

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Ted Koczynski
Sen. Observer	
Observers	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	2999
SP #	2999	3168	LGSP	3168

Line	LAU_A028
Sequence	003
Direction	281 deg

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	2999	3168
Date dd/mm/yy	29/01/09	29/01/09
Time UTC	00:54	10:01
Volume (cu in.)	6600	
Streamer Depth (m)	na	
Wind (kts)	13 kts rel	17 kts
Sea State (ft)	6-8	
Water Depth (m)	2268	2258

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start line Lau_A028 @ 00:54 SP2999
S2G5 on S4G5 on at SP#3004 @ 01:10UTC delta error S2G5 4.7msec.
S2G3 dropped out @ 01:10 UTC
S2G2,S2G3, no fire sp3010
S2G2 came back SP#3013
SP3016 S2G1,2,3,4 no fire, S4 G9,10, no comm.
Sp3017 S2G2 and S2G4 are back!
02:00 status: S1G5 spare. S2G1,G3 No fire,S2G5 on. S3G5 Spare. S4G5 on, G9,G10 no fire.
SP3023 S2G2 no fire S2G1, S2G3 are also no fires.
Sp3024 S2G2 is back! SP 3028 S2G2 no fire.(Also S2G1,G3 no fire). SP3029 S2G1,2,3, no fire S4G9,10 comm error.
SP3030 S2G2 is back. SP3033 S2G1,2,3,S4G9,10 no fire. SP3036 S2G2 is back! Sp3040 S2G1,2,3,S4G9,10 no fire.
SP3041 S2G2 is back. Sp3042 S2G1,2,3,S4G9,10 no fire.SP3043 S2G2 back. SP3045 S2G1,2,3,S4G9,10 no fire.
End Line Lau_A028 @ 10:01 UTC SP 3168
Line Status:

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]

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Vessel	Langseth
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Job Number	MGL0903

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Sen. Observer	
Observers	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	
SP #	2999		LGSP	

Line	LAU_A028_sh2
Sequence	003
Direction	281 deg

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	2999	
Date dd/mm/yy	29/01/09	
Time UTC	00:54	
Volume (cu in.)	6600	
Streamer Depth (m)	na	
Wind (kts)	13 kts rel	
Sea State (ft)	6-8	
Water Depth (m)	2268	

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start line Lau_A028@ 00:54 SP2999
03:25 start 2ed sheet SP3048 S2G1,3,S4G9,10 no fire.
03:30 SP 3050 switching compressors. SP3053 S2g1,2,3,S4G9,10 no fire SP3054 S2G1,2,3,S2G9,10 no fire.SP3055 S2G2 back.
SP3057 03:55 UTC S1,S4,presure sensors turned off. SP3058 S2G1,2,3,4S4G9,10 no fire.
SP3059 S2G1,3;S4G9,10 no fire; Sp3060 same; SP3061 same except S2G2 no fire; SP3062 same except S2G2 back.
Sp3065 S2G6 no fire; Sp3066 S2G6 back.SP3069 S2G1,2,3,5S4G9,10 no fire.SP3070S2G1,2,3,S4G9,10 no fire.
SP3071 S2G1,2,3 S4G9,10 no fire.SP3072 S2G1,2,3 S4G9,10 no fire Sp3073S2G1,3, S4G9,10 no fire.SP3074 S2G1,2,3,5, S4G9,10 NF
SP3074 S1G1,S2G1,2,3,5,S4G9,10 NF SP3075 S2G1,2,3,S4G5,9,10 NF.From this entry on I will only comment if S4G9 or 10 fires.
SP3078 S2G1,2,3 NFSP3080 S2G1,2,3,5 NF.SP3083 S2G1,2,3 NF S2G1,3 S49,10 turned off.
SP 3094 returned to operation after CIU reboot. SP3095 S2G1,3 off S4G5spare G9,10 no fire.S4G9,10 ON! And working.S2G2 nf.
SP3097 S1G4,7 NF. S2G4NF, SP3099S2G2NF SP3101 S2G3 rejoined the party,SP3102 S2G3NFSP3103 S4 down. G9,10 no comm
SP3104S4G9,10 NF SP3106 S4G9,10 off G5 on. SP3108 S1G6NF SP3109 S1G2,3 S22,3NF
Line Status:

Abbreviations	
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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]

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Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Ted Koczyński
Sen. Observer	
Observers	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	
SP #	2999	3168	LGSP	

Line	LAU_A028_sh3
Sequence	003
Direction	281 deg

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, μ B	na	na	na	na
EOL Cable Noise, μ B	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	2999	
Date dd/mm/yy	29/01/09	
Time UTC	00:54	
Volume (cu in.)	6600	
Streamer Depth (m)	na	
Wind (kts)	13 kts rel	
Sea State (ft)	6-8	
Water Depth (m)	2317	

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
SP3110 first SP this sheet 06:48 UTC S2G2,3 NF S1G5 Spare, S2G1 Off, S3G5 spare S2G9,10 off. SP3115 S1G1,2 NF.
SP3116 S4G5NF.SP3118 S4G5 nf. SP3123 S2G2 NF. SP3127 S1G1, S2G2, S2G3 NF. SP3129 S2G2, S2G3 NF. SP3130 S2G3 NF.
String 2 powered down @ 09:16 UTC (SP3155)
End line @ 10:02 UTC (SP3168)
Line Status:

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

[illegible]

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Vessel	Langseth
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Party Chief	A Johnson
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Sen. Observer	
Observers	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	4030
SP #	4029	4197	LGSP	4178

Line	LAU_A027
Sequence	004
Direction	101 deg

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	4029	4197
Date dd/mm/yy	29/01/09	29/01/09
Time UTC	11:58:06	21:00:51
Volume (cu in.)	6340	
Streamer Depth (m)	na	
Wind (kts)	10 rel	
Sea State (ft)	6-8	
Water Depth (m)	2158	

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start Line Lau 027 @ 11:35: UTC SP#4022
Digishot set to internal 60 second shot spacing Volume is 6340 cubic inches while spectra reloads 11:43 UTC
Digishot set to external awaiting Spectra 11:48 UTC
Digishot set to internal 60 second shot spacing Volume is 6340 cubic inches while spectra reloads 11:49 UTC
Digishot set to external awaiting Spectra 11:55UTC
Spectra receiving triggers from Digishot
S4G09, S4G10 turned off for comms error Total volume 6340 Cubic Inches
S2G03 turned off because it didn't fire 4 times in a row. New total volume is 6300 Cubic inches 13:06 UTC
S2G03 turned back on. Total volume back to 6340 cubic inches. 13:36 UTC
S2G03 turned back off. Total volume to 6300 cubic inches. 13:43 UTC
S2G03 turned back on. No fire, will try one more shot 15:46 UTC
S2G03 turned back off . 15:56 UTC
LGSP#4178 @ 19:57 UTC

End Line Lau 027 @ 21:00:51 UTC LGSP#4197

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable SP	FFSP - 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
075949		3132		S2G02 NO FIRE
075949		3132		S2G03 NO FIRE
080619		3134		S1G02 NO FIRE
080619		3134		S1G03 NO FIRE
080941		3135		S1G01 NO FIRE
080941		3135		S2G02 NO FIRE
080941		3135		S2G03 NO FIRE
081259		3136		S1G03 NO FIRE
081259		3136		S2G03 NO FIRE
082321		3139		S2G02 NO FIRE
082321		3139		S2G03 NO FIRE
082321		3139		S2G05 NO FIRE
11:57		4029		S1G01, S1G02 NO FIRE
12:00		4030		S1G01, S1G02, S1G03 No fire
12:09		4033		S1G01 NO FIRE
12:15		4035		S2G03 NO FIRE
12:18		4036		S1G01, S1G02 NO FIRE
12:24		4038		S1G01, S1G03 NO FIRE
12:28		4039		S1G01, S1G02, S1G03, S4G05 NO FIRE
12:31		4040		S2G02, S2G03 NO FIRE
12:37		4042		S4G05 NO FIRE
12:40		4043		S1G02, S2G02, S2G03 NO FIRE
12:43		4044		S4G05 NO FIRE
12:47		4045		S1G01 NO FIRE
12:50		4046		S1G03 NO FIRE
12:56		4048		S2G02, S2G03 NO FIRE
12:59		4049		S2G03 NO FIRE
13:03		4050		S2G03 NO FIRE
13:06		4051		S1G06, S2G03 NO FIRE
13:16		4054		S2G02 NO FIRE
13:26		4057		S4G05 NO FIRE
13:39		4061		S2G03 NO FIRE
13:42		4062		S2G02, S2G03 NO FIRE
13:46		4063		S2G02, S4G05 NO FIRE
13:49		4064		S1G01, S1G02, S2G02 NO FIRE
13:59		4067		S2G02 NO FIRE
14:02		4068		S2G02 NO FIRE
14:05		4069		S4G05 NO FIRE
14:08		4070		S1G01 NO FIRE
14:15		4072		S2G02 NO FIRE
14:18		4073		S2G02 NO FIRE
14:21		4074		S1G01, S2G02, S2G06 NO FIRE
14:24		4075		S1G03, S2G02 NO FIRE
14:27		4076		S1G04, S2G02 NO FIRE
14:30		4077		S2G02 DELTA TIMING ERROR - 4.7 ms
14:37		4079		S1G02, S1G03, S2G02 NO FIRE
14:40		4080		S2G02 NO FIRE
14:43		4081		S2G02 DELTA TIMING ERROR - 5.8 ms
14:50		4083		S2G02 NO FIRE

15:00		4086	S2G01 NO FIRE
15:07		4088	S1G02, S1G03 NO FIRE
15:10		4089	S2G02 NO FIRE
15:13		4090	S1G01 NO FIRE
15:16		4091	S1G07, S2G02 NO FIRE
15:20		4092	S1G01, S1G02, S2G02 NO FIRE
15:30		4095	S2G02, S4G05 NO FIRE
15:46		4100	S2G03, S4G02 NO FIRE
15:49		4101	S2G03 DELTA TIMING ERROR, S4G02 NO FIRE
15:53		4102	S2G03, S4G02 NO FIRE
15:56		4103	S2G03, S4G02, S4G05 NO FIRE
16:08		4107	S2G02 NO FIRE
16:12		4108	S2G02 NO FIRE
16:15		4109	S1G06, S2G02 NO FIRE
16:18		4110	S2G02 NO FIRE
16:22		4111	S4G02 DELTA TIMING ERROR
16:25		4112	S1G01, S2G02 NO FIRE
16:28		4113	S1G01, S2G02, S2G06 NO FIRE
16:31		4114	S2G02 NO FIRE
16:35		4115	S2G02 NO FIRE
16:38		4116	S2G02 DELTA TIMING ERROR, S2G06 NO FIRE
16:41		4117	S2G02, S2G06 NO FIRE
16:44		4118	S2G02 NO FIRE
16:48		4119	S2G02 NO FIRE
16:51		4120	S4G05 NO FIRE
17:01		4123	S2G02 NO FIRE
17:17		4128	S2G02 NO FIRE
17:33		4133	S2G02 NO FIRE
17:36		4134	S2G02, S2G06 NO FIRE
17:39		4135	S2G02 NO FIRE
17:43		4136	S2G02 DELTA TIMING ERROR
17:46		4137	S2G02 DELTA TIMING ERROR
17:52		4139	S4G05 NO FIRE
17:56		4140	S2G02 NO FIRE
17:59		4141	S2G02, S4G05 NO FIRE
18:08		4144	S2G02 NO FIRE
18:12		4145	S2G02 NO FIRE
18:15		4146	S2G02 DELTA TIMING ERROR
18:18		4147	S2G02 NO FIRE
18:24		4149	S2G02, S4G05 NO FIRE
18:27		4150	S2G02 NO FIRE
18:31		4151	S2G02 NO FIRE
18:34		4152	S2G02 NO FIRE
18:37		4153	S1G01, S2G02 NO FIRE
18:40		4154	S2G02 DELTA TIMING ERROR - 6.2 ms
18:40		4154	S4G05 NO FIRE
18:43		4155	S2G02 NO FIRE
18:47		4156	S2G02 NO FIRE
18:50		4157	S2G02, S2G06 NO FIRE
18:53		4158	S2G02 NO FIRE
18:56		4159	S4G05 NO FIRE

19:00		4160		S2G02 NO FIRE
19:03		4161		S2G02 NO FIRE
19:06		4162		S2G02 NO FIRE
19:09		4163		S2G02 NO FIRE
19:15		4165		S2G02 NO FIRE
19:19		4166		S2G02 NO FIRE
19:31		4170		S4G05 NO FIRE
19:34		4171		S2G02 NO FIRE
19:38		4172		S2G02 NO FIRE
19:41		4173		S2G02, S2G06 NO FIRE
19:44		4174		S2G02 NO FIRE
19:47		4175		S2G02 NO FIRE
19:50		4176		S1G01, S2G02 NO FIRE
20:00		4179		S1G04 NO Fire
20:03		4180		S2G02 NO FIRE
20:06		4181		S1G01, S1G03, S1G04, S2G02 NO FIRE
20:10		4182		S2G02 NO FIRE
20:13		4183		S2G02 NO FIRE
20:15		4184		S2, S3, S4 SECURED

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Ted Koczynski
Sen. Observer	
Observers	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	5026
SP #	5020	5175	LGSP	5175

Line	LAU_A026
Sequence	005
Direction	281 deg

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	5020	5175
Date dd/mm/yy	29/01/09	30/01/09
Time UTC	22:30	07:11
Volume (cu in.)	6340	
Streamer Depth (m)	na	
Wind (kts)	10 rel	4 rel
Sea State (ft)	4-7	
Water Depth (m)	2277	2139

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start line Lau_A026 @ 22:52 SP#5026
S2G05 (spare) turned on to replace S202 (not firing) @23:00
S2G05 turned off @ 23:02 UTC
S4G05 (spare) turned on to replace S4G09 @ 23:17
End Line @ 07:11 30 Jan 2009 UTC SP #5175

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
22:30		5020		S2, S3 OFFLINE
22:33		5020		S4G09, S4G10 NO FIRE
22:33		5021		S4G09, S4G10 NO FIRE
22:37		5022		S4G09, S4G10 NO FIRE
22:41		5023		S4G05, S4G09, S4G10 NO FIRE
22:44		5024		S03 ONLINE
22:44		5024		S4G09, S4G10 NO FIRE
22:48		5025		S02 ONLINE
22:48		5025		S1G07, S1G08, S2G02, S2G03, S2G06, S4G09 NO FIRE
22:52		5026		S2G02, S2G03, S4G09 NO FIRE
22:56		5027		S2G02, S4G09 NO FIRE
23:00		5028		S2G02, S2G03, S2G05, S2G06, S4G09 NO FIRE
23:04		5029		S202 DELTA TIMING ERROR
23:04		5029		S4G09 NO FIRE
23:08		5030		S2G03, S4G09 NO FIRE
23:12		5031		S4G09 NO FIRE
23:16		5032		S4G09 NO FIRE
23:20		5033		S2G02 NO FIRE
23:24		5034		S2G03, S4G05 NO FIRE
23:32		5036		S2G06 NO FIRE
23:35		5037		S4G05 NO FIRE
23:43		5039		S2G02 NO FIRE
23:50		5041		S1G02 S1G03 S1G04 S2G02 S2G03 NO FIRE
23:54		5042		S2G03 NO FIRE
23:57		5043		S2G03 NO FIRE
00:04		5045		S2G02 S2G03 NO FIRE
00:08		5046		S2G03 NO FIRE
00:11		5047		S2G03 S4G05 NO FIRE
00:18		5049		S2G02 S2G06 NO FIRE
00:22		5050		S2G03 NO FIRE
00:25		5051		S2G03, S2G06 S4G05 NO FIRE
00:29		5052		S2G07 NO FIRE
00:32		5053		S1G01, S1G02, S1G03, S2G07 NO FIRE
00:36		5054		S2G03 NO FIRE
00:39		5055		S1G02 S2G03 NO FIRE
00:42		5056		S1G01, S1G02, S2G02 NO FIRE
00:46		5057		S2G03 S2G06 NO FIRE
00:52		5059		S2G02 S2G03 S2G06 NO FIRE
00:56		5060		S2G07 NO FIRE
00:59		5061		S2G02 S2G03 S2G06 NO FIRE
01:02		5062		S2G03 NO FIRE
01:06		5063		S2G03 S2G06 NO FIRE
01:09		5064		S2G03 NO FIRE
01:13		5065		S2G02 S2G03 NO FIRE
01:16		5066		S2G02 S2G03 NO FIRE
01:19		5067		S2G03 S4G05 NO FIRE
01:23		5068		S2G02 S2G03 NO FIRE
01:26		5069		S1G02 NO FIRE
01:30		5070		S1G02 S2G02 S2G03 NO FIRE

01:33		5071	S2G02 NO FIRE
01:37		5072	S1G03 S2G03 NO FIRE
01:40		5073	S4G05 NO FIRE
01:44		5074	S2G03 NO FIRE
01:47		5075	S2G07 NO FIRE
01:50		5076	S2G03 NO FIRE
01:54		5077	S2G03 NO FIRE
02:01		5079	S2G02 S2G03 NO FIRE
02:04		5080	S2G03 S2G07 NO FIRE
02:07		5081	S2G03 NO FIRE
02:11		5082	S2G03 S2G06 NO FIRE
02:14		5083	S1G02 S2G03 S2G06 NO FIRE
02:17		5084	S2G03 S2G06 NO FIRE
02:21		5085	S1G02 S2G03 NO FIRE
02:24		5086	S2G03 NO FIRE
02:34		5089	S2G03 NO FIRE
02:37		5090	S2G03 NO FIRE
02:47		5093	S2G03 NO FIRE
02:59		5097	S2G03 S2G02 NO FIRE
03:03		5098	S2G07 NO FIRE
03:06		5099	S1G02 NO FIRE
03:15		5102	S2G03 NO FIRE
03:19		5103	S1G02 NO FIRE
03:22		5104	S1G02, S1G03, S1G04, S1G06, S2G03 NO FIRE
03:29		5106	S2G03 NO FIRE
03:32		5107	S1G07 NO FIRE
03:35		5108	S1G01, S1G02, S1G04, S1G03 NO FIRE
03:38		5109	S1G01 S2G03 NO FIRE
04:27		5124	S2G03 NO FIRE
04:30		5125	S1G03 S2G03 NO FIRE
04:43		5129	S2G03 NO FIRE
04:53		5132	S2G03 NO FIRE
04:56		5133	S2G03 NO FIRE
04:59		5134	S2G03 NO FIRE
05:02		5135	S2G03 NO FIRE
05:09		5137	S1G01 S2G03 NO FIRE
05:12		5138	S2G03 NO FIRE
05:15		5139	S1G02 S1G03 NO FIRE
05:18		5140	S1G01 S2G03 NO FIRE
05:35		5145	S2G03 NO FIRE
05:38		5146	S2G03 NO FIRE
05:41		5147	S1G04 NO FIRE
05:44		5148	S1G01 S1G02 S2G03 NO FIRE
05:47		Auto Fire	S3G08 (After all shots fired normally, S3G08 showed auto fire status)
05:51		5150	S1G03 S2G03 NO FIRE
05:54		5151	S1G01 S2G03 NO FIRE
06:07		5155	S2G03 NO FIRE
06:13		5157	S1G08 NO FIRE
06:16		5158	S2G03 NO FIRE
06:19		5159	S1G01 S1G02 NO FIRE
06:26		5161	S2G03 NO FIRE

[illegible]

Observers Log	
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Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Ted Koczyński
Sen. Observer	
Observers	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	6022
SP #	6022	6175	LGSP	6175

Line	LAU_A025
Sequence	006
Direction	101 deg

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, μ B	na	na	na	na
EOL Cable Noise, μ B	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	6022	6175
Date dd/mm/yy	30/01/09	30/01/2009
Time UTC	0740	1619
Volume (cu in.)	6600	
Streamer Depth (m)	na	
Wind (kts)	13 rel	2-8
Sea State (ft)	4	3
Water Depth (m)	2129	2295

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

[illegible]

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

Time UTC	FILE	SP	Tape	Description
07:40		6022		SOL All Guns(S4G05 on S4G09 off
07:47		6024		S2G03, S1G02,03 no fire
07:50		6025		S1G01 NO FIRE
07:54		6026		S3G03 NO FIRE
07:57		6027		S1G7 S2G03 NO FIRE / S3G08 indicates auto fire
08:01		6028		S1G02 S1G03 S2G03 NO FIRE/ S3G08 indicates auto fire
08:04		6029		S1G02 NO FIRE
08:07		6030		S1G01 S1G02 S1G03 S1G04 NO FIRE
08:14		6032		S1G01 S2G03 NO FIRE
08:17		6033		S1G03 S2G03 NO FIRE
08:27		6036		S2G03 NO FIRE
08:30		6037		S1G01 S1G02 S1G03 S2G03 NO FIRE
08:36		6039		S1G02 NO FIRE
08:43		6041		S2G3 NO FIRE
08:49		6043		S1G2 NO FIRE
08:53		6044		S1G01 S2G03 NO FIRE
08:56		6045		S1G03 NO FIRE
09:02		6047		S1G02 S1G03 S2G03 NO FIRE
09:06		6048		S1G02 NO FIRE
09:09		6049		S1G01 S1G02 NO FIRE
09:12		6050		S1G01 NO FIRE
09:21		6053		S4G05 NO FIRE
09:28		6055		S2G03 S4G05 NO FIRE
09:34		6057		S1G02 NO FIRE
09:38		6058		S1G02 S1G03 S1G04 S1G06 NO FIRE
09:41		6059		S1G02 S1G04 NO FIRE
09:44		6060		S1G02 S2G03 S4G05 NO FIRE
09:47		6061		S1G02 S2G03 NO FIRE
10:00		6065		S1G02 S2G03 S4G05 NO FIRE
10:04		6066		S1G04 S1G06 S2G03 NO FIRE
10:07		6067		S2G03 S4G05 NO FIRE
10:10		6068		S1G02 NO FIRE
10:14		6069		S2G03 NO FIRE
10:17		6070		S1G03 S1G04 S2G03 NO FIRE
10:20		6071		S1G02 NO FIRE
10:23		6072		S1G04 NO FIRE
10:26		6073		S2G03 S4G05 NO FIRE
10:30		6074		S1G01,02,03,04 S2G03 NO FIRE
10:33		6075		S2G03 S4G05 NO FIRE
10:36		6076		S1G02 S2G03 NO FIRE
10:39		6077		S2G03 NO FIRE
10:49		6080		S1G02 NO FIRE
10:56		6082		S2G03 NO FIRE
10:59		6083		S2G03 NO FIRE
11:03		6084		S4G05 NO FIRE
11:06		6085		S1G01, S2G02 NO FIRE
11:09		6086		S2G03 NO FIRE
11:13		6087		S2G03, S4G05 NO FIRE
11:20		6089		S4G05 NO FIRE

11:23		6090	S2G03 NO FIRE
11:26		6091	S4G05 NO FIRE
11:37		6094	S1G03, S1G04, S2G03 NO FIRE
11:40		6095	S1G01, S1G02, S2G03 NO FIRE
11:43		6096	S1G03 NO FIRE
11:47		6097	S2G03 NO FIRE
11:50		6098	S4G05 NO FIRE
12:00		6101	S2G03 NO FIRE
12:04		6102	S2G03 NO FIRE
12:07		6103	S4G05 NO FIRE
12:10		6104	S2G03 NO FIRE
12:13		6105	S2G03, S4G05 NO FIRE
12:17		6106	S2G03 NO FIRE
12:20		6107	S1G01, S1G02, S1G04, S2G03 NO FIRE
12:24		6108	S2G03 NO FIRE
12:27		6109	S2G03, S4G05 NO FIRE
12:30		6110	S2G03 NO FIRE
12:34		6111	S2G03, S4G05 NO FIRE
12:37		6112	S2G03 NO FIRE
12:41		6113	S2G03 NO FIRE
12:48		6115	S2G03 DELTA TIMING ERROR
12:52		6116	S1G02, S4G05 NO FIRE
12:59		6118	S2G03, S4G05 NO FIRE
13:05		6120	S4G05 NO FIRE
13:09		6121	S2G03 NO FIRE
13:12		6122	S2G02 NO FIRE
13:16		6123	S2G03 NO FIRE
13:19		6124	S1G02 NO FIRE
13:22		6125	S1G08 NO FIRE
13:26		6126	S2G03, S4G05 NO FIRE
13:32		6128	S2G03, S4G05 NO FIRE
13:43		6131	S1G02 NO FIRE
13:50		6133	S2G02, S4G05 NO FIRE
13:53		6134	S2G03 NO FIRE
13:57		6135	S2G03, S4G05 NO FIRE
14:04		6137	S1G01, S1G02, S2G03, S4G05 NO FIRE
14:07		6138	S2G03 NO FIRE
14:11		6139	S1G02, S2G03, S4G05 NO FIRE
14:14		6140	S1G01, S2G02 NO FIRE
14:18		6141	S2G03 NO FIRE
14:22		6142	S4G05 NO FIRE
14:29		6144	S2G03, S4G05 NO FIRE
14:32		6145	S2G03 NO FIRE
14:36		6146	S1G02, S2G03, S4G05 NO FIRE
14:40		6147	S1G02, S2G03 NO FIRE
14:43		6148	S2G03, S4G05 NO FIRE
14:47		6149	S2G03 NO FIRE
14:51		6150	S1G02 NO FIRE
15:02		6153	S1G02 NO FIRE
15:06		6154	S2G03, S4G05 NO FIRE
15:10		6155	S2G03 NO FIRE

15:13		6156		S2G03, S4G05 NO FIRE
15:17		6157		S2G03 NO FIRE
15:21		6158		S2G03 NO FIRE
15:24		6159		S1G01, S2G03, S3G06, S3G07, S3G08, S3G09, S3G10
15:28		6160		S1G02, S2G03, S4G05 NO FIRE
15:31		6161		S1G01, S2G03 NO FIRE
15:35		6162		S2G03 NO FIRE
15:38		6163		S2G03 NO FIRE
15:42		6164		S2G03 NO FIRE
15:45		6165		S2G03 NO FIRE
15:52		6167		S2G03 NO FIRE
15:55		6168		S2G03, S4G05 NO FIRE
15:59		6169		S2G03 NO FIRE
16:02		6170		S2G03 NO FIRE
16:06		6171		S2G03 NO FIRE
16:09		6172		S1G01, S2G03 NO FIRE
16:12		6173		S4G05 NO FIRE
16:19		6175		S2G03 NO FIRE

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Ted Koczyński
Sen. Observer	
Observers	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	7022
SP #	7022	7182	LGSP	7182

Line	LAU_A024
Sequence	007
Direction	281

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, μ B	na	na	na	na
EOL Cable Noise, μ B	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	7022	7182
Date dd/mm/yy	30/01/09	31/01/09
Time UTC	16:46	01:34
Volume (cu in.)	6560	3300
Streamer Depth (m)	na	
Wind (kts)	4-7 rel	2.7
Sea State (ft)	5	4.4
Water Depth (m)	2309	1888

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

[illegible]

