



9/3/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary**Thu 03 Sep**

We continued the transit to prospect all day.

Tested both PAM cables and installed one on the winch.

Troubleshoot and install GPS pods on three sub source arrays.

Configured hospital phone and a Vonage line in main lab.

Much misc.


Daily Comment Summaries - Plan for Tomorrow**Thu 03 Sep**

We will do the acoustic release test tomorrow afternoon and will perform several crane lifts for the OBS groups during this time.

Close out work items from Safety and Sanitation Inspection.

1. Stow work boat spares from bird lab.
2. Tidy machine shop and dispose of waste oil.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)

Category	Code	Start	End	Duration
 Transit to Prospect	MB_TT	Thu 3. Sep 00:00	Thu 3. Sep 24:00	24.000
In transit to prospect, for mobilising deployment.				

Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

3-Sep	Hours	% Percent
Mobilisation	24.000	100.000
Transit to Prospect	24.000	100.000
Day's Total	24.000	100.000



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Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	% Percent
Mobilisation	72.000	100.000
Transit to Prospect	72.000	100.000
Total	72.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	62.5 m
CoS to CNG:	208 m	Fold Coverage:	252		
Comment					
Andreanof Experiment					

Production Listing (Accpt km) - Full Fold

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
Total					0.00			

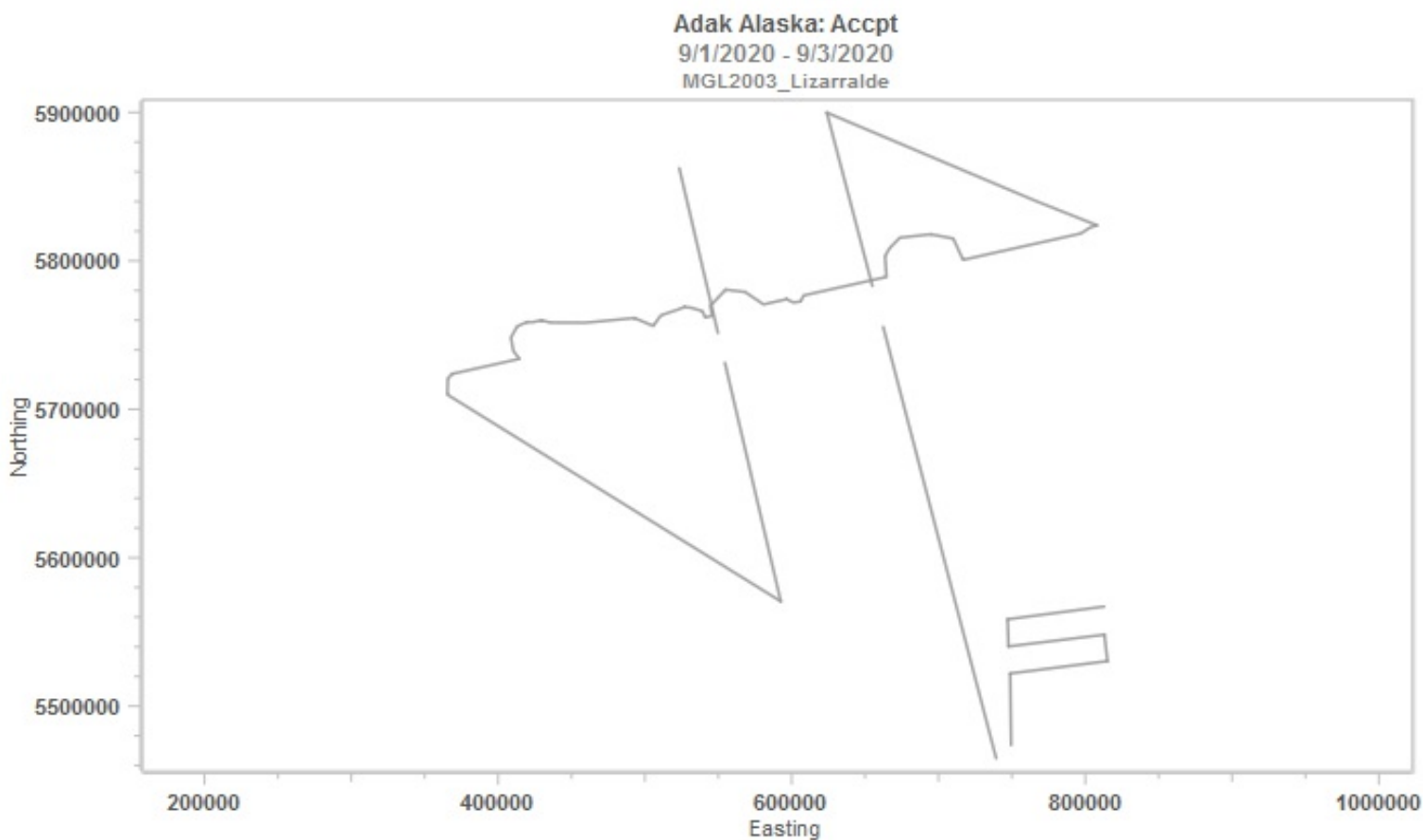
Production Totals (Accpt km) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	0.00	0.00	0.00
Combined	0.00	0.00	0.00	0.00



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Daily Comment Summaries - Daily Comments On Status of Equipment

Thu 03 Sep

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Thu 03 Sep

Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Science Officer - Nav

Cody Bahlau L-DEO OMO Marine Science Technician - Obs

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Brian Agee L- DEO OMO Source Mechanic

