=169, 186, 257, 301, 343, 392, 409, 437 Source GS3, 226.7m offset. Low FQ "strum" across streamer throughout line
EOL=SP 1933 Hd of streamer in bend @ EOL

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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	424	429	FGSP	1006
SP #	1006	2482	LGSP	2482

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7 (GS3)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	09/29/11	09/29/11
Time UTC	0039	0543
Volume (cu in.)	1830in3	1830in3
Wind (kts)	17.5 SW	19.5 SW
Sea State (m)	1-2m	1-2m
Water Depth (m)	1430.7m	2088.5m

General / Line Comments
SOL=SP 106 Shooting on distance, good GPS signals, Streamer head in bend at SOL, noise moving down streamer
SP 1100 Streamer straight
SOL dead channels 169, 186, 257, 301, 343, 392, 409, 437
EOL LSP 2482 Line ended early d/t to loss of gun 1 necessitating string change to #4.

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS09
Sequence	044
Direction	235

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 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	

[illegible]

Observers Log									
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Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	430	430	FGSP	N/A
SP #	2487	2494	LGSP	N/A

Line	MGL1112MCS09A
Sequence	045
Direction	235

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	206 (GS4)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, μ B				
EOL Cable Noise, μ B				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	9/29/11	
Time UTC	0544	
Volume (cu in.)	1830in3	
Wind (kts)	19.2 NW	
Sea State (m)	1-2m	
Water Depth (m)	1981.3m	

Cable	EOL High Noise Channels (in u-bar)
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

[illegible]

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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	431	436	FGSP	2517
SP #	2512	3841	LGSP	3832

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	206.7(GS4)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	09/29/11	09/29/2011
Time UTC	0549	1025
Volume (cu in.)	1830in3	1830in3
Wind (kts)	15.1	20.4
Sea State (m)	1-2m	1m
Water Depth (m)	1243.6m	1858.3m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS09B
Sequence	046
Direction	235

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

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 FSP 2512 *shooting on string 4, offset=206.7m* FGSP=2517
EOL LGSP 3832 changed to Gun String 3 at SP 3829
Ended line early due to malfunction timing of S4G10.

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	

Time UTC	FILE	SP	Tape	Description
0549	1	2512	431	SOL FSP Source string 4 offset=206.7m (mitigation gun only @ SP 2512)
0550	6	2517	431	FGSP S4G10 misfire -10.0 Full power 1830in3
0551	7	2518	431	S4G10 misfire -9.7
0604	72	2583	431	S4G10 misfire 2.7
0622	161	2672	431	S4G10 misfire 2.4
0626	181	2692	431	S4G10 misfire 2.5
0628	189	2700	431	S4G10 misfire 2.2
0628	190	2701	431	S4G10 misfire -2.6
0631	203	2714	431	S4G10 misfire -2.2
0633	213	2724	431	S4G10 misfire 3.7
0633	215	2726	431	S4G10 misfire -2.1
0635	226	2737	431	S4G10 misfire 2.4
0635	227	2738	431	S4G10 misfire -2.9
0636	230	2741	431	S4G10 misfire 2.6
0637	234	2745	431	S4G10 misfire 3.5
0637	235	2746	431	S4G10 misfire -2.4
0641	252	2763	431	S4G10 misfire 2.1
0643	262	2773	432	Tape Change
0644	270	2781	432	S4G10 misfire -2.5
0645	273	2784	432	S4G10 misfire 3.5
0645	275	2786	432	S4G10 misfire -2.1
0646	277	2788	432	S4G10 misfire 3.2
0649	293	2804	432	S4G10 misfire 2.7
0650	297	2808	432	S4G10 misfire 2.6
0650	298	2809	432	S4G10 misfire -2.7
0652	306	2817	432	S4G10 misfire 3.7
0652	307	2818	432	S4G10 misfire -3.5
0653	314	2825	432	S4G10 misfire 2.6
0653	315	2826	432	S4G10 misfire -2.1
0658	338	2849	432	S4G10 misfire 3.7
0658	339	2850	432	S4G10 misfire -2.6
0725	469	2979	432	S4G10 misfire -3.2
0725	470	2980	432	S4G10 misfire 2.4
0731	497	3007	432	S4G10 misfire 2.6
0739	523	3035	433	Tape Change
0748	579	3090	433	S4G10 timing error
0749	580	3091	433	S4G10 timing error
0749	584	3095	433	S4G10 timing error
0749	585	3096	433	S4G10 timing error
0751	597	3108	433	S4G10 timing error
0751	598	3109	433	S4G10 timing error
0752	599	3110	433	S4G10 timing error
0752	600	3111	433	S4G10 timing error
0753	612	3123	433	S4G10 timing error
0754	622	3133	433	S4G10 timing error
0754	623	3144	433	S4G10 timing error
0756	627	3148	433	S4G10 timing error
0800	628	3149	433	S4G10 timing error
0801	635	3156	433	S4G10 timing error
0803	649	3170	433	S4G10 timing error
0805	656	3177	433	S4G10 timing error
0806	659	3180	433	S4G10 timing error
0807	655	3186	433	S4G10 timing error
0814	709	3220	433	S4G10 timing error
0818	729	3240	433	S4G10 timing error
0819	733	3244	433	S4G10 timing error
0829	783	3294	434	S4G10 timing error