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

Time UTC	FILE	SP	Tape	Description
16:46		7022		S2G03 NO FIRE
16:46		7022		S2G04 DELTA TIMING ERROR
16:50		7023		S2G03 NO FIRE
16:54		7024		S1G03, S2G03 NO FIRE
16:57		7025		S2G03 NO FIRE
17:00		7026		S1G02, S1G03, S1G06, S2G03, S4G05 NO FIRE
17:04		7027		S2G03 NO FIRE
17:07		7028		S2G03 NO FIRE
17:10		7029		S2G03 NO FIRE
17:14		7030		S2G03 NO FIRE
17:17		7031		S1G01, S1G02, S2G03, S4G05 NO FIRE
17:20		7032		S1G04, S2G03 NO FIRE
17:23		7033		S2G03 NO FIRE
17:27		7034		S2G03 NO FIRE
17:30		7035		S2G03 NO FIRE
17:33		7036		S2G03 NO FIRE
17:37		7037		S2G03, S4G05 NO FIRE
17:40		7038		S2G03 NO FIRE
17:43		7039		S2G03 NO FIRE
17:46		7040		S2G03 NO FIRE
17:49		7041		S2G03 NO FIRE
17:53		7042		S2G03 NO FIRE
17:56		7043		S2G03 NO FIRE
18:02		7045		S4G05 NO FIRE
18:09		7047		S4G05 NO FIRE
18:25		7052		S1G07 NO FIRE
18:28		7053		S4G05 NO FIRE
18:35		7055		S1G02, S4G05 NO FIRE
18:41		7057		S4G05 NO FIRE
18:57		7062		S1G01, S4G05 NO FIRE
19:23		7070		S1G01, S1G02, S4G05 NO FIRE
19:39		7075		S4G05 NO FIRE
19:52		7079		S4G05 NO FIRE
20:12		7085		S4G05 NO FIRE
20:31		7091		S4G05 NO FIRE
20:47		7096		S1G01, S4G05 NO FIRE
20:51		7097		S1G01, S2G02 NO FIRE
21:17		7105		S4G05 NO FIRE
21:30		7109		S1G03 NO FIRE
21:42		7113		S1G03 NO FIRE
21:46		7114		S4G05 NO FIRE
21:59		7118		S4G05 NO FIRE
22:28		7127		S1G02 NO FIRE
22:31		7128		S4G05 NO FIRE
22:48		7133		S4G05 NO FIRE
22:51		7134		S1G01 NO FIRE
22:57		7136		S4G05 NO FIRE
23:31		7146		S4G05 NO FIRE
23:41		7149		S2G2 NO FIRE

[illegible]

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Ted Koczyński
Sen. Observer	
Observers	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	8028
SP #	8016	8177	LGSP	8167

Line	LAU_A023
Sequence	008
Direction	101

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, μ B	na	na	na	na
EOL Cable Noise, μ B	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	8028	8167
Date dd/mm/yy	31/01/09	31/01/09
Time UTC	02:00	10:40
Volume (cu in.)	6600	6600
Streamer Depth (m)	na	Na
Wind (kts)	15	5
Sea State (ft)	3-5	2-4
Water Depth (m)	2167	2326

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

[illegible]

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

Time UTC	FILE	SP	Tape	Description
02:08		8018		Spread Error 1.5ms
02:14		8020		Spread Error 1.1ms
02:17		8021		S4G5 no fire
02:24		8023		spread error1.2 ms.
02:27		8024		First shot string 1
02:30		8025		spread error 7 ms. / S4G5 no fire
02:33		8026		Spread error 3.1ms
02:37		8027		First shot string 2 - string 2 no fire
02:40		8028		S2G3 no fire / Spread Error 7.9ms - Firsr good shot point
02:43		8029		S2G3 no fire / Spread Error 6.8ms
02:46		8030		S2G3 no fire / Spread error 1.4ms
02:50		8031		S2G3 S4G5 no fire/ Spread error 7.2ms
02:53		8032		S2G3 no fire / Spread error 2.6ms
02:56		8033		S2G3 (turned off) S4G9 (turned off) S4G5 NO FIRE / Spread Error 1.6ms
02:59		8034		Spread Error 1.1ms
03:02		8035		S4G5 NO FIRE
03:05		8036		Spread Error 1.7ms
03:09		8037		Spread Error 1.1ms
03:12		8038		Spread Error 1.7ms
03:15		8039		S4G5 NO FIRE / Spread Error 2.2ms
03:18		8040		Spread Error 2.1ms
03:21		8041		Spread Error 1.1ms
03:24		8042		S4G5 NO FIRE / Spread Error 2.1ms
03:34		8045		Spread Error 1.8ms
03:41		8047		Spread Error 1.6ms
03:44		8048		Spread Error 1.7ms
03:48		8049		Spread Error 1.1ms
03:51		8050		Spread Error 1.4ms
03:54		8051		Spread Error 2.3ms
03:57		8052		S4G5 NO FIRE
04:04		8054		S4G5 NO FIRE / Spread Error 2.2ms / S3G5(spare) on S4G5 off
04:07		8055		Spread Error 4.3ms
04:10		8056		Spread Error 4.0ms
04:13		8057		Spread Error 2.5ms
04:19		8059		S1G1,2 NO FIRE
04:25		8061		Spread Error 1.1ms
04:28		8062		Spread Error 1.1ms
04:32		8063		Spread Error 1.3ms
04:35		8064		Spread Error 1.5ms
04:38		8065		Spread Error 1.4ms
04:41		8066		Spread Error 1.2ms
04:44		8067		Spread Error 1.7ms
04:54		8070		S1G1 S1G2 No fire
04:57		8071		S1G1 No fire/ Spread Error 1.5ms
05:00		8072		Spread Error 1.7ms
05:03		8073		S1G4 no fire / Spread Error 1.3ms
05:10		8075		Spread Error 1.6ms
05:13		8076		Spread Error 1.1ms
05:19		8078		Spread Error 1.1ms

05:39		8084	Spread Error 1.1ms
05:42		8085	Spread Error 1.2ms
05:45		8086	Spread Error 1.7ms
05:49		8087	Spread Error 1.4ms
05:58		8090	Spread Error 1.5ms
06:02		8091	Spread Error 2.1ms
06:05		8092	Spread Error 1.7ms
06:08		8093	Spread Error 1.8ms
06:11		8094	Spread Error 1.9ms
06:14		8095	Spread Error 1.1ms
06:18		8096	Spread Error 1.3ms
06:21		8097	Spread Error 1.2ms
06:24		8098	Spread Error 1.5ms
06:27		8099	Spread Error 1.7ms
06:31		8100	S2G2 No Fire / Spread Error 1.1ms
06:37		8102	Spread Error 2.4ms
06:40		8103	Spread Error 1.1ms
06:47		8105	Spread Error 2.1ms
06:53		8107	Spread Error 1.3ms
07:02		8110	Spread Error 1.3ms
07:06		8111	Spread Error 2.3ms
07:09		8112	Spread Error 1.6ms
07:12		8113	S1G7 NO FIRE / Spread Error 1.5ms
07:18		8115	S2G2 No Fire / Spread Error 1.3ms
07:25		8117	S1G1 S2G2 NO FIRE
07:28		8118	S1G1 S2G2 NO FIRE
07:35		8120	Spread Error 1.1ms
07:41		8122	Spread Error 1.1ms
07:44		8123	S1G4 NO FIRE / Spread Error 1.1ms
07:48		8124	S1G2 S1G3 NO FIRE
07:51		8125	Spread Error 1.1ms
07:54		8126	Spread Error 1.5ms
08:01		8128	Spread Error 1.4ms
08:04		8129	Spread Error 1.7ms
08:07		8130	Spread Error 2.1ms
08:14		8132	Spread Error 1.9ms
08:17		8133	Spread Error 1.1ms
08:20		8134	S1G1 NO FIRE
08:27		8136	Spread Error 1.6ms
08:30		8137	Spread Error 1.1ms
08:33		8138	S1G1 NO FIRE
08:43		8141	Spread Error 1.1ms
08:46		8142	Spread Error 1.3ms
08:50		8143	S1G6 NO FIRE / Spread Error 1.3ms
08:53		8144	Spread Error 1.2ms
08:56		8145	Spread Error 1.2ms
09:00		8146	Spread Error 1.4ms
09:25		8154	Spread Error 1.2ms
09:29		8155	Spread Error 1.3ms
09:32		8156	Spread Error 1.6ms
09:42		8159	Spread Error 1.1ms

[illegible]

Observers Log	
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Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	9031
SP #	9020	9175	LGSP	9175

Line	LAU_A022
Sequence	009
Direction	281

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, μ B	na	na	na	na
EOL Cable Noise, μ B	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	9020	9175
Date dd/mm/yy	31/01/09	31/01/09
Time UTC	1110	1934
Volume (cu in.)	6520	6520
Streamer Depth (m)	na	
Wind (kts)	6	4-6
Sea State (ft)	2-4 ft	2-4 ft
Water Depth (m)	2340	2155

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

[illegible]

Abbreviations	
<i>SOL/EOL - Start/End of Line</i>	<i>LGSP - Last Good SP</i>
<i>FGSP - First Good SP</i>	<i>LCSP - Last Chargeable SP</i>
<i>FCSP - First Chargeable SP</i>	<i>LFSP - 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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johns
Ch. Observer	Bern McKi
Sen. Observer	
Observers	Erica Emry

	SOL	EOL		
Tape #	N/A	N/A	FGSP	10022
SP #	10022	10114	LGSP	10114

Line	LAU_A021
Sequence	010
Direction	101

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, μ B	na	na	na	na
EOL Cable Noise, μ B	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	10021	10114
Date dd/mm/yy	31/01/09	01/02/09
Time UTC	20:05	1:12
Volume (cu in.)	6520	
Streamer Depth (m)	na	na
Wind (kts)	6	
Sea State (ft)	2-4 ft	
Water Depth (m)	2340	

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

**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
Aux. 16: Port Outer hydrophone	

[illegible]

Abbreviations	
<i>SOL/EOL - Start/End of Line</i>	<i>LGSP - Last Good SP</i>
<i>FGSP - First Good SP</i>	<i>LCSP - Last Chargeable SP</i>
<i>FCSP - First Chargeable SP</i>	<i>LFSP - 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>	

Time UTC	FILE	SP	Tape	Description
20:04		10022		AUTO FIRE S2G01
20:08		10023		AUTO FIRE S2G01
20:12		10024		AUTO FIRE S2G01
20:16		10025		AUTO FIRE S2G01
20:19		10026		AUTO FIRE S2G01
20:22		10027		S2G01 AUTO FIRE, S4G05 NO FIRE
20:26		10028		S2G01 AUTO FIRE, S2G02 NO FIRE
20:29		10029		S2G01 AUTO FIRE
20:32		10030		S2G01 AUTO FIRE
20:36		10031		S2G01 AUTO FIRE
20:39		10032		S2G01 AUTO FIRE, S4G05 NO FIRE
20:42		10033		S2G01 AUTO FIRE
20:46		10034		S2G01 AUTO FIRE, S4G05 NO FIRE
20:49		10035		S2G05 DELTA TIMING ERROR
20:52		10036		S4G05 NO FIRE
20:59		10038		S4G05 NO FIRE
21:06		10040		S2G02, S4G05 NO FIRE
21:12		10042		S4G05 NO FIRE
21:22		10045		S4G05 NO FIRE
21:29		10047		S4G05 NO FIRE
21:35		10049		S4G05 NO FIRE
21:42		10051		S4G05 NO FIRE
21:48		10053		S4G05 NO FIRE
22:05		10058		S4G05 NO FIRE
22:21		10063		S4G05 NO FIRE
22:38		10068		S4G05 NO FIRE
22:47		10071		S4G05 AUTO FIRE
22:51		10072		S4G05 NO FIRE
22:57		10074		S4G5 NO FIRE / Spread Error 1.9ms
23:01		10075		Spread Error 1.4ms
23:04		10076		S4G05 NO FIRE / Spread Error 1.1ms
23:11		10078		Spread Error 1.1ms
23:14		10079		Spread Error 1.5ms
23:17		10080		S4G05 NO FIRE
23:21		10081		Spread Error 1.6ms
23:24		10082		Spread Error 1.1ms
23:27		10083		Spread Error 1.2ms
23:31		10084		Spread Error 2.6ms
23:34		10085		Spread Error 1.3ms
23:37		10086		Spread Error 2.2ms
23:44		10088		S4G05 NO FIRE
23:47		10089		Spread Error 1.7ms
23:50		10090		S4G05 NO FIRE
23:53		10091		Spread Error 2.4ms / AUTO FIRE S3G5
23:57		10092		Spread Error 1.3ms / AUTO FIRE S3G5
00:00		10093		Spread Error 2.3ms / AUTO FIRE S3G5
00:03		10094		Spread Error 1.6ms
00:07		10095		S4G05 NO FIRE
00:14		10097		S4G05 NO FIRE / Spread Error 1.2ms

[illegible]

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Olga Hernandez, Regan Austin

	SOL	EOL		
Tape #	N/A	N/A	FGSP	100024
SP #	100024	100096	LGSP	100096

Line	Lau_B023A
Sequence	100
Direction	101

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	100024	100096
Date dd/mm/yy	21/2/2009	21/2/2009
Time UTC	12:16	16:36
Volume (cu in.)	6600	6600
Streamer Depth (m)	na	na
Wind (kts)	12-15	16
Sea State (ft)	4-6	4-6
Water Depth (m)	1913	2557

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: 100024@ 12:16 UTC
S1G05, S2G04, S3G05, S4G05 spare at beginning of line
End of Line: 100096 @ 16:36 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Regan Austin

	SOL	EOL		
Tape #	N/A	N/A	FGSP	101023
SP #	101023	101204	LGSP	101204

Line	Lau_B006R
Sequence	101
Direction	191

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	101023	101204
Date dd/mm/yy	21/2/2009	22/2/2009
Time UTC	16:42	03:35:52
Volume (cu in.)	6600	6600
Streamer Depth (m)	na	na
Wind (kts)	12	4.8
Sea State (ft)	4-6	2-3
Water Depth (m)	2550	2200

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: 101023 @ 16:42 UTC
S1G05, S2G04, S3G05, S4G05 spare at beginning of line
S4G9, S4G10, Comm Errors @ 19:18 UTC
S4G9, S4G10, Comm Errors @ 20:15 UTC
S4G9, S4G10 Comm Errors: Power cycled S4 @ 23:38:10 UTC
S4G9, S4G10 Comm Errors: Power cycled S4 @ 00:10:58 UTC
End of Line: LCSP/LGSP 101204 @ 03:35:52 UTC

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	Notes
16:46		101024		S3G1 No Fire
16:50		101025		S4G1 Delta Timing -1.2
17:08		101030		S3G1 No Fire
17:11		101031		S4G1 Delta Timing -1.1
17:22		101034		S4G4 Delta Timing -1.4
17:33		101037		S3G1 No Fire
17:40		101039		S4G1 Delta Timing 1.2
17:44		101040		S3G1 No Fire
17:58		101044		S4G1 Delta Timing 1.1
18:05		101046		S4G1 Delta Timing -1.1
18:16		101049		S3G2 No Fire
18:27		101052		S3G2 No Fire
18:30		101053		S2G1 Delta 1.1
18:41		101056		S4G4 Delta Timing 1.1
18:45		101057		S3G1, S4G9 No Fire
19:07		101063		S2G1 Delta -1.3, S3G2 No Fire
19:10		101064		S2G1 Delta 1.2, S3G1, S3G2 No Fire
19:18		101066		S3G2 No Fire, S4G9, S4G10 COMM ERROR
19:21		101067		S4 All Guns No Fire, S3G2 No Fire
19:43		101073		S2G1 Delta -1.1, Spread 2.1
19:50		101075		S3G1 No Fire
20:04		101079		S4G4 Delta 2.2, Spread 2.9
20:08		101080		S4G2 No Fire
20:11		101081		S3G2 No Fire
20:15		101082		S3G2 No Fire. S4G4 Delta -1.7, Spread 2.3, S4G9, S4G10 COMM ERROR
20:19		101083		S4 All Guns No Fire, S3G1, S3G2 No Fire
20:26		101085		S3G1, S3G2 No Fire
20:43		101090		S3G2 Delta -1.2
20:47		101091		S4G4 Delta 1.6, Spread 2.2
20:51		101092		S3G1 No Fire, S4G4 Delta -1.1
21:05		101096		S3G1 No Fire, S4G9 No Fire
21:16		101099		S3G2 No Fire
21:20		101100		S3G1 No Fire
21:34		101104		S3G1 No Fire
22:10		101114		S3G1 No Fire
22:21		101117		S4G1 Delta -1.2
22:32		101120		S3G1 No Fire
22:35		101121		S3G1 No Fire
22:39		101122		S3G2 No Fire
23:26		101135		S3G1 No Fire
23:34		101137		S4G9 Comm Error / S4G10 No Fire (turned to comm error)
23:37		101138		S4G9 Comm Error / S4G10 No Fire (turned to comm error)
23:55		101143		S3G1 No Fire
23:59		101144		S3G2 No Fire
00:10		after 101146		S4G9,10 Comm Error (appeared in gun display after shot)
00:10		101147		S4G9,10 No Fire (display changed to No Fire after power cycle)
00:13		101148		S4 No Fire (result of power cycle)
00:35		101154		S4G1 Delta Timing 1.1
01:15		101165		S4G4 Delta Timing -1.1

[illegible]

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	102023
SP #	102023	102023	LGSP	102023

Line	Lau_B006RA
Sequence	102
Direction	281

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	102023	102023
Date dd/mm/yy	22/2/2009	22/2/2009
Time UTC	03:41:05	03:41:05
Volume (cu in.)	6600	6600
Streamer Depth (m)	na	na
Wind (kts)	4.6	4.6
Sea State (ft)	2-3	2-3
Water Depth (m)	2195	2195

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: FCSP/FGSP 102023 @ 03:41:05 UTC
S1G5 S2G4 S3G5 S4G5 Spare at SOL
Switched to 20 sec internal shooting to test guns
S1G4 S1G5 S3G4 S4G4 Spared after switch
S2G4 not firing during test. Switched to spare, S2G5 turned on.
End of Line: FCSP/FGSP 102023 @ 03:41:05 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski, Bern
Sen. Observer	
Observers	Michaela Conley, Regan Austin

	SOL	EOL		
Tape #	N/A	N/A	FGSP	103024
SP #	103024	103204	LGSP	103204

Line	Lau_B007R
Sequence	103
Direction	11

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, μ B	na	na	na	na
EOL Cable Noise, μ B	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	103024	103204
Date dd/mm/yy	22/2/2009	22/2/2009
Time UTC	04:06:55	14:54:06
Volume (cu in.)	6600	6600
Streamer Depth (m)	na	na
Wind (kts)	8.9	14
Sea State (ft)	2-3	2-4
Water Depth (m)	2226	2556

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

[illegible]

Abbreviations	
<i>SOL/EOL - Start/End of Line</i>	<i>LGSP - Last Good SP</i>
<i>FGSP- First Good SP</i>	<i>LCSP - Last Chargeable SP</i>
<i>FCSP - First Chargeable SP</i>	<i>LFSP - 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>	

Time UTC	FILE	SP	Tape	Notes
04:06		103024		S3G2 S4G1 Delta Timing 2.1, -1.1 / Spread Error 3.2
04:10		103025		S1G5 S4G1 Delta Timing 1.7, -1.5 / Spread Error 3.2
04:17		103027		S4G1 Delta Timing 1.1
04:21		103028		S1G5 Delta Timing -1.2
04:24		103029		S1G10 Delta Timing -1.1
04:35		103032		S4G1 Delta Timing 1.1
04:46		103035		S1G5 Delta Timing 1.1
04:57		103038		S1G5 Delta Timing -1.4
05:00		103039		S3G2 Delta Timing -1.1
05:04		103040		S1G5 Delta Timing 1.2
05:08		103041		Spread Error 2.2 / S3G2 Delta Timing 1.3
05:11		103042		S1G5 Delta Timing -1.6
05:19		103044		S1G5 Delta Timing 1.5
05:22		103045		S5G1 Delta Timing 1.4
05:47		103052		Spread Error 2.4 / S4G5 Delta Timing -1.5
05:51		103053		S4G5 Delta Timing 1.2
05:54		103054		S4G1 Delta Timing 1.1
06:01		103056		S4G1 Delta Timing -1.1
06:23		103062		S4G1 Delta Timing -1.2
06:27		103063		Spread Error 2.4 / S1G5 Delta Timing -1.8 / S3G2 Delta Timing -1.7
06:30		103064		S1G5 Delta Timing 1.1
06:34		103065		S4G1 Delta Timing 1.1
06:37		103066		S4G5 Delta Timing -1.4
06:41		103067		Spread Error 2.3 / S4G1 Delta Timing -1.4
06:48		103069		Spread Error 2.6 / S1G5 Delta Timing -2.0
06:52		103070		S4G1 Delta Timing
06:55		103071		S1G5 Delta Timing 1.2
06:59		103072		S4G1 Delta Timing -1.3 / Spread Error 2.1
07:06		103074		S3G1 No Fire
07:17		103077		S1G5 Delta Timing -2.0 / Spread Error 2.3
07:35		103082		S3G2 Delta Timing -1.1
07:42		103084		S4G1 Delta Timing 1.2
07:46		103085		S3G2 Delta Timing -1.9 / Spread Error 2.6
07:49		103086		S1G5 S3G2 S4G1 Delta Timing -2.0, 1.2, -1.1 / Spread Error 3.2
07:57		103088		S4G1 Delta Timing 1.2
08:00		103089		S4G5 Delta Timing -1.6
08:04		103090		S4G1 S4G5 Delta Timing -1.7, 1.1 / Spread Error 2.8
08:07		103091		S4G9,10 Comm Error (Changed to No Fire after power cycle)
08:11		103092		S4 No Fire (result of power cycle)
08:14		103093		S1G5 Delta Timing -1.3
08:18		103094		S4G9 No Fire / S4G1,5 -1.3, -1.6 / Spread Error 2.2
08:22		103095		S1G5 Delta Timing 1.6 / Spread Error 2.2
08:25		103096		S1G5 Delta Timing -1.3
08:32		103098		S1G5 S4G1 Delta Timing 1.9, 1.2 / Spread Error 2.4
08:36		103099		S1G5 Delta Timing -1.2
08:51		103103		S4G5 Delta Timing -1.4
09:01		103106		S4G1 Delta Timing 1.1
09:05		103107		S3G2 Delta Timing -1.8
09:08		103108		Spread Error 2.2 / S4G5 Delta Timing -1.5

09:16		103110	S1G5 Delta Timing -1.4
09:19		103111	S3G2 Delta Timing 1.2
09:27		103113	S4G5 Delta Timing -1.4
09:34		103115	Spread Error 2.4 / S1G10 Delta Timing -1.1 / S4G5 Delta Timing 1.3
09:37		103116	S4G1 Delta Timing -1.2
09:41		103117	Spread Error 2.4 / S4G1 Delta Timing 1.9
09:44		103118	Spread Error 2.2 / S1G5 Delta Timing -1.7
09:52		103120	S1G5 No Fire
09:55		103121	Spread Error 2.1 / S1G5 Delta Timing -1.4
09:59		103122	S2G5 Delta Timing 1.1
10:02		103123	S1G5 Delta Timing 1.2 / S3G1 No Fire
10:06		103124	Spread Error 2.5 / S4G1 Delta Timing -2.0
10:09		103125	Spread Error 2.1 / S4G1 Delta Timing 1.6
10:20		103128	S3G1 No Fire
10:24		103129	Spread Error 2.3 / S4G1 Delta Timing -1.7
10:31		103131	Spread Error 2.3 / S1G5 Delta Timing 1.9 / S4G1 Delta Timing 1.2
10:34		103132	S3G2 No Fire
10:42		103134	S4G1 Delta Timing -1.6 / S4G5 Delta Timing -1.3
10:46		103135	S1G5 Delta Timing 1.1
10:53		103137	S1G5 Delta Timing -1.4
11:00		103140	S1G5 Delta Timing 1.3
11:03		103141	Spread Error 2.4 / S4G1, S4G5 Delta Timing -1.7, -1.3
11:14		103143	Spread Error 3.3 / S1G5, S3G2, S4G1 Delta Timing 1.2, -1.9, 1.4
11:17		103144	S3G2 Delta Timing 1.2
11:21		103145	Spread Error 2.6 / S4G1, S4G5 Delta Timin 1.2, -1.4
11:28		103147	S4G1 Delta Timing -1.5
11:42		103151	S1G5 Delta Timing -1.5
11:53		103153	Spread Error 2.3 / S4G1 Delta Timing 1.5
11:57		103155	S4G01 Delta Timing 1.2
12:18		103161	Spread Error 2.6 / S1G5, S3G2 Delta Timing 1.5, -1.1
12:25		103163	S1G5 Delta Timing -1.2
12:28		103164	Spread Error 2.1 / S1G5 Delta Timing 1.3
12:36		103166	S4G1 Delta Timing -1.2
12:40		103167	Spread Error 2.1 / S4G5 Delta Timing -1.3
12:50		103170	Spread Error 3.1 / S1G5, S4G1 Delta Timing -1.5, 1.6
12:54		103171	Spread Error 2.4 / S4G5 Delta Timing -1.5
12:57		103172	Spread Error 2.2 / S1G5, S4G1 Delta Timing 1.1, -1.1
13:01		103173	Spread Error 2.5 / S1G5 Delta Timing -1.7
13:12		103176	S1G5 Delta Timing -1.3
13:16		103177	Spread Error 2.3 / S4G5 Delta Timing -1.7
13:34		103182	S1G5 Delta Timing at -1.2
13:37		103183	Spread Error 2.2 / S4G1 Delta Timing 1.9
13:52		103187	Spread Error 2.5 / S4G1 Delta Timing -1.8
13:55		103188	Spread Error 2.5 / S3G2 No Fire / S4G1 Delta Timing 2.0
13:59		103189	S4G1 Delta Timing 1.2
14:02		103190	Spread Error 3.1 / S4G1 Delta Timing -2.6
14:10		103192	S3G2 No Fire
14:21		103195	S1G5 Delta Timing -1.4
14:35		103199	S1G5 Delta Timing 1.4
14:39		103200	S1G5 Delta Timing 1.3

[illegible]

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern
Sen. Observer	
Observers	Regan Austin, Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	104022
SP #	104022	104053	LGSP	104053

Line	Lau_B023B
Sequence	104
Direction	101

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	104022	104053
Date dd/mm/yy	22/2/2009	22/2/2009
Time UTC	14:57:15	16:49:28
Volume (cu in.)	6600	6600
Streamer Depth (m)	na	na
Wind (kts)	14	15
Sea State (ft)	2-4	2-4
Water Depth (m)	2471	2221

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: FSP/FGSP 104022 @ 14:57:15 UTC
S1,2,3,4G4 Spare at SOL
End of Line: LSP/LGSP 104053 @ 16:49:28 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper, Erica Emry, Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	105024
SP #	105024	105203	LGSP	105202

Line	Lau_B002R
Sequence	105
Direction	191

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, μ B	na	na	na	na
EOL Cable Noise, μ B	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	105024	105203
Date dd/mm/yy	22/2/2009	23/2/2009
Time UTC	17:03	03:48:12
Volume (cu in.)	6600	6660
Streamer Depth (m)	na	na
Wind (kts)	16	8
Sea State (ft)	2-4	1-2
Water Depth (m)	2218	2420

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

[illegible]

Abbreviations	
<i>SOL/EOL - Start/End of Line</i>	<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>	

Time UTC	FILE	SP	Tape	Notes
17:10		105026		S4G1 Delta -1.3, S4G9-10 COMM ERROR
17:14		105027		S3G2 Delta 1.1, S4 All Guns No Fire
17:18		105028		S4G4 Delta 1.5
17:25		105030		S4G4 Delta -1.1
17:36		105033		S4G4 Delta -1.1
17:43		105035		S3G2 No Fire
18:01		105040		S4G8 No Fire
18:15		105044		S3G2 -1.7, Spread 2.3
18:23		105046		S4G4 Delta 1.4
18:30		105048		S4G4 Delta 1.3
18:37		105050		S4G8 No Fire
18:47		105053		S4G1 Delta 1.2
19:13		105060		S3G2 No Fire
19:17		105061		S3G2 No Fire
19:24		105063		S4G8 No Fire / S4G4 Delta T.1.1
19:27		105064		S4G1 Delta 1.1
19:31		105065		S3G1 no fire
19:34		105066		S3G1 S4G8 no fire
19:38		105067		S4G9 S4G10 Comm Error
19:42		105068		string 4 no fire - S3G1 no fire
19:49		105070		S3G1 S3G2 no fire
19:52		105071		S4G4 Delta T. 1.2
20:00		105073		S3G1 S3G2 no fire
20:03		105074		S3G2 No Fire
20:11		105076		S3G1 S3G2 no fire
20:18		105078		S4G1 Delta 1.1
20:21		105079		S3G1 no fire
20:25		105080		S3G2 No Fire
20:54		105088		S3G1 S3G2 no fire / S4G4 Delta T. -1.4
20:58		105089		S4G4 Delta 1.2
21:12		105093		S4G4 Delta 1.4
21:19		105095		S4G4 Delta 1.4
21:59		105106		S4G4 Delta 2.1 - Spread Error 2.8
22:13		105110		S4G4 Delta -1.2
22:24		105113		S3G2 Delta -1.2
22:28		105114		S4G4 Delta -1.4
22:38		105117		S4G4 Delta -1.2
22:42		105118		S3G1, S3G2 No Fire
22:53		105121		S3G2 Delta 1.3
23:00		105123		S3G1 No Fire
23:07		105125		S3G1 No Fire / S4G4 Delta Timing -1.1
23:11		105126		S3G1 No Fire
23:25		105130		S3G2 No Fire / S4G4 Delta Timing 1.2
23:36		105133		S3G1 No Fire
23:40		105134		S4G4 Delta Timing -1.4
00:16		105144		S3G1 No Fire
00:37		105150		S4G4 Delta Timing -1.1
00:44		105152		Spread Error 2.2 / S3G2 Delta Timing -1.6
00:47		105153		S3G2 Delta Timing 1.1

