

# Observers Log

Vessel	Marcus G. Langseth
Client	NSF - Shillington
Area	Emperor Sea Mounts
Job Number	MGL1902

Shift	12:00-24:00	00:00-12:00	06:00-18:00
Science Officer	Sean Shaver	Alan Thompson	Todd Jensvold
Acquisition Leader	Gilles Guerin	Alan Thompson	
Navigation Leader	Sean Shaver	Chris Abdouch	

	SOL	EOL
Tape #	NA	NA
SP #	899	1684

Line	MGL1902OB01
Sequence	01
Direction	078

Streamer Parameters				
	1	2	3	4
Length (m)	N/A			
Auxiliaries	N/A			
Shotpoint Interval: (m)	300			
Offset CS - CNG (m)	N/A			
Group Interval: (m)	N/A			
Number of channels	N/A			
Streamer Depth (m)	N/A			
SOL Cable Noise, µB	N/A			
EOL Cable Noise, µB	N/A			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	12
Sub-array Separation	6 m
COS to COS	Single Source

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

Description	SOL/FGSP	EOL/LGSP
SP	899	1684
Date MM/DD/YY	05/05/19	05/07/2019
Time UTC	22:01	03:09
Volume (cu in.)	6380in3	6470in3
Wind (kts)	NW23kts	NW19kts
Sea State (m)	2m	1.5m
Water Depth (m)	5610m	4520m

Cable	Dead Channels
1	
2	
3	
4	

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

General / Line Comments
1110, SOL pos 09°55'42.739N, 104°24'40.333W
String 1 Gun2 and String 4 Gun 10 not working - replaced by S1G5 and S4G5 - total volume 6380 in3
First shot not in obsip file
Line ended after identifying auto firing gun in string 3

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	



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Vessel	Marcus G. Langseth
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Job Number	MGL1902

Shift	12:00-24:00	00:00-12:00	06:00-18:00
Science Officer	Sean Shaver	Alan Thompson	Todd Jensvold
Acquisition Leader	Gilles Guerin	Alan Thompson	
Navigation Leader	Sean Shaver	Chris Abdouch	

	SOL	EOL
Tape #	NA	NA
SP #	2661	3549

Line	MGL1902OB01B
Sequence	02
Direction	078

Streamer Parameters				
	1	2	3	4
Length (m)	N/A			
Auxiliaries	N/A			
Shotpoint Interval: (m)	300			
Offset CS - CNG (m)	N/A			
Group Interval: (m)	N/A			
Number of channels	N/A			
Streamer Depth (m)	N/A			
SOL Cable Noise, µB	N/A			
EOL Cable Noise, µB	N/A			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	12
Sub-array Separation	6 m
COS to COS	Single Source

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

Description	SOL/FGSP	EOL/LGSP
SP	2661	3549
Date MM/DD/YY	05/07/2019	05/08/2019
Time UTC	05:22	13:38
Volume (cu in.)	6380in3	6380in3
Wind (kts)	NW 21kts	0kts
Sea State (m)	1.5m	1m
Water Depth (m)	5450m	5816.8m

Cable	Dead Channels
1	
2	
3	
4	

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

General / Line Comments
String 1 Gun2 and String 4 Gun 10 not working - replaced by S1G5 and S4G5 - total volume 6380 in3
First shot not in obsip file

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

[illegible]

# Observers Log

Vessel	Marcus G. Langseth
Client	NSF - Shillington
Area	Emperor Sea Mounts
Job Number	MGL1902

Shift	12:00-24:00	00:00-12:00	06:00-18:00
Science Officer	Sean Shaver	Alan Thompson	Todd Jensvold
Acquisition Leader	Gilles Guerin	Alan Thompson	
Navigation Leader	Sean Shaver	Chris Abdouch	

	SOL	EOL
Tape #	1	2
SP #	4027	4641

Line	MGL1902MC04
Sequence	03
Direction	015

Streamer Parameters				
	1	2	3	4
Length (m)	14850			
Auxiliaries	n/a			
Shotpoint Interval: (m)	62.5			
Offset CS - CNG (m)	207.7			
Group Interval: (m)	12.5			
Number of channels	1188			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	12
Sub-array Separation	6 m
COS to COS	Single Source