0829	784	3295	434	Tape Change
0831	781	3302	434	S4G10 timing error
0839	832	3343	434	S4G10 timing error
0848	874	3385	434	S4G10 timing error
0856	912	3423	434	S4G10 timing error
0904	948	3459	434	S4G10 timing error
0907	961	3473	434	S4G10 timing error
0921		3542	434	S4G10 timing error
0924	1045	3556	435	Tape Change
0924	1047	3558	435	S4G10 timing error
0935	1098	3609	435	S4G10 timing error
0935	1100	3610	435	S4G10 timing error
0936	1103	3614	435	S4G10 timing error
0937	1108	3619	435	S4G10 timing error
0938	1111	3622	435	S4G10 timing error
0938	1114	3625	435	S4G10 timing error
0943	1137	3648	435	S4G10 timing error
0944	1140	3651	435	S4G10 timing error
0944	1141	3652	435	S4G10 timing error
0945	1145	3656	435	S4G10 timing error
0945	1146	3657	435	S4G10 timing error
0945	1148	3659	435	S4G10 timing error
0946	1152	3663	435	S4G10 timing error
0947	1153	3664	435	S4G10 timing error
0947	1154	3665	435	S4G10 timing error
0947	1155	3666	435	S4G10 timing error
0947	1156	3667	435	S4G10 timing error
0947	1157	3668	435	S4G10 timing error
0948	1159	3670	435	S4G10 timing error
0948	1161	3672	435	S4G10 timing error
0948	1162	3673	435	S4G10 timing error
0949	1163	3674	435	S4G10 timing error
0949	1164	3675	435	S4G10 timing error
0949	1165	3676	435	S4G10 timing error
0949	1166	3677	435	S4G10 timing error
0950	1167	3678	435	S4G10 timing error
0950	1168	3679	435	S4G10 timing error
0950	1169	3680	435	S4G10 timing error
0950	1170	3681	435	S4G10 timing error
0951	1176	3687	435	S4G10 timing error
0952	1179	3690	435	S4G10 timing error
0952	1180	3691	435	S4G10 timing error
0953	1185	3696	435	S4G10 timing error
0953	1186	3697	435	S4G10 timing error
0954	1187	3698	435	S4G10 timing error
0954	1188	3699	435	S4G10 timing error
0955	1192	3703	435	S4G10 timing error
0956	1197	3708	435	S4G10 timing error
0956	1198	3709	435	S4G10 timing error
0957	1205	3716	435	S4G10 timing error
0958	1209	3720	435	S4G10 timing error
0959	1210	3721	435	S4G10 timing error
0959	1212	3723	435	S4G10 timing error
1001	1220	3731	435	S4G10 timing error
1001	1221	3732	435	S4G10 timing error
1001	1222	3733	435	S4G10 timing error
1003	1230	3741	435	S4G10 timing error
1003	1231	3742	435	S4G10 timing error
1003	1232	3743	435	S4G10 timing error
1004	1236	3747	435	S4G10 timing error

1006	1241	3752	435	S4G10 timing error
1006	1245	3756	435	S4G10 timing error
1007	1247	3758	435	S4G10 timing error
1007	1248	3759	435	S4G10 timing error
1007	1249	3760	435	S4G10 timing error
1007	1250	3761	435	S4G10 timing error
1008	1252	3763	435	S4G10 timing error
1008	1255	3766	435	S4G10 timing error
1010	1262	3773	435	S4G10 timing error
1010	1263	3774	435	S4G10 timing error
1010	1264	3775	435	S4G10 timing error
1011	1265	3776	435	S4G10 timing error
1011	1266	3777	435	S4G10 timing error
1011	1267	3778	435	S4G10 timing error
1011	1268	3779	435	S4G10 timing error
1012	1270	3781	435	S4G10 timing error
1013	1274	3785	435	S4G10 timing error
1013	1275	3786	435	S4G10 timing error
1013	1277	3788	435	S4G10 timing error
1015	1278	3789	435	S4G10 timing error
1016	1284	3795	435	S4G10 timing error
1016	1290	3801	435	S4G10 timing error
1016	1292	3803	435	S4G10 timing error
1017	1293	3804	435	S4G10 timing error
1017	1294	3805	435	S4G10 timing error
1018	1297	3808	435	S4G10 timing error
1018	1299	3810	435	S4G10 timing error
1019	1303	3814	435	S4G10 timing error
1019	1305	3816	435	S4G10 timing error
1019	1306	3817	435	Tape Change
1022	1317	3828	435	S4G10 timing error
1022	1318	3829	435	LSP on Gun String 4
1023	1321	3832	435	FSP on Gun String 3
1025	1331	3842	435	EOL