[illegible]

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Erica Emry

	SOL	EOL		
Tape #	N/A	N/A	FGSP	na
SP #	106068	106068	LGSP	na

Line	Lau_B015R
Sequence	106
Direction	281

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, μ B	na	na	na	na
EOL Cable Noise, μ B	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	106068	106068
Date dd/mm/yy	22/2/2009	22/2/2009
Time UTC	04:08:02	04:08:02
Volume (cu in.)	5490	5490
Streamer Depth (m)	na	na
Wind (kts)	8	8
Sea State (ft)	1-2	1-2
Water Depth (m)	2422	2422

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

[illegible]

Abbreviations	
<i>SOL/EOL - Start/End of Line</i>	<i>LGSP - Last Good SP</i>
<i>FGSP- First Good SP</i>	<i>LCSP - Last Chargeable SP</i>
<i>FCSP - First Chargeable SP</i>	<i>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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Erica Emry

	SOL	EOL		
Tape #	N/A	N/A	FGSP	107084
SP #	107071	107137	LGSP	107137

Line	Lau_B015R
Sequence	107
Direction	281

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	107071	107137
Date dd/mm/yy	23/2/2009	23/2/2009
Time UTC	04:21:26	07:57:13
Volume (cu in.)	5490	6600
Streamer Depth (m)	na	na
Wind (kts)	8	12-16
Sea State (ft)	1-2	2-4
Water Depth (m)	2262	2340

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: FSP 107071 @ 04:21:26 UTC
S3 off (for repairs on guns 1 & 2) at SOL
SP spacing set at 450 m to match the spacing on the original line (Lau_A015)
S3 powered up @ 05:00:54 UTC
S1G5 S2G5 S3G5 S4G5 set as Spare
FGSP 107084 @ 05:03:46 UTC
End of Line: LSP/LGSP 107137 @ 07:57:13 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski, Bern McKiernan
Sen. Observer	
Observers	Erica Emry, Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	108076
SP #	108076	108150	LGSP	108150

Line	Lau_A001R
Sequence	108
Direction	11

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	108076	108150
Date dd/mm/yy	23/2/2009	23/2/2009
Time UTC	08:12:41	12:25:20
Volume (cu in.)	6660	6560
Streamer Depth (m)	na	na
Wind (kts)	16-17	20
Sea State (ft)	2-4	2-4
Water Depth (m)	2382	2110

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: 108076 FSP @ 08:12:41 UTC
S3G1,2 Comm Errors and No Fires: Power cycled @ 10:30:35 UTC
S3G2 spare, S3G5 turned on @ 11:13 UTC, SP 108129, due to frequent no fires
End of Line: LSP/LGSP 108150 @ 12:25:20 UTC

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	Notes
08:12		108076		Spread Error 2.4 / S3G2 Delta Timing 1.9
08:16		108077		S3G2 Delta Timing 1.1 / S4G4 Delta Timing 1.3
08:36		108083		S1G4 Delta Timing -1.1 / S3G2 Delta Timing -1.2
08:40		108084		Spread Error 2.1 / S2G4 Delta Timing 1.5
08:54		108088		S2G4 Delta Timing 1.3 / S3G2 Delta Timing 1.2
09:11		108093		S1G4 Delta Timing 1.5 / Spread Error 2.4
09:17		108095		S3G2 Delta Timing -2.9 / Spread Error 3.4
09:24		108097		S3G1,2 No Fire
09:27		108098		S3G1 No Fire
09:34		108100		S3G2 Delta Timing 1.5 / Spread Error 2.2
09:38		108101		S3G1 No Fire
09:45		108103		S2G4 S3G2 Delta Timing 1.3, -1.8
09:48		108104		S3G2 Delta Timing 2.1 / Spread Error 2.4
09:58		108107		S3G2 Delta Timing -1.5 / Spread Error 2.1
10:02		108108		S3G2 No Fire
10:05		108109		S3G2 Delta Timing 1.6 / Spread Error 2.3
10:09		108110		S3G1 No Fire
10:12		108111		S3G1 No Fire / S3G2 Delta Timing 1.1
10:16		108112		S2G4 Delta Timing -1.3 / S3G1 No Fire (G1,2 flashed comm errors momentarily)
10:19		108113		S3G1 Delta Timing 1.1 / S3G2 No Fire
10:22		108114		S3G1,2 No Fire
10:26		108115		S2G4 Delta Timing 1.1 / S3G1 No Fire
10:29		108116		S3G1,2 No Fire
10:33		108117		S1G4 Delta Timing 1.1 / S3 No Fire (result of power cycle)
10:39		108119		S3G2 Delta Timing -1.6 / Spread Error 2.4
10:42		108120		S2G4 Delta Timing -1.1
10:46		108121		S3G2 No Fire
10:49		108122		S3G2 Delta Timing -1.1
10:53		108123		S3G2 No Fire
10:56		108124		S3G1,2 No Fire / S3G2 Pressure Error (ns)
11:00		108125		S3G2 Delta 1.9, Spread 2.3
11:06		108127		S3G2 Delta -2.3
11:10		108128		S3G1, S3G2 No Fire, S2G4 Delta -1.2
11:17		108130		S3G1 Delta -3.0, S3G5 Delta -2.9, Spread 3.8
11:20		108131		S2G5 Delta 7.8, S3G5 Delta -1.1, Spread 8.9
11:24		108132		S2G5 Delta -4.6, Spread 5.4
11:27		108133		S2G5 Delta -2.4, S3G1 No Fire, Spread 3.2
11:30		108134		S2G4 Delta -1.2, S3G1 No Fire, S4G4 Delta 1.1, Spread 2.3
11:34		108135		S3G1 No Fire, S4G4 Delta -1.2
11:37		108136		S3G1 No Fire
11:41		108137		S3G1 No Fire
11:44		108138		S3G1 No Fire
11:54		108141		S3G1 No Fire
11:58		108142		S3G1 No Fire
12:01		108143		S3G1 No Fire
12:05		108144		S3G1 No Fire
12:11		108146		S4G1 Delta -1.2
12:22		108149		S2G2 Delta 1.1, S3G1 No Fire

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	109021
SP #	109021	109136	LGSP	109136

Line	Lau_B013R
Sequence	109
Direction	11

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	109021	109136
Date dd/mm/yy	23/2/2009	23/2/2009
Time UTC	12:28:41	19:24:37
Volume (cu in.)	6560	6560
Streamer Depth (m)	na	na
Wind (kts)	20	18
Sea State (ft)	2-4	4-6
Water Depth (m)	2069	2560

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: FSP 109021 @ 12:28:41 UTC
S1G5, S2G3, S3G2, S4G5 spare at SOL
S4G9, 10 Comm Errors at 13:01 UTC (SP 109030) and 13:04 UTC (SP 109031)
S4G9, 10 Comm Errors at 18:15 UTC (SP 109117) and 18:19 UTC (SP 109118)
S3 Power off 19:27:32
End of Line: LSP/LGSP 19:24 @ 109136 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	11030
SP #	11024	11041	LGSP	11041

Line	LAU_A022A
Sequence	011
Direction	281

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, μ B	na	na	na	na
EOL Cable Noise, μ B	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	11024	11041
Date dd/mm/yy	01/02/2009	01/02/2009
Time UTC	01:51	2:47
Volume (cu in.)	6520	
Streamer Depth (m)	na	na
Wind (kts)	6	4.2
Sea State (ft)	2-4 ft	
Water Depth (m)	2451	2508

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

[illegible]

Abbreviations	
<i>SOL/EOL - Start/End of Line</i>	<i>LGSP - Last Good SP</i>
<i>FGSP- First Good SP</i>	<i>LCSP - Last Chargeable SP</i>
<i>FCSP - First Chargeable SP</i>	<i>LFSP - 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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	110024
SP #	110024	110025	LGSP	110025

Line	Lau_B024A
Sequence	110
Direction	101

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	110024	110025
Date dd/mm/yy	23/2/2009	23/2/2009
Time UTC	19:39:42	19:44:09
Volume (cu in.)	5090	5090
Streamer Depth (m)	na	na
Wind (kts)	21	21
Sea State (ft)	4-6	4-6
Water Depth (m)	2582	2597

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: FSP 110024 @ 19:39 UTC
S1G5, S2G3, S3G1, S4G5 spare at SOL
S3 offline at SOL
End of Line: LSP/LGSP 110025 @ 19:44 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	111025
SP #	111017	111130	LGSP	111130

Line	Lau_B012R
Sequence	111
Direction	191

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	111017	111130
Date dd/mm/yy	23/2/2009	24/2/2009
Time UTC	19:58:33	02:44:44
Volume (cu in.)	5090	6660
Streamer Depth (m)	na	na
Wind (kts)	15	20
Sea State (ft)	4-6	4-6
Water Depth (m)	2619	2497

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: FSP 111017 @ 19:58 UTC
S1G5, S2G3, S4G5 spare at SOL
S3 Offline at SOL
FGSP 111025 @ 20:27 UTC
S3 Online
S1G5, S2G5, S3G5, S4G5 Spare, S2G3 Online
End of Line: LSP/LGSP 111130 @ 02:44:44 UTC

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	Notes
19:58		111017		S2G4 Delta Timing 1.4
20:19		111023		S1G4, S4G4 Delta Timing -1.1, -1.3
20:27		111025		Spread Error 6.4 / S1G4, S3G1, S3G4, S3G7, S3G9 Delta Timing 1.1, 4.7, 4.2, 1.2, 5.5
20:31		111026		Spread Error 6.2 / S2G3, S3G1, S3G4, S3G9, S3G10 Delta Timing -1.2, -1.8, -2.8, -3.9, 2.3
20:34		111027		Spread Error 2.4 / S3G2, S3G9, S3G10 Delta Timing -1.7, -1.3, -1.8
20:38		111028		S3G2 Delta Timing 1.6
20:49		111031		Spread Error 3.1 / S3G2 Delta Timing -2.4
20:52		111032		S3G2 Delta Timing 1.1
20:56		111033		Spread Error 2.5 / S3G2, S4G2 Delta Timing 1.2, -1.3
20:59		111034		Spread Error 3.6 / S4G1 Delta Timing 3.2
21:06		111036		Spread Error 2.9 / S4G1 Delta Timing -1.9
21:10		111037		Spread Error 2.4 / S3G2 Delta Timing -1.5
21:14		111038		Spread Error 2.2 / S4G1 Delta Timing -1.6
21:24		111041		S3G2 Delta Timing -1.6
21:28		111042		S3G2, S4G2 Delta Timing 1.6, 1.3
21:32		111043		S4G2 Delta Timing -1.2
21:42		111046		Spread Error 2.7 / S3G2 Delta Timing -1.7
21:46		111047		Spread Error 1.7 / S3G2 Delta Timing 1.7
21:50		111048		Spread Error 2.4 / S3G2 Delta Timing -2.1
22:04		111052		Spread Error 3.0 / S3G2 Delta Timing -2.0
22:07		111053		Spread Error 3.1 / S4G1 Delta Timing 2.4
22:15		111055		Spread Error 3.5 / S4G1, S4G4 Delta Timing -2.4, 1.1
22:22		111057		Spread Error 2.1 / S2G2, S3G2 Delta Timing -1.1, -1.8
22:26		111058		Spread Error 2.2 / S3G2 Delta Timing 1.3
22:37		111061		S4G2 Delta Timing -1.1
23:02		111068		S3G2 Delta Timing -1.3
23:06		111069		S3G2 Delta Timing -1.2
23:13		111071		S3G2 Delta Timing 1.4
23:27		111075		S4G4 Delta Timing 1.3
23:35		111077		S3G2 Delta Timing -1.7 / Spread Error 2.1
23:38		111078		S3G2 Delta Timing 2.4 / Spread Error 2.9
23:45		111080		S4G4 Delta Timing -1.2
23:49		111081		S3G2 Delta Timing -1.8 / Spread Error 2.2
23:56		111083		S3G2 Delta Timing 1.6 / Spread Error 2.4
00:13		111088		S4G1 Delta Timing 1.1
00:17		111089		S3G2 Delta Timing 1.1
00:24		111091		S3G2 Delta Timing -1.5 / Spread Error 2.1
00:35		111094		S3G2 S4G1 Delta Timing 1.6, 1.2 / Spread Error 2.5
00:42		111096		S4G1 Delta Timing -1.5 / Spread Error 2.5
00:52		111099		S3G2 Delta Timing -2.4 / Spread Error 2.8
00:56		111100		Spread Error 2.8 / S3G2 Delta Timing 2.3
01:13		111105		Spread Error 2.6 / S4G4 Delta Timing 1.6
01:17		111106		Spread Error 2.4 / S2G4 Delta Timing 1.2 / S4G4 Delta Timing -1.2
01:24		111108		S4G4 Delta Timing -1.1
01:38		111112		S2G4 Delta Timing 1.1
01:46		111114		S4G4 Delta Timing -1.2
02:04		111119		S3G2 Delta Timing -1.6
02:07		111120		Spread Error 2.1 / S3G2 Delta Timing 1.8
02:36		111128		Spread Error 3.7 / S3G2 Delta Timing -1.9 / S4G4 Delta Timing 1.8

[illegible]

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	112053
SP #	112053	112166	LGSP	112166

Line	Lau_B011R
Sequence	112
Direction	11

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	112053	112166
Date dd/mm/yy	24/2/2009	24/2/2009
Time UTC	03:13:59	10:01:27
Volume (cu in.)	6600	6660
Streamer Depth (m)	na	na
Wind (kts)	16.1	17
Sea State (ft)	2-3	2-3
Water Depth (m)	2259	2590

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: FSP/FGSP 112053 @ 03:13:59 UTC
S1G5, S2G5, S3G5, S4G5 spare at SOL
Reset power to S4 @ 09:13 UTC, due to comm error on S4G9, S4G10 (no fires)
End of Line: LSP/LGSP 112166 @ 10:01:27 UTC

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	Notes
03:17		112054		S3G2 Delta Timing 2.0 / Spread Error 2.2
03:20		112055		S3G2 S4G1,4 Delta Timing 1.2, -1.2, 1.3 / Spread Error 2.5
03:24		112056		S4G4 Delta Timing -1.2
03:31		112058		S4G1 Delta Timing -1.1
03:49		112063		S4G1 Delta Timing 1.3
03:52		112064		S4G1 Delta Timing -1.7 / Spread Error 2.4
03:59		112066		S3G8 Auto Fire 32025.6
04:03		112067		S2G4 Delta Timing 1.4
04:18		112071		S3G2 Delta Timing -3.0 / Spread Error 3.7
04:21		112072		S3G2 Delta Timing 2.3 / Spread Error 2.6
04:25		112073		S3G2 Delta Timing 1.1
04:32		112075		S3G2 S4G4 Delta Timing -1.2, -1.1 / Spread Error 2.1
04:43		112078		S3G2 S4G1 Delta Timing -1.7, -1.1 / Spread Error 2.2
04:47		112079		S3G2 Delta Timing 1.2
04:54		112081		S1G4 Delta Timing -1.1
05:23		112089		Spread Error 2.2 / S3G2 Delta Timing -1.9
05:26		112090		S3G2 Delta Timing 1.4 / S4G1 Delta Timing 1.1
05:30		112091		S3G2 Delta Timing -2.0
05:37		112093		Spread Error 2.4 / S1G4 Delta Timing -1.2 / S3G2 Delta Timing 1.2
05:44		112095		S3G2 Delta Timing 1.1
05:48		112096		Spread Error 2.6 / S3G2 Delta Timing -2.1
05:52		112097		S3G2 Delta Timing 1.6
05:59		112099		S2G4 Delta Timing -1.3
06:02		112100		Spread Error 2.1 / S2G4 Delta Error 1.6
06:09		112102		Spread Error 2.2 / S2G4 Delta Timing -1.3 / S4G1 Delta Timing -1.1 / S4G4 Delta Timing -1.2
06:13		112103		S4G4 Delta Timing -1.2
06:38		112110		S1G4 Delta Timing 1.1
06:45		112112		S2G4 Delta Timing -1.2
06:52		112114		S2G4 Delta Timing 1.2
06:56		112115		S4G1 Delta Timing 1.9 / Spread Error 2.6
07:00		112116		S2G4 S4G1 Delta Timing -1.4, 1.2 / Spread Error 2.6
07:03		112117		S3G2 Delta Timing -2.2 / Spread Error 3.0
07:07		112118		S3G2 S4G2 Delta Timing 1.8, -1.1 / Spread Error 2.9
07:10		112119		S4G4 Delta Timing -1.1
07:24		112123		S3G2 Delta Timing -1.6
07:28		112124		S3G2 Delta Timing 1.4
07:32		112125		S4G9 No Fire
07:50		112130		S2G4 Delta Timing -1.2
07:53		112131		S2G4 Delta Timing 1.2
08:15		112137		S4G4 Delta Timing 1.3
08:18		112138		S3G2 S4G4 Delta Timing -1.8, -1.2 / Spread Error 2.2
08:22		112139		S3G2 S4G1 Delta Timing 1.1, 1.2
08:36		112143		S3G2 Delta Timing -1.9 / Spread Error 2.4
08:40		112144		S3G2 Delta Timing 1.7 / Spread Error 2.3
08:51		112147		S1G4 S4G1,4 Delta Timing 1.2, -1.1, 1.3 / Spread Error 2.4
09:02		112150		S3G2 Delta Timing 1.2
09:05		112151		Spread Error 2.2 / S4G4 Delta Timing 1.2
09:12		112153		S3G10 Delta Timing 1.3 / S4G9, S4G10 Comm Error (No Fire), reset power S4
09:16		112154		S4 No Fire (due to power cycle)

[illegible]

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	113037
SP #	113037	113119	LGSP	113119

Line	Lau_B024A
Sequence	113
Direction	101

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	113037	113119
Date dd/mm/yy	24/2/2009	24/2/2009
Time UTC	10:07:58	15:05:05
Volume (cu in.)	6600	6600
Streamer Depth (m)	na	na
Wind (kts)	17	22
Sea State (ft)	2-4	2-4
Water Depth (m)	2585	2228

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: FSP/FGSP 113037 @ 10:07:58 UTC
S1G5, S2G5, S3G5, S4G5 spare at SOL
End of Line: LSP/LGSP 113119 @ 15:05:05 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	12092
SP #	12092	12180	LGSP	12168

Line	LAU_A021
Sequence	012
Direction	101

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	12092	12180
Date dd/mm/yy	01/02/2009	01/02/2009
Time UTC	03:12:38	08:00:02
Volume (cu in.)	6520	
Streamer Depth (m)	na	na
Wind (kts)	6	
Sea State (ft)	2-4 ft	
Water Depth (m)	2453	2354

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
S1G5 S2G5 Spare
S2G3 S3G5 S4G9 Off
All guns operating, main error is spread error < 2ms
Digishot not logging. Stop at SP12140
Restarting Digishot. SP12149
LGSP 12168
Powered down S3
LSP 12180

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
03:12		12092		Spread error 1.4ms
03:16		12093		Spread error 2.9ms
03:19		12094		Spread error 3.7ms
03:23		12095		Spread error 2.1ms
03:26		12096		Spread error 2.7ms
03:33		12098		Spread error 1.4ms
03:40		12100		Spread error 1.6ms
03:43		12101		Spread error 2.6ms
03:46		12102		Spread error 1.2ms
03:53		12104		Spread error 1.2ms
03:58		12106		Spread error 2.7ms
04:06		12108		Spread error 2.2ms
04:15		12111		Spread error 2.2ms
04:18		12112		Spread error 1.3ms
04:22		12113		Spread error 1.5ms
04:25		12114		Spread error 1.6ms
04:28		12115		Spread error 2.3ms
04:31		12116		Spread error 1.4ms
04:35		12117		Spread error 1.1ms
04:41		12119		Spread error 1.3ms
04:44		12120		Spread error 1.1ms
04:48		12121		Spread Error 2.9ms
04:54		12123		Spread Error 1.6ms
04:57		12124		Spread Error 1.2ms
05:01		12125		Spread Error 1.9ms
05:04		12126		Spread Error 1.3ms
05:07		12127		Spread Error 2.2ms
05:10		12128		Spread Error 1.1ms
05:17		12130		Spread Error 1.8ms
05:20		12131		Spread Error 2.6ms
05:23		12132		Spread Error 1.2ms
05:30		12134		Spread Error 1.1ms
05:33		12135		Spread Error 1.3ms
05:40		12137		Spread Error 3.0ms
05:43		12138		Spread Error 1.9ms
05:49		12140		Spread Error 2.3ms
06:18		12149		Spread Error 2.1ms
06:25		12151		Spread Error 2.6ms
06:28		12152		Spread Error 1.1ms
06:31		12153		Spread Error 3.1ms
06:38		12155		Spread Error 2.9ms
06:41		12156		Spread Error 1.3ms
06:47		12158		Spread Error 1.4ms
06:54		12160		Spread Error 1.1ms
06:57		12161		Spread Error 2.0ms
07:01		12162		Spread Error 2.9ms
07:04		12163		Spread Error 1.6ms
07:07		12164		Spread Error 2.2ms
07:10		12165		Spread Error 2.0ms

[illegible]

Observers Log	
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Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	13022
SP #	13018	13175	LGSP	13175

Line	LAU_A020
Sequence	013
Direction	281

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, μ B	na	na	na	na
EOL Cable Noise, μ B	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	13022	13175
Date dd/mm/yy	01/02/2009	01/02/2009
Time UTC	8:28:26	17:06
Volume (cu in.)	6400	6340
Streamer Depth (m)	na	na
Wind (kts)	6	6-9
Sea State (ft)	2-4 ft	2-4 ft
Water Depth (m)	2357	2113

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

[illegible]

Abbreviations	
<i>SOL/EOL - Start/End of Line</i>	<i>LGSP - Last Good SP</i>
<i>FGSP - First Good SP</i>	<i>LCSP - Last Chargeable SP</i>
<i>FCSP - First Chargeable SP</i>	<i>LFSP - 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>	

Time UTC	FILE	SP	Tape	Description
08:40		13022		Spread Error 5.6ms
08:43		13023		Spread Error 7.4ms / S4G5 no fire
08:47		13024		Spread Error 3.1ms
08:50		13025		Spread Error 2.1ms S4G5 no fire
08:53		13026		Spread Error 1.3ms
08:57		13027		Spread Error 1.5ms
09:00		13028		Spread Error 1.4ms
09:03		13029		Spread Error 1.6ms
09:06		13030		Spread Error 1.9ms
09:13		13032		Spread Error 1.9ms
09:16		13033		Spread Error 1.7ms
09:19		13034		Spread Error 1.6ms S3G5 turn off
09:23		13035		Spread Error 2.6ms
09:26		13036		Spread Error 1.7ms
09:29		13037		Spread Error 1.9ms
09:35		13039		Spread Error 1.7ms
09:38		13040		Spread Error 1.7ms
09:48		13043		Spread Error 1.4ms
09:51		13044		Spread Error 1.1ms
09:55		13045		Spread Error 2.0ms
09:58		13046		S4G5 No Fire / Spread Error 1.6ms
10:01		13047		Spread Error 1.8ms
10:05		13048		Spread Error 1.9ms
10:08		13049		Spread Error 1.3ms
10:11		13050		S1G1 No Fire / Spread Error 2.3ms
10:14		13051		S1G1 No Fire / Spread Error 1.6ms
10:18		13052		S4G5 No Fire / Spread Error 1.5ms
10:21		13053		Spread Error 3.9ms
10:24		13054		S1G1 No Fire / Spread Error 1.5ms
10:27		13055		Spread Error 1.7ms
10:30		13056		Spread Error 3.0ms
10:34		13057		Spread Error 1.6ms
10:37		13058		S4G5 No Fire / Spread Error 1.9ms
10:40		13059		S1G1 No Fire / Spread Error 2.8ms
10:43		13060		Spread Error 1.8ms
10:46		13061		Spread Error 1.3ms
10:50		13062		Spread Error 1.3ms
10:56		13064		S1G1 No Fire / Spread Error 2.4ms
10:59		13065		Spread Error 1.5ms
11:03		13066		S1G01 No Fire
11:19		13071		S4G05 No Fire
11:45		13079		S4G05 No Fire
12:04		13085		S4G05 No Fire
12:24		13091		S4G05 No Fire
12:35		13094		S4G05 No Fire
12:29		13101		S4G05 No Fire
13:06		13103		Spread Error 1.8ms
13:09		13104		Spread Error 2.7ms
13:13		13105		Spread Error 1.1ms

13:17		13106	Spread Error 1.9ms
13:23		13108	Spread Error 1.1ms
13:27		13109	S2G02, S2G06 No Fire / Spread Error 1.8
13:30		13110	Spread Error 1.9ms
13:34		13111	Spread Error 1.1ms
13:37		13112	Spread Error 1.9ms
13:40		13113	S2G02 No Fire / Spread Error 1.7ms
13:44		13114	Spread Error 1.7ms
13:50		13116	Spread Error 1.5ms
13:53		13117	S2G02 No Fire
13:57		13118	Spread Error 1.9ms
14:00		13119	Spread Error 1.2ms
14:03		13120	S2G02 No Fire
14:07		13121	Spread Error 1.3ms
14:10		13122	S4G05 No Fire / Spread Error 1.2ms
14:13		13123	Spread Error 1.9ms
14:20		13125	S4G05 No Fire / Spread Error 1.4ms
14:23		13126	Spread Error 1.8ms
14:30		13128	Spread Error 1.9ms
14:33		13129	Spread Error 1.2ms
14:36		13130	Spread Error 1.1ms
14:40		13131	S4G05 Error / Spread Error 1.7ms
14:50		13134	Spread Error 1.2ms
14:53		13135	S2G01, S4G05 No Fire / Spread Error 2.0ms
14:57		13136	Spread Error 2.0ms
15:00		13137	Spread Error 1.7ms
15:03		13138	Spread Error 1.9ms
15:07		13139	Spread Error 1.5ms
15:10		13140	Spread Error 1.9ms
15:14		13141	S4G05 No Fire/ Spread Error 1.6ms
15:17		13142	Spread Error 1.5ms
15:20		13143	Spread Error 1.6ms
15:24		13144	S4G05 No Fire/ Spread Error 2.7ms
15:30		13146	Spread Error 1.9ms
15:34		13147	Spread Error 1.5ms
15:37		13148	S4G05 No Fire/ Spread Error 1.8ms
15:40		13149	Spread Error 1.3ms
15:43		13150	Spread Error 1.6ms
15:50		13152	Spread Error 1.5ms
15:53		13153	Spread Error 2.6ms
15:56		13154	Spread Error 1.6ms
16:03		13156	Spread Error 1.9ms
16:06		13157	Spread Error 1.3ms
16:09		13158	S4G05 No Fire
16:12		13159	Spread Error 1.3ms
16:15		13160	Spread Error 1.4ms
16:19		13161	Spread Error 1.5ms
16:22		13162	S4G05 No Fire
16:25		13163	Spread Error 1.4ms
16:29		13164	Spread Error 1.8ms
16:32		13165	Spread Error 1.2ms

[illegible]

Observers Log	
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Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	14097
SP #	14097	14103	LGSP	14103

Line	WTRNS
Sequence	014
Direction	191

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, μ B	na	na	na	na
EOL Cable Noise, μ B	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	14097	14103
Date dd/mm/yy	01/02/2009	01/02/2009
Time UTC	17:11	17:33
Volume (cu in.)	6340	6340
Streamer Depth (m)	na	na
Wind (kts)	6-9	
Sea State (ft)	2-4 ft	
Water Depth (m)	2058	

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

[illegible]