Matt Dettrich Contract Personnel Marine Science Technician (Source)

Ray Hatton Contract Personnel Marine Science Technician (Source)

Patrick A'Hearn UNOLS Tech



9/3/2020

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PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

Maritza Martinez RPS Lead PAM

Cassandra Frey RPS PSO

Amelia McClure RPS PSO

Kaylee McRae RPS PSO

Science Party On-board the Langseth

Dan Lizarralde WHOI PI

Donna Shillington NAU PI

Hannah Mark Wash. U. St. Louis

Valeria Cortes Rivas NAU


Hannah Brewer WHOI

Tim Kane WHOI OBS Tech

Martin Rapa SIO OBS Tech

Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
 Inspection	Audt_Insp	Thu 3. Sep 18:20	
HSE - Inspection			



Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

9/4/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Fri 04 Sep

We continued transit to prospect all day.

We stopped to test the acoustic releases. Deployed rosette to 4000+ meters.

We performed several crane lifts to clear the main deck.

Measured the PAM cable.

Troubleshoot the WHOI electrical winch.

Troubleshoot the CNav.

Two Toolbox Meetings.

Daily Comment Summaries - Plan for Tomorrow

Fri 04 Sep

Secure for choppy weather.

Continue transit to prospect.

Continue prepping source arrays.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)

Category	Code	Start	End	Duration
Transit to Prospect	MB_TT	Fri 4. Sep 00:00	Fri 4. Sep 22:09	22.150
In transit to prospect, for mobilising deployment.				
Testing	MB_TE	Fri 4. Sep 22:09	Fri 4. Sep 24:00	1.850
Mobilisation - Testing Acoustic Releases				

Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

4-Sep	Hours	%Percent
Mobilisation	24.000	100.000
Testing	1.850	7.708
Transit to Prospect	22.150	92.292
Day's Total	24.000	100.000



9/4/2020

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Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	% Percent
Mobilisation	96.000	100.000
Testing	1.850	1.927
Transit to Prospect	94.150	98.073
Total	96.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	62.5 m
CoS to CNG:	208 m	Fold Coverage:	252		
Comment					
Andreanof Experiment					

Production Listing (Accpt km) - Full Fold

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
Total					0.00			

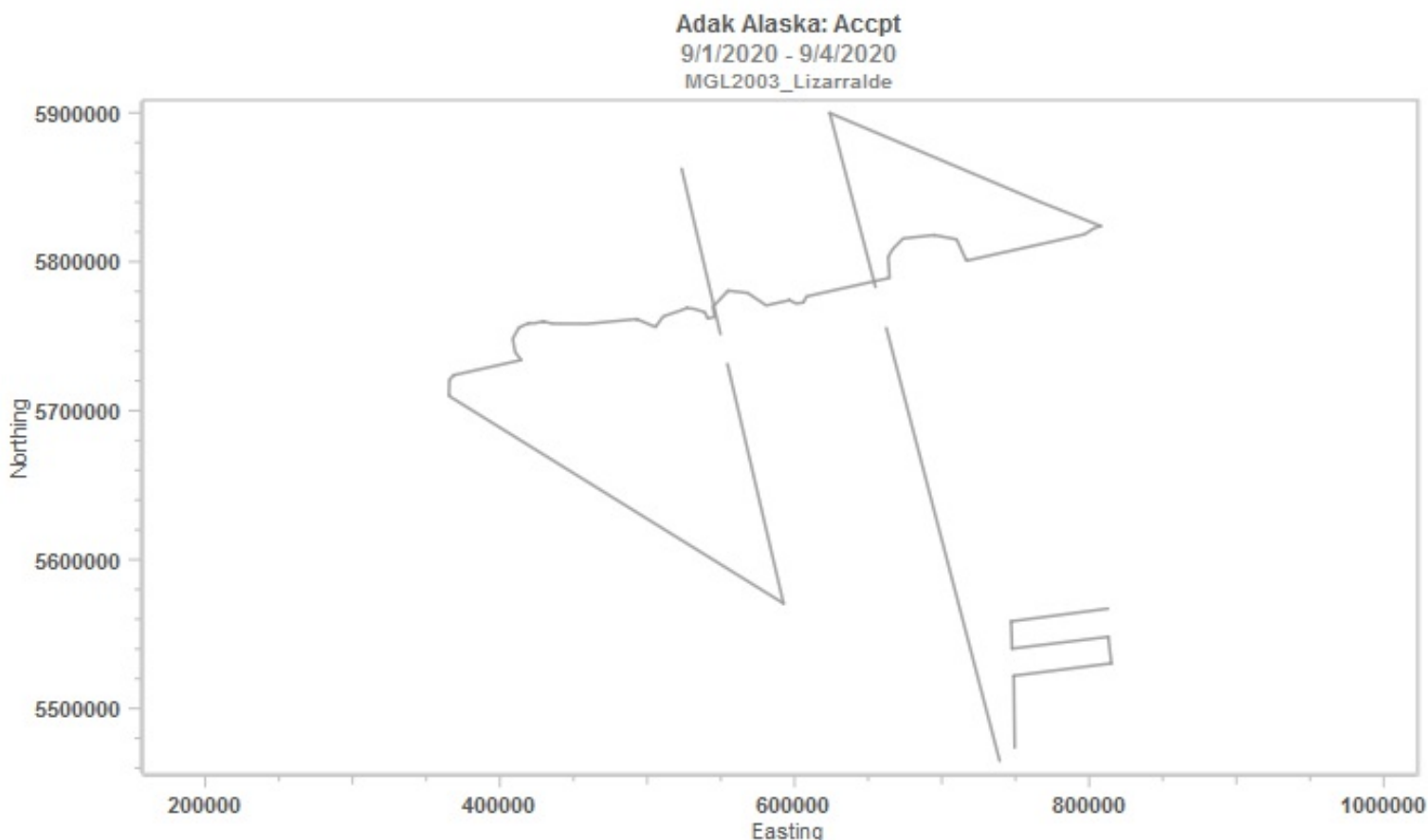
Production Totals (Accpt km) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	0.00	0.00	0.00
Combined	0.00	0.00	0.00	0.00