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	437	446	FGSP	3851
SP #	3851	6324	LGSP	6324

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7 (GS3)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	09/29/2011	09/29/2011
Time UTC	1027	1857
Volume (cu in.)	1830in3	1470in3in3
Wind (kts)	20.4	SW 15-20
Sea State (m)	1m	1-3m
Water Depth (m)	1858.7m	341m

General/Line comments
SOL SP 3851 Shooting on string 3 offset=226.7m Shooting on distance 37.5m interval
EOL LSP=6324
Dead Channels 169,257,301,377,396,437

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS09C
Sequence	047
Direction	235

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 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	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	447	447	FGSP	6338
SP #	6338	6493	LGSP	6493

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	206.7 (GS4)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	09/29/2011	09/29/2011
Time UTC	1900	1933
Volume (cu in.)	1830in3	1470in3
Wind (kts)	SW 15-20	SW 15-20
Sea State (m)	1-3m	1-3m
Water Depth (m)	341m	318m

General / Line Comments	Gun String 4 as source
SOL SP6338	
EOL SP 6493	
Gun failure of 360 in3 S4G02 ended line to retrieve source and repair	

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS09D
Sequence	048
Direction	235

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	448	450	FGSP	6500
SP #	6500	7036	LGSP	7036

Line	MGL1112MCS09E
Sequence	049
Direction	235

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7 (GS3)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, μ B				
EOL Cable Noise, μ B				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	9/29/11	9/29/11
Time UTC	1934	2128
Volume (cu in.)	1830in3	1830in3
Wind (kts)	SW 15-20	sw 15-20
Sea State (m)	1-3m	1-3m
Water Depth (m)	318m	334mm

Cable	EOL High Noise Channels (in u-bar)
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

[illegible]

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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	451	459	FGSP	7056
SP #	7045	9191	LGSP	9191

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	206.7 (GS4)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	09/29/11	09/30/11
Time UTC	2130	0522
Volume (cu in.)	1830in3	1830in3
Wind (kts)	20 SW	21.5 SW
Sea State (m)	2-3m	2-3m
Water Depth (m)	232m	143.6m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

General / Line Comments
SOL FSP 7042 FGSP=7056 Source is gun string #4 offset=206.7m
Low frequency noise across streamer d/t sea state and direction
SP 8649 Manifold pressure reading between 1820 and 1850, checking, monitoring
SP 8722 Compressor manifold pressure reading normally (2000 psi)
SP 8731 manifold pressure reading drop to 1800
SP 8733 shooting G3 only; to build pressure and allow gun mech to check for air leak
SPS 8733 through 8741 are single gun sps, vol=40in3
SP 8742 full volume shot--pressure holding 2000 psi after SP 8742
EOL LSP=9191 Streamer in turn @ EOL, swell and turn noise present on streamer

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS09F
Sequence	050
Direction	235

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

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 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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	460	464	FGSP	1060
SP #	1060	2190	LGSP	2190

Line	MGL1112MCS09T
Sequence	051
Direction	134

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	206.7 (GS4)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	09/30/11	09/30/11
Time UTC	0536	0934
Volume (cu in.)	1830in3	1830in3
Wind (kts)	18.8 SW	14.7 NW
Sea State (m)	2-3m	2m
Water Depth (m)	144.1m	68.4m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 FSP 1060 Source= GS4 offset=206.7m Streamer in turn @ SOL Prop noise present on streamer
SP 1082 Manifold pressure gauge indicates pressure @ 1840-50 psi, will take single shots to raise air pressure, first shot G3 only = sp 1094
SPS 1094 through 1108, volume =40in3
SP 1109 full volume shot, air subsequently holding @ 2000 PSI
SP 1240 streamer straight, low frequency noise across streamer d/t sea state. Manifold pressure holding @ 2000psi, but suspect G2 air leak.
EOL SP 2190

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									
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Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	465	474	FGSP	1047
SP #	1047	3438	LGSP	3433

Line	MGL1112MCS10
Sequence	052
Direction	49

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	206.7 GS4			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, μ B				
EOL Cable Noise, μ B				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	09/30/11	09/30/11
Time UTC	0948	1817
Volume (cu in.)	1830in3	1830in3
Wind (kts)	22.7 N	NE 5
Sea State (m)	2m	1-2m
Water Depth (m)	67.7m	217m

Cable	EOL High Noise Channels (in u-bar)
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

[illegible]

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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	475	486	FGSP	3449
SP #	3449	6440	LGSP	6430

Line	MGL1112MCS10A
Sequence	053
Direction	49

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7 (GS3)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	09/30/11	10/01/11
Time UTC	1819	0438
Volume (cu in.)	1830in3	1710in3
Wind (kts)	NE 5	N 13
Sea State (m)	1-2m	1-2m
Water Depth (m)	217m	1708.9m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Gun String 3 as Source
SOL SP 3449
EOL SP 6440
Last good shot point=6430, changed to string 4 to test before closing line, 6430=last shot on string 3
Dead channels 169,257,301,343,377,396,437
Sp 6145 S3G7 disabled d/t five consecutive no fires Vol=1710in3, will switch strings to GS4