Recording Parameters	
Record Length	26
Total recording delay	0ms
Sample Rate	2ms
Polarity	SEGD standard
Low-Cut	3Hz digital, 4.5Hz total
Hi-Cut	200Hz, 370dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	4027	4641
Date MM/DD/YY	05/12/19	05/12/19
Time UTC	03:45	09:49
Volume (cu in.)	6600in3	6240in3
Wind (kts)	W11kts	S6kts
Sea State (m)	1.5m	1m
Water Depth (m)	5620m	5490m

Cable	Dead Channels
1	
2	
3	
4	

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

General / Line Comments
Bird 50 surfaced before beginning of line
Final volume: 6240in3
DEAD CHANNELS:
SOL NOISY CHANNELS:
EOL NOISY CHANNELS

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
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# Observers Log

Vessel	Marcus G. Langseth
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Area	Emperor Sea Mounts
Job Number	MGL1902

Shift	12:00-24:00	00:00-12:00	06:00-18:00
Science Officer	Sean Shaver	Alan Thompson	Todd Jensvold
Acquisition Leader	Gilles Guerin	Alan Thompson	
Navigation Leader	Sean Shaver	Chris Abdouch	

	SOL	EOL
Tape #	3	28
SP #	5014	13026

Line	MGL1902MC01
Sequence	04
Direction	078

Streamer Parameters				
	1	2	3	4
Length (m)	14850			
Auxiliaries	n/a			
Shotpoint Interval: (m)	62.5			
Offset CS - CNG (m)	207.7			
Group Interval: (m)	12.5			
Number of channels	1188			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	12
Sub-array Separation	6 m
COS to COS	Single Source

Recording Parameters	
Record Length	26
Total recording delay	0ms
Sample Rate	2ms
Polarity	SEGD standard
Low-Cut	3Hz digital, 4.5Hz total
Hi-Cut	200Hz, 370dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	5014	13026
Date MM/DD/YY	05/12/19	05/15/19
Time UTC	09:57	03:59
Volume (cu in.)	6240in3	3120in3
Wind (kts)	S7kts	NW10kts
Sea State (m)	1.5m	1.5m
Water Depth (m)	5020m	5766m

Cable	Dead Channels
1	
2	
3	
4	

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

<b>General / Line Comments</b>
Bird 52,54 surfaced before beginning of line - both back 'in line' after SP ~10260
Noise in all traces while recovering string 4 with auto-firing gun - SP ~12750 - 12800
DEAD CHANNELS:
SOL NOISY CHANNELS:
EOL NOISY CHANNELS

Abbreviations	
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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
09:57	616	5014	3	SOL MGL1902MC01 - Volume 6240 in3 - S1G2, S4G1, S2-3G5 spared - 36 guns
12:56	934	5332	4	BOT #4
15:48	1252	5651	5	BOT #5
18:37	1570	5968	6	BOT #6
21:31	1888	6286	7	BOT #7
23:59	2145	6543	7	Midnight
00:35	2206	6604	8	BOT #8
03:33	2524	6922	9	BOT #9
06:12	2842	7240	10	BOT #10
08:45	3160	7558	11	BOT #11
11:16	3478	7876	12	BOT #12
13:44	3796	8194	13	BOT #13
16:13	4114	8512	14	BOT #14
16:57	4202	8600	14	Approximate shot when bird 54 got back in position
18:50	4432	8830	15	BOT #15
21:29	4750	9148	16	BOT #16
23:58	5068	9466	17	BOT #17
00:00	5071	9469	17	Midnight
02:27	5386	9784	18	BOT #18
04:58	5704	10102	19	BOT #19
06:15	5862	10260	19	Approximate shot when bird 52 submitted
07:33	6022	10420	20	BOT #20
10:13	6340	10738	21	BOT #21
12:43	6658	11056	22	BOT #22
15:08	6976	11374	23	BOT #23
17:34	7294	11692	24	BOT #24
20:02	7612	12010	25	BOT #25
22:27	7930	12328	26	BOT #26
23:59	8129	12527	26	Midnight
00:56	8248	12646	27	BOT #27
01:46	8352	12750	27	S4G5 start auto-firing
01:48		12755	27	missed shot while reconfiguring sources
01:49	8357	12756	27	strings 3 and 4 spared for maintenance - new volume 3120in3, 18 guns
03:29	8566	12965	28	BOT #28
03:51	8612	13011	28	Strings 3 and 4 back in position - back to 6420in3, 36 guns
03:59	8627	13026	28	EOL MGL1902MC01 - Volume 6420 in3 - S1G2,S2-4G5 spared - 36 guns