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Daily Comment Summaries - Daily Comments On Status of Equipment

Fri 04 Sep

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Fri 04 Sep

Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Science Officer - Nav

Cody Bahlau L-DEO OMO Marine Science Technician - Obs

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Brian Agee L- DEO OMO Source Mechanic

Matt Dettrich Contract Personnel Marine Science Technician (Source)

Ray Hatton Contract Personnel Marine Science Technician (Source)

Patrick A'Hearn UNOLS Tech



9/4/2020

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PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

Maritza Martinez RPS Lead PAM

Cassandra Frey RPS PSO

Amelia McClure RPS PSO

Kaylee McRae RPS PSO

Science Party On-board the Langseth

Dan Lizarralde WHOI PI

Donna Shillington NAU PI

Hannah Mark Wash. U. St. Louis

Valeria Cortes Rivas NAU

Hannah Brewer WHOI

Tim Kane WHOI OBS Tech

Martin Rapa SIO OBS Tech

Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
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Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

9/5/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Sat 05 Sep

GPS input to XBT restored

Secure open decks in rough seas.

Conducted a conference call to discuss IHA and Bio Opinion.

Powered up SEAL and tested streamers.

Daily Comment Summaries - Plan for Tomorrow

Sat 05 Sep

Continue transit to prospect

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)



Category	Code	Start	End	Duration
Testing	MB_TE	Sat 5. Sep 00:00	Sat 5. Sep 01:36	1.600
Mobilisation - Testing				
Transit to Prospect	MB_TT	Sat 5. Sep 01:36	Sat 5. Sep 24:00	22.400
In transit to prospect, for mobilising deployment.				

Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

5-Sep	Hours	% Percent
Mobilisation	24.000	100.000
Testing	1.600	6.667
Transit to Prospect	22.400	93.333
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	% Percent
Mobilisation	120.000	100.000
Testing	3.450	2.875
Transit to Prospect	116.550	97.125
Total	120.000	



9/5/2020

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Basic Project Details

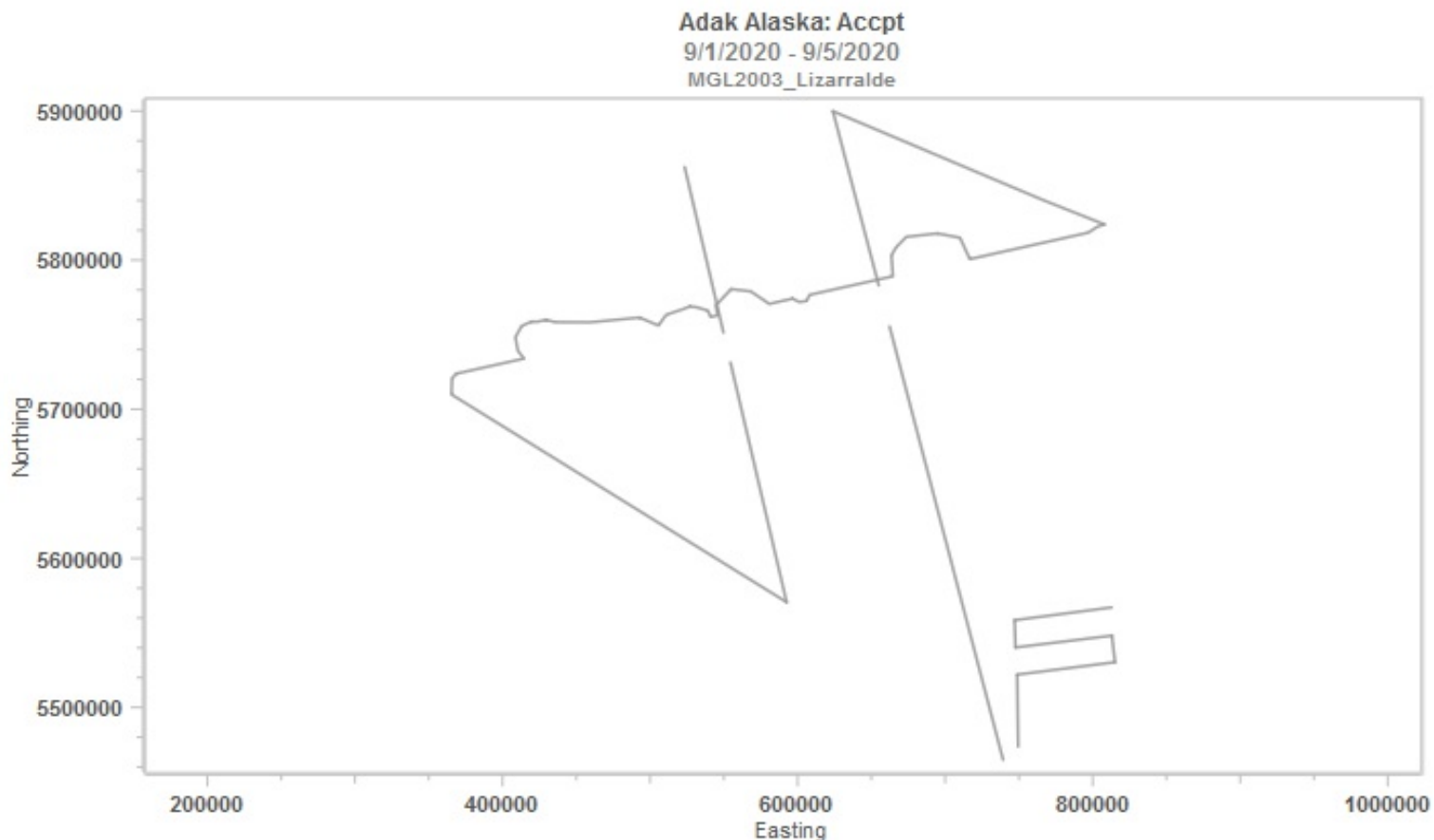
MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	62.5 m
CoS to CNG:	208 m	Fold Coverage:	252		
Comment					
Andreanof Experiment					