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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	487	492	FGSP	6446
SP #	6446	7896	LGSP	7891

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	206.7 (GS4)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	10/01/11	10/01/11
Time UTC	0439	0950
Volume (cu in.)	1830in3	1830in3
Wind (kts)	N 15	SE 14.5
Sea State (m)	1-2m	1m
Water Depth (m)	1710.3m	1823m

General / Line Comments
SOL 6446
EOL 7891
CHANGE TO GS3 @ sp 7892
Dead channels 169,257,301,343,377,396,437

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS10B
Sequence	054
Direction	49

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	493	497	FGSP	7911
SP #	7911	9155	LGSP	9155

Line	MGL1112MCS10C
Sequence	055
Direction	49

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7 (GS3)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	10/01/2011	10/01/11
Time UTC	0953	1406
Volume (cu in.)	1830in3	1830in3
Wind (kts)	13.9 SE	12.2 SE
Sea State (m)	1m	1m
Water Depth (m)	1822.3m	895.5m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Gun string 3 as Source
SOL SP 7911
EOL SP 9155
Dead channels 169,257,301,343,377,396,437

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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	498	503	FGSP	1025
SP #	1025	2459	LGSP	2459

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226 (GS3)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	10/01/11	10/01/11
Time UTC	1414	1907
Volume (cu in.)	1830in3	1830in3
Wind (kts)	13.5	19.6 S
Sea State (m)	1m	1m
Water Depth (m)	945.8m	3844.4m

General / Line Comments Gun String 3 as Source
SOL SP 1025 Turn noise at start of line
EOL SP 2459 Turn noise at end of line
SP1263 Turn noise abadted
Dead channels 169,257,301,343,377,396,437

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS10T1
Sequence	056
Direction	115

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	504	510	FGSP	1052
SP #	1052	2478	LGSP	2478

Line	MGL1112MCS10T2
Sequence	057
Direction	204

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7 (GS3)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	10/01/11	10/02/11
Time UTC	1923	0042
Volume (cu in.)	1830in3	1830in3
Wind (kts)	15. SSE	14 SSE
Sea State (m)	1m	1m
Water Depth (m)	3847m	3843m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Gun String 3 asa Source
SOL SP 1052 Turn noise evident in record, shooting 12 second records to obtain deep water data
SP 1210 streamer straight, some swell noise on records d/t sea state
Missed sps 1257, 1262, 1622, 2073, 2079, 2191
Noise attenuating as sea state drops
EOL LSP 2478 Vessel in turn @ EOL Noise at head of streamer

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	

[illegible]

Observers Log	
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Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS11A
Sequence	058
Direction	303

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Cable	EOL High Noise Channels (in u-bar)
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 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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	512	513	FGSP	1001
SP #	1001	1271	LGSP	1271

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (T)	12 sec			
Offset CS - CNG (m)	226.7 (GS3)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	10/02/11	10/02/11
Time UTC	0115	0209
Volume (cu in.)	1830in3	1710in3
Wind (kts)	17.1 SW	17.5 SW
Sea State (m)	1m	1m
Water Depth (m)	3840.1m	3199.1m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS11A1
Sequence	059
Direction	303

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

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 1001-shooting on time d/t loss of all diff corrections, 12 sec. interval, noise on streamer @SOL d/t turning
SP 1129 gun S3G1 disabled d/t no fires, vol=1470in3
EOL LSP=1271, ended early d/t low volume from loss of gun S3G1; change to string 4

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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	514	516	FGSP	1001
SP #	1001	1565	LGSP	1565

Line	MGL1112MCS11A2
Sequence	060
Direction	303

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (T)	12 sec			
Offset CS - CNG (m)	206.7 (GS4)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	10/02/11	10/02/11
Time UTC	0213	0406
Volume (cu in.)	1830in3	1830in3
Wind (kts)	17.1 SW	26.2 SW
Sea State (m)	1m	1m
Water Depth (m)	2057.3m	931.8m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 FSP=1001 Shooting on time d/t loss of diff corrections 12 sec interval, source=GS4 206.7m offset, swell noise on streamer SOL-EOL
Dead channels=169, 257, 301, 343, 377, 396, 437
EOL LSP=1565 Head of streamer noisy d/t vessel turning

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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	517	519	FGSP	1001
SP #	1001	1653	LGSP	1653

Line	MGL1112MCS11B
Sequence	061
Direction	236

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (T)	12 sec			
Offset CS - CNG (m)	206.7 (GS4)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	10/02/11	10/02/11
Time UTC	0428	0654
Volume (cu in.)	1830in3	1830in3
Wind (kts)	23 SW	20 SSW
Sea State (m)	1m	1-2m
Water Depth (m)	2622.1m	733.9m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 FSP 1001, strong turn noise on streamer, shooting on time d/t no diff GPS corrections, 12 sec interval, source=GS4 206.7m offset
Dead channels 169, 257, 343, 377, 396, 408, 428, 431, 437
Prop noise across streamer, increased slightly with sea state rise.
EOL LSP=1653 Line ended early to change to shoot on dstance, signals steady