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Job Number	MGL1902

Shift	12:00-24:00	00:00-12:00	06:00-18:00
Science Officer	Sean Shaver	Alan Thompson	Todd Jensvold
Acquisition Leader	Gilles Guerin	Alan Thompson	
Navigation Leader	Sean Shaver	Chris Abdouch	

	SOL	EOL
Tape #	29	41
SP #	14099	18227

Line	MGL1902MC03
Sequence	05
Direction	294

Streamer Parameters				
	1	2	3	4
Length (m)	14850			
Auxiliaries	n/a			
Shotpoint Interval: (m)	62.5			
Offset CS - CNG (m)	207.7			
Group Interval: (m)	12.5			
Number of channels	1188			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	12
Sub-array Separation	6 m
COS to COS	Single Source

Recording Parameters	
Record Length	26
Total recording delay	0ms
Sample Rate	2ms
Polarity	SEGD standard
Low-Cut	3Hz digital, 4.5Hz total
Hi-Cut	200Hz, 370dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	14099	18227
Date MM/DD/YY	05/15/19	05/16/19
Time UTC	10:09	22:48
Volume (cu in.)	6420in3	6480in3
Wind (kts)	W 19kts	N13kts
Sea State (m)	1.5m	1.5m
Water Depth (m)	5876.4m	2890m

Cable	Dead Channels
1	
2	
3	
4	

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

General / Line Comments
Gun S1G1 failed d/t electrical issues before start of line. Using S1G5 spare
S3G7 failed and replaced SP 16398 - final volume 6480in3
DEAD CHANNELS: 1,81,566,573,597,645,661,669,670
SOL NOISY CHANNELS:
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
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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
10:09	8628	14099	29	SOL MGL1902MC03 - Volume 6420 in3 - S1G1 S2-4G5 spared - 36 guns
13:11	8946	14417	30	BOT #30
16:27	9264	14735	31	BOT #31
16:35	9279	14750	31	No fire error S4G3, 6380in3, loss of air pressure d/t compressor shut down
16:36	9280	14751	31	Firing S3G3 40in3 only, until compressor restored
16:40	9287	14758	31	Compressor online and firing all guns, 6420in3 36 guns
19:37	9582	15053	32	BOT #32
22:24	9900	15371	33	BOT #33
00:00	10088	15559	33	Midnight
01:05	10218	15689	34	BOT #34
03:48	10536	16007	35	BOT #35
06:40	10854	16325	36	BOT #36
07:17	10927	16398	36	No fire errors on S3G7 - replaced by S3G5 - new volume: 6480in3
09:18	11172	16643	37	BOT #37
11:49	11490	16961	38	BOT #38
14:22	11808	17279	39	BOT #39
17:08	12126	17597	40	BOT #40
19:54	12444	17915	41	BOT #41
22:48	12756	18227	41	EOL MGL1902MC03 - Volume 6480 in3 - S1G1,S2G5,S3G7,S4G5 spared - 36 guns

# Observers Log

Vessel	Marcus G. Langseth
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Job Number	MGL1902

Shift	12:00-24:00	00:00-12:00	06:00-18:00
Science Officer	Sean Shaver	Alan Thompson	Todd Jensvold
Acquisition Leader	Gilles Guerin	Alan Thompson	
Navigation Leader	Sean Shaver	Chris Abdouch	

	SOL	EOL
Tape #	42	61
SP #	19935	26084

Line	MGL1902MC02
Sequence	06
Direction	164

Streamer Parameters				
	1	2	3	4
Length (m)	14850			
Auxiliaries	n/a			
Shotpoint Interval: (m)	62.5			
Offset CS - CNG (m)	207.7			
Group Interval: (m)	12.5			
Number of channels	1188			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	12
Sub-array Separation	6 m
COS to COS	Single Source

Recording Parameters	
Record Length	26
Total recording delay	0ms
Sample Rate	2ms
Polarity	SEGD standard
Low-Cut	3Hz digital, 4.5Hz total
Hi-Cut	200Hz, 370dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	19935	26084
Date MM/DD/YY	05/16/2019	05/19/19
Time UTC	23:53	02:05
Volume (cu in.)	6480in3	6480in3
Wind (kts)	N12kts	NW17kts
Sea State (m)	1.5m	1.5m
Water Depth (m)	2480m	4975m