Abbreviations	
<i>SOL/EOL - Start/End of Line</i>	<i>LGSP - Last Good SP</i>
<i>FGSP - First Good SP</i>	<i>LCSP - Last Chargeable SP</i>
<i>FCSP - First Chargeable SP</i>	<i>LFSP - 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>	

Time UTC	FILE	SP	Tape	Description
08:40		13022		Spread Error 5.6ms
08:43		13023		Spread Error 7.4ms / S4G5 no fire
08:47		13024		Spread Error 3.1ms
08:50		13025		Spread Error 2.1ms S4G5 no fire
08:53		13026		Spread Error 1.3ms
08:57		13027		Spread Error 1.5ms
09:00		13028		Spread Error 1.4ms
09:03		13029		Spread Error 1.6ms
09:06		13030		Spread Error 1.9ms
09:13		13032		Spread Error 1.9ms
09:16		13033		Spread Error 1.7ms
09:19		13034		Spread Error 1.6ms S3G5 turn off
09:23		13035		Spread Error 2.6ms
09:26		13036		Spread Error 1.7ms
09:29		13037		Spread Error 1.9ms
09:35		13039		Spread Error 1.7ms
09:38		13040		Spread Error 1.7ms
09:48		13043		Spread Error 1.4ms
09:51		13044		Spread Error 1.1ms
09:55		13045		Spread Error 2.0ms
09:58		13046		S4G5 No Fire / Spread Error 1.6ms
10:01		13047		Spread Error 1.8ms
10:05		13048		Spread Error 1.9ms
10:08		13049		Spread Error 1.3ms
10:11		13050		S1G1 No Fire / Spread Error 2.3ms
10:14		13051		S1G1 No Fire / Spread Error 1.6ms
10:18		13052		S4G5 No Fire / Spread Error 1.5ms
10:21		13053		Spread Error 3.9ms
10:24		13054		S1G1 No Fire / Spread Error 1.5ms
10:27		13055		Spread Error 1.7ms
10:30		13056		Spread Error 3.0ms
10:34		13057		Spread Error 1.6ms
10:37		13058		S4G5 No Fire / Spread Error 1.9ms
10:40		13059		S1G1 No Fire / Spread Error 2.8ms
10:43		13060		Spread Error 1.8ms
10:46		13061		Spread Error 1.3ms
10:50		13062		Spread Error 1.3ms
10:56		13064		S1G1 No Fire / Spread Error 2.4ms
10:59		13065		Spread Error 1.5ms
11:03		13066		S1G01 No Fire
11:19		13071		S4G05 No Fire
11:45		13079		S4G05 No Fire
12:04		13085		S4G05 No Fire
12:24		13091		S4G05 No Fire
12:35		13094		S4G05 No Fire
12:29		13101		S4G05 No Fire
13:06		13103		Spread Error 1.8ms
13:09		13104		Spread Error 2.7ms
13:13		13105		Spread Error 1.1ms

13:17		13106	Spread Error 1.9ms
13:23		13108	Spread Error 1.1ms
13:27		13109	S2G02, S2G06 No Fire / Spread Error 1.8
13:30		13110	Spread Error 1.9ms
13:34		13111	Spread Error 1.1ms
13:37		13112	Spread Error 1.9ms
13:40		13113	S2G02 No Fire / Spread Error 1.7ms
13:44		13114	Spread Error 1.7ms
13:50		13116	Spread Error 1.5ms
13:53		13117	S2G02 No Fire
13:57		13118	Spread Error 1.9ms
14:00		13119	Spread Error 1.2ms
14:03		13120	S2G02 No Fire
14:07		13121	Spread Error 1.3ms
14:10		13122	S4G05 No Fire / Spread Error 1.2ms
14:13		13123	Spread Error 1.9ms
14:20		13125	S4G05 No Fire / Spread Error 1.4ms
14:23		13126	Spread Error 1.8ms
14:30		13128	Spread Error 1.9ms
14:33		13129	Spread Error 1.2ms
14:36		13130	Spread Error 1.1ms
14:40		13131	S4G05 Error / Spread Error 1.7ms
14:50		13134	Spread Error 1.2ms
14:53		13135	S2G01, S4G05 No Fire / Spread Error 2.0ms
14:57		13136	Spread Error 2.0ms
15:00		13137	Spread Error 1.7ms
15:03		13138	Spread Error 1.9ms
15:07		13139	Spread Error 1.5ms
15:10		13140	Spread Error 1.9ms
15:14		13141	S4G05 No Fire/ Spread Error 1.6ms
15:17		13142	Spread Error 1.5ms
15:20		13143	Spread Error 1.6ms
15:24		13144	S4G05 No Fire/ Spread Error 2.7ms
15:30		13146	Spread Error 1.9ms
15:34		13147	Spread Error 1.5ms
15:37		13148	S4G05 No Fire/ Spread Error 1.8ms
15:40		13149	Spread Error 1.3ms
15:43		13150	Spread Error 1.6ms
15:50		13152	Spread Error 1.5ms
15:53		13153	Spread Error 2.6ms
15:56		13154	Spread Error 1.6ms
16:03		13156	Spread Error 1.9ms
16:06		13157	Spread Error 1.3ms
16:09		13158	S4G05 No Fire
16:12		13159	Spread Error 1.3ms
16:15		13160	Spread Error 1.4ms
16:19		13161	Spread Error 1.5ms
16:22		13162	S4G05 No Fire
16:25		13163	Spread Error 1.4ms
16:29		13164	Spread Error 1.8ms
16:32		13165	Spread Error 1.2ms

[illegible]

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	15022
SP #	15022	15149	LGSP	15149

Line	Lau_A019
Sequence	015
Direction	101

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, μ B	na	na	na	na
EOL Cable Noise, μ B	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	15022	15149
Date dd/mm/yy	2009-02-01	2009-02-02
Time UTC	17:33	00:28:16
Volume (cu in.)	6340	6340
Streamer Depth (m)	na	na
Wind (kts)	6-9	
Sea State (ft)	2-4 ft	
Water Depth (m)	2058	2329

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

[illegible]

Abbreviations	
<i>SOL/EOL - Start/End of Line</i>	<i>LGSP - Last Good SP</i>
<i>FGSP - First Good SP</i>	<i>LCSP - Last Chargeable SP</i>
<i>FCSP - First Chargeable SP</i>	<i>LFSP - 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	
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Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	16049
SP #	16049	16150	LGSP	16150

Line	Lau_A018
Sequence	016
Direction	281

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, μ B	na	na	na	na
EOL Cable Noise, μ B	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	16049	16150
Date dd/mm/yy	2009-02-02	2009-02-02
Time UTC	01:02	06:27
Volume (cu in.)	6340	6340
Streamer Depth (m)	na	na
Wind (kts)	6-9	8-9
Sea State (ft)	2-4 ft	2-4 ft
Water Depth (m)	2352	2279

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

[illegible]

Abbreviations	
<i>SOL/EOL - Start/End of Line</i>	<i>LGSP - Last Good SP</i>
<i>FGSP- First Good SP</i>	<i>LCSP - Last Chargeable SP</i>
<i>FCSP - First Chargeable SP</i>	<i>LFSP - 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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	17026
SP #	17026	17029	LGSP	17029

Line	Lau_AwtturnsA
Sequence	017
Direction	191

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	17026	17029
Date dd/mm/yy	2009-02-02	2009-02-02
Time UTC	06:41	06:52
Volume (cu in.)	6340	6340
Streamer Depth (m)	na	na
Wind (kts)	4	4
Sea State (ft)	2-4 ft	2-4 ft
Water Depth (m)	2380	2277

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line- 06:41 UTC - SP: 17026
End of Line 06:52 UTC - SP: 17029
Updated from 16000's shot numbers to 17000's - R. Austin

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	18049
SP #	18049	18150	LGSP	18150

Line	Lau_A017
Sequence	018
Direction	101

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	18049	18150
Date dd/mm/yy	02/02/2009	2009-02-02
Time UTC	06:59:59	12:32:45
Volume (cu in.)	6520	
Streamer Depth (m)	na	na
Wind (kts)		5
Sea State (ft)	2-4 ft	2-4 ft
Water Depth (m)	2214	2374

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments

Start of Line: Shot Point 18049 @ UTC 06:59:59
 S2G3 S3G5 S4G9 Off / S1G5 S2G5 Spare
 End of Line: Shot Point 18150 @ 12:32 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	19023
SP #	19023	19029	LGSP	19029

Line	EturnA
Sequence	019
Direction	191

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, μ B	na	na	na	na
EOL Cable Noise, μ B	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	19023	19029
Date dd/mm/yy	02/02/2009	2009-02-02
Time UTC	12:36	12:56
Volume (cu in.)	6520	6520
Streamer Depth (m)	na	na
Wind (kts)	5	5
Sea State (ft)	2-4 ft	2-4 FT
Water Depth (m)	2373	2372

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

[illegible]

Abbreviations	
<i>SOL/EOL - Start/End of Line</i>	<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>LFSP - 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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Erica Emry, Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	20048
SP #	20048	20146	LGSP	20146

Line	Lau_A016
Sequence	020
Direction	281

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	20048	20146
Date dd/mm/yy	02/02/2009	2009-02-02
Time UTC	13:00	18:18
Volume (cu in.)	6520	6520
Streamer Depth (m)	na	na
Wind (kts)	5	7
Sea State (ft)	2-4ft	2-4 ft
Water Depth (m)	2372	2384

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: Shot Point 20048@ 13:00 UTC
S1G05, S2G05 SPARE/ S2G03,S3G05,S4G09 All OFF
End of Line: SP 20146 @ 18:18 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	21023
SP #	21023	21029	LGSP	21029

Line	WturnB
Sequence	021
Direction	191

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	21023	21029
Date dd/mm/yy	02/02/2009	2009-02-02
Time UTC	18:24	18:45
Volume (cu in.)	6520	6520
Streamer Depth (m)	na	na
Wind (kts)	7	2
Sea State (ft)	2-4ft	2-4
Water Depth (m)	2370	2353

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments

Start of Line: Shot Point @ 18:24 UTC SP #21023
 S1G05, S2G05 SPARE/ S2G03,S3G05,S4G09 All OFF
 End of Line: SP 21029 @ 18:45UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Regan Austin

	SOL	EOL		
Tape #	N/A	N/A	FGSP	22051
SP #	22051	22175	LGSP	22175

Line	LAU_A015
Sequence	022
Direction	101

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	22051	22175
Date dd/mm/yy	02/02/2009	03/02/2009
Time UTC	18:47	01:29:39
Volume (cu in.)	6520	6160
Streamer Depth (m)	na	na
Wind (kts)	2	4.4
Sea State (ft)	2-4ft	2-4
Water Depth (m)	2285	2356

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: Shot Point @ 18:47 UTC SP #22051
S1G05, S2G05 SPARE/ S2G03,S3G05,S4G09 All OFF
End of Line: LSP/LGSP 22175 @ 01:29:39

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	23033
SP #	23023	23174	LGSP	23174

Line	Lau_A014
Sequence	023
Direction	281

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	23023	23174
Date dd/mm/yy	02/03/2009	02/03/2009
Time UTC	02:11:30	10:35
Volume (cu in.)	3260	6520
Streamer Depth (m)	na	na
Wind (kts)	4.0	7.5
Sea State (ft)	2-4	
Water Depth (m)	2370	2144

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start Of Line: FSP 23023 @ 02:11:30 UTC
S1,2 off line; 18 guns operating
FGSP 23033 @ 02:54:34 UTC
S2G3 S3G5 S4G9 Off
S1G5 S25 Spare
End of Line: LCSP/LGSP 23174 @ 10:35:49 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski, Bern McKiernan
Sen. Observer	
Observers	Michaela Conley, Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	24025
SP #	24025	24050	LGSP	24050

Line	Lau_A014A
Sequence	024
Direction	174

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	24025	24050
Date dd/mm/yy	03/02/2009	03/02/2009
Time UTC	10:44:33	12:08:31
Volume (cu in.)	6520	6520
Streamer Depth (m)	na	na
Wind (kts)	6.5	5
Sea State (ft)		
Water Depth (m)	2228	2015

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: FCSP/FGSP 24025 @ 10:44:33 UTC
S2G3 S3G5 S4G9 Off
S1G5 S2G5 Spare
End of Line: LCSP/LGSP 24050 @ 12:08:31 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	25021
SP #	25021	25051	LGSP	25051

Line	Lau_A014B
Sequence	025
Direction	132

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	25021	25051
Date dd/mm/yy	03/02/2009	03/02/2009
Time UTC	12:11:42	13:50:28
Volume (cu in.)	6520	6520
Streamer Depth (m)	na	na
Wind (kts)	6.5	13
Sea State (ft)	2-4	2-4
Water Depth (m)	2100	2410

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: FCSP/FGSP 25021 @ 12:11:42 UTC
S2G3 S3G5 S4G9 Off
S1G5 S2G5 Spare
End of Line: LCSP/LGSP 25051 @13:50:28 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper, Regan Austin

	SOL	EOL		
Tape #	N/A	N/A	FGSP	26021
SP #	26021	26104	LGSP	26104

Line	Lau_A014C
Sequence	026
Direction	101

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	26021	26104
Date dd/mm/yy	03/02/2009	03/02/2009
Time UTC	13:52:51	18:24:07
Volume (cu in.)	6520	6520
Streamer Depth (m)	na	na
Wind (kts)	12	15
Sea State (ft)	2-4	2-4
Water Depth (m)	2414	2394

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: FCSP/FGSP 26021 @ 13:52:51 UTC
S2G3 S3G5 S4G9 Off
S1G5 S2G5 Spare
End of Line: LCSP/LGSP 26104 @ 18:24:07 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper, Regan Austin

	SOL	EOL		
Tape #	N/A	N/A	FGSP	27023
SP #	27023	27205	LGSP	27189

Line	Lau_A013
Sequence	027
Direction	11

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	27023	27205
Date dd/mm/yy	03/02/2009	04/02/2009
Time UTC	18:29	04:19:31
Volume (cu in.)	6520	3260
Streamer Depth (m)	na	na
Wind (kts)	15	4.6
Sea State (ft)	2-4	2-4
Water Depth (m)	2392.2	2049

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: FCSP/FGSP 27023 @ 18:29:12 UTC
S2G3 S3G5 S4G9 Off
S1G5 S2G5 Spare
S1G1 Off @ 03:27:40 UTC
S1,2 powered off at 03:28 UTC
LGSP 27189
End of Line: LCSP 27205 @ 04:19:31 UTC

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

Time UTC	FILE	SP	Tape	Description
18:42		27027		Spread Error 2.6ms, Delta Timing Error -2.3ms
18:45		27028		Spread Error 2.1ms
18:52		27030		Spread Error 2.6ms
19:18		27038		Spread Error 2.3ms
19:37		27044		Spread Error 2.5ms
20:13		27055		Spread Error 2.1ms
20:16		27056		S4G05 No Fire
20:26		27059		Spread Error 2.5ms
20:29		27060		Spread Error 2.2ms
20:35		27062		Spread Error 2.7ms
20:38		27063		Spread Error 2.3ms
20:45		27065		Spread Error 2.6ms
20:48		27066		S2G02 No Fire
21:07		27072		Spread Error 2.2ms
21:14		27076		S4G05 No Fire
21:20		27076		S4G05 No Fire
21:43		27083		Spread Error 2.4ms
21:50		27085		Spread Error 2.5ms
22:02		27089		S4G05 No Fire
22:09		27091		Spread Error 2.1ms
22:12		27092		Spread Error 2.4ms
22:31		27098		Spread Error 2.2ms
23:27		27115		Spread Error 2.1ms
23:33		27117		S4G5 No Fire
23:37		27118		Spread Error 2.1ms
23:53		27123		Spread Error 2.1ms
00:09		27128		Spread Error 2.2ms
00:12		27129		Spread Error 2.1ms
00:25		27133		Spread Error 2.5ms
00:29		27134		Spread Error 2.4ms
00:42		27138		S4G5 No Fire
00:55		27142		S4G5 No Fire
01:11		27147		Spread Error 2.6ms
01:53		27160		S1G1 autofire at 249.6ms
02:06		27164		Spread Error 2.1ms
02:15		27167		Spread Error 2.5ms
02:28		27171		S1G1 autofire at 244.8ms
02:38		27174		S4G5 No Fire
02:51		27178		Spread Error 2.4ms
02:54		27179		Spread Error 2.8ms / S4G1 Delta Timing at 2.3ms
02:57		27180		Spread Error 2.4ms
03:04		27182		Spread Error 2.3ms
03:07		27183		Spread Error 2.5ms
03:14		27185		S1G1 No Fire
03:17		27186		S1G1 No Fire / Spread Error 2.5ms
03:20		27187		S1G1 No Fire / Spread Error 2.3ms
03:23		27188		S1G1 No Fire
03:27		27189		S1G2 No Fire / LGSP
03:40		27193		S4G5 No Fire

[illegible]

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	28023
SP #	28023	28031	LGSP	28031

Line	Lau_A013A
Sequence	028
Direction	281

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	28023	28031
Date dd/mm/yy	02/04/2009	02/04/2009
Time UTC	04:27:06	04:55:36
Volume (cu in.)	6520	6520
Streamer Depth (m)	na	na
Wind (kts)	5.7	5-7
Sea State (ft)	2-4	2-4
Water Depth (m)	2166	2265

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments

Start of Line: FCSP/FGSP 28023 @ 04:27:06 UTC
 S2G3 S3G5 S4G9 Off
 S1G5 S2G5 Spare
 End of Line: LCSP/EGSP 28031 @ 04:55:36 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	29023
SP #	29023	29172	LGSP	29171

Line	Lau_A012
Sequence	029
Direction	191

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	29023	29172
Date dd/mm/yy	04/02/2009	04/02/2009
Time UTC	4:58:09	13:04:35
Volume (cu in.)	6520	6250
Streamer Depth (m)	na	na
Wind (kts)	0-2knots	1
Sea State (ft)	2-4ft	2-4ft
Water Depth (m)	2273	2214

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: FCSP/FCSP 29023 @ 4:58:09 UTC
S2G3 S3G5 S4G9 Off
S1G5 S2G5 Spare
LGSP 29171 @ 13:01 UTC
End Line LSP/LGSO 29172 @13:04 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	30023
SP #	30023	30026	LGSP	30026

Line	Lau_A012A
Sequence	030
Direction	281

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	30023	30026
Date dd/mm/yy	04/02/2009	04/02/2009
Time UTC	13:11:51	13:22
Volume (cu in.)	6520	6520
Streamer Depth (m)	na	na
Wind (kts)	2	7
Sea State (ft)	2-4ft	2-4
Water Depth (m)	2273	2131

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: FCSP/FCSP 30023 @ 13:11:51 UTC
S2G3 S3G5 S4G9 Off
S1G5 S2G5 Spare
End Line LSP/LGSP 30036 @13:22 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Regan Austin, Erica Emry, Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	31022
SP #	31022	31175	LGSP	31169

Line	Lau_A011
Sequence	031
Direction	11

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	31022	31175
Date dd/mm/yy	02/04/2009	02/04/2009
Time UTC	13:25:06	21:43
Volume (cu in.)	6520	3140
Streamer Depth (m)	na	na
Wind (kts)	8	10
Sea State (ft)	2-4ft	2-4ft
Water Depth (m)	1993	2360

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: FCSP/FCSP 31022 @ 13:25:06 UTC
S2G3 S3G5 S4G9 Off
S1G5 S2G5 Spare
S3G07 turned off due to Auto-Fire errors, S2G05 turned on (before SP 31106) @ 17:57 UTC
S1G02 turned off and S1G05 (spare) turned on (SP 31150) @ 20:22 UTC
Strings 1 and 2 turned off for repairs @ 21:26 UTC
End of Line: LCSP 31175 @ 21:43 UTC

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
13:51		31030		Spread Error 2.1ms
14:46		31047		S4G05 No Fire
14:55		31050		S2G02 No Fire
15:02		31052		Spread Error 2.1ms
15:15		31056		Spread Error 2.1ms
15:18		31057		S3G07 Auto Fire on gun string display, but no error message
15:21		31058		S3G07 Auto Fire 300.0 ms
15:35		31062		Spread Error 2.1ms
15:41		31064		Spread Error 3.1ms
15:48		31066		Spread Error 2.8ms
15:54		31068		S3G07 Auto Fire on gun string display, but no error message
15:58		31069		S3G07 Auto Fire 234.4 ms
16:17		31075		S2G02 No Fire
16:21		31076		S2G01 No Fire
16:24		31077		S2G02 No Fire
16:27		31078		Spread Error 2.9ms
16:34		31080		Spread Error 3.7ms
16:43		31083		S2G02 No Fire
16:52		31086		S2G02 No Fire
17:02		31089		S2G02 No Fire
17:21		31095		S3G07 Auto Fire on gun string display, but no error message
17:25		31096		S3G07 Auto Fire 8594.4 ms
17:28		31097		S2G02 No Fire
17:38		31100		S3G07 Auto Fire 35461.6 ms
17:41		31101		S3G07 Auto Fire 42352.0 ms
17:48		31103		S3G07 Auto Fire 15927.2 ms
17:51		31104		S3G07 Auto Fire 34500.0 ms
17:54		31105		S3G07 Auto Fire 26797.6 ms
17:57		31106		S2G05 Delta Timing Error 6.7 ms, Spread Error 7.0ms
18:01		31107		S2G05 Delta Timing Error -2.6 ms, Spread Error 3.0ms
18:04		31108		S2G01 No Fire
18:10		31110		Spread Error 2.1ms
18:14		31111		Spread Error 2.6ms
18:17		31112		S2G02 No Fire
18:20		31113		Spread Error 2.7ms
18:24		31114		S1G02 No Fire
18:27		31115		S1G02 No Fire
18:33		31117		Spread Error 2.4ms
18:37		31118		S2G01 No Fire
19:26		31133		Spread Error 2.2
19:29		31134		S4G05 No Fire
19:43		31138		S4G05 No Fire
19:46		31139		S1G02 Delta Timing Error -2.1, Spread Error 2.5
19:49		31140		S1G02 No Fire
19:52		31141		S1G02 No Fire
19:59		31143		S1G02 Delta Timing Error 2.5, Spread Error 3.1
20:05		31145		S1G02 Delta Timing Error 7.4, Spread Error 7.7
20:09		31146		S1G02 No Fire
20:12		31147		S1G02 No Fire

[illegible]

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	
SP #	32024	32028	LGSP	

Line	Lau_A011A
Sequence	032
Direction	281

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, μ B	na	na	na	na
EOL Cable Noise, μ B	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	32024	32028
Date dd/mm/yy	04/02/2009	04/02/2009
Time UTC	21:53	22:07
Volume (cu in.)	3140	3140
Streamer Depth (m)	na	na
Wind (kts)	9	4
Sea State (ft)	2-4ft	2-4ft
Water Depth (m)	2345	2413

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

[illegible]

Abbreviations	
<i>SOL/EOL - Start/End of Line</i>	<i>LGSP - Last Good SP</i>
<i>FGSP - First Good SP</i>	<i>LCSP - Last Chargeable SP</i>
<i>FCSP - First Chargeable SP</i>	<i>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 - Initiation 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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	33027
SP #	33020	33205	LGSP	33205

Line	Lau_A010
Sequence	033
Direction	191

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	33020	33205
Date dd/mm/yy	02/04/2009	02/05/2009
Time UTC	22:15	08:14
Volume (cu in.)	3140	6040
Streamer Depth (m)	na	na
Wind (kts)	4	2
Sea State (ft)	2-4ft	2-4ft
Water Depth (m)	2412	2299

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: FCSP 33020 @ 22:15 UTC
First Good Shot 33027
S2G3 S3G5 S3G7 S4G9 Off
S1G5 S2G5 Spare
End of Line: LGSP: 33205 @ 08:14 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	34022
SP #	34022	34026	LGSP	34026

Line	Lau_A010A
Sequence	034
Direction	101

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, μ B	na	na	na	na
EOL Cable Noise, μ B	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	34022	34026
Date dd/mm/yy	02/05/2009	02/05/2009
Time UTC	08:19	08:34:22
Volume (cu in.)	6040	6040
Streamer Depth (m)	na	na
Wind (kts)	2-4	4-6
Sea State (ft)	2-4ft	2-4ft
Water Depth (m)	2432	2460

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

[illegible]

Abbreviations	
<i>SOL/EOL - Start/End of Line</i>	<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>LFSP - 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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski, Bern Mckiernan
Sen. Observer	
Observers	Olga Hernandez, Erica Emry, Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	35022
SP #	35022	35207	LGSP	35157

Line	Lau_A09
Sequence	035
Direction	11

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	35022	35207
Date dd/mm/yy	05/02/2009	05/02/2009
Time UTC	08:37	18:39
Volume (cu in.)	6040	4870
Streamer Depth (m)	na	na
Wind (kts)	7-9	9
Sea State (ft)	2-4ft	2-4ft
Water Depth (m)	2461	2452

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: FCSP 35022 @ 08:37UTC
S3G01 off, S2G05 on @ 17:07 UTC, SP 35178/79
String 3 off for repairs @ 18:07 UTC SP35157
LGSP: 35197
S2G03, S3G05 (Auto Fire), S3G07 (Auto Fire), S4G09 off from SOL
S1G05, S2G05 spares from SOL
End of Line @ 18:39:33 UTC SP #35207

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
08:51		35026		S4G5 no fire
08:57		35028		S4G5 no fire
09:36		35040		S2G4 No Fire
09:43		35042		S2G1 No Fire
09:53		35045		Spread Error 2.5ms
09:59		35047		S2G1 No Fire / Spread Error 2.2ms
10:05		35049		Spread Error 2.4ms
10:12		35051		S4G2 Delta Timing at -2.1ms / Spread Error 2.5ms
10:22		35054		S2G1 No Fire
11:10		35059		S4G02 Delta Timing at -2.5ms/ Spread Error 2.6ms
11:27		35074		S2G01 No Fire
12:04		35086		Spread Error 2.2ms
12:14		35089		S2G01 No Fire
12:27		35093		S2G01 No Fire
12:50		35100		S2G01 No Fire
13:35		35114		S2G01 No Fire
13:45		35117		S4G05 No Fire
13:48		35118		Spread Error 2.6ms
13:54		35120		Spread Error 2.1ms
13:57		35121		S4G02 Delta Timing at -2.2ms / Spread Error 2.9ms
14:07		35124		Spread Error 2.1ms
14:14		35126		Spread Error 2.4ms
14:26		35130		S2G02 No Fire
14:30		35131		S2G04 No Fire
14:36		35133		Spread Error 2.5ms
15:06		35142		Spread Error 2.4
15:12		35144		S2G02 No Fire
16:07		35161		Spread Error 2.6
16:24		35166		S2G02 No Fire
16:34		35169		Spread Error 2.2
16:37		35170		Spread Error 2.2
16:47		35173		Spread Error 2.4
16:51		35174		S3G01 No Fire
16:54		35175		S3G01 No Fire, Auto Fire 119.2
16:57		35176		S3G01 No Fire
17:01		35177		S3G01 No Fire
17:04		35178		S3G01 No Fire
17:07		35179		S2G05 Delta Timing 5.0, Spread Error 5.3
17:10		35180		S2G05 Delta Timing -2.3, Spread Error 2.9
17:13		35181		S4G05 No Fire
17:20		35183		S4G05 No Fire
17:26		35185		S2G02 No Fire
17:30		35186		S4G05 No Fire
17:36		35188		S4G05 No Fire
17:46		35191		S4G05 No Fire
17:55		35194		S4G05 No Fire
18:02		35196		S4G05 No Fire
18:12		35199		S4G05 No Fire
18:18		35201		S2G02 No Fire

[illegible]

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern Mckiernan
Sen. Observer	
Observers	Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	36021
SP #	36021	36026	LGSP	36026

Line	Lau_A009A
Sequence	036
Direction	turn

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	36021	36026
Date dd/mm/yy	05/02/2009	05/02/2009
Time UTC	18:48	19:06
Volume (cu in.)	4690	
Streamer Depth (m)	na	na
Wind (kts)	7	.5
Sea State (ft)	1-2	1-2
Water Depth (m)	2448	2392

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: FCSP 36021 @ 18:48 UTC
S2G03, S4G09 off at SOL
String 3 Offline
End Line @ 19:06:17 LSP #36026

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern Mckiernan
Sen. Observer	
Observers	Regan Austin