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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	520	521	FGSP	1692
SP #	1692	1958	LGSP	1958

Line	MGL1112MCS11B1
Sequence	062
Direction	236

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	206.7 (GS4)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	10/02/11	10/02/11
Time UTC	0640	0736
Volume (cu in.)	1830in3	1830in3
Wind (kts)	18.1	17.1
Sea State (m)	1-2m	1-2m
Water Depth (m)	617.9m	717.2m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 FSP 1692
SP 1760 Bird #18 noticed rising rapidly, reached 5.1m. Biirds 15, 16, 17, and 20, 21, 22 @ 11m to try and bring down bird into spec.
Wing reset done. @ SP 1775 Bird back in spec @ sp 1795
Swell noise across streamer from SOL d/t sea state and direction of line (Head sea)
EOL ended early d/t loss of differential GPS signals
LSP=1958

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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	522	523	FGSP	1001
SP #	1001	1442	LGSP	1442

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (T)	12 sec			
Offset CS - CNG (m)	206.7 (GS4)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	10/02/11	10/02/11
Time UTC	0737	0905
Volume (cu in.)	1830in3	1830in3
Wind (kts)	19.5 SW	19.9 SW
Sea State (m)	1-2m	1-2m
Water Depth (m)	899.2m	710.9m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS11B2
Sequence	063
Direction	236

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

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 FSP 1001, shooting on time 12 sec SP ineterval. Source =GS4 206.7
EOL SP 1442 Line ended early due to DGPS back receiving
Dead channels 169,257,301,343,377,396,437

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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	524	524	FGSP	2353
SP #	2353	2596	LGSP	2596

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	206.7 (GS4)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	10/02/11	10/02/11
Time UTC	0908	1009
Volume (cu in.)	1830in3	1830in3
Wind (kts)	19.0 SW	22.0 SW
Sea State (m)	1-2m	2m
Water Depth (m)	710.9m	804.2m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS11B3
Sequence	064
Direction	236

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

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 Gun String 4 as Source
SOL SP 2353 Sea state noise in record
EOL SP 2596 Ended line early due to loss of DGPS
Dead channels 169,257,301,343,377,396,437

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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	525	525	FGSP	1001
SP #	1001	1075	LGSP	1075

Line	MGL1112MCS11B4
Sequence	065
Direction	236

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (T)	12 sec			
Offset CS - CNG (m)	206(GS4)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, μ B				
EOL Cable Noise, μ B				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	10/02/11	10/02/11
Time UTC	1012	1027
Volume (cu in.)	1830in3	1830in3
Wind (kts)	22.4 SW	22.7 sw
Sea State (m)	2m	2m
Water Depth (m)	802.9m	735.3m

Cable	EOL High Noise Channels (in u-bar)
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

[illegible]

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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	526	530	FGSP	2677
SP #	2677	3829	LGSP	3824

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	206.7 (GS4)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	10/02/11	10/02/2011
Time UTC	1029	1459
Volume (cu in.)	1830in3	1470in3
Wind (kts)	19.8 SW	25.3 sw
Sea State (m)	2m	4m
Water Depth (m)	716.1m	425.8m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS11B5
Sequence	066
Direction	236

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

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 Gun string 4 as source
SOL SP 2677
EOL SP 3829 LSGP was with GS 4 as the source w/1470 in3 volume due to S4G01 failure
Dead channels 169,257,301,343,377,396,437
sp3603 S4G01 Lost air
sp3616 S4G01 turned off. Vol 1470 cu in

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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	531	547	FGSP	3840
SP #	3840	8036	LGSP	8036

Line	MGL1112MCS11B6
Sequence	067
Direction	236

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7m (GS3)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	10/2/2011	10/03/11
Time UTC	1502	0558
Volume (cu in.)	1830in3	1830in3
Wind (kts)	25.5 sw	5.3 sw
Sea State (m)	4m	1m
Water Depth (m)	420.8m	60.9m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Gun strig 3 as source
SOL SP 3840 Sea noise evident in record D/T sea state
EOL SP
Dead channels 169,257,301,343,377,396,437
Due to a sticking Fishere valve causing an air loss at intervals, "no shots" were taken to build air pressure.
@SP 6565 swell noise no longer apparent on records, sea state improving
EOL LSP=8036 very slight noise @ hd of streamer