Cable	Dead Channels
1	
2	
3	
4	

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

<b>General / Line Comments</b>
Gun S1G1 and S3G7 replaced by S1G5,S3G5 - volume at start 6480in3
High turn noise at the start
35 SP missed at the start while turning and keeping tension - SOG ~5kts, ~every other shot missed, and then some
Turn complete SP ~20130
DEAD CHANNELS: 1,81,566,573,597,645,661,669,670
SOL NOISY CHANNELS:
EOL NOISY CHANNELS

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
23:53	12757	19935	42	SOL MGL1902MC02 - Volume 6480 in3 - S1G1,S2G5,S3G7,S4G5 spared - 36 guns
23:54-00:34		19938-20032	42	The following 35 shots were missed while finishing the turn at ~5kts to keep tension: 19938, 19940, 19942, 19944, 19946, 19948, 19950, 19952, 19954, 19956, 19958, 19960, 19962, 19964, 19966, 19968, 19970, 19972, 19975, 19977, 19979, 19981, 19983, 19985, 19997, 20014, 20016, 20018, 20020, 20022, 20024, 20026, 20028, 20030, 20032
00:00	12766	19951	42	Midnight
02:30	13075	20288	43	BOT #43
05:10	13393	20606	44	BOT #44
07:54	13711	20924	45	BOT #45
10:32	14029	21242	46	BOT #46
13:10	14347	21560	47	BOT #47
15:43	14665	21878	48	BOT #48
18:13	14983	22196	49	BOT #49
20:23			49	Notified of ship traffic passing 1 mile stern of the tail buoy
20:43	15301	22514	50	BOT #50
23:14	15619	22832	51	BOT #51
00:00	15713	22926	51	Midnight
01:49	15937	23150	52	BOT #52
04:29	16255	23468	53	BOT #53
07:05	16573	23786	54	BOT #54
09:45	16891	24104	55	BOT #55
12:16	17209	24422	56	BOT #56
14:54	17527	24740	57	BOT #57
17:42	17845	25058	58	BOT #58
20:22	18163	25376	59	BOT #59
22:57	18481	25694	60	BOT #60
00:00	18607	25820	60	Midnight
01:32	18799	26012	61	BOT #61
02:05	18871	26084	61	EOL MGL1902MC02 - Volume 6480 in3 - S1G1,S2G5,S3G7,S4G5 spared - 36 guns

# Observers Log

Vessel	Marcus G. Langseth
Client	NSF - Shillington
Area	Emperor Sea Mounts
Job Number	MGL1902

Shift	12:00-24:00	00:00-12:00	06:00-18:00
Science Officer	Sean Shaver	Alan Thompson	Todd Jensvold
Acquisition Leader	Gilles Guerin	Alan Thompson	
Navigation Leader	Sean Shaver	Chris Abdouch	

	SOL	EOL
Tape #	NA	NA
SP #	26994	27991

Line	MGL1902OB02
Sequence	07
Direction	164

Streamer Parameters				
	1	2	3	4
Length (m)	N/A			
Auxiliaries	N/A			
Shotpoint Interval: (m)	400			
Offset CS - CNG (m)	N/A			
Group Interval: (m)	N/A			
Number of channels	N/A			
Streamer Depth (m)	N/A			
SOL Cable Noise, µB	N/A			
EOL Cable Noise, µB	N/A			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	No
Depth	12
Sub-array Separation	6 m
COS to COS	Single Source

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

Description	SOL/FGSP	EOL/LGSP
SP	26994	27991
Date MM/DD/YY	05/21/19	05/23/19
Time UTC	03:38	08:53
Volume (cu in.)	6600in3	6600in3
Wind (kts)	NW24kts	NE9kts
Sea State (m)	2m	1.5m
Water Depth (m)	2098m	5340m

Cable	Dead Channels
1	
2	
3	
4	

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

General / Line Comments
First shot not in obsip file

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

Time UTC	SP	Description
03:38	26994	SOL MGL1902OB02 S1-4G5 spared - Volume 6600 in3 - 36 guns
03:41	26995	first shot with navigation in obsip file
07:56-08:03	27073-75	Lost one of the water pumps for the compressors. Pressure reduced to ~1400 psi
23:58	27366	pre-midnight shot
00:02	27367	post-midnight shot 5/22
00:00	27808	midnight shot 5/23
08:53	27991	EOL MGL1902OB02 S1-4G5 spared - Volume 6600 in3 - 36 guns