	SOL	EOL		
Tape #	N/A	N/A	FGSP	37035
SP #	37022	37062	LGSP	37062

Line	Lau_A008
Sequence	037
Direction	191

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	37022	37062
Date dd/mm/yy	05/02/2009	05/02/2009
Time UTC	19:15	21:24
Volume (cu in.)	5050	
Streamer Depth (m)	na	na
Wind (kts)	7	
Sea State (ft)	2-4	
Water Depth (m)	2295	2377

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: FCSP 37022 @ 19:15 UTC
S2G03, S4G09 off at SOL
String 3 off line
Restart Digishot @ 19:35
String 3 online @ 19:44
FGSP 37035 @ 19:57
S1G05 at 20:12 to replace S3G05
String 3 offline @ 20:26
Line interrupted for String 2 gun testing @ 21:24

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

[illegible]

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern Mckiernan
Sen. Observer	
Observers	Regan Austin

	SOL	EOL		
Tape #	N/A	N/A	FGSP	38077
SP #	38077	38078	LGSP	38078

Line	Lau_A008
Sequence	038
Direction	191

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	38077	38078
Date dd/mm/yy	02/05/2009	02/05/2009
Time UTC	22:23	22:27
Volume (cu in.)		
Streamer Depth (m)	na	na
Wind (kts)		
Sea State (ft)		
Water Depth (m)	2430	2420

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments

Start of Line: FCSP 38077 @ 22:23 UTC
 S2G03, S4G09 off at SOL
 EOL @ 22:27 LGSP 38078

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern Mckiernan
Sen. Observer	
Observers	Regan Austin

	SOL	EOL		
Tape #	N/A	N/A	FGSP	39076
SP #	39076	39196	LGSP	39196

Line	Lau_A008
Sequence	039
Direction	191

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	39076	39196
Date dd/mm/yy	02/05/2009	02/06/2009
Time UTC	22:30:55	05:26:35
Volume (cu in.)	6520	6520
Streamer Depth (m)	na	na
Wind (kts)	1	8
Sea State (ft)	1-2	2-4ft
Water Depth (m)	2409	2321

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: FCSP 39076 @ 22:30 UTC
S2G03, S4G09 off at SOL
S1G5 S2G5 S3G5 Spare at SOL
S3 Power Cycled @ 04:13:34 UTC
End of Line : LGSP 39196@ 05:26UTC

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]

S2G05, S3G10

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley, Regan Austin

	SOL	EOL		
Tape #	N/A	N/A	FGSP	40022
SP #	40022	40221	LGSP	40221

Line	Lau_A007
Sequence	040
Direction	11

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	40022	40221
Date dd/mm/yy	06/02/2009	06/02/2009
Time UTC	05:44:13	17:09:57
Volume (cu in.)	6520	6520
Streamer Depth (m)	na	na
Wind (kts)	10-12	10
Sea State (ft)	2-4ft	2-4
Water Depth (m)	2212	2436

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: 40022 @ 05:44 UTC
S1G5 S2G3 S2G5 S3G5 S4G9 Spare at SOL
End Line - SP #40221 @ 17:09 UTC
S1 50.3V .61A PRI - COM PRI POWER
S2 50.7V .42A SEC - COM SEC POWER
S3 50.4V .51A PRI - COM PRI POWER
S4 50.6V .49A SEC - COM SEC POWER

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

[illegible]

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	41023
SP #	41023	41221	LGSP	41221

Line	Lau_A006
Sequence	041
Direction	191

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	41023	41221
Date dd/mm/yy	02/06/2009	02/07/2009
Time UTC	17:38:07	04:58:52
Volume (cu in.)	6520	6600
Streamer Depth (m)	na	na
Wind (kts)	2	2-3
Sea State (ft)	2-4	2-4
Water Depth (m)	2757	2291

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: 41023 @ 17:38 UTC
S1G5 S2G3.5 S3G5 S4G9 Spare at SOL
S1 50.3V .61A PRI - COM PRI POWER
S2 50.7V .42A SEC - COM SEC POWER
S3 50.4V .51A PRI - COM PRI POWER
S4 50.6V .49A SEC - COM SEC POWER
End of Line 41221 @ 04:58UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	42023
SP #	42023	42026	LGSP	42026

Line	Lau_A006A
Sequence	043
Direction	101

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, μ B	na	na	na	na
EOL Cable Noise, μ B	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	42023	42026
Date dd/mm/yy	07/02/2009	07/02/2009
Time UTC	05:05	05:17
Volume (cu in.)	6600	6600
Streamer Depth (m)	na	na
Wind (kts)	2-4	2-4
Sea State (ft)	2-4	2-4
Water Depth (m)		2295

Cable	Erased Channels	Noisy/Weak Channels
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

[illegible]

Abbreviations	
<i>SOL/EOL - Start/End of Line</i>	<i>LGSP - Last Good SP</i>
<i>FGSP- First Good SP</i>	<i>LCSP - Last Chargeable SP</i>
<i>FCSP - First Chargeable SP</i>	<i>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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	43022
SP #	43022	43192	LGSP	43192

Line	Lau_A005
Sequence	043
Direction	11

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	43022	43192
Date dd/mm/yy	07/02/2009	07/02/2009
Time UTC	05:18	15:03
Volume (cu in.)	6600	6520
Streamer Depth (m)	na	na
Wind (kts)	4-6	5-7
Sea State (ft)	2-4	2-4
Water Depth (m)	2285	2622.9

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: FGSP 43022 @ 05:18 UTC
S1G5 S2G3.5 S3G5 S4G9 Spare at SOL
S1 Amps .60/.65 volts 50.3 com m pwr. m
S2 Amps .42/.48 volts 50.7 com s pwr. S
S3 Amps .51/.58 volts 50.4 com m pwr. M
S4 Amps .49/.53 volts 50.6 com s pwr. S
End of Line: LGSP/LSP 43192 @ 15:03 UTC

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

[illegible]

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	44021
SP #	44021	44031	LGSP	44031

Line	Lau_A028A
Sequence	044
Direction	101

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	44021	44031
Date dd/mm/yy	07/02/2009	07/02/2009
Time UTC	15:16	15:50
Volume (cu in.)	6520	6520
Streamer Depth (m)	na	na
Wind (kts)	11	10
Sea State (ft)	3	3
Water Depth (m)	2729	2282

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: FGSP 44021 @ 15:15:57 UTC
S1G5 S2G3.5 S3G5 S4G9 Spare at SOL
S1 Amps .60 / volts 50.3 com m pwr. M
S2 Amps .42 / volts 50.7 com s pwr. S
S3 Amps .51 / volts 50.4 com m pwr. M
S4 Amps .49 / volts 50.6 com s pwr. S
End of Line: 44031 @ 15:50:36 UTC

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

[illegible]

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Erica Emry, Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	45019
SP #	45019	45073	LGSP	45073

Line	Lau_A008R
Sequence	045
Direction	191

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	45019	45073
Date dd/mm/yy	07/02/2009	07/02/2009
Time UTC	15:53	18:59
Volume (cu in.)	6520	6520
Streamer Depth (m)	na	na
Wind (kts)	10	5
Sea State (ft)	3	1-2
Water Depth (m)	2295	2397

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: FGSP 45019 @ 15:53:51 UTC
S1G5 S2G3.5 S3G5 S4G9 Spare at SOL
S1 Amps .60 / volts 50.3 com m pwr. M
S2 Amps .42 / volts 50.7 com s pwr. S
S3 Amps .51 / volts 50.4 com m pwr. M
S4 Amps .49 / volts 50.6 com s pwr. S
End of Line: LGSP/LCSP: 45073, 18:59 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	46018
SP #	46018	46072	LGSP	46072

Line	Lau_A005A
Sequence	046
Direction	2.3

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	46018	46072
Date dd/mm/yy	07/02/2009	07/02/2009
Time UTC	19:19	22:23
Volume (cu in.)	6520	6520
Streamer Depth (m)	na	na
Wind (kts)	3	6
Sea State (ft)	1-2	1-2
Water Depth (m)	2407	2640

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: FSP/FGSP 46018 @ 19:19 UTC
S1G5 S2G3,4 S3G5 S4G9 Spare at SOL
End of Line: LSP/LGSP 46072 @ 22:23 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	47193
SP #	47193	47221	LGSP	47221

Line	Lau_A005
Sequence	047
Direction	11

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	47193	47221
Date dd/mm/yy	07/02/2009	08/02/2009
Time UTC	22:30	00:06
Volume (cu in.)	6520	6520
Streamer Depth (m)	na	na
Wind (kts)	6	6
Sea State (ft)	1-2	1-2
Water Depth (m)	2574	2608

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: FSP/FGSP 47193 @ 22:30 UTC
S1G5 S2G3,4 S3G5 S4G9 Spare at SOL
End of Line: LCSP/LGSP 47221 @ 00:06:14 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	48023
SP #	48023	48026	LGSP	48026

Line	Lau_A005B
Sequence	048
Direction	91

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, μ B	na	na	na	na
EOL Cable Noise, μ B	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	48023	48026
Date dd/mm/yy	08/02/2009	08/02/2009
Time UTC	00:12:11	00:23:26
Volume (cu in.)	6520	6520
Streamer Depth (m)	na	na
Wind (kts)	6	6
Sea State (ft)	1-2	1-2
Water Depth (m)	2496	2458

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

[illegible]

Abbreviations	
<i>SOL/EOL - Start/End of Line</i>	<i>LGSP - Last Good SP</i>
<i>FGSP- First Good SP</i>	<i>LCSP - Last Chargeable SP</i>
<i>FCSP - First Chargeable SP</i>	<i>LLFSP - 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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	49022
SP #	49022	49189	LGSP	49189

Line	Lau_A004
Sequence	049
Direction	191

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	49022	49189
Date dd/mm/yy	08/02/2009	08/02/2009
Time UTC	00:25:46	10:01:53
Volume (cu in.)	6520	6520
Streamer Depth (m)	na	na
Wind (kts)	6	10
Sea State (ft)	1-2	2-4
Water Depth (m)	2426	2310

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: 49022 @ 00:25:46 UTC
S1G5 S2G3.5 S3G5 S4G9 Spare at SOL
S1: Amps .59/.64, Volts 50.3, Comm = M, Power = M
S2: Amps .42/.53, Volts 50.7, Comm = S, Power = S
S3: Amps .51/.57, Volts 50.4, Comm = M, Power = M
S4: Amps .49/.54, Volts 50.6, Comm = S, Power = S
End of Line 49189 @ 10:01:53 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	50023
SP #	50023	50026	LGSP	50026

Line	Lau_A004A
Sequence	050
Direction	101

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	50023	50026
Date dd/mm/yy	08/02/2009	08/02/2009
Time UTC	10:09:50	10:21:41
Volume (cu in.)	6520	6520
Streamer Depth (m)	na	na
Wind (kts)	9	2
Sea State (ft)	2-4	2-4
Water Depth (m)	2354	2520

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: 50023 @ 10:09:50 UTC
S1G5 S2G3.5 S3G5 S4G9 Spare at SOL
S1: Amps .58/63, Volts 50.3, Comm = M, Power = M
S2: Amps .42/50, Volts 50.7, Comm = S, Power = S
S3: Amps .51/58, Volts 50.4, Comm = M, Power = M
S4: Amps .49/55, Volts 50.6, Comm = S, Power = S
End of Line: 50026 @ 10:21:41UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski, Bern McKiernan
Sen. Observer	
Observers	Michaela Conley, Erica Emry, Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	51022
SP #	51022	51164	LGSP	51164

Line	Lau_A003
Sequence	051
Direction	11

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	51022	51164
Date dd/mm/yy	08/02/2009	08/02/2009
Time UTC	10:24	18:31
Volume (cu in.)	6520	6520
Streamer Depth (m)	na	na
Wind (kts)	0-2	2
Sea State (ft)	1-2	1-2
Water Depth (m)	2425	2362

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: 51022 @ 10:24 UTC
S1G5 S2G3.5 S3G5 S4G9 Spare at SOL
S1: Amps .58/63, Volts 50.3, Comm = M, Power = M
S2: Amps .42/50, Volts 50.7, Comm = S, Power = S
S3: Amps .51/58, Volts 50.4, Comm = M, Power = M
S4: Amps .49/55, Volts 50.6, Comm = S, Power = S
End of Line: LSP/LGSP 51164 @ 18:31 UTC

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

[illegible]

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	52022
SP #	52022	52026	LGSP	52026

Line	Lau_A003A
Sequence	052
Direction	turn

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	52022	52026
Date dd/mm/yy	08/02/2009	08/02/2009
Time UTC	18:35	18:51
Volume (cu in.)	6520	6520
Streamer Depth (m)	na	na
Wind (kts)	2	2
Sea State (ft)	1-2	1-2
Water Depth (m)	2350	2245

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: FSP/FGSP 52022 @ 18:35 UTC
S1G5 S2G3.5 S3G5 S4G9 Spare at SOL
S1: Amps .58/63, Volts 50.3, Comm = M, Power = M
S2: Amps .42/50, Volts 50.7, Comm = S, Power = S
S3: Amps .51/58, Volts 50.4, Comm = M, Power = M
S4: Amps .49/55, Volts 50.6, Comm = S, Power = S
End of Line: LSP/LGSP 52026 @ 18:51 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	53022
SP #	53022	53196	LGSP	53196

Line	Lau_A002
Sequence	053
Direction	191

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	53022	53196
Date dd/mm/yy	08/02/2009	09/02/2009
Time UTC	18:54:04	04:51:36
Volume (cu in.)	6520	6520
Streamer Depth (m)	na	na
Wind (kts)		9.3
Sea State (ft)	1-2	1-2
Water Depth (m)	2223	2328

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: FSP/FGSP 53022 @ 18:54:04 UTC
S1G5 S2G3.5 S3G5 S4G9 Spare at SOL
S1: Amps .58/63, Volts 50.3, Comm = M, Power = M
S2: Amps .42/50, Volts 50.7, Comm = S, Power = S
S3: Amps .51/58, Volts 50.4, Comm = M, Power = M
S4: Amps .49/55, Volts 50.6, Comm = S, Power = S
S3G8 turned off briefly at 02:47 UTC because of repeated auto fire errors
End of Line: LCSP/LGSP 53196 @ 04:51:36 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	54028
SP #	54028	54030	LGSP	54030

Line	Lau_A002A
Sequence	054
Direction	101

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	54028	54030
Date dd/mm/yy	09/02/2009	09/02/2009
Time UTC	05:13:57	05:21:26
Volume (cu in.)	6520	6520
Streamer Depth (m)	na	na
Wind (kts)	9.9	7.0
Sea State (ft)	1-2	1-2
Water Depth (m)	2325	2412

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: FSP/FGSP 54028 @ 05:13:57 UTC
S1G5 S2G3.5 S3G5 S4G9 Spare at SOL
S1: Amps .58/63, Volts 50.3, Comm = M, Power = M
S2: Amps .43/49, Volts 50.7, Comm = S, Power = S
S3: Amps .51/60, Volts 50.4, Comm = S, Power = M
S4: Amps .49/58, Volts 50.6, Comm = S, Power = S
End of Line: LCSP/LGSP 54030 @ 05:21:26 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski, Bern McKiernan
Sen. Observer	
Observers	Michaela Conley, Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	55022
SP #	55022	55196	LGSP	55196

Line	Lau_A001
Sequence	055
Direction	11

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	55022	55196
Date dd/mm/yy	09/02/2009	09/02/2009
Time UTC	05:24:09	15:26:45
Volume (cu in.)	6520	6520
Streamer Depth (m)	na	na
Wind (kts)	8.9	9
Sea State (ft)	1-2	1-2
Water Depth (m)	2411	2515

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: FSP/FGSP 55022 @ 05:24:09 UTC
S1G5 S2G3.5 S3G5 S4G9 Spare at SOL
S1: Amps .58/.63, Volts 50.3, Comm = M, Power = M
S2: Amps .43/.49, Volts 50.7, Comm = S, Power = S
S3: Amps .51/.60, Volts 50.4, Comm = S, Power = M
S4: Amps .49/.58, Volts 50.6, Comm = S, Power = S
End of Line: LSP/LGSP 55196 @ 15:26:45 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski, Bern McKiernan
Sen. Observer	
Observers	Regan Austin

	SOL	EOL		
Tape #	N/A	N/A	FGSP	56021
SP #	56021	56085	LGSP	56085

Line	Lau_A001A
Sequence	056
Direction	165

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	56021	56085
Date dd/mm/yy	09/02/2009	09/02/2009
Time UTC	15:45:35	19:26:53
Volume (cu in.)	6520	6520
Streamer Depth (m)	na	na
Wind (kts)	7	5
Sea State (ft)	1-2	1-2
Water Depth (m)	2351	2503

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: FSP/FGSP 56021 @ 15:45 UTC
S1G5 S2G3.5 S3G5 S4G9 Spare at SOL
S1: Amps .58/.63, Volts 50.3, Comm = M, Power = M
S2: Amps .43/.49, Volts 50.7, Comm = S, Power = S
S3: Amps .51/.60, Volts 50.4, Comm = S, Power = M
S4: Amps .49/.58, Volts 50.6, Comm = S, Power = S
End of Line: LSP/LGSP 56085 @ 19:26:53 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski, Bern McKiernan
Sen. Observer	
Observers	Regan Austin

	SOL	EOL		
Tape #	N/A	N/A	FGSP	57023
SP #	57023	57064	LGSP	57064

Line	Lau_A001B
Sequence	057
Direction	246

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	57023	57064
Date dd/mm/yy	09/02/2009	09/02/2009
Time UTC	19:30:25	21:51:34
Volume (cu in.)	6520	6520
Streamer Depth (m)	na	na
Wind (kts)	0-1	5-7
Sea State (ft)	1-2	2-4
Water Depth (m)	2510	2241

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: FSP/FGSP 57023 @ 19:30:25 UTC
S1G5 S2G3.5 S3G5 S4G9 Spare at SOL
S1: Amps .58/.63, Volts 50.3, Comm = M, Power = M
S2: Amps .43/.49, Volts 50.7, Comm = S, Power = S
S3: Amps .51/.60, Volts 50.4, Comm = S, Power = M
S4: Amps .49/.58, Volts 50.6, Comm = S, Power = S
End of Line: LSP/LGSP 57064 @ 21:51:34 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski, Bern McKiernan
Sen. Observer	
Observers	Regan Austin

	SOL	EOL		
Tape #	N/A	N/A	FGSP	58014
SP #	58014	58149	LGSP	58143

Line	Lau_B001
Sequence	058
Direction	11

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	58014	58149
Date dd/mm/yy	02/12/2009	02/12/2009
Time UTC	23:48:59	7:56:34
Volume (cu in.)	6520	6520
Streamer Depth (m)	na	na
Wind (kts)	4 knots	4 knots
Sea State (ft)	2-4 ft	2-4 ft
Water Depth (m)	2280	2171

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments

Start of Line: FSP/FGSP 58014 @ 23:48 UTC
 S1G5 S2G3,4 S3G5 S4G9 Spare at SOL
 End of line: LGSP58143 - 07:35 UTC - LSP: 58149 07:56UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski, Bern McKiernan
Sen. Observer	
Observers	Regan Austin

	SOL	EOL		
Tape #	N/A	N/A	FGSP	
SP #	59022	59025	LGSP	

Line	Lau_B001B
Sequence	059
Direction	101

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	59022	59025
Date dd/mm/yy	12/02/2009	12/02/2009
Time UTC	07:59	08:11
Volume (cu in.)	4890	4890
Streamer Depth (m)	na	na
Wind (kts)	6-8	6-8
Sea State (ft)	2-4ft	2-4ft
Water Depth (m)	2219	2316

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: FSP: 59022 @ 07:59UTC
String 2 off
End of Line LSP:59025

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski, Bern McKiernan
Sen. Observer	
Observers	Regan Austin, Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	60043
SP #	60027	60179	LGSP	60179

Line	Lau_B002
Sequence	060
Direction	191

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	60027	60179
Date dd/mm/yy	13/2/2009	13/2/2009
Time UTC	08:37	17:47
Volume (cu in.)	4890	6560
Streamer Depth (m)	na	na
Wind (kts)	10	11
Sea State (ft)	2-4ft	2-4ft
Water Depth (m)	2322	2008

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: FSP 60027 @ 08:37 UTC
String 2 off until 08:54:28 UTC
S1G5 S2G3,4 S3G5 S4G9 Spare at SOL
S2G1,2 not shooting
S2 restarted at 09:11:23 UTC
S2G3 temporarily set as spare
FGSP 60043 @ 09:34 UTC
End of Line: LSP/LGSP 60179 @ 17:47 UTC

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	Notes
09:34		60043		S2 had 4 Delta Timing Errors
09:38		60044		S2G7 No Fire / S1G4 Delta Timing 1.1ms
09:41		60045		S2G6,7 No Fire / S4G2 Delta Timing 1.7ms / Spread Error 2.3ms
09:45		60046		S2G2 No Fire / S4G1 Delta Timing 1.1ms
09:48		60047		S4G1 Delta Timing 1.2ms
09:52		60048		S4G1,2 Delta Timing -1.4ms -1.1ms respectively
10:06		60052		S4G1 No Fire / S4G2 Delta Timing 1.2ms
10:10		60053		S4G1,2 Delta Timing -1.2ms -1.2ms
10:28		60058		S4G2 Delta Timing -1.3ms
10:46		60063		S2G4 S4G2 Delta Timing at 1.2ms -1.1ms respectively / Spread Error 2.3ms
10:53		60065		S2G4 No Fire / S4G2 Delta Timing -1.2ms
10:57		60066		S4G2 Delta Timing 1.2ms
11:00		60067		S4G2 Delta Timing -1.1ms
11:08		60069		S2G4 Delta Timing at 1.5ms
11:11		60070		S2G4 Delta Timing at -1.1ms / S4G1 Delta Timing at -1.3ms
11:26		60074		S4G2 Delta Timing at -1.2ms
11:30		60075		S4G1 Delta Timing at -1.6ms
11:41		60078		S4G1 Delta Timing at -1.1ms
11:52		60081		S4G1 No Fire
11:59		60083		S3G2 Delta timing at 1.1ms
12:06		60085		S4G1 no fire
12:25		60090		S4G1 Delta timing at 1.1ms
12:32		60092		S4G2 Delta Timing at -1.2ms
12:43		60095		S4G2 Delta Timing at 1.4ms
12:54		60098		Spread Error 2.5ms / S3G1 S3G2 Delta timing error at -1.4ms / 1.1ms
12:57		60099		S2G7 No Fire
13:16		60104		Spread Error 2.1ms / S2G04 Delta Timing Error at 1.2ms
13:20		60105		S3G02 Delta Timing Error at -1.1ms
13:27		60107		Spread Error 2.2ms / S2G02 No Fire / S2G04,S4G02 Delta Timing at 1.1ms
13:34		60109		Spread Error 2.4ms / S4G01, S4G02 Delta Timing at -1.1, 1.3ms
13:38		60110		S2G07 No Fire / S3G02 Delta Timing at 1.2ms
13:42		60111		S4G02 Delta Timing at -1.1ms
13:49		60113		Spread Error 2.6ms / S3G02, S4G02 Delta Timing at -1.3, 1.3ms
14:00		60116		S4G01 Delta Timing at -1.2ms
14:07		60118		S4G02 Delta Timing at -1.6ms
14:14		60120		S4G01 No Fire
14:18		60121		Spread Error 2.2ms / S4G01 DeltaTiming at -1.3ms
14:32		60125		S4G02 Delta Timing at -1.2ms
14:43		60128		S4G01 No Fire
14:50		60130		S4G01 No Fire
14:54		60131		Spread Error (2.6ms) / S4G02 Delta Timing at 1.7ms
14:57		60132		S4G01 Delta Timing at 1.4ms
15:01		60133		S4G01 Delta Timing at 1.4ms
15:05		60134		Spread Error 2.8ms / S4G01 Delta Timing at -2.0ms
15:08		60135		S4G01 No Fire / S4G02 Delta Timing at -1.3ms
15:12		60136		SG03 No Fire / S3G02 Delta Timing at -1.3ms
15:16		60137		Spread Error 2.5ms / S2G01, S2G07 No Fire / S4G02 Delta Timing at 1.5 ms
15:26		60140		S2G04 No Fire / S3G02, S4G01 Delta Timing at -1.2, -1.1ms
15:34		60142		S2G04 No Fire

15:37		60143	Spread Error 2.1ms / S4G02 Delta Timing at -1.1ms
16:16		60154	Spread Error 2.3ms / S4G01 No Fire / S4G02 Delta Timing at -1.6ms
16:27		60157	Spread Error 2.2ms / S4G02 Delta Timing at 1.4ms
16:31		60158	S4G02 Delta Timing at -1.1ms
16:34		60159	S4G01 Delta Timing at 1.1ms
16:38		60160	S2G01 No Fire
16:41		60161	S4G01 Delta Timing at -1.1ms
16:45		60162	S2G01 No Fire
17:14		60170	S4G05 No Fire
17:21		60172	S2G01 No Fire
17:25		60173	S2G02 No Fire
17:36		60176	S2G04 Delta Timing 1.1
17:39		60177	S2G04 Delta Timing -1.3
17:43		60178	S2G04 No Fire
17:47		60179	S4G01 No Fire

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	61022
SP #	61022	61027	LGSP	61027

Line	Lau_B002A
Sequence	061
Direction	281

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	61022	61027
Date dd/mm/yy	13/2/2009	13/2/2009
Time UTC	17:49	18:08
Volume (cu in.)	6560	6560
Streamer Depth (m)	na	na
Wind (kts)	10	11
Sea State (ft)	2-4ft	2-4 ft
Water Depth (m)	1998	2344

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: FSP 61022 @ 17:49 UTC
S1G5 S2G5, S3G5, S4G9 Spare at SOL
End of Line: LSP/LGSP 61027 @ 18:08 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	62022
SP #	62022	62160	LGSP	62160

Line	Lau_B003
Sequence	062
Direction	11

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	62022	62160
Date dd/mm/yy	13/2/2009	14/2/2009
Time UTC	18:14	02:31
Volume (cu in.)	6560	6560
Streamer Depth (m)	na	na
Wind (kts)	12	9
Sea State (ft)	2-4ft	2-4 ft
Water Depth (m)	2343	2150

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments

Start of Line: FSP 62022 @ 18:13 UTC
 S1G5 S2G5, S3G5, S4G9 Spare at SOL
 End of Line: LSP/LGSP 62160 @ 02:31 UTC

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	Notes
18:25		62025		S2G01 No Fire
18:29		62025		S4G01 No Fire
18:47		62031		S2G03 No Fire, S2G04 Delta Timing 1.1
18:55		62033		S1G02 Delta Timing 1.2, S4G01 Delta Timing 1.9, Spread Error 2.4
18:58		62034		S4G02 Delta Timing -1.1
19:06		62036		S2G07 No Fire, S4G01 Delta -1.9, S4G02 Delta 1.5, Spread Error 3.4
19:09		62037		S4G02 Delta Timing -1.3
19:20		62040		S4G01 No Fire, S4G02 Delta Timing 1.1
19:24		62041		S2G04 No Fire, S4G01 Delta Timing -1.1
19:27		62042		S2G07 No Fire, S4G02 Delta Timing -1.7, Spread Error 2.4
19:31		62043		S2G07 No Fire. S4G01 Delta Timing 2.1. Spread Error 2.4
19:34		62044		S4G01 Delta Timing -1.4
19:38		62045		S4G01 Delta Timing -1.6, Spread Error 2.1
19:41		62046		S4G01 Delta Timing -1.7, Spread Error 2.1
19:45		62047		S4G01 Delta Timing 2.3, Spread Error 2.8
19:48		62048		S4G01 Delta Timing 3.0, Spread Error 3.6
19:52		62049		S4G01 No Fire, S4G02 Delta Timing -1.2
19:56		62050		S4G01 Delta Timing -1.4
19:59		62051		S4G01 Delta Timing -1.7, Spread Error 2.5
20:17		62056		S2G04 No Fire
20:21		62057		S4G01 Delta Timing 1.6
20:43		62063		S4G01 No Fire, S4G02 Delta Timing 1.4
21:29		62076		S4G01 Delta Timing -1.1 ms
21:33		62077		S4G01 No Fire
21:40		62079		S2G02 No Fire
21:43		62080		S4G02 Delta Timing -1.2 ms
21:47		62081		S4G01 Delta Timing 1.4 ms
21:51		62082		S2G03 No Fire, S2G07 No Fire, S2G04 Delta 1.2 ms, Spread Error 2.2 ms
21:54		62083		S4G01 No Fire
21:58		62084		S4G01 Delta Timing Error -1.3 ms
22:01		62085		S4G02 Delta Timing -1.7 ms, Spread Error 2.2 ms
22:05		62086		S4G01 Delta Timing 1.3 ms
22:09		62087		S4G01 Delta Timing -1.7 ms, Spread Error 2.2 ms
22:16		62089		S2G01 No Fire, S2G07 No Fire
22:20		62090		S2G04 No Fire
22:31		62093		S4G02 Delta Timing 1.2 ms
22:45		62097		S4G01 Delta Timing 1.4 ms
23:03		62102		S2G2 No Fire
23:06		62103		S4G2 Delta Timing 1.1ms
23:10		62104		S4G1 Delta Timing -1.3ms
23:14		62105		S4G2 Delta Timing 1.1ms / Spread Error 2.1ms
23:17		62106		S2G4 No Fire / S4G2 Delta Timing -1.4ms
23:24		62108		S2G4 No Fire
23:32		62110		S2G2 No Fire / S4G1,2 Delta Timing -1.3ms1.4ms respectively / Spread Error 2.7ms
23:39		62112		S2G1 No Fire
23:54		62116		S4G2 Delta Timing -1.2ms
00:01		62118		S2G4 Delta Timing 1.3ms
00:27		62125		S4G2 Delta Timing 1.3ms