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	

Time UTC	FILE	SP	Tape	Description
1502	1	3840	531	SOL MGL111211B6 37.5 SP interval GS3 as source sea state noise in record
1510	34	3873	531	S3G05 timing error 3.4 ms
1510	35	3874	531	S3G04 T/E -2.7ms
1510	36	3875	531	S3G05 T/E 3.7ms
1511	37	3876	531	S3G05 T/ E-3.5ms
1603	262	4101	532	Tape change
1625	358	4197	532	Lost pressure bad shot
1625	359	4198	532	pressure back no shot fired
1625	360	4200	532	Full volume shot
1635	401	4241	532	Set birds CB05-CB09 to 9.5 meters to hold CB05 in tolerance
1652	473	4313	532	Nav jump issued SP 4312
1652	474	4314	532	Nav jump issued SP 4314
1703	523	4363	533	Tape change
1755	744	4584	533	Comm error S3G06
1803	784	4624	534	Tape change
1811	817	4657	534	Compressor issues low pressure guns off this shot
1812	818	4658	534	Full volume shot
1813	825	4665-4670	534	Guns off not firng to increase pressure
1815	831	4671	534	Full volume shot
1902	1045	4885	535	Tape change
1924	1145	4985	535	S3G09 auto fire 114.1 ms
1958	1306	5146	536	Tape change
2045	N/A	5366	536	Nav jump issued SP 5366
2052	1567	5407	537	
2133	N/A	5602	537	Missed sp d/t nav
2133	N/A	5606	537	Missed sp d/t nav
2134	1765	5607	537	Sync shot and file
2146	1828	5670	538	Tape change
2158	1884	5726	538	Nav jump issued
2233	N/A	5891	538	Missed Sp d/t est. pos
2233	2049	5892	538	Sync shot and file
2238	N/A	5918	538	Missed sp d/t nav
2239	N/A	5920	538	Missed sp d/t nav
2239	N/A	5922	538	Missed sp d/t nav
2240	N/A	5924	538	Missed sp d/t nav
2241	2085	5928	538	S3G9 comm error
2242	2089	5936	539	Tape change
2302	2186	6033	539	Low air-no shot to build pressure
2302	2187	6034	539	No shot
2302	2188	6035	539	No shot
2303	2189	6036	539	Full volume shot
2335	2350	6197	540	Tape change
2350	2419	6266	540	S3G5m/f -1.3ms
2350	2420	6267	540	S3G5 m/f 8.6ms
2350	2421	6268	540	S3G5 m/f -3.9ms
0011	2515	6362	540	Low air-no shot to build pressure
0011	2516	6363	540	No shot
0011	2517	6364	540	No shot
0012	2518	6365	540	Full volume shot

0028	2601	6448	540	Low air-no shot to build air
0028	2602	6449	540	no shot
0029	2603	6450	540	no shot
0029	2604	6451	540	no shot
0030	2605	6452	540	Full volume shot
0030	2611	6458	541	Tape change
0034	2631-2637	6478-6484	541	No shots
0035	2638	6485	541	Full volume shot
0103	2768-2775	6615-6622	541	No shots
0105	2776	6623	541	Full volume shot
0125	2872	6719	542	Tape change
0218	3133	6980	543	Tape change
0250	3282	7129	543	S3G5 misfire -1ms
0249	3283	7130	543	S3G5 misfire 8.6ms
0249	3284-3286	7131-7133	543	No shots-low air
0250	3287	7134	543	Full volume, S3G5 misfire -3.6ms
0300	3335	7182	543	S3G5 misfire -1.0ms
0300	3336	7183	543	S3G5 misfire 8.4ms
0300	3337	7184	543	S3G5 misfire -3.7ms
0312	3394	7241	544	Tape change
0331	3481-3483	7328-7330	544	No shots
0331	3484	7331	544	Full volume shot
0341	3528-3530	7375-7377	544	No shots
0342	3531	7378	544	Full volume shot
0344	3549-3551	7396-7398	544	No shots
0344	3552	7399	544	Full volume
0346	3554	7401	544	No shot
0346	3555	7402	544	Full volume
0356	3600-3605	7447-7452	544	No shots
0357	3606	7453	544	Full volume
0406	3655	7502	545	Tape change
0431	3771	7618	545	Power down for seal, vol=40in3 (mit gun only)
0436	3843	7690	545	Begin ramp up
0502	3916	7763	546	Tape change
0506	3940	7787	546	Ramp up complete
0542	N/A	7960	546	Missed SP d/t nav jump
0556	4177	8025	547	Tape change
0558	4188	8036	547	End of line-hd streamer in slight bend at EOL

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	548	550	FGSP	1010
SP #	1010	1541	LGSP	1541

Line	MGL1112MCS11C
Sequence	068
Direction	249

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7 (GS3)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	10/03/11	10/03/11
Time UTC	0559	0752
Volume (cu in.)	1830in3	1830in3
Wind (kts)	6.5 sw	9.5 SW
Sea State (m)	1m	1m
Water Depth (m)	58.1m	56m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 FSP=1010 Source=GS3 226.7m offset
Compressor valve sticking intermittently, creating air pressure loss, necessitating taking no fire shots to build pressure
EOL SP1541 Ended line due to DGPS drop out
Dead channels 169,257,301,343,377,396,437