Production Listing (Accpt km) - Full Fold

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
Total					0.00			

Production Totals (Accpt km) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	0.00	0.00	0.00
Combined	0.00	0.00	0.00	0.00



Daily Comment Summaries - Daily Comments On Status of Equipment

Sat 05 Sep

Navigation:

No Major Issues to Report

Information Technology (IT):

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Sat Sep 5 2020 01:59p.m.

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No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Sat 05 Sep

Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer
Josh Kasinger L-DEO OMO Chief Source Mechanic
Alan Thompson L-DEO OMO Science Officer - Nav
Cody Bahlau L-DEO OMO Marine Science Technician - Obs
Gilles Guerin L-DEO OMO Marine Science Technician - Obs
Brian Agee L-DEO OMO Source Mechanic
Matt Dettrich Contract Personnel Marine Science Technician (Source)
Ray Hatton Contract Personnel Marine Science Technician (Source)
Patrick A'Hearn UNOLS Tech


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Hannah Mark Wash. U. St. Louis
Valeria Cortes Rivas NAU
Hannah Brewer WHOI
Tim Kane WHOI OBS Tech
Martin Rapa SIO OBS Tech
Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
Daily Total Category		Code	Count
 Toolbox Meetings	Mtgs_Tbox		2
9/5/2020			
1: Rough weather access to re-secure OBS crates. 2: Discussed making exterior doors water tight.			



Daily Science Report

9/6/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Sun 06 Sep

Continue transit to prospect.

PI's conducted a very informative science meeting in the main lab today to discuss the motivation and goals of this project.


Continue preparations for OBS deployments.

Daily Comment Summaries - Plan for Tomorrow

Sun 06 Sep

We plan to have the first OBS deployed by 7AM local time.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)

Category	Code	Start	End	Duration
 Transit to Prospect	MB_TT	Sun 6. Sep 00:00	Sun 6. Sep 24:00	24.000
In transit to prospect, for mobilising deployment.				

Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

6-Sep	Hours	% Percent
 Mobilisation	24.000	100.000
Transit to Prospect	24.000	100.000
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	% Percent
 Mobilisation	144.000	100.000
Testing	3.450	2.396
Transit to Prospect	140.550	97.604
Total	144.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	62.5 m



9/6/2020

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MGL2003_Lizarralde

CoS to CNG:	208 m	Fold Coverage:	252
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Comment