[illegible]

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski, Bern McKiernan
Sen. Observer	
Observers	Erica Emry, Michaela Conley, Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	63016
SP #	63016	63159	LGSP	63159

Line	Lau_B004
Sequence	063
Direction	191

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	63016	63159
Date dd/mm/yy	14/2/2009	14/2/2009
Time UTC	03:12:44	11:48:01
Volume (cu in.)	6560	6560
Streamer Depth (m)	na	na
Wind (kts)	11.4	9
Sea State (ft)	1-2	1-2
Water Depth (m)	2240	2524

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments
Start of Line: FSP/FGSP 63016 @ 03:12:44 UTC
S1G5, S2G5, S3G5, S4G9 Spare at SOL
FCSP 63021 @ 03:31:21 UTC
End of Line: LSP/LGSP 63159 @ 11:48 UTC

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	Notes
03:12		63016		S4G4 Delta Timing 1.1ms
03:34		63022		S4G2 Delta Timing -1.2ms / Spread Error 2.1ms
03:38		63023		S4G1 Delta Timing 1.7ms
03:41		63024		S4G1 Delta Timing -1.9ms / Spread Error 2.2ms
03:45		63025		S4G1 Delta Timing -1.1ms
03:49		63026		S4G1 Delta Timing 1.2ms
03:56		63028		S2G8 No Fire
03:59		63029		S4G1 No Fire
04:03		63030		S2G1 No Fire
04:06		63031		S4G2 Delta Timing 1.5ms
04:10		63032		S3G2 S4G2 Delta Timing -1.2ms -1.3ms respectively / Spread Error 2.3ms
04:21		63035		S4G1 No Fire
04:35		63039		S4G5 No Fire / S4G2 Delta Timing 1.7ms / Spread Error 2.4ms
04:42		63041		S2G1 No Fire
04:46		63042		S5G01 No Fire
04:57		63045		S2G01 No Fire
05:01		63046		S4G01 No Fire
05:08		63048		S4G02 Delta Timing 1.3 ms
05:15		63050		S2G01 No Fire
05:41		63057		S4G01 Delta Timing -1.2 ms
05:48		63059		S4G02 Delta Timing -1.4 ms
05:59		63062		S4G02 Delta Timing 1.2 ms
06:03		63063		S4G02 Delta Timing -1.8 ms, Spread Error 2.2 ms
06:06		63064		S4G01 Delta Timing 1.2 ms
06:20		63068		S4G02 Delta Timing -1.3 ms
06:24		63069		S4G02 Delta Timing 1.3 ms
06:39		63073		S4G01 Delta Timing 1.8 ms, Spread Error 2.4 ms
06:42		63074		S2G03 No Fire
06:49		63076		S4G01 Delta Timing -1.5, S4G02 Delta Timing 1.2, Spread Error 2.7
06:57		63078		S4G01 Delta Timing 1.4, S4G02 Delta Timing 1.7, Spread Error 2.3
07:00		63080		S4G1 S4G2 Delta Timing -1.4ms -1.1ms respectively
07:18		63084		S4G1 No Fire
07:29		63087		S4G1 No Fire
07:36		63089		S4G2 Delta Timing 1.5ms
07:39		63090		S2G1 S4G1 No Fire
07:50		63093		S2G2 No Fire
07:54		63094		S4G1 Delta Timing -1.7ms / Spread Error 2.4ms
08:23		63102		S2G4 S4G2 Delta Timing -1.1ms 1.2ms respectively / Spread Error 2.3ms
08:34		63105		S4G2 Delta Timing -1.4ms / Spread Error 2.2ms
08:37		63106		S4G1 Delta Timing 2.1ms / Spread Error 2.8ms
08:41		63107		S4G2 Delta Timing 1.3ms
08:44		63108		S4G1 Delta Timing -2.3ms / Spread Error 2.7ms
09:05		63114		S4G01 No Fire, S4G02 Delta Timing 1.8 ms, Spread Error 2.5 ms
09:09		63115		S2G04 No Fire
09:16		63117		S2G04 Delta Timing 1.2 ms
09:23		63119		S2G02 No Fire
09:27		63120		S4G02 Delta Timing -1.5 ms, Spread Error 2.1 ms
09:30		63121		S4G02 Delta Timing 1.1 ms, Spread Error 2.1 ms

[illegible]

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	64022
SP #	64022	64026	LGSP	64026

Line	Lau_B004A
Sequence	064
Direction	281

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	64022	64026
Date dd/mm/yy	14/2/2009	14/2/2009
Time UTC	11:51	12:07
Volume (cu in.)	6560	6560
Streamer Depth (m)	na	na
Wind (kts)	9	11
Sea State (ft)	1-2	1-2
Water Depth (m)	2527	2534

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

General / Line Comments

Start of Line: FSP/FGSP 64022 @ 11:51 UTC
 S1G5, S2G5, S3G5, S4G9 Spare at SOL
 End of Line: LSP/LGSP 64026 @ 12:07 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	65023
SP #	65023	65179	LGSP	65179

Line	Lau_B005
Sequence	065
Direction	11

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	65023	65179
Date dd/mm/yy	14/2/2009	14/2/2009
Time UTC	12:13	21:35
Volume (cu in.)	6560	6560
Streamer Depth (m)	na	na
Wind (kts)	11	10
Sea State (ft)	1-2	1-2
Water Depth (m)	2532	2558

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: FSP/FGSP 65023 @ 12:13 UTC
 S1G5, S2G5, S3G5, S4G9 Spare at SOL
 End of Line: LSP/LGSP 65179 @ 21:35 UTC

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	Notes
12:24		65026		S4G01 Delta Timing 1.1
12:31		65028		S2G04 Delta Timing 1.3, Spread Error 2.1
12:34		65029		S2G04 Delta Timing -1.1
12:38		65030		S2G02 No Fire
12:49		65033		S2G04 Delta Timing -1.1, S4G01 Delta Timing -1.1
12:52		65034		S4G02 Delta Timing -1.1
13:07		65038		S4G01 Delta Timing -1.1
13:14		65040		S4G02 Delta Timing 1.2
13:18		65041		S4G01 No Fire
13:33		65045		S3G04 Delta Timing -1.1
13:36		65046		S4G02 Delta Timing 1.1
13:40		65047		S4G02 Delta Timing -1.2
13:47		65049		S4G01 No Fire
13:50		65050		S4G01 No Fire
14:05		65054		S4G01 Delta Timing 1.2, S4G02 Delta Timing -1.2, Spread Error 2.4
14:08		65055		S4G02 Delta Timing 1.3
14:12		65056		S2G04 Delta Timing 1.2
14:15		65057		S4G01 No Fire, S4G02 Delta Timing 1.5, Spread Error 2.4
14:22		65059		S4G02 Delta Timing -1.2
14:29		65061		S4G01 Delta Timing -1.1
14:33		65062		S4G01 No Fire
15:13		65073		Delta Timing at 1.2ms
15:27		65077		S4G5 no fire / S4G3 Delta timing at 1.1ms
16:00		65086		S4G01 No Fire
16:07		65088		S4G01 No Fire
16:18		65091		S4G01 Delta Timing 1.2
16:21		65092		S4G01 No Fire / S4G4 Delta timing at 1.2ms
16:25		65093		S4G01 No Fire / S2G4 Delta timing at -1.1ms
16:35		65096		S4G01 No Fire / S2G4 Delta timing at 1.2ms
16:43		65098		S2G04 Delta Timing -1.2
16:53		65101		S4G01 No Fire
16:57		65102		S4G1 no fire /S2G4 Delta timing at 1.5ms
17:04		65104		S4G4 Delta timing at 1.1ms
17:06		65105		S4G02 Delta Timing 1.2
17:11		65106		S2G4 / S4G2 Delta timing 1.3/1.4
17:15		65107		S4G02 Delta Timing -1.4
17:29		65111		S4G01 No Fire /S2G4 Delta timing at -1.1
17:33		65112		S4G01 No Fire
17:36		65113		S4G01 Delta Timing -1.1
17:43		65115		S3G04 Delta Timing -1.1
18:01		65120		S4G01 Delta Timing -1.1
18:09		65122		S4G02 Delta Timing 1.1
18:20		65125		S4G01 No Fire
18:23		65126		S4G02 Delta Timing -1.1
18:30		65128		S4G01 No Fire
19:10		65139		S4G01 Delta Timing -1.1
19:17		65141		S4G01 No Fire
19:28		65144		S4G01 No Fire
19:49		65150		S2G04 Delta Timing 1.1

[illegible]

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Regan Austin

	SOL	EOL		
Tape #	N/A	N/A	FGSP	66022
SP #	66022	66026	LGSP	66026

Line	Lau_B005A
Sequence	066
Direction	turn (281)

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	66022	66026
Date dd/mm/yy	14/2/2009	14/2/2009
Time UTC	21:39	21:55
Volume (cu in.)	6560	6560
Streamer Depth (m)	na	na
Wind (kts)	11	10
Sea State (ft)	1-2	1-2
Water Depth (m)	2561	2621

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: FSP/FGSP 66022 @ 21:39 UTC
 S1G5, S2G5, S3G5, S4G9 Spare at SOL
 End of Line: LSP/LGSP 66026 @ 21:55 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	67022
SP #	67022	67186	LGSP	67180

Line	Lau_B006
Sequence	067
Direction	191

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	67022	67186
Date dd/mm/yy	14/2/2009	15/2/2009
Time UTC	21:57	7:48
Volume (cu in.)	6560	
Streamer Depth (m)	na	na
Wind (kts)	10	
Sea State (ft)	1-2	
Water Depth (m)	2620	

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: FSP/FGSP 6022 @ 21:57 UTC

S1G5, S2G5, S3G5, S4G9 Spare at SOL

LCSP/LGSP 67180 @ 07:25:25 UTC

Pulled up strings 3 & 4 after LGSP/LCSP

End of Line: LSP 67186 @ 07:48 UTC

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	Notes
21:57		67022		Spread Error 2.7 / Delta Timing S2G04: -1.2, S4G01: -1.7
22:01		67023		Delta Timing S4G01: 1.2
22:05		67024		Spread Error 2.4 / Delta Timing S2G04: 1.4
22:20		67028		Spread Error 2.3 / Delta Timing S2G04: -1.3
22:34		67032		Delta Timing S2G04: -1.3
22:52		67037		Spread Error 2.4 / Delta Timing S2G01: -1.1, S4G02: -1.8
22:56		67038		Delta Timing S2G04: 1.1
23:03		67040		Delta Timing S2G04: -1.2
23:07		67041		Spread Error 2.2 / Delta Timing S4G02: 1.9
23:11		67042		Delta Timing S4G01: -1.3
23:15		67043		Delta Timing S2G04: -1.1
23:22		67045		Delta Timing S4G01: 1.3
23:25		67046		Delta Timing S4G01: 1.4 / Delta timing S4G02: 1.5
23:32		67048		Delta Timing S4G01: -1.2
23:36		67049		Spread Error 2.1 / Delta Timing S4G02: -1.4
23:39		67050		Spread Error 3.0 / Delta Timing S2G04: -1.1 / Delta Timing S4G02: 1.9
23:46		67052		Delta Timing 1.4
23:50		67053		Delta Timing S2G04: -1.2 / Delta Timing S4G01: -1.5
23:53		67054		Delta Timing S4G02: -1.4
23:57		67055		Delta Timing S4G01: 1.4
00:04		67057		Delta Timing S2G04: -1.1 / Delta Timing S4G01: -1.2
00:07		67058		Delta Timing S4G02: 1.2
00:21		67062		Delta Timing S2G04: -1.2
00:28		67064		Spread Error 2.8 / Delta Timing S2G04: 1.2 / Delta Timing S4G02 -1.6
00:32		67065		Delta Timing S2G04: -1.1
00:49		67070		Delta Timing S2G04: 1.2
00:53		67071		Delta Timing S4G02: 1.1
01:04		67074		Delta Timing S2G4: -1.1, S4G2: -1.2
01:11		67076		No Fire S4G1
01:14		67077		Delta Timing S4G1: 1.3
01:22		67079		Delta Timing S4G1: -1.1
01:29		67081		Delta Timing S2G4: -1.2
01:32		67082		Delta Timing S3G1: -1.1 / No Fire S4G1
01:36		67083		Delta Timing S4G2: 1.3
01:43		67085		Delta Timing S4G2: -1.2
01:47		67086		Delta Timing S4G2: 1.5
01:51		67087		Delta Timing S4G2: -1.7 / Spread Error 2.3
01:54		67088		Delta Timing S4G2: 1.6 / No Fire S4G1
02:05		67091		Delta Timing S2G4: 1.3
02:09		67092		Delta Timing S2G4: -1.1, S4G2: 1.6
02:20		67095		Delta Timing S2G4: 1.4
02:31		67098		Delta Timing S4G1: -1.1
02:38		67100		Delta Timing S2G4: -1.2 / Spread Error 2.1
02:41		67101		Delta Timing S4G1: 1.2
02:45		67102		Delta Timing S2G4: 1.3 / Spread Error 2.3
02:48		67103		No Fire S4G1
03:06		67108		Delta Timing S2G4: -1.1
03:20		67112		Delta Timing S2G4: 1.1
03:28		67114		Delta Timing S2G4: -1.3

[illegible]

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	
SP #	68022	68028	LGSP	

Line	Lau_B006A
Sequence	068
Direction	281

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	68022	68028
Date dd/mm/yy	15/2/2009	15/2/2009
Time UTC	07:49:50	08:13
Volume (cu in.)	3300	3300
Streamer Depth (m)	na	na
Wind (kts)	5-7	5-7
Sea State (ft)	2-4	2-4
Water Depth (m)	2324	2222

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: FSP 68022 @ 07:49:50 UTC

S3 & S4 off / S1G5, S2G5 Spare at SOL

End of Line: LSP 68028 @ 08:13 UTC

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	Notes
21:57		67022		Spread Error 2.7 / Delta Timing S2G04: -1.2, S4G01: -1.7
22:01		67023		Delta Timing S4G01: 1.2
22:05		67024		Spread Error 2.4 / Delta Timing S2G04: 1.4
22:20		67028		Spread Error 2.3 / Delta Timing S2G04: -1.3
22:34		67032		Delta Timing S2G04: -1.3
22:52		67037		Spread Error 2.4 / Delta Timing S2G01: -1.1, S4G02: -1.8
22:56		67038		Delta Timing S2G04: 1.1
23:03		67040		Delta Timing S2G04: -1.2
23:07		67041		Spread Error 2.2 / Delta Timing S4G02: 1.9
23:11		67042		Delta Timing S4G01: -1.3
23:15		67043		Delta Timing S2G04: -1.1
23:22		67045		Delta Timing S4G01: 1.3
23:25		67046		Delta Timing S4G01: 1.4 / Delta timing S4G02: 1.5
23:32		67048		Delta Timing S4G01: -1.2
23:36		67049		Spread Error 2.1 / Delta Timing S4G02: -1.4
23:39		67050		Spread Error 3.0 / Delta Timing S2G04: -1.1 / Delta Timing S4G02: 1.9
23:46		67052		Delta Timing 1.4
23:50		67053		Delta Timing S2G04: -1.2 / Delta Timing S4G01: -1.5
23:53		67054		Delta Timing S4G02: -1.4
23:57		67055		Delta Timing S4G01: 1.4
00:04		67057		Delta Timing S2G04: -1.1 / Delta Timing S4G01: -1.2
00:07		67058		Delta Timing S4G02: 1.2
00:21		67062		Delta Timing S2G04: -1.2
00:28		67064		Spread Error 2.8 / Delta Timing S2G04: 1.2 / Delta Timing S4G02 -1.6
00:32		67065		Delta Timing S2G04: -1.1
00:49		67070		Delta Timing S2G04: 1.2
00:53		67071		Delta Timing S4G02: 1.1
01:04		67074		Delta Timing S2G4: -1.1, S4G2: -1.2
01:11		67076		No Fire S4G1
01:14		67077		Delta Timing S4G1: 1.3
01:22		67079		Delta Timing S4G1: -1.1
01:29		67081		Delta Timing S2G4: -1.2
01:32		67082		Delta Timing S3G1: -1.1 / No Fire S4G1
01:36		67083		Delta Timing S4G2: 1.3
01:43		67085		Delta Timing S4G2: -1.2
01:47		67086		Delta Timing S4G2: 1.5
01:51		67087		Delta Timing S4G2: -1.7 / Spread Error 2.3
01:54		67088		Delta Timing S4G2: 1.6 / No Fire S4G1
02:05		67091		Delta Timing S2G4: 1.3
02:09		67092		Delta Timing S2G4: -1.1, S4G2: 1.6
02:20		67095		Delta Timing S2G4: 1.4
02:31		67098		Delta Timing S4G1: -1.1
02:38		67100		Delta Timing S2G4: -1.2 / Spread Error 2.1
02:41		67101		Delta Timing S4G1: 1.2
02:45		67102		Delta Timing S2G4: 1.3 / Spread Error 2.3
02:48		67103		No Fire S4G1
03:06		67108		Delta Timing S2G4: -1.1
03:20		67112		Delta Timing S2G4: 1.1
03:28		67114		Delta Timing S2G4: -1.3

[illegible]

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	69026
SP #	69020	69180	LGSP	69180

Line	Lau_B007
Sequence	069
Direction	11

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	69020	69180
Date dd/mm/yy	15/2/2009	15/2/2009
Time UTC	08:37:06	18:17:31
Volume (cu in.)	3300	6560
Streamer Depth (m)	na	na
Wind (kts)	5-7	12
Sea State (ft)	2-4	2-4
Water Depth (m)	2194	2662

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: FSP 69020 @ 08:37:06 UTC
S3 & S4 off / S1G5, S2G5 Spare at SOL
FGSP 69026 @ 09:03:24 UTC
S1G5 S2G5 S3G5 Spare at time of FGSP
S4G9 turned to spare at 09:15 UTC, Not Firing
End of Line: LSP 69180 @ 18:17 UTC

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	Notes
09:06		69027		Spread Error 3.0 / Delta Timing S4G4: -2.7 / No Fire S4G9
09:10		69028		Spread Error 2.7 / Delta Timing S4G5: 2.3 / No Fire S4G1,9
09:14		69029		No Fire S4G5,9
09:17		69030		Spread Error 3.1 / Delta Timing S4G5: -2.4 / No Fire S4G2
09:28		69033		No Fire S4G1
09:32		69034		Spread Error 2.1 / Delta Timing S3G2: -1.6 / No Fire S4G1,5
09:42		69037		No Fire S4G1,3
09:46		69038		Delta Timing S2G4: -1.1 / No Fire S4G5
09:49		69039		No Fire S4G3
09:57		69041		No Fire S4G3
10:00		69042		No Fire S4G3
10:04		69043		Delta Timing S2G4: -1.2 / No Fire S4G5
10:22		69048		Delta Timing S2G4: 1.3 / No Fire S4G3
10:29		69050		No Fire S4G2
10:32		69051		Delta Timing S4G1: 1.5
10:36		69052		No Fire S4G5
10:47		69055		No Fire S4G1
10:58		69058		No Fire S4G3
11:16		69063		S4G1 Delta timing at -1.7ms
11:23		69065		S4G1 no fire / S2G4 Delta timing at -1.5ms
11:26		69066		S4G1 no fire / S4G3 no fire
11:30		69067		Delta timing at 1.7ms
11:34		69068		S4G2 no fire / S2G4-S4G1 Delta timing at -1.2 / 1.4
11:48		69072		Delta timing at -1.5ms
11:59		69075		S4G3 S4G5 S4G2 no fire
12:03		69076		S4G1 no fire
12:06		69077		S2G2 no fire
12:10		69078		S4G1 no fire
12:17		69080		S4G3 no fire
12:24		69082		S4G1 S4G5 no fire
12:27		69083		S4G1 no fire
12:30		69084		S4G3 no fire / S2G4 Delta timing at 1.2ms
12:34		69085		S4G2 no fire / S4G2 Delta timing at 1.5ms
12:37		69086		S4G1 Delta timing at -1.4ms
12:41		69087		S4G5 no fire
12:48		69089		S2G2 no fire / S2G4 Delta timing at 1.5ms
12:56		69091		S2G4 Delta timing at -1.2ms
13:06		69094		S4G3 no fire
13:24		69099		S4G1 / S4G3 no fire
13:26		69100		S4G5 no fire
13:31		69101		S4G5 no fire
13:35		69102		S4G2 no fire
13:49		69106		S4G1 no fire
13:53		69107		S4G3 no fire
13:56		69108		S4G2 no fire
14:00		69109		S4G1 no fire / S2G4 Delta timing at -1.2ms
14:11		69112		S4G5 no fire / S2G4 Delta timing at 1.1ms
14:14		69113		S3G4 Delta timing at -1.1ms
14:18		69114		S2G4 Delta timing at -1.1ms

[illegible]

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	70023
SP #	70023	70026	LGSP	70026

Line	Lau_B007A
Sequence	070
Direction	281

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	70023	70026
Date dd/mm/yy	15/2/2009	15/2/2009
Time UTC	18:27	18:39
Volume (cu in.)	6560	6560
Streamer Depth (m)	na	na
Wind (kts)	9	8
Sea State (ft)	2-4	2-4
Water Depth (m)	2663	2676

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: FSP 70023 @ 18:27 UTC
S1G5, S2G5, S3G5, S4G9 Spare at SOL
End of Line: LSP 70026 @ 18:39 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Regan Austin, Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	71022
SP #	71022	71200	LGSP	71181

Line	Lau_B008
Sequence	071
Direction	191

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	71022	71200
Date dd/mm/yy	15/2/2009	16/2/
Time UTC	18:44	05:27:42
Volume (cu in.)	6560	4950
Streamer Depth (m)	na	na
Wind (kts)	5	6-8
Sea State (ft)	1-2	2-4
Water Depth (m)	2647	2381

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: FSP 71022 @ 18:44 UTC
S1G5, S2G5, S3G5, S4G9 Spare at SOL
S2G02 turned off because of many no fire errors, S1G05 and S2G05 on @ 21:05 UTC (Vol. -360 +180x2 = 6560)
S1G3 turned to spare to come within limitations of IHA
S3G3 turned to spare and S3G5 turned on
LCSP 71180 @ 04:17:15 UTC
S2 powered down 04:20:33 UTC
S4 powered down 04:34:03 UTC
LGSP 71181 @ 04:18:12 UTC
LSP 71200 @ 05:27:42 UTC

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	Notes
19:03		71027		S2G02 No Fire
19:07		71028		S2G02 No Fire, S4G01 Delta Timing -1.2
19:11		71029		S2G02 No Fire
19:14		71030		S1G02 No Fire, S4G03 Delta Timing -1.1
19:18		71031		S4G01 No Fire
19:25		71033		S2G02, S4G03 No Fire
19:28		71034		S2G02 No Fire
19:32		71035		S2G02 No Fire
19:35		71036		S2G04 Delta Timing -1.4, S4G03 No Fire
19:39		71037		S4G01,2,3 No Fire
19:43		71038		S2G02 No Fire
19:46		71039		S2G02, S4G02 No Fire
19:50		71040		S2G02 No Fire
19:53		71041		S2G02 No Fire
20:01		71043		S2G02 No Fire
20:04		71044		S2G02 No Fire, S4G01 Delta Timing 1.1
20:08		71045		S4G05 No Fire
20:11		71046		S2G02 No Fire
20:15		71047		S2G02 No Fire
20:22		71049		S2G02 No Fire
20:26		71050		S2G02 No Fire
20:30		71051		S2G02 No Fire
20:41		71054		S2G04 Delta Timing -1.1, S4G05 No Fire
20:44		71055		S2G02 No Fire
20:48		71056		S2G02, S4G01,3 No Fire, S2G04 Delta Timing 1.2
20:52		71057		S2G02 S4G02 No Fire, S4G01 Delta Timing -1.3
20:55		71058		S2G02 No Fire, S2G04 Delta Timing -1.4
20:59		71059		S2G02 No Fire
21:02		71060		S2G02, S4G03 No Fire, S2G04 Delta Timing 1.6
21:06		71061		S1G05 Delta 5.6, S2G04 Delta -1.2, S2G05 Delta 7.9, Spread Error 9.1
21:10		71062		S4G01, 5 No Fire, S1G05 Delta -2.7, S2G05 Delta -2.9, Spread Error 3.2
21:13		71063		S1G05 Delta Timing -1.2, S2G05 Delta Timing -1.6
21:17		71064		S4G05 No Fire
21:24		71066		S4G05 No Fire
21:32		71068		S4G05 No Fire
21:35		71069		S4G05 No Fire
21:39		71070		S4G01 Delta Timing 1.1
21:42		71071		S4G01 Delta Timing -1.2
21:46		71072		S4G05 No Fire
21:53		71074		S4G05 No Fire
21:57		71075		S4G01 Delta Timing 1.1
22:00		71076		S4G01 No Fire
22:11		71079		S4G02, 5 No Fire
22:29		71084		S4G05 No Fire
22:33		71085		S4G01 Delta Timing 1.1
22:44		71088		S4G05 No Fire
22:51		71090		S4G05 No Fire
22:55		71091		S4G01 No Fire
22:58		71092		S4G05 No Fire

23:02		71093	S4G02 No Fire
23:13		71096	S4G5 No Fire
23:20		71098	S4G3 No Fire
23:28		71100	S4G2,3,5 No Fire / S4G1 Delta Timing 1.6 / Spread Error 2.1
23:35		71102	S4G1 No Fire
23:49		71106	S4G5 No Fire / S4G1 Delta Timing 1.1
23:56		71108	S4G1 No Fire
00:00		71109	S4G3 No Fire
00:32		71118	S4G3 No Fire / S4G1 Delta Timing -1.1
00:36		71119	S4G5 No Fire / S3G5 Delta Timing 4.5 / Spread Error 4.9
00:39		71120	S4G5 No Fire / S3G1, 4,5 Delta Timing 1.1, -1.4, -2.8 / Spread Error 3.9
00:46		71122	S4G3,5 No Fire
00:53		71124	S4G5 No Fire
01:00		71126	S4G5 No Fire
01:07		71128	S4G4 Delta Timing -1.2
01:11		71129	S4G5 No Fire
01:14		71130	S4G1 Delta Timing 1.3
01:18		71131	S4G2 No Fire
01:21		71132	S4G2, S4G5 No Fire
01:28		71134	S4G5 No Fire
01:39		71137	S4G1 Delta Timing 1.1
01:43		71138	S4G5 No Fire
01:46		71139	S4G2 No Fire
01:50		71140	S4G5 No Fire
02:01		71143	S4G5 No Fire / S4G1 Delta Timing -1.2
02:04		71144	S4G1 Delta Timing 1.2 / S4G4 Delta Timing 1.1
02:08		71145	S4G1 No Fire
02:15		71147	S4G2 No Fire/ S4G5 No Fire
02:22		71149	S4G5 No Fire
02:33		71152	S4G1 No Fire / S4G5 No Fire
02:41		71154	S4G1 Delta Timing -1.1
02:44		71155	S4G1 Delta Timing -1.1 / S4G2 No Fire / S4G5 No Fire
02:48		71156	S4G1 Delta Timing 1.7
02:51		71157	S4G3 No Fire / S4G5 No Fire
02:55		71158	S4G5 No Fire
02:59		71159	S4G1 No Fire
03:02		71160	S4G5 No Fire
03:06		71161	S4G3 No Fire
03:09		71162	S4G3 No Fire
03:13		71163	S4G5 No Fire
03:16		71164	S4G1 Delta Timing -1.1
03:27		71167	S4G5 No Fire
03:31		71168	S4G2 No Fire
03:34		71169	S4G3 No Fire
03:38		71170	S4G3,5 No Fire
03:41		71171	S4G3 No Fire
03:49		71173	S4G2 No Fire
03:56		71175	S4G2,3,5 No Fire
04:00		71176	S4G5 No Fire
04:10		71179	S4G5 No Fire / S4G1 Delta Timing -1.5
04:21		71182	S4G5 No Fire