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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	551	553	FGSP	1023
SP #	1001	1582	LGSP	1582

Line	MGL1112MCS11C1
Sequence	069
Direction	249

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (T)	12.0 sec			
Offset CS - CNG (m)	226.7 (GS3)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	10/03/11	10/03/11
Time UTC	0754	0950
Volume (cu in.)	1830in3	1830in3
Wind (kts)	19.9 SW	10.7 SW
Sea State (m)	1m	1m
Water Depth (m)	56m	53.9m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Gun string 3 as Source
SOL SP 1001 Shooting on time 12.sec interval GS 3 as Source *SYNTRAK not set to record mode until SP1023*
EOL SP=1582
Dead channels 169,257,301,343,377,396,437
Bird 11 no communication
Compressor valve sticking intermittently, creating air pressure loss, necessitating taking no fire shots to build pressure

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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	554	567	FGSP	1046
SP #	1046	4504	LGSP	4504

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7 (GS3)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	10/03/11	10/03/11
Time UTC	1003	2152
Volume (cu in.)	1830in3	1830in3
Wind (kts)	9.7 E	12.4 E
Sea State (m)	1m	1m
Water Depth (m)	40m	37.5m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS11D
Sequence	070
Direction	170.7

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

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 Gun String 3 as Source
SOL SP 1046
EOL SP 4505 slight nois @ hd of streamer d/t beginning turn
Dead channels 169,257,301,343,377,396,437
Compressor valve sticking intermittently, creating air pressure loss, necessitating taking no fire shots to build pressure
Bird 11 no communication
Bird 12 intermittent comm error
Dead channels 169,257,301,343,377,396,437

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	

Time UTC	FILE	SP	Tape	Description
1003	1	1046	554	SOL MGL1112MCS111211D GS3 as source Turn noise at SOL 37.5m SP interval
1005	11	1056	554	End of Turn /noise still evident in record
1007	19	1064	554	loss of pressure bad shots
1009	27	1072	554	FSP full volume
1032	138	1183	554	Turn noise abated in record
1042	188	1232	554	LSP full volume
1043	195	1240	554	FSP full volume
1057	262	1307	555	Tape change
1119	369	1414	555	LSP full volume
1120	375	1420	555	FSP full volume
1125	397	1442	555	LSP full volume
1126	404	1449	555	FSP full volume
1132	432	1477	555	LSP full volume
1133	440	1485	555	FSP full volume
1138	463	1508	555	LSP full volume
1139	470	1515	555	FSP full volume
1144	493	1539	555	LSP full volume
1146	499	1545	555	FSP full volume
1150	520	1566	555	LSP full volume
1150	523	1569	556	FSP full volume
1150	523	1569	556	Tape change
1152	530	1576	556	LSP full volume
1153	536	1583	556	FSP full volume
1159	560	1606	556	LSP full volume
1200	569	1615	556	FSP full volume
1213	632	1678	556	LSP full volume
1214	636	1682	556	FSP full volume
1233	730	1776	556	LSP full volume
1234	733	1769	556	FSP full volume
1244	779	1825	556	LSP full volume
1244	784	1830	557	Tape change
1245	785	1831	557	FSP full volume
1250	813	1859	557	LSP full volume
1251	815	1861	557	FSP full volume
1300	861	1907	557	LSP full volume
1301	863	1909	557	FSP full volume
1340	1045	2090	558	Tape change
1343	1057	2102	558	LSP full volume
1344	1060	2105	558	FSP full volume
1411	1205	2251	558	LSP full volume
1412	1211	2256	558	FSP full volume
1415	1228	2274	558	LSP full volume
1417	1236	2282	558	FSP full volume
1431	1306	2352	559	Tape change
1435	1315	2361	559	LSP full volume
1436	1319	2365	559	FSP full volume
1501	1449	2495	559	LSP full volume
1502	1453	2499	559	FSP/LSP full volume
1503	1459	2505	559	FSP full volume

1510	1497	2543	559	LSP full volume
1512	1505	2551	559	FSP full volume
1520	1541	2587	559	LSP full volume
1520	1544	2590	559	FSP full volume
1525	1567	2613	560	Tape change
1557	1726	2770	560	LSP full volume
1558	1729	2773	560	FSP full volume
1619	1828	2875	561	Tape change
1622	1842	2889	561	LSP full volume
1622	1847	2894	561	FSP full volume
1625	1860	2907	561	LSP full volume
1625	1862	2909	561	FSP full volume
1627	1870	2917	561	LSP full volume
1628	1874	2921	561	FSP full volume
1633	1898	2945	561	LSP full volume
1635	1907	2954	561	FSP full volume
1712	2089	3136	562	Tape change
1719	2125	3172	562	LSP full volume
1722	2134	3181	562	FSP full volume
1806	2350	3397	563	Tape change
1830	2469	3516	563	S3G09 False misfire @ 111.8 mS
1859	2611	3658	564	Tape change
1917	2701	3748	564	S3G09 False misfire @ 116.8 mS
1955	2872	3919	565	Tape change
2047	3133	4179	566	Tape change
2139	3394	4440	567	Tape change
2152	3458	4504	567	End of line-slight noise @ hd of streamer