Andreanof Experiment

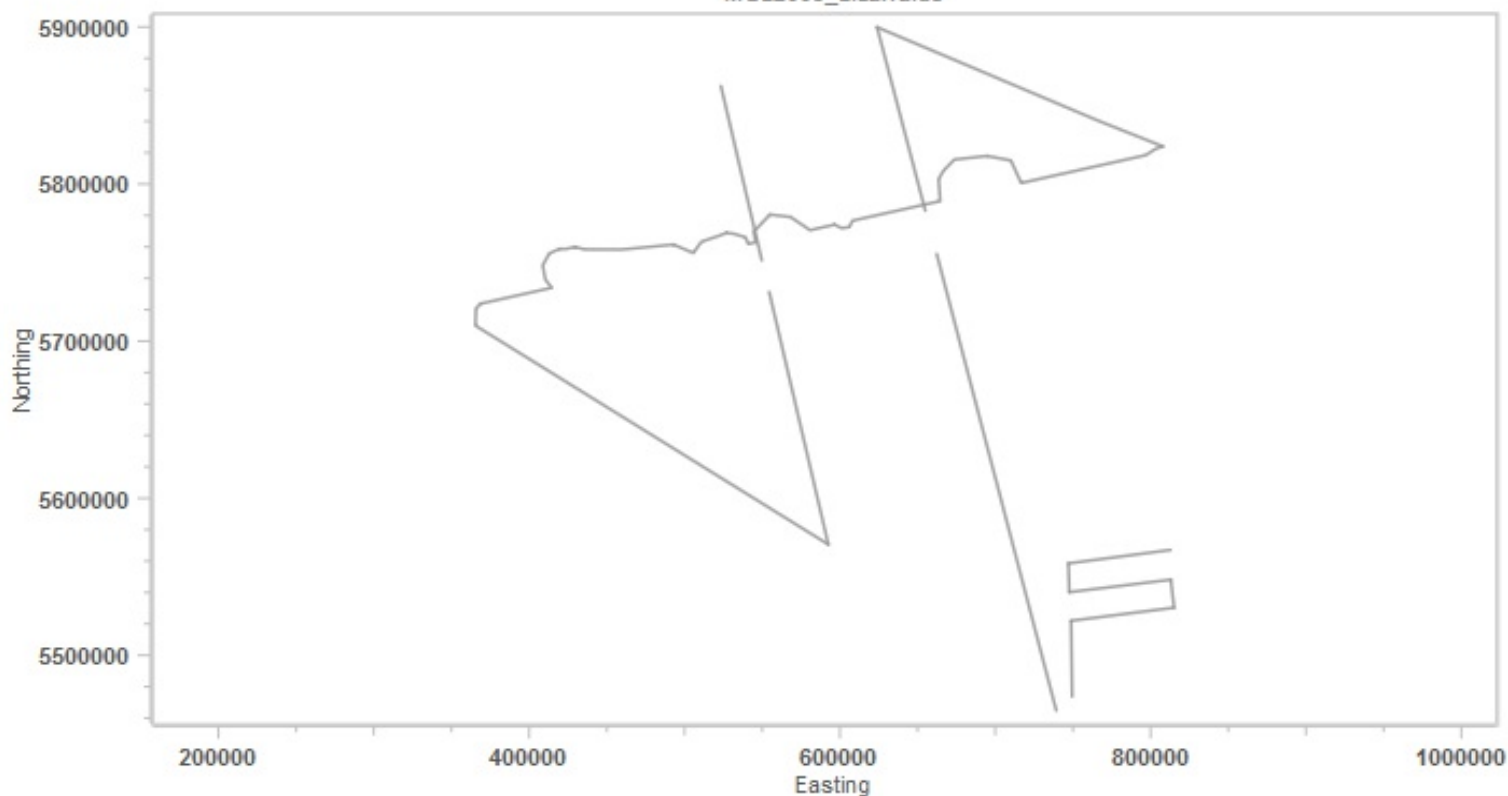
Production Listing (Accpt km) - Full Fold

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
Total					0.00			

Production Totals (Accpt km) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	0.00	0.00	0.00
Combined	0.00	0.00	0.00	0.00

Adak Alaska: Accpt
9/1/2020 - 9/6/2020
MGL2003_Lizarralde



Daily Comment Summaries - Daily Comments On Status of Equipment

Sun 06 Sep

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report



9/6/2020

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Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Sun 06 Sep

Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer
Josh Kasinger L-DEO OMO Chief Source Mechanic
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Cody Bahlau L-DEO OMO Marine Science Technician - Obs
Gilles Guerin L-DEO OMO Marine Science Technician - Obs
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Ray Hatton Contract Personnel Marine Science Technician (Source)
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Hannah Mark Wash. U. St. Louis
Valeria Cortes Rivas NAU
Hannah Brewer WHOI
Tim Kane WHOI OBS Tech
Martin Rapa SIO OBS Tech
Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
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Daily Science Report

9/7/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Mon 07 Sep

We have deployed the first eight OBS's on Line S1. We are currently transiting around the North Cape of Atka Island towards OBS D8.

Daily Comment Summaries - Plan for Tomorrow

Mon 07 Sep

We will deploy OBS's all day.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)



Category	Code	Start	End	Duration
Transit to Prospect	MB_TT	Mon 7. Sep 00:00	Mon 7. Sep 15:32	15.533
In transit to prospect, for mobilising deployment.				
Deployment	MB_DP	Mon 7. Sep 15:32	Mon 7. Sep 16:32	1.000
Deploy OBS S1-1 and transit to next unit.				
Deployment	MB_DP	Mon 7. Sep 16:32	Mon 7. Sep 17:38	1.100
Deploy OBS S1-2 and transit to next unit.				
Deployment	MB_DP	Mon 7. Sep 17:38	Mon 7. Sep 18:50	1.200
Deploy OBS S1-3 and transit to next unit.				
Deployment	MB_DP	Mon 7. Sep 18:50	Mon 7. Sep 20:04	1.233
Deploy OBS S1-4 and transit to next unit.				
Deployment	MB_DP	Mon 7. Sep 20:04	Mon 7. Sep 21:13	1.150
Deploy OBS S1-5 and transit to next unit.				
Deployment	MB_DP	Mon 7. Sep 21:13	Mon 7. Sep 22:15	1.033
Deploy OBS S1-6 and transit to next unit.				
Deployment	MB_DP	Mon 7. Sep 22:15	Mon 7. Sep 23:18	1.050
Deploy OBS S1-7 and transit to next unit.				
Deployment	MB_DP	Mon 7. Sep 23:18	Mon 7. Sep 24:00	0.700
Deploy OBS S1-8 and transit to next unit.				