[illegible]

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski, Bern McKiernan
Sen. Observer	
Observers	Michaela Conley, Erica Emry, Regan Austin, Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	72019
SP #	72019	72179	LGSP	72179

Line	Lau_B009
Sequence	072
Direction	11

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	72019	72179
Date dd/mm/yy	16/2/2009	16/2/2009
Time UTC	07:21:26	16:55:33
Volume (cu in.)	6880	6840
Streamer Depth (m)	na	na
Wind (kts)	4.2	4.4
Sea State (ft)	1-2	1-2
Water Depth (m)	2465	2574

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: FSP/FGSP 72019 @ 07:21:26 UTC
S2G4,5 Off at SOL
S1G3 S4G3 Spare at SOL
FCSP 72021 @ 07:28:37 UTC
S2G2 turned off, S3G3 spare
S2G4,5 turned on.
End of Line: LSP/LGSP 72179 @ 16:55 UTC

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	Notes
07:21		72019		S4G1 Delta Timing 1.1
07:28		72021		S4G5 No Fire
07:39		72024		S4G5 No Fire
07:43		72025		S2G4,5 Delta Timing 2.6, 6.8 / Spread Error 7.0
07:46		72026		S4G5 No Fire / S2G5 Delta Timing -3.0 / Spread Error 3.8
07:50		72027		S2G5 Delta Timing -1.4
07:57		72029		S4G5 No Fire
08:07		72032		S4G5 No Fire / S4G1,2 Delta Timing -1.3, 1.3 / Spread Error 2.6
08:18		72035		S4G5 No Fire
08:25		72037		S4G5 No Fire / S4G2 Delta Timing 1.3 / Spread Error 2.2
08:32		72039		S4G5 No Fire
08:39		72041		S4G5 No Fire
08:50		72044		S4G5 No Fire
08:57		72046		S4G5 No Fire
09:05		72048		S4G2 Delta timing 1.1
09:08		72049		S4G2 Delta timing -1.4 / S4G5 No Fire
09:15		72051		S4G5 No Fire
09:23		72053		S4G5 No Fire
09:26		72054		Spread Error 2.2 / S4G1 Delta Timing 1.5 / S4G4 Delta Timing 1.2
09:34		72056		S4G5 No Fire
09:41		72058		S4G5 No Fire
09:51		72061		S2G4 No Fire / S4G5 No Fire
09:55		72062		S2G5 Delta Timing -1.2
09:59		72063		S4G5 No Fire
10:06		72065		S4G1 Delta Timing -1.2
10:10		72066		S4G5 No Fire
10:13		72067		Spread Error 2.2 / S4G1 Delta Timing 1.3 / S4G4 Delta Timing 1.3
10:17		72068		S4G1 Delta Timing 1.1 / S4G2 Delta Timing 1.2
10:20		72069		S4G1 Delta Timing -1.6 / S4G2 Delta Timing -1.3 / S4G5 No Fire
10:27		72071		S4G5 No Fire
10:38		72074		S4G5 No Fire
10:49		72077		S4G5 No Fire
11:00		72080		S4G5, S4G9 No Fire
11:07		72082		S4G1 Delta Timing -1.2 / S4G5 No Fire
11:15		72084		S4G5 No Fire
11:22		72086		S4G5 No Fire
11:29		72088		S4G5 No Fire
11:36		72090		S4G5 No Fire
11:43		72092		S4G1 Delta Timing 1.2 / S4G5 No Fire
11:47		72093		S4G1 Delta Timing -1.5
11:50		72094		S4G5 No Fire
11:57		72096		S4G5 No Fire
12:04		72098		S4G1 Delta Timing 1.1
12:08		72099		S4G5 No Fire
12:15		72101		S4G5 No Fire
12:18		72102		S4G9, S4G10 Comm Error
12:22		72103		S4G5 No Fire / S4G9, S4G10 Comm Error
12:25		72104		S4 All Guns No Fire
12:36		72107		S4G5 No Fire

[illegible]

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	73022
SP #	73022	73026	LGSP	73026

Line	Lau_B009A
Sequence	073
Direction	281

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, μ B	na	na	na	na
EOL Cable Noise, μ B	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	73022	73026
Date dd/mm/yy	16/2/2009	16/2/2009
Time UTC	16:58	17:16
Volume (cu in.)	6840	6840
Streamer Depth (m)	na	na
Wind (kts)	4.2	6
Sea State (ft)	1-2	1-2
Water Depth (m)	2579	2614

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

[illegible]

Abbreviations	
<i>SOL/EOL - Start/End of Line</i>	<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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	74022
SP #	74022	74179	LGSP	74179

Line	Lau_B010
Sequence	074
Direction	191

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, μ B	na	na	na	na
EOL Cable Noise, μ B	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	74022	74179
Date dd/mm/yy	16/2/2009	17/2/2009
Time UTC	17:17	02:54:23
Volume (cu in.)	6840	6840
Streamer Depth (m)	na	na
Wind (kts)	6	6-8
Sea State (ft)	1-2	2-4
Water Depth (m)	2612	2404

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

[illegible]

Abbreviations	
<i>SOL/EOL - Start/End of Line</i>	<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>	

Time UTC	FILE	SP	Tape	Notes
17:17		74022		S3G04 Delta Timing -1.1, S4G01 Delta Timing -1.4, S4G05 No Fire
17:22		74023		S3G02 Delta Timing 1.5, S4G01 Delta Timing 1.6
17:26		74024		S4G02 Delta Timing 1.8, S4G05 No Fire, Spread Error 2.5
17:33		74026		S4G05 No Fire
17:41		74028		S4G05 No Fire
17:44		74029		S4G02 Delta Timing -1.1
17:48		74030		S4G01 Delta Timing -1.1
17:52		74031		S4G05 No Fire
17:55		74032		S4G01 Delta Timing 1.2
17:59		74033		S4G02 Delta Timing 1.6, S4G05 No Fire, Spread Error 2.2
18:10		74036		S4G05 No Fire
18:14		74037		S4G01 Delta Timing -1.2
18:17		74038		S4G01 Delta Timing 1.2, S4G02 Delta Timing 1.7, Spread Error 2.2
18:21		74039		S4G02 Delta Timing -1.7, S4G05 No Fire, Spread Error 2.6
18:25		74040		S4G02 Delta Timing 1.6
18:29		74041		S3G02 Delta -1.1, S4G02 Delta -1.9, S4G05 No Fire. Spread Error 2.4
18:33		74042		S4G01 Delta Timing 1.2, S4G02 Delta Timing 1.3
18:40		74044		S4G02 Delta Timing -1.8, S4G05 No Fire
18:52		74047		S4G5 No Fire / S3G2 Delta timing at -1.1ms
18:56		74048		S4G2 Delta timing at -1.3
18:59		74049		S4G5 No Fire / S4G2 Delta timing at 1.8ms
19:03		74050		S4G2 Delta timing at -1.5
19:07		74051		S4G5 no fire
19:11		74052		S3G2 Delta Timing at -1.2ms
19:15		74053		S4G5 no fire / S4G2 Delta timing at 1.4ms
19:26		74056		S4G5 no fire / S4G2 Delta timing at 1.5ms
19:34		74058		S4G5 no fire / S3G2-S4G2 Delta timing at -1.1ms / -1.2 ms
19:38		74059		S4G2 Delta Timing at 1.1ms
19:41		74060		S4G5 no fire / S4G2 Delta timing at -1.2ms
19:45		74061		S4G2 Delta timing at 1.6
19:53		74063		S4G5 no fire
19:57		74064		S4G2 Delta timing at -1.1
20:01		74065		S4G2 Delta timing at 2.1
20:04		74066		S4G5 no fire / S4G2 Delta timing at -1.3ms
20:12		74068		S4G5 no fire / S4G2 Delta timing at 1.2ms
20:16		74069		S4G2 Delta timing at -1.6
20:19		74070		S4G2 Delta timing at 1.7 - Spread Error 2.4ms
20:23		74071		S4G5 no fire / S4G2-S3G2 Delta timing at -1.3ms / -1.7 - Spread Error 2.4ms
20:34		74074		S4G5 no fire
20:41		74076		S3G2 Delta timing at -1.3
20:45		74077		S4G5 no fire
20:56		74080		S4G2 -S3G2 Delta timing at -1.3ms - 1.2
20:59		74081		S4G5 no fire / S4G2 Delta timing at -1.1ms
21:10		74084		S4G5 no fire
21:14		74085		S3G2 Delta timing at -1.5
21:17		74086		S4G5 no fire
21:21		74087		S4G01 Delta Timing 1.2
21:25		74088		S4G5 no fire

21:32		74090	S4G5 no fire / S4G1 Delta timing at -1.6ms
21:36		74091	S4G01 Delta Timing 1.1
21:39		74092	S4G5 no fire
21:47		74094	S4G5 no fire
21:51		74095	S4G2-S3G2 Delta timing at -1ms / 2 - Spread Error 2.4ms
21:55		74096	S4G5 no fire
22:02		74098	S4G5 no fire
22:09		74100	S4G5 no fire
22:16		74102	S4G01 Delta Timing 1.\4
22:20		74103	S4G5 no fire
22:27		74105	S3G2 Delta timing at -1.2ms
22:31		74106	S4G5 no fire
22:34		74107	S3G2 Delta timing at 1.5
22:38		74108	S4G5 No Fire
22:45		74110	S4G5 No Fire
22:52		74112	S4G5 no fire / S3G1 Delta timing at 1.4ms
23:03		74115	Spread Error 2.7 / S4G1 Delta Timing 2.2 / S4G5 No Fire
23:10		74117	S4G1 Delta Timing -1.5 / S4G5 No Fire
23:21		74120	Spread Error 2.2 / S4G1 Delta Timing -1.7 / S4G5 No Fire
23:25		74121	S3G2 Delta Timing -1.1
23:32		74123	S4G5 No Fire
23:43		74126	S4G5 No Fire
23:54		74129	S4G5 No Fire
23:58		74130	S4G1 Delta Timing 1.1 / S4G2 Delta Timing 1.7 / S4G4 Delta Timing 1.1
00:01		74131	S4G2 Delta Timing -1.3
00:05		74132	Spread Error 2.1 / S3G2 Delta Timing -1.6 / S4G5 No Fire
00:12		74134	S4G5 No Fire
00:16		74135	S4G2 Delta Timing 1.3
00:20		74136	S4G2 Delta Timing -1.2
00:23		74137	S4G2 Delta Timing 1.4 / S4G05 No Fire
00:27		74138	Spread Error 2.9 / S4G1 Delta Timing -2.2
00:34		74140	S4G5 No Fire
00:38		74141	Spread Error 2.2 / S3G2 Delta Timing -1.4
00:42		74142	S3G2 Delta Timing 1.3
00:45		74143	S4G5 No Fire
00:56		74146	S4G5 No Fire
01:00		74147	S4G1 Delta Timing -1.4
01:07		74149	S4G5 No Fire
01:18		74152	S4G5 No Fire
01:25		74154	S4G5 No Fire
01:28		74155	S3G2 Delta Timing -1.3
01:35		74157	S4G5 No Fire
01:46		74160	S4G5 No Fire
01:56		74163	S4G5 No Fire
02:00		74164	S3G2 Delta Timing -1.1 / Spread Error 2.1
02:03		74165	S3G2 Delta Timing 1.1
02:07		74166	S4G5 No Fire
02:10		74167	S4G2 Delta Timing 1.3
02:17		74169	S4G5 No Fire
02:28		74172	S4G5 No Fire
02:35		74174	S4G5 No Fire

[illegible]

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	75022
SP #	75022	75024	LGSP	75024

Line	Lau_B010A
Sequence	075
Direction	281

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, μ B	na	na	na	na
EOL Cable Noise, μ B	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	75022	75024
Date dd/mm/yy	17/2/2009	17/2/2009
Time UTC	02:57:21	03:05:27
Volume (cu in.)	6660	6660
Streamer Depth (m)	na	na
Wind (kts)	7-9	1-3
Sea State (ft)	2-4	2-4
Water Depth (m)	2398	2364

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

[illegible]

Abbreviations	
<i>SOL/EOL - Start/End of Line</i>	<i>LGSP - Last Good SP</i>
<i>FGSP- First Good SP</i>	<i>LCSP - Last Chargeable SP</i>
<i>FCSP - First Chargeable SP</i>	<i>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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski, Bern McKiernan
Sen. Observer	
Observers	Erica Emry, Michaela Conley, Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	76023
SP #	76023	76159	LGSP	76159

Line	Lau_B011
Sequence	076
Direction	11

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	76023	76159
Date dd/mm/yy	17/2/2009	17/2/2009
Time UTC	03:19:46	12:07:22
Volume (cu in.)	6840	6420
Streamer Depth (m)	na	na
Wind (kts)	6-8	4
Sea State (ft)	2-4	2-4
Water Depth (m)	2424	2528

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: FSP/FGSP 76023 @ 3:19:46 UTC
S2G2 off, S1G3, S3G3, S4G3 spare
Power cycled S3 @ 05:55:38 UTC
Switched S3 comm and power from Master to Secondary @ 06:18:05 UTC
Power cycled S3 @ 06:31:20 UTC
Switched to internal shooting at 20s @ 06:33:57 UTC
Switched back to external shooting @ 06:43:19 UTC
Power cycled S3 @ 06:46:58 UTC
Switched S3 comm and power from Secondary to Master @ 06:51:40 UTC
String 3 powered down @ 07:05 UTC (new volume 5050 psi)
Spares adjusted for 76105: was S1G3,S2G2,S2G3,S4G3 -- reduced volume for IHA compliance
Spares adjusted for 76105: now S1G5,S2G2,S2G5,S4G5 -- reduced volume for IHA compliance
End of Line: LSP/LGSP 76159 @ 12:07:22 UTC

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	Notes
03:19		76023		Spread Error 3.6 / S3G1 Delta Timing 1.2 / S4G4 Delta Timing -2.4
03:27		76025		S4G5 No Fire
03:30		76026		S4G1 Delta Timing 1.2
03:37		76028		S4G5 No Fire
03:48		76031		S4G5 No Fire
03:55		76033		S4G5 No Fire
04:06		76036		S4G1 Delta Timing 1.6
04:13		76038		S4G1 Delta Timing -1.1 / S4G5 No Fire
04:20		76040		S3G1 Delta Timing 1.1 / S3G2 Delta Timing 1.6
04:24		76041		S3G2 Delta Timing -1.1 / S4G5 No Fire
04:31		76043		S4G5 No Fire
04:35		76044		S4G1 Delta Timing -1.1
04:42		76046		S4G1 Delta Timing -1.1
04:46		76047		S4G5 No Fire
04:50		76048		S4G2 Delta Timing 1.8 / Spread Error 2.1
04:57		76050		S4G5 No Fire / S4G1 Delta Timing -1.2
05:07		76053		S4G5 No Fire
05:15		76055		S4G5 No Fire
05:22		76057		S4G5 No Fire / S4G1 Delta Timing -1.1
05:26		76058		S4G1 Delta Timing 1.3 / Spread Error 2.1
05:29		76059		S4G5 No Fire / S4G2 Delta Timing 1.2
05:33		76060		S4G2 Delta Timing -1.1
05:36		76061		S4G5 No Fire / S4G2 Delta Timing 1.2
05:40		76062		S4G2 Delta Timing -1.2
05:47		76064		S3G4,5 Comm Error / S4G5 No Fire
05:51		76065		S3G4 Comm Error
05:58		76067		S3, S4G5 No Fire
06:06		76069		S4G5 No Fire / S3G4 Delta Timing 1.3
06:13		76071		S3G2,4,5,6 Comm Error
06:16		76072		S3G1,2,3,4,5,6 Comm Error
06:20		76073		S4G5 No Fire
06:23		76074		S3G2,4,5,6 Comm Error
06:27		76075		S3G1,2,4,5,6 Comm Error
06:31		76076		S4G5 No Fire / S3G2,4,5,6 Comm Error / S3G3 Auto Fire 26316.8
switched to 20 sec				
06:44		76079		S3G4,5,6 Comm Error
06:50		76080		S3G,7,8,9,10 No Fire / S3G1,2,4,5
06:55		76081		S3G1,2,3,4,5 Comm Error / S4G1 Delta Timing -1.2
07:01		76082		S3G1,2,3,4,5 Comm Error
string 3 powered down				
07:27		76087		S4G5 No Fire
07:37		76089		S4G4 Delta Timing 1.1
string 3 powered up				
07:42		76090		S4G4 Delta Timing -1.2 / S4G5 No Fire
07:52		76092		S4G5 No Fire
08:08		76095		S4G2 Delta Timing 1.1
08:14		76096		S4G2 Delta Timing -1.1 / S4G5 No Fire
08:19		76097		S1G2 Delta Timing -1.3

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	77022
SP #	77022	77028	LGSP	77028

Line	Lau_B011A
Sequence	077
Direction	281

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, μ B	na	na	na	na
EOL Cable Noise, μ B	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	77022	77028
Date dd/mm/yy	17/2/2009	17/2/2009
Time UTC	12:10	12:33
Volume (cu in.)	6420	6420
Streamer Depth (m)	na	na
Wind (kts)	5	12
Sea State (ft)	2-3	2-3
Water Depth (m)	2533	2583

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

[illegible]

Abbreviations	
<i>SOL/EOL - Start/End of Line</i>	<i>LGSP - Last Good SP</i>
<i>FGSP- First Good SP</i>	<i>LCSP - Last Chargeable SP</i>
<i>FCSP - First Chargeable SP</i>	<i>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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	78023
SP #	78023	78129	LGSP	78129

Line	Lau_B012
Sequence	078
Direction	191

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	78023	78129
Date dd/mm/yy	17/2/2009	17/2/2009
Time UTC	12:39	19:04
Volume (cu in.)	6420	6420
Streamer Depth (m)	na	na
Wind (kts)	15	12
Sea State (ft)	2-4	2-4
Water Depth (m)	2572	2327

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: FSP/FGSP 78023 @ 12:39 UTC
S2G2, S1G5, S3G5, S4G5 spare at SOL
String 4 9-10 comm failure power cycle supply
End of Line: LSP/LGSP 78129 @ 19:04 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	79022
SP #	79022	79026	LGSP	79026

Line	Lau_B012A
Sequence	079
Direction	281

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	79022	79026
Date dd/mm/yy	17/2/2009	17/2/2009
Time UTC	19:07	19:24
Volume (cu in.)	6420	6420
Streamer Depth (m)	na	na
Wind (kts)	10	9
Sea State (ft)	2-4	2-4
Water Depth (m)	2268	2022

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: FSP/FGSP 79022 @ 19:07 UTC
S2G2, S1G5, S3G5, S4G5 spare at SOL
End of Line: LSP/LGSP 79026 @ 19:24 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	80022
SP #	80022	80159	LGSP	80150

Line	Lau_B013
Sequence	080
Direction	11

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	80022	80159
Date dd/mm/yy	17/2/2009	18/2/2009
Time UTC	19:25	03:41:25
Volume (cu in.)	6420	4950
Streamer Depth (m)	na	na
Wind (kts)	9	8.0
Sea State (ft)	2-4	2-3
Water Depth (m)	2036	2728

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: FSP/FGSP 80022 @ 19:25 UTC
S2G2, S1G5, S3G5, S4G5 spare at SOL
Power Cycle S4 @ 20:58 UTC
LCSP/LGSP: 80150 @ 03:07 UTC
S2 powered down @ 03:13:02 UTC
End of Line: LSP 80159 @ 03:41:25 UTC

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	Notes
19:25		80022		S3G02 Delta Timing -1.1
19:30		80023		Spread Error 2.6 / S3G02, S4G02 Delta Timing 1.1, 2.0
19:34		80024		Spread Error 2.7 / S4G02 Delta Timing -1.7
19:44		80027		S4G01 Delta Timing -1.3
19:48		80028		S3G04 Delta Timing -1.3
19:52		80029		S4G01 Delta Timing 1.5
20:17		80036		S3G04, S4G04 Delta Timing -1.4, -1.1
20:21		80037		S3G04 Auto Fire Error
20:24		80038		Spread Error 3.6 / S3G04 Auto Fire 9271.2 / S3G04 Delta Timing 2.9
20:53		80046		S4G09, S4G10 Comm Error
20:56		80047		S4G09, S4G10 Comm Error
21:00		80048		S4 all guns No Fire
21:03		80049		S4G02 Delta Timing 1.3
21:25		80055		S4G01 Delta Timing 1.4
21:39		80059		Spread Error 2.1 / S4G01 Delta Timing -1.2
22:23		80071		S4G04 Delta Timing -1.1
22:30		80073		S4G04 Delta Timing -1.2
22:33		80074		S4G01 Delta Timing 1.2, S4G04 Delta Timing 1.5, Spread Error 2.1
22:44		80077		S4G04 Delta Timing -1.2
22:48		80078		S4G04 Delta Timing 1.2
22:51		80079		S4G04 Delta Timing -1.3
22:55		80080		Spread Error 2.4 / S4G04 Delta Timing 2.0
23:06		80083		S4G1 Delta Timing 1.7 / Spread Error 2.6
23:09		80084		S4G1 Delta Timing -1.5 / Spread Error 2.1
23:37		80092		S4G1 Delta Timing 1.3
00:05		80100		S4G4 Delta Timing -1.1
00:20		80104		S4G9 No Fire / S4G4 Delta Timing 1.1
00:27		80106		S4G4 Delta Timing -1.1
00:31		80107		S4G4 Delta Timing 1.2
00:42		80110		S4G4 Delta Timing -1.4
00:53		80113		S4G1 Delta Timing -1.1
01:22		80121		S4G1 Delta Timing 1.1
01:25		80122		S4G4 Delta Timing 1.2
01:29		80123		S4G4 Delta Timing -1.1
01:58		80131		S4G4 Delta Timing 1.1
02:02		80132		Spread Error 2.3 / S4G2 Delta Timing 1.3
02:05		80133		S4G2 Delta Timing -1.1
02:13		80135		Spread Error 2.1 / S4G4 Delta Timing 1.3
02:17		80136		S4G1 Delta Timing -1.1
02:24		80138		S4G4 Delta Timing 1.3
02:31		80140		S4G4 Delta Timing 1.3
02:35		80141		S4G4 Delta Timing -1.2
02:45		80144		Spread Error 2.1 / S4G4 Delta Timing 1.5
03:00		80148		S4G4 Delta Timing 1.1
03:04		80149		S4G4 Delta Timing -1.6
03:07		80150		S4G4 Delta Timing 1.1
		80151		Internal Shot after scheduled shot
03:15		80152		S3 No Fire

[illegible]

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	n/a
SP #	81022	81026	LGSP	n/a

Line	Lau_B013A
Sequence	081
Direction	281

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	81022	81026
Date dd/mm/yy	18/2/2009	18/2/2009
Time UTC	03:45:10	4:02:30
Volume (cu in.)	4950	4950
Streamer Depth (m)	na	na
Wind (kts)	7.6	11.6
Sea State (ft)	2-3	2-3
Water Depth (m)	2749	2594

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: FSP 81022 @ 03:45:10 UTC
S1G5 S3G5 S4G5 Spare at SOL
S2 on deck for repairs
End of Line: LSP 81026 @ 04:02:30 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	82021
SP #	82021	82150	LGSP	82150

Line	Lau_B014
Sequence	082
Direction	191

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	82021	82150
Date dd/mm/yy	18/2/2009	18/2/2009
Time UTC	04:45:24	12:32
Volume (cu in.)	6600	6560
Streamer Depth (m)	na	na
Wind (kts)	11.1	12
Sea State (ft)	2-3	4
Water Depth (m)	2619	2149

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: FSP/FGSP 82021 @ 04:45:24 UTC
S2G4,5 turned off after shot 82028 @ 05:11
S2G5 turned on after shot 82029 @ 5:14
S2G4,5 turned off after shot 82030 @ 05:18
S2G4,5 turned on before shot 82031, S2G2 turned off before shot 82031 @ 05:21 (New Volume 6420)
Delta errors on S4G4, errors climbed steadily, taken offline, possible location of the leak?
S4G4 spared, S4G5 turned after shot 82117 @ 10:32 UTC
Powered string 4 down & powered up between shots 82118 & 82119 (full string did not fire for 82119)
S2G3 off S1G5 on to maintain 36 gun array max volume
End of Line: 82150 LSP/LGSP @ 12:32 UTC

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	Notes
04:52		82023		S2G2 No Fire / S3G2 Delta Timing -1.1
04:56		82024		Spread Error 2.3 / S2G4 Delta Timing 1.7 / S3G2 Delta Timing 1.1
05:00		82025		Spread Error 3.4 / S2G2 No fire / S2G4 Delta Timing -2.0 / S4G2 Delta Timing 1.4
05:03		82026		S2G2 No Fire
05:07		82027		Spread Error 2.6 / S2G2 No Fire / S3G2 Delta Timing -1.9
05:11		82028		S2G2 No Fire
05:18		82030		Spread Error 3.8 / S2G2 No Fire / S2G5 Delta Timing 3.5
05:21		82031		Spread Error 4.6 / S2G4 Delta Timing 2.4 / S2G5 Delta Timing -2.2
05:25		82032		Spread Error 2.6 / S2G4 Delta Timing -2.1
05:29		82033		S2G5 Delta Timing -1.4
05:32		82034		S4G1 Delta Timing 1.1
05:43		82037		S3G2 Delta Timing -1.5
05:47		82038		Spread Error 2.2 / S3G2 Delta Timing 1.1 / S3G4 Delta Timing -1.1
06:01		82042		Spread Error 2.2 / S3G2 Delta Timing -1.3
06:05		82043		S4G2 Delta Timing 1.1
06:08		82044		S4G2 Delta Timing 1.2
06:56		82057		S3G2 Delta Timing -1.5
07:07		82060		S4G1 Delta Timing 1.1
07:50		82072		S3G2 Delta Timing -1.6
07:53		83073		S3G2 Delta Timing 1.6
08:08		82077		S4G1 Delta Timing 1.1
08:12		82078		S4G1 Delta Timing -1.2
08:51		82089		S3G1 Delta Timing -1.1
08:55		82090		S4G1 Delta Timing 1.7 / Spread Error 2.1
08:58		82091		Spread Error 2.6 / S4G1 Delta Timing 2.2
09:02		82092		S3G2 Delta Timing -1.4
09:06		82093		Spread Error 2.8 / S4G1 Delta Timing -1.9
09:09		82094		Spread Error 2.2 / S3G2 Delta Timing 1.1 / S4G1 Delta Timing -1.1
09:48		82105		S1G4 Delta Timing 1.1
09:59		82108		Spread Error 2.7 / S4G4 Delta Timing -1.7
10:03		82109		Spread Error 2.9 / S3G2 Delta Timing -1.6 / S3G4 Delta Timing 1.3
10:10		82111		Spread Error 2.6 / S3G2 Delta Timing 1.4 / S3G4 Delta Timing -1.2
10:17		82113		Spread Error 2.8 / S3G1 Delta Timing -1.9
10:21		82114		Spread Error 3.0 / S3G1 Delta Timing 1.3 / S4G4 Delta Timing -1.7
10:25		82115		Spread Error 3.3 / S3G2 Delta Timing -1.5 / S4G4 Delta Timing 1.8
10:28		82116		Spread Error 2.7 / S4G4 Delta Timing -2.0
10:32		82117		S4G4 Delta Timing 1.5 / S4G9 Comm Error / S4G10 Comm Error
10:35		82118		Comm Error / S4G10 Comm Error
10:39		82119		S4 No Fire (1,2,3,5,6,7,8,9,10)
10:46		82121		S3G2 Delta Timing -1.4
10:53		82123		S1G4 Delta Timing -1.3
11:08		82127		S4G9 no fire
11:15		82129		S1G5 Delta timing at 6.5ms / Spread error 7.5ms
11:19		82130		S1G4 S1G5 S3G2 Delta Timing at -1.2 / -3.1 / -1.8ms
11:23		82131		S1G5 S4G1 Dela timing at 1.2ms
11:33		82134		S3G2 Delta timing at 2.2ms
11:52		82139		S3G4 Delta Timing -1.2
11:55		82140		S3G2 Delta timing at -1.1ms