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	568	572	FGSP	985
SP #	985	2232	LGSP	2232

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7 (GS3)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	10/03/11	10/04/11
Time UTC	2229	0251
Volume (cu in.)	1830in3	1830in3
Wind (kts)	13.3 ENE	10.1 NE
Sea State (m)	0.5m	0.5m
Water Depth (m)	37.5m	44.2m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS12
Sequence	071
Direction	32.7

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

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 FSP=985 Heavy turn noise on streamer. Source=GS3 226.7m offset
Dead channels=169, 257, 301, 343, 377, 396, 437
Bird 11 no comms
Sticking valve on compressor cauing intermmittent loss of air pressure, no shots taken at these times in order to build pressure
EOL LSP=2232, turn noise present on streamer

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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	573	577	FGSP	1067
SP #	1067	2273	LGSP	2273

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7 (GS3)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	10/04/11	10/04/11
Time UTC	0306	0713
Volume (cu in.)	1830in3	1830in3
Wind (kts)	4.0 NE	5.3 NE
Sea State (m)	<0.5m	<0.5m
Water Depth (m)	42.7m	44.3m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

General / Line Comments
SOL FSP=1067, heavy turn noise on streamer
Dead channels 169, 257, 301, 343, 377, 396, 437
@ SP 1220 streamer straight
Bird 11 no comms
EOL LSP=2273 Streamer in turn @ EOL

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS13
Sequence	072
Direction	286.3

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

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 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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	578	581	FGSP	1032
SP #	1032	1980	LGSP	1980

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7 (GS3)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	10/04/11	10/04/11
Time UTC	0722	1036
Volume (cu in.)	1830in3	1830in3
Wind (kts)	9.1 ENE	12.2 E
Sea State (m)	<0.5m	calm
Water Depth (m)	46m	54.6m

General / Line Comments
SOL FSP=1032 Streamer in turn @ SOL, noise evident
Bird 11 no comms
Dead chs 169, 257, 301, 343, 377, 396, 437
EOL SP 1980

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS14
Sequence	073
Direction	348.4

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	582	589	FGSP	1092
SP #	1092	2919	LGSP	2919

Line	MGL1112MCS15
Sequence	074
Direction	99.85

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7 (GS3)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, μ B				
EOL Cable Noise, μ B				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	10/04/11	10/04/11
Time UTC	1058	1715
Volume (cu in.)	1830in3	1830in3
Wind (kts)	15.6E	14.8E
Sea State (m)	calm	calm
Water Depth (m)	38.8m	49.9m

Cable	EOL High Noise Channels (in u-bar)
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

[illegible]

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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	590	598	FGSP	1139
SP #	1139	3266	LGSP	3266

Line	MGL1112MCS16
Sequence	075
Direction	234.5

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7 (GS3)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	10/4/2011	10/05/11
Time UTC	1741	0110
Volume (cu in.)	1830in3	1830in3
Wind (kts)	4.1 SE	17.7 SE
Sea State (m)	calm	1m
Water Depth (m)	45.1m	42m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 GS 3 as source
SOL SP1139 Turn noise in record
EOL SP 3266-tun noise @ hd of streamer d/t turning on to next line
Dead chs 169, 257, 301, 343, 377, 396, 437
Bird 11 no comms

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	

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Bernie Coakly
Area	Chukchi Sea
Job Number	MGL1112

	SOL	EOL		
Tape #	599	602	FGSP	1058
SP #	1058	1995	LGSP	1995

Streamer Parameters				
	1	2	3	4
Length (m)	6000			
Auxiliaries				
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	226.7m (GS3)			
Group Interval: (m)	12.5			
Number of channels	468			
Streamer Depth (m)	9m			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	10/05/11	10/05/11
Time UTC	0127	0442
Volume (cu in.)	1830in3	1830in3
Wind (kts)	19.4 SE	22.7 SE
Sea State (m)	1m	1m
Water Depth (m)	43.8m	38.2m

General / Line Comments
SOL FSP=1058 Turn noise heavy on streamer
Dead chs 169, 257, 301, 343, 377, 396, 437
Bird 3 no comms
EOL LSP=1995 END of Line, End of Prospect

Chief Science Officer	Robert Steinhaus		
Science Officer	Bern McKiernan		
Acquisition Leader	Mark Wooley - 12:00-24:00	Bern McKiernan 00:00-12:00	
Navigation Leader	Ryan Eaton 12:00-24:00	Mike Martello 00:00-12:00	

Line	MGL1112MCS17
Sequence	076
Direction	138.9

Source Parameters	
Total Volume	1830 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	6m
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	10
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	206Hz/276 DB
Tape Format	SEGD rev. 2

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 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	

[illegible]