9/7/2020

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Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

7-Sep	Hours	% Percent
Mobilisation	24.000	100.000
Deployment	8.467	35.278
Transit to Prospect	15.533	64.722
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	% Percent
Mobilisation	168.000	100.000
Deployment	8.467	5.040
Testing	3.450	2.054
Transit to Prospect	156.083	92.907
Total	168.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	62.5 m
CoS to CNG:	208 m	Fold Coverage:	252		
Comment					
Andreanof Experiment					

Production Listing (Accpt km) - Full Fold

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
Total					0.00			

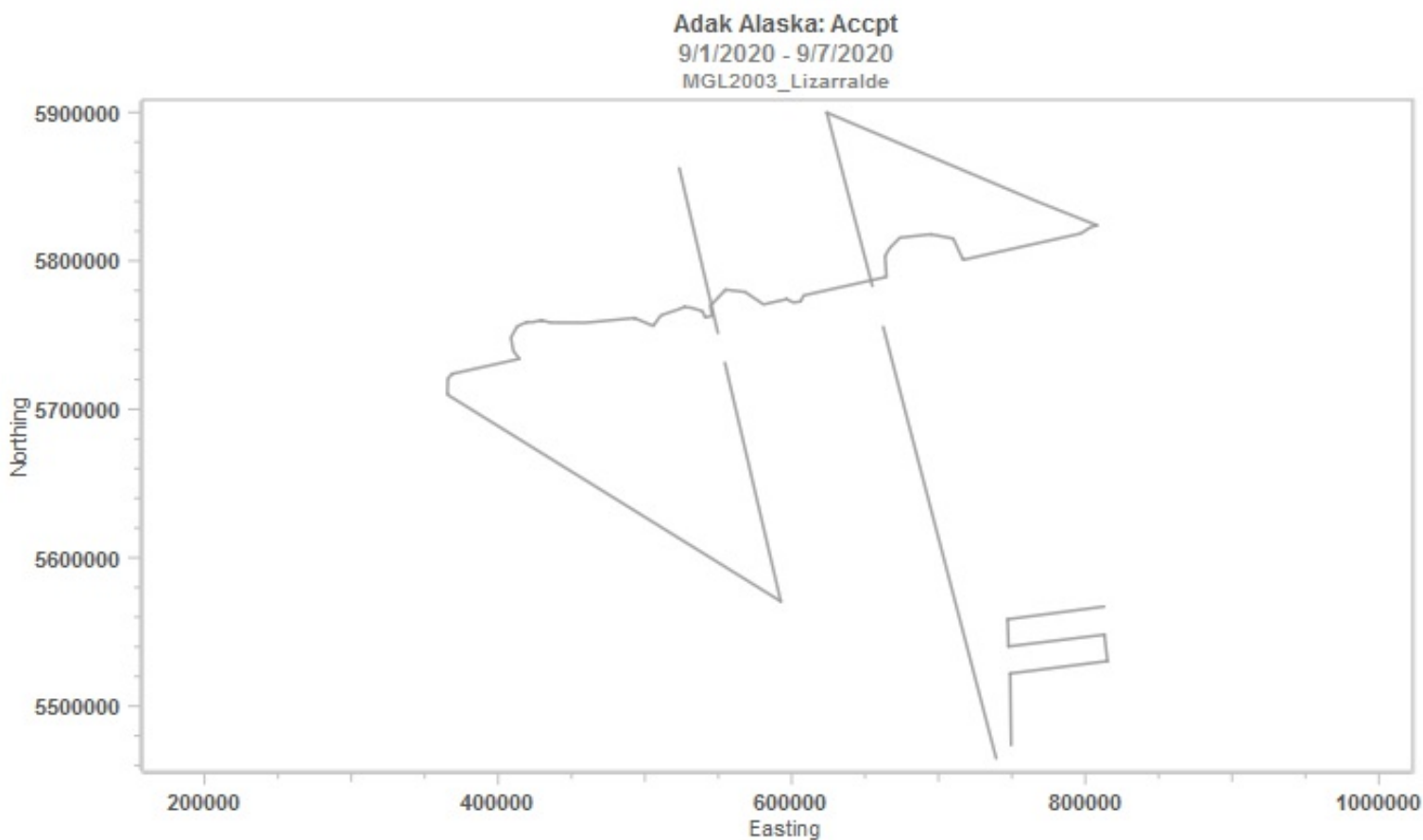
Production Totals (Accpt km) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	0.00	0.00	0.00
Combined	0.00	0.00	0.00	0.00



9/7/2020

Page 3



Daily Comment Summaries - Daily Comments On Status of Equipment

Mon 07 Sep

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Mon 07 Sep

Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

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Cody Bahlau L-DEO OMO Marine Science Technician - Obs

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Ray Hatton Contract Personnel Marine Science Technician (Source)

Patrick A'Hearn UNOLS Tech



9/7/2020

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Hannah Brewer WHOI

Tim Kane WHOI OBS Tech

Martin Rapa SIO OBS Tech

Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
Daily Total Category		Code	Count
<div></div> Toolbox Meetings	Mtgs_Tbox	2	
9/7/2020			
Toolbox Meeting to discuss rough weather deployment of WHOI OBS.			
9/7/2020			
Toolbox Meeting at shift change to discuss OBS deployment			



Daily Science Report

9/8/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Tue 08 Sep

We have deployed another sixteen OBS's onto Line S1. We are currently transiting to OBS S1-23. We have 25 out of 33 OBS's on S1 deployed so far.

The magnetometer has been connected and tested. It is ready to go deploy.

Gravimeter weekly tests were completed yesterday.