[illegible]

Observers Log	
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Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	83022
SP #	83022	83066	LGSP	83066

Line	Lau_B014A
Sequence	083
Direction	~350

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	83022	83066
Date dd/mm/yy	18/2/2009	18/2/2009
Time UTC	12:55	15:38
Volume (cu in.)	6560	6560
Streamer Depth (m)	na	na
Wind (kts)	15	17
Sea State (ft)	4	4
Water Depth (m)	2269	1996

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

[illegible]

Abbreviations	
<i>SOL/EOL - Start/End of Line</i>	<i>LGSP - Last Good SP</i>
<i>FGSP- First Good SP</i>	<i>LCSP - Last Chargeable SP</i>
<i>FCSP - First Chargeable SP</i>	<i>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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Regan Austin, Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	84025
SP #	84025	84167	LGSP	84156

Line	Lau_B015
Sequence	084
Direction	101

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	84025	84167
Date dd/mm/yy	18/2/2009	19/2/2009
Time UTC	15:46	00:19:12
Volume (cu in.)	6560	5040
Streamer Depth (m)	na	na
Wind (kts)	16	14
Sea State (ft)	4	4
Water Depth (m)	1996	2250

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: FSP/FGSP 84025 @ 15:46 UTC
S2G2 off, S2G3, S3G5, S4G4 Spare
S3G04 turned off and S3G05 turned on due to auto fire and delta timing errors @ 20:29 UTC
LGSP 84156 @ 23:39:12 UTC
String 2 powered down for repairs (switching out GCM on G4,5)
End of Line: LSP 84167 @ 00:19:12

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	Notes
15:50		84026		S3G02 Delta Timing 1.2
15:57		84028		Spread Error 2.1 / S4G02 Delta Timing 1.4
16:00		84029		Spread Error 2.1 / S2G05, S4G05 Delta Timing -1.1 -1.2
16:15		84033		Spread Error 4.6 / S3G04 Delta Timing -3.7
16:23		84035		S3G02, S3G04 Delta Timing -1.4, -1.3
17:06		84047		Spread Error 2.7 / S3G04 Delta Timing -2.3
17:10		84048		Spread Error 2.7 / S2G05, S3G04, S4G01 Delta Timing 1.2, 1.5, -1.2
17:13		84049		Spread Error 4.2 / S3G04 Auto Fire 11893.6 / S3G04 Delta Timing 3.7
17:21		84051		S4G01 Delta Timing -1.4
17:24		84052		Spread Error 2.1 / S4G01 Delta Timing 1.7
17:28		84053		S4G01 Delta Timing 1.1
17:35		84055		S4G01 Delta Timing -1.1
17:42		84057		S4G01 Delta Timing 1.1
18:04		84063		S2G05 Delta Timing 1.1
18:36		84072		S4G02 Delta Timing 1.1
19:02		84079		S4G05 Delta Timing -1.1
19:24		84085		S4G01 Delta Timing -1.1
20:03		84096		S3G04 Delta Timing -1.8, Spread Error 2.3
20:07		84097		S3G04 Auto Fire 15987.2/ Delta Timing 4.2, Spread Error 4.6
20:10		84098		S3G04 Delta Timing -1.4
20:14		84099		S3G04 Delta Timing -2.5, Spread Error 3.2
20:21		84101		S3G04 Delta Timing 1.9, Spread Error 2.6
20:25		84102		S3G04 Auto Fire 15564.8/ Delta Timing 3.1, Spread Error 3.7
20:28		84103		S3G05 Delta Timing 3.4, Spread Error 3.8
20:32		84104		S3G04 Auto Fire 364.0, S3G05 Delta Timing -2.1, Spread Error 3.0
20:36		84105		S3G04 Auto Fire 411.2
20:39		84106		S2G05 Delta Timing 1.1
20:43		84107		S2G05 Delta Timing -1.1
20:57		84111		S3G05 No Fire
21:26		84119		S3G05 No Fire
21:47		84125		S3G05 No Fire
21:58		84128		S3G05 No Fire
22:05		84130		S3G05 No Fire
22:13		84132		S3G05 No Fire
22:37		84139		S3G05 No Fire
22:48		84142		S3G05 No Fire
23:02		84146		S2G05 Delta Timing 1.1
23:10		84148		S3G05 No Fire, S4G01 Delta Timing 1.1
23:13		84149		S3G05 No Fire
23:17		84150		S4G01 Delta Timing -1.1
23:20		84151		S3G05 No Fire
23:28		84153		S3G05 No Fire
23:32		84154		S3G05 No Fire
23:35		84155		S3G05 No Fire
String 2 off				
23:42		84157		S3G05 No Fire
23:46		84158		S3G05 No Fire
00:19		84167		S3G05 No Fire

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	n/a
SP #	85025	85028	LGSP	n/a

Line	Lau_B015A
Sequence	085
Direction	11

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, μ B	na	na	na	na
EOL Cable Noise, μ B	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	85025	85028
Date dd/mm/yy	18/2/2009	19/2/2009
Time UTC	00:38:41	00:50:23
Volume (cu in.)	5130	
Streamer Depth (m)	na	na
Wind (kts)	15	
Sea State (ft)	4	2-3
Water Depth (m)	2268	2246

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

[illegible]

Abbreviations	
<i>SOL/EOL - Start/End of Line</i>	<i>LGSP - Last Good SP</i>
<i>FGSP - First Good SP</i>	<i>LCSP - Last Chargeable SP</i>
<i>FCSP - First Chargeable SP</i>	<i>LFSP - 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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	86019
SP #	86019	86160	LGSP	86160

Line	Lau_B016
Sequence	086
Direction	281

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	86019	86160
Date dd/mm/yy	19/2/2009	19/2/2009
Time UTC	01:17:40	09:44:50
Volume (cu in.)	6420	6240
Streamer Depth (m)	na	na
Wind (kts)	6.9	8.3
Sea State (ft)	2-3	2-3
Water Depth (m)	2265	2047

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: FSP/FGSP 86019 @ 01:17:40 UTC
S2G2.5 S3G5 S4G5 Spare at SOL
FCSP 86021 @ 01:24:40 UTC
S4 power cycled @ 02:48:31 UTC
S4 power cycled @ 08:39:17 UTC
S3G4 off (auto fires), S4G5 on @ 09:16:07 UTC
End of Line: LSP/LGSP 86160 @ 09:44:50 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tecski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	87022
SP #	87022	87028	LGSP	87028

Line	Lau_B016A
Sequence	087
Direction	11

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, μ B	na	na	na	na
EOL Cable Noise, μ B	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	87022	87028
Date dd/mm/yy	19/2/2009	19/2/2009
Time UTC	09:47:22	10:10:34
Volume (cu in.)	6420	6240
Streamer Depth (m)	na	na
Wind (kts)	11.6	16.2
Sea State (ft)	2-3	2-3
Water Depth (m)	2048	2080

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

[illegible]

Abbreviations	
<i>SOL/EOL - Start/End of Line</i>	<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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski, Bern McKiernan
Sen. Observer	
Observers	Michaela Conley, Regan Austin, Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	88022
SP #	88022	88171	LGSP	88161

Line	Lau_B017
Sequence	088
Direction	101

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	88022	88171
Date dd/mm/yy	19/2/2009	19/2/2009
Time UTC	10:13:24	19:14
Volume (cu in.)	6420	6420
Streamer Depth (m)	na	na
Wind (kts)	16.4	18
Sea State (ft)	2-3	2-4
Water Depth (m)	2074	2208

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: FSP/FGSP 88022 @ 10:13:24 UTC
S2G2,5 S4G5 Spare at SOL
S3G4 Off at SOL
S3G4 turned on, S3G5 spare @ 17:29 UTC
S3 powered down for repairs @ 18:39 UTC
End of line LSP: 88171 @ 19:14

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	89023
SP #	89023	89029	LGSP	89029

Line	Lau_B017A
Sequence	089
Direction	11

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, μ B	na	na	na	na
EOL Cable Noise, μ B	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	89023	89029
Date dd/mm/yy	19/2/2009	19/2/2009
Time UTC	19:16	19:40
Volume (cu in.)	4770	4770
Streamer Depth (m)	na	na
Wind (kts)	15	18
Sea State (ft)	4	4
Water Depth (m)	2200	2219

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

[illegible]

Abbreviations	
<i>SOL/EOL - Start/End of Line</i>	<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>	

Observers Log	
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Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Bern McKiernan
Sen. Observer	
Observers	Jonathan Sleeper

	SOL	EOL		
Tape #	N/A	N/A	FGSP	90020
SP #	90020	90143	LGSP	90143

Line	Lau_B018
Sequence	090
Direction	281

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, μ B	na	na	na	na
EOL Cable Noise, μ B	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	90020	90143
Date dd/mm/yy	19/2/2009	20/2/2009
Time UTC	20:10:55	03:33
Volume (cu in.)	6420	6420
Streamer Depth (m)	na	na
Wind (kts)	15	7.2
Sea State (ft)	4	3-4
Water Depth (m)	2247	2590

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

[illegible]

Abbreviations	
<i>SOL/EOL - Start/End of Line</i>	<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>LFSP - 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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	91023
SP #	91023	91028	LGSP	91028

Line	Lau_B018A
Sequence	091
Direction	11

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	91023	91028
Date dd/mm/yy	20/2/2009	20/2/2009
Time UTC	03:37:17	03:56:14
Volume (cu in.)	6420	6420
Streamer Depth (m)	na	na
Wind (kts)	11.5	21.7
Sea State (ft)	3-4	3-4
Water Depth (m)	2610	

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: FSP/FGSP 91023 @ 03:37:17 UTC
S1G5 S2G2 S3G4 S4G5 Spare at SOL
End of Line: LSP/LGSP 91028 @ 03:56:14 UTC
Just after LSP/LGSP port side tow rope broke. S3 and S4 powered down and brought on deck.

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley, Erica Emry

	SOL	EOL		
Tape #	N/A	N/A	FGSP	92029
SP #	92029	92115	LGSP	92115

Line	Lau_B019
Sequence	092
Direction	101

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	92029	92115
Date dd/mm/yy	20/2/2009	20/2/2009
Time UTC	04:40:09	10:00:28
Volume (cu in.)	6420	6420
Streamer Depth (m)	na	na
Wind (kts)	12.6	10
Sea State (ft)	3-4	3-4
Water Depth (m)	2600	2250

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: SP 92029 @ 04:40:09 UTC
S1G04, S2G02, S3G04, S4G05 spare at start of line
S4 power cycled (comm errors G9,10) @ 08:41:05 UTC
S4 Comm and Power switched from Master to Secondary @ 08:41:05 UTC
End of Line: SP 92115 @ 10:00:28 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	93023
SP #	93023	93028	LGSP	93028

Line	Lau_B019A
Sequence	093
Direction	11

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, μ B	na	na	na	na
EOL Cable Noise, μ B	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	93023	93028
Date dd/mm/yy	20/2/2009	20/2/2009
Time UTC	10:04:29	10:22:50
Volume (cu in.)	6420	6420
Streamer Depth (m)	na	na
Wind (kts)	8-9	12
Sea State (ft)	2-4	2-4
Water Depth (m)	2265	2199

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

[illegible]

Abbreviations	
<i>SOL/EOL - Start/End of Line</i>	<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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Erica Emry

	SOL	EOL		
Tape #	N/A	N/A	FGSP	94022
SP #	94022	94132	LGSP	94131

Line	Lau_B020
Sequence	094
Direction	281

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	94022	94132
Date dd/mm/yy	20/02/2009	20/02/2009
Time UTC	10:24:53	17:04
Volume (cu in.)	6420	6420
Streamer Depth (m)	na	na
Wind (kts)	9	15
Sea State (ft)	2-4	4
Water Depth (m)	2195	2166

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: SP 94022 @ 10:24:53 UTC
S1G04, S2G02, S3G04, S4G05 spare at start of line
At SP 94096, Posnet restored, out between 13:50-14:50 UTC
End of Line: SP 94132 @ 17:04 UTC

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	Notes
10:24		94022		Spread Error 2.2 / S1G05 Delta Timing 1.1 / S3G02 Delta Timing -1.1
10:36		94025		S1G05 Delta Timing 1.1
10:43		94027		Spread Error 2.2 / S1G05 Delta Timing -1.3 / S3G02 Delta Timing -1.8
10:51		94029		Spread Error 2.5 / S3G02 Delta Timing 1.5
10:54		94030		Spread Error 2.5 / S1G05 Delta Timing 1.2 / S3G02 Delta Timing -1.3
11:02		94032		S1G05 Delta Timing -1.1, S3G02 Delta Timing 1.5, Spread Error 2.6
11:05		94033		S3G02 Delta Timing 1.1
11:13		94035		S3G02 Delta Timing -2.0, S4G02 Delta Timing 2.6, Spread Error 4.6
11:16		94036		S4G02 Delta Timing -1.7
11:27		94039		S1G05 Delta Timing 1.1, S3G01 Delta Timing -1.4, Spread Error 2.5
11:31		94040		S3G02 Delta Timing 1.7, Spread Error 2.7
11:34		94041		S3G02 Delta Timing -1.5, Spread Error 2.3
11:49		94045		S3G02 Delta Timing 1.7
11:52		94046		S1G05 Delta Timing 1.5, Spread Error 2.3
11:59		94048		S3G02 Delta Timing 1.2
12:03		94049		S1G05 Delta Timing -1.8, Spread Error 2.1
12:10		94051		S3G02 Delta Timing -1.7
12:14		94052		S3G02 Delta Timing 1.3
12:17		94053		S1G05 Delta 1.9, S4G01 Delta -1.2, Spread Error 3.1
12:21		94054		S3G02 Delta -1.9, S4G01 Delta 1.1, Spread Error 3.0
12:28		94056		S3G02 Delta 1.7, Spread Error 2.6
12:32		94057		S1G05 Delta -1.6, Spread Error 2.6
12:39		94059		S1G05 Delta 1.5, S4G01 Delta 1.2, S4G02 Delta 2.1, Spread Error 2.5
12:43		94060		S1G05 Delta -1.3, S4G02 Delta -1.4
12:47		94061		S1G05 Delta 1.2
12:58		94064		S1G05 Delta 1.5, Spread 2.3
13:01		94065		S2G05 Delta 1.1
13:05		94066		S1G05 Delta -1.5, S2G05 Delta -1.3, Spread 2.2
13:08		94067		S3G02 Delta -2.3, Spread 2.9
13:16		94069		S1G05 Delta 1.7, Spread 2.5
13:19		94070		S1G05 Delta -1.2
13:27		94072		S1G05 Delta 1.7, Spread 2.3
13:30		94073		S3G02 Delta -1.8, Spread 2.5
13:34		94074		S3G02 Delta 1.5, Spread 2.1
13:45		94077		S1G05 Delta 1.3
13:48		94078		S1G05 Delta -1.1, S3G02 Delta -2.0, Spread 2.4
13:52		94079		S1G05 Delta 1.1, S3G02 Delta 1.4, Spread 2.2
13:59		94081		S1G05 Delta -1.3, S4G02 Delta -1.1
14:02		94082		S1G05 Delta 1.4, S3G02 Delta -1.4, Spread 2.8
14:06		94083		S1G05 Delta -1.4, Spread 2.4
14:09		94084		S3G02 Delta -1.5, S4G01 Delta -1.7, Spread 2.4
14:13		94085		S1G05 Delta 2.0, S4G04 Delta 1.2, Spread 2.4
14:17		94086		S1G05 Delta -1.7, S3G02 Delta 1.8, Spread 3.5
14:20		94087		S1G05 Delta 1.1
14:24		94088		S1G05 Delta -1.1, S3G02 Delta -1.7, Spread 2.1
14:28		94089		S3G08 Auto Fire 19728.8
14:31		94090		S3G02 Delta 1.3, S4G04 Delta 1.2, Spread 2.3
14:35		94091		S1G05 Delta 1.9, Spread 2.2

[illegible]

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Erica Emry

	SOL	EOL		
Tape #	N/A	N/A	FGSP	95022
SP #	95022	95028	LGSP	95028

Line	Lau_B020A
Sequence	095
Direction	11

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, μ B	na	na	na	na
EOL Cable Noise, μ B	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	95022	95028
Date dd/mm/yy	20/02/2009	20/02/2009
Time UTC	17:06	17:29
Volume (cu in.)	6420	6420
Streamer Depth (m)	na	na
Wind (kts)	15	15
Sea State (ft)	4	4
Water Depth (m)	2185	2233

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

[illegible]

Abbreviations	
<i>SOL/EOL - Start/End of Line</i>	<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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Erica Emry

	SOL	EOL		
Tape #	N/A	N/A	FGSP	96022
SP #	96022	96170	LGSP	96161

Line	Lau_B021
Sequence	096
Direction	101

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	96022	96170
Date dd/mm/yy	20/02/2009	21/2/2009
Time UTC	17:32	02:23:56
Volume (cu in.)	6420	4950
Streamer Depth (m)	na	na
Wind (kts)	15	14.9
Sea State (ft)	4	3-4
Water Depth (m)	2207	2043

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: SP 96022 @ 17:32 UTC
S1G04, S2G02, S3G04, S4G05 spare at start of line
S2 powered down: LCSP/LGSP 96161 @ 01:51:29 UTC
End of Line: LSP 96170 @ 02:23:56 UTC

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	Notes
17:32		96022		S1G5 S4G4 Delta timing at -1.3 , -1.5 ms
17:40		96024		S2G5 Delta T. 1.2
17:44		96025		S1G5 Delta T. 1.4
17:48		96026		S3G2 Delta T. -1.8ms
17:51		96027		S1G5 Delta T. -1.7 Spread Error 2.1ms
17:55		96028		S3G2 Delta T. 1.8ms
17:59		96029		S3G2 S4G2 Delta T -1.7 , -1.1
18:02		96030		S1G5 S3G2 Delta T 1.1, 1.5
18:06		96031		S4G4 Delta T. 2.1ms / Spread Error 3.1
18:09		96032		S3G2 Delta T. -1.9ms / Spread Error 2.4
18:13		96033		S3G2 Delta T. 1.8ms / Spread Error 2.7
18:17		96034		S2G5 S3G1 S4G1 Delta T. 1.2,1.1,1.2
18:20		96035		S1G5 Delta T 1.8
18:24		96036		S3G2 Delta T. -1.9ms
18:27		96037		S3G2 Delta T. 1.6ms / Spread Error 2.2
18:31		96038		S1G5 Delta T. 1.3
18:39		96040		Spread Error 2.7 / S3G2 Delta T. -1.9
18:42		96041		Spread Error 3.7 / S1G5, S3G2 Delta T. -1.6, 2.1
18:46		96042		S1G5 Delta T. 1.1
18:53		96044		S1G5 S3G2 Delta T -1.3, -1.6
19:00		96045		S1G5 S3G2 Delta T 1.3, 1.5
19:11		96049		S1G5 Delta Timing -1.3
19:18		96051		S4G1 Delta Timing -1.5
19:22		96052		Spread Error 3.3 / S3G2, S4G1 Delta Timing -1.8, 1.5
19:25		96053		Spread Error 2.3 / S3G2 Delta Timing 1.5
19:29		96054		Spread Error 2.4 / S3G2 Delta Timing 1.5
19:33		96055		S3G2 Delta Timing 1.4
19:36		96056		S3G2 Delta Timing -1.1
19:44		96058		S3G2 Delta Timing -1.4
19:54		96061		S4G2 Delta Timing 1.3
20:05		96064		Spread Error 2.4 / S3G2 Delta Timing -1.9
20:12		96066		S3G2 Delta Timing 1.5
20:16		96067		Spread Error 3.4 / S3G2, S4G4 Delta Timing -1.2, 2.2
20:19		96068		Spread Error 2.9 / S3G2, S4G4 Delta Timing 1.5, -1.4
20:44		96075		Spread Error 3.3 / S3G2 Delta Timing -2.8
20:48		96076		Spread Error 2.6 / S3G2 Delta Timing 1.9
20:52		96077		Spread Error 2.3 / S3G2 Delta Timing -1.7
20:59		96079		Spread Error 2.6 / S3G1, S4G4 Delta Timing -1.4, 1.2
21:02		96080		Spread Error 2.3 / S3G2 Delta Timing 1.7
21:21		96085		Spread Error 3.7 / S3G2 Delta Timing -3.1
21:28		96087		Spread Error 3.1 / S3G2 Delta Timing 2.1
21:31		96088		Spread Error 2.3 / S3G1, S3G2 Delta Timing 1.2, -1.1
21:35		96089		S3G2 Delta Timing -1.1
21:48		96089		Spread Error 3.2 / S3G2 Delta Timing 2.3
21:53		96094		S3G2 Delta Timing -1.1
21:56		96095		Spread Error 2.1 / S3G2 Delta Timing -1.5
22:03		96097		Spread Error 2.8 / S3G2 Delta Timing 2.3
22:07		96098		S3G2 Delta Timing -1.3
22:11		96099		S3G2 Delta Timing -1.3

[illegible]

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	n/a
SP #	97022	97024	LGSP	n/a

Line	Lau_B021A
Sequence	097
Direction	11

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	97022	97024
Date dd/mm/yy	21/2/2009	21/2/2009
Time UTC	02:26:17	02:33:58
Volume (cu in.)	4950	4950
Streamer Depth (m)	na	na
Wind (kts)	12.8	12.4
Sea State (ft)	3-4	3-4
Water Depth (m)	2050	

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: FSP 97022 @ 02:26:17 UTC
S1G4 S3G4 S4G5 Spare at SOL
S2 on deck
End of Line: LSP 97024 @ 02:33:58 UTC

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	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	98022
SP #	98022	98160	LGSP	98160

Line	Lau_B022
Sequence	098
Direction	281

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, µB	na	na	na	na
EOL Cable Noise, µB	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	98022	98160
Date dd/mm/yy	21/2/2009	21/2/2009
Time UTC	03:23:08	11:39:41
Volume (cu in.)	6600	6600
Streamer Depth (m)	na	na
Wind (kts)	4-6	14
Sea State (ft)	2-4	2-4
Water Depth (m)	2271	1897

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

Start of Line: 98022 @ 03:23:08 UTC
 S1G05, S2G04, S3G05, S4G05 spare at beginning of line
 Turned on S2G05 in favor of S2G04, because S2G04 had problems with delta errors
 S4G9,10 Comm Error: S4 power cycled @ 06:19:33 UTC
 S4G9,10 Comm Error: S4 power cycled, switched comm and power from secondary to master @ 06:45:17 UTC
 S4G9,10 Comm Error, S4 power cycled @ 07:00 UTC
 End of Line: 98160 @ 11:39 UTC

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	Notes
03:26		98023		S3G02 Delta Timing 1.4
03:34		98025		Spread Error 2.6 / S1G10 Delta Timing 1.2 / S4G01 Delta Timing -1.4
03:37		98026		S4G09 No Fire
03:48		98029		S4G09 No Fire
03:52		98030		S4G09 No Fire
04:13		98036		Spread Error 2.2 / S4G01 Delta Timing -1.7
04:42		98044		S4G2 Delta Timing 3.0 / Spread Error 3.7
04:45		98045		S4G2 Delta Timing -1.7 / Spread Error 2.1
04:52		98047		S3G8 Auto Fire 832 / S4G1 Delta Timing -1.6
04:56		98048		S4G1 Delta Timing 1.4
05:25		98056		S4G10 No Fire
05:43		98061		S2G5 S4G1 Delta Timing 1.1, -1.1 / Spread Error 2.2
05:51		98063		S3G1 No Fire
05:54		98064		S4G4 Delta Timing 1.7 / Spread Error 2.1
06:01		98066		S3G1 No Fire
06:19		98071		S4G9,10 No Fire
06:22		98072		S4 No Fire (due to power cycle) / S4G5 Auto Fire 24498.4
06:26		98073		S3G1 Delta Timing -1.5 / Spread Error 2.1
06:29		98074		S3G1 No Fire
06:33		98075		S3G1 Delta Timing 1.5 / Spread Error 2.3
06:44		98078		S4G9 No Fire
06:47		98079		S4 No Fire (due to power cycle)
06:58		98082		S4G09, 10 No Fire (comm error)
07:02		98083		S4 No Fire (due to power cycle)
07:13		98086		S3G01 No Fire, S4G4 Delta Timing 1.4
07:20		98088		S3G01 No Fire
07:31		98091		S3G01 No Fire
07:35		98092		S3G01 No Fire
07:38		98093		S3G01 No Fire
07:42		98094		S3G02 No Fire
07:56		98098		S3G02 No Fire
08:07		98101		S3G01 No Fire
08:14		98103		S3G01 No Fire
08:21		98105		S4G01 Delta Timing 1.2
08:36		98109		Spread Error 2.1 / S3G02 No Fire / S4G04 Delta Timing -1.5
08:43		98111		S3G01 No Fire
08:47		98112		S3G08 Auto Fire 1275.2
09:23		98122		S4G1 Delta Timing -1.6 / Spread Error 2.4
09:34		98125		S3G1 No Fire
09:51		98130		S3G1 No Fire
09:58		98132		S3G1 No Fire
10:38		98143		S3G2 No Fire
10:56		98148		S4G4 Delta Timing -1.1
11:14		98153		S4G9 No Fire

Observers Log

Vessel	Langseth
Client	Wiens- Dunn -- LDEO
Area	Lau Basin
Job Number	MGL0903

Party Chief	A Johnson
Ch. Observer	Tedski
Sen. Observer	
Observers	Michaela Conley

	SOL	EOL		
Tape #	N/A	N/A	FGSP	99023
SP #	99023	99027	LGSP	99027

Line	Lau_B022A
Sequence	099
Direction	11

Streamer Parameters				
	1	2	3	4
Length	N/A	N/A	N/A	N/A
Auxiliaries	na	na	na	na
Shotpoint Interval:	N/A	N/A	N/A	N/A
Offset CS - CFG	na	na	na	na
Group Interval:	na	na	na	na
Number of channels	N/A	N/A	N/A	N/A
SOL Cable Noise, μ B	na	na	na	na
EOL Cable Noise, μ B	na	na	na	na

Source Parameters	
Total Volume	6600/in3
Work Pressure	2000psi +/- 100psi
Dual Source	no
Depth	9m
Source Separation	9m
Center Source to	
Nav. Antenna	

Recording Parameters	
Record Length	na
Total recording delay	na
Sample Rate	na
Polarity	na
Low-Cut	na
Hi-Cut	na
Tape Format	na

Description	SOL/FQCSP	EOL/LQCSP
FSID	99023	99027
Date dd/mm/yy	21/2/2009	21/2/2009
Time UTC	11:47	12:02
Volume (cu in.)	6600	6600
Streamer Depth (m)	na	na
Wind (kts)	15	15
Sea State (ft)	2-4	2-4
Water Depth (m)	1905	1798

Cable	Erased Channels	S1
1	na	na
2	na	na
3	na	na
4	na	na

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
Aux. 16: Port Outer hydrophone	

[illegible]

Abbreviations	
<i>SOL/EOL - Start/End of Line</i>	<i>LGSP - Last Good SP</i>
<i>FGSP- First Good SP</i>	<i>LCSP - Last Chargeable SP</i>
<i>FCSP - First Chargeable SP</i>	<i>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]