Daily Comment Summaries - Plan for Tomorrow

Tue 08 Sep

We will deploy the last 8 OBS's and then begin deploying the source arrays. Some reconfiguration of tow points will be done during the initial deployment. We hope to be in production before 5AM local time.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)



Category	Code	Start	End	Duration
Deployment	MB_DP	Tue 8. Sep 00:00	Tue 8. Sep 04:18	4.300
Continue transit to next unit from OBS S1-8				
Deployment	MB_DP	Tue 8. Sep 04:18	Tue 8. Sep 05:19	1.017
Deploy OBS D1-8 and transit to next unit.				
Deployment	MB_DP	Tue 8. Sep 05:19	Tue 8. Sep 06:24	1.083
Deploy OBS D1-9 and transit to next unit.				
Deployment	MB_DP	Tue 8. Sep 06:24	Tue 8. Sep 07:20	0.933
Deploy OBS S1-9 and transit to next unit.				
Deployment	MB_DP	Tue 8. Sep 07:20	Tue 8. Sep 08:20	1.000
Deploy OBS S1-10 and transit to next unit.				
Deployment	MB_DP	Tue 8. Sep 08:20	Tue 8. Sep 09:22	1.033
Deploy OBS S1-11 and transit to next unit.				
Deployment	MB_DP	Tue 8. Sep 09:22	Tue 8. Sep 10:22	1.000



Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

9/8/2020

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Category	Code	Start	End	Duration
Deploy OBS S1-12 and transit to next unit.				
Deployment	MB_DP	Tue 8. Sep 10:22	Tue 8. Sep 11:17	0.917
Deploy OBS S1-13 and transit to next unit.				
Deployment	MB_DP	Tue 8. Sep 11:17	Tue 8. Sep 12:09	0.867
Deploy OBS S1-14 and transit to next unit.				
Deployment	MB_DP	Tue 8. Sep 12:09	Tue 8. Sep 13:14	1.083
Deploy OBS S1-15 and transit to next unit.				
Deployment	MB_DP	Tue 8. Sep 13:14	Tue 8. Sep 13:59	0.750
Deploy OBS S1-16 and transit to next unit.				
Deployment	MB_DP	Tue 8. Sep 13:59	Tue 8. Sep 14:39	0.667
Deploy OBS S1-17 and transit to next unit.				
Deployment	MB_DP	Tue 8. Sep 14:39	Tue 8. Sep 17:26	2.783
Deploy OBS S1-18 and transit to next unit.				
Deployment	MB_DP	Tue 8. Sep 17:26	Tue 8. Sep 18:17	0.850
Deploy OBS S1-19 and transit to next unit.				
Deployment	MB_DP	Tue 8. Sep 18:17	Tue 8. Sep 19:25	1.133
Deploy OBS D2-6 and transit to next unit.				
Deployment	MB_DP	Tue 8. Sep 19:25	Tue 8. Sep 21:50	2.417
Deploy OBS S1-20 and transit to next unit.				
Deployment	MB_DP	Tue 8. Sep 21:50	Tue 8. Sep 22:37	0.783
Deploy OBS S1-21 and transit to next unit.				
Deployment	MB_DP	Tue 8. Sep 22:37	Tue 8. Sep 24:00	1.383
Deploy OBS S1-22 and transit to next unit.				

Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

8-Sep	Hours	%Percent
Mobilisation	24.000	100.000
Deployment	24.000	100.000
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	%Percent
Mobilisation	192.000	100.000
Deployment	32.467	16.910
Testing	3.450	1.797
Transit to Prospect	156.083	81.293
Total	192.000	



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Basic Project Details

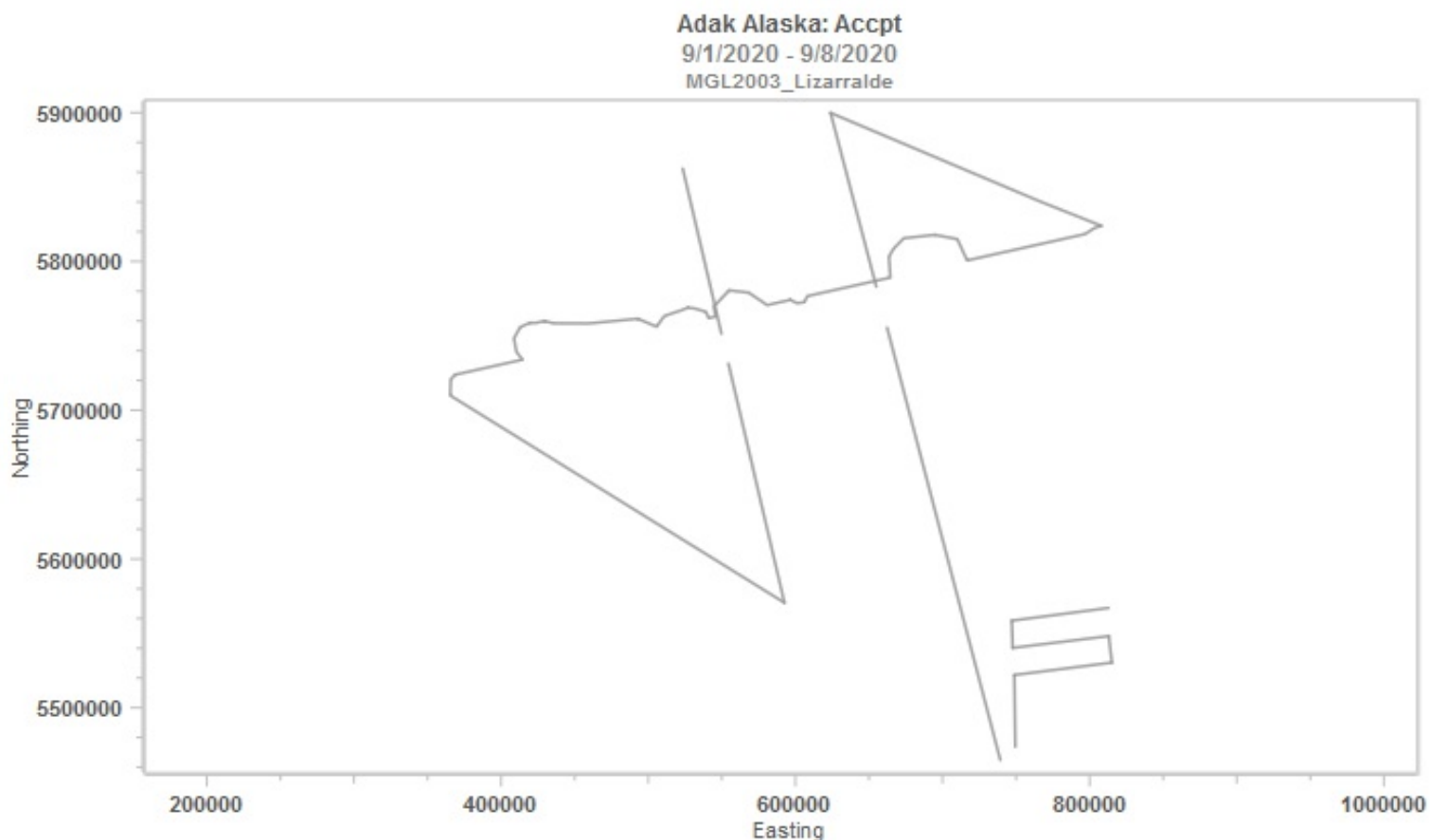
MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	62.5 m
CoS to CNG:	208 m	Fold Coverage:	252		
Comment					
Andreanof Experiment					

Production Listing (Accpt km) - Full Fold

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
Total					0.00			

Production Totals (Accpt km) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	0.00	0.00	0.00
Combined	0.00	0.00	0.00	0.00



Daily Comment Summaries - Daily Comments On Status of Equipment

Tue 08 Sep

Navigation:

Sub-array #3 is missing GPS pod

Information Technology (IT):

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Tue Sep 8 2020 01:42p.m.

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No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Tue 08 Sep

Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer
Josh Kasinger L-DEO OMO Chief Source Mechanic
Alan Thompson L-DEO OMO Science Officer - Nav
Cody Bahlau L-DEO OMO Marine Science Technician - Obs
Gilles Guerin L-DEO OMO Marine Science Technician - Obs
Brian Agee L-DEO OMO Source Mechanic
Matt Dettrich Contract Personnel Marine Science Technician (Source)
Ray Hatton Contract Personnel Marine Science Technician (Source)
Patrick A'Hearn UNOLS Tech

PSO Staff On-board the Langseth

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Maritza Martinez RPS Lead PAM
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Kaylee McRae RPS PSO

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Donna Shillington NAU PI
Hannah Mark Wash. U. St. Louis
Valeria Cortes Rivas NAU
Hannah Brewer WHOI
Tim Kane WHOI OBS Tech
Martin Rapa SIO OBS Tech
Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
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Daily Science Report

9/9/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Wed 09 Sep

We deployed the last OBS on S1 at 11:02 GMT.

We deployed the source arrays initially and had to recover them all to replace several solenoids and then re-deploy.

Production began at 18:14 GMT. All sub array's are working.

Magnetometer and PAM cables are deployed and working.

Daily Comment Summaries - Plan for Tomorrow

Wed 09 Sep

In production all day.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)










Category	Code	Start	End	Duration
Deployment	MB_DP	Wed 9. Sep 00:00	Wed 9. Sep 00:43	0.717
Continue transit to next unit from OBS S1-22				
Deployment	MB_DP	Wed 9. Sep 00:43	Wed 9. Sep 01:30	0.783
Deploy OBS S1-23 and transit to next unit.				
Deployment	MB_DP	Wed 9. Sep 01:30	Wed 9. Sep 02:24	0.900
Deploy OBS S1-24 and transit to next unit.				
Deployment	MB_DP	Wed 9. Sep 02:24	Wed 9. Sep 07:22	4.967
Deploy OBS S1-25 and transit to next unit.				
Deployment	MB_DP	Wed 9. Sep 07:22	Wed 9. Sep 08:09	0.783
Deploy OBS S1-26 and transit to next unit.				
Deployment	MB_DP	Wed 9. Sep 08:09	Wed 9. Sep 09:07	0.967
Deploy OBS S1-27 and transit to next unit.				
Deployment	MB_DP	Wed 9. Sep 09:07	Wed 9. Sep 10:05	0.967
Deploy OBS S1-28 and transit to next unit.				
Deployment	MB_DP	Wed 9. Sep 10:05	Wed 9. Sep 11:03	0.967
Deploy OBS S1-29 and transit to next unit.				



Daily Science Report

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Category	Code	Start	End	Duration
 Deployment	MB_DP	Wed 9. Sep 11:03	Wed 9. Sep 11:14	0.183
Deploy OBS S1-22 and transit to begin deployment of Maggie and PAM.				
 Deployment	MB_DP	Wed 9. Sep 11:14	Wed 9. Sep 11:36	0.367
Deployment of Maggie and PAM.				
 Deployment	MB_DP	Wed 9. Sep 11:36	Wed 9. Sep 12:36	1.000
Deploy gun strings #1 and #2				
 Source Reconfig	SB_REC_SC	Wed 9. Sep 12:36	Wed 9. Sep 13:00	0.400
Soft start gun strings #1 and #2. 3300 cu in volume.				
 Deployment	MB_DP	Wed 9. Sep 13:00	Wed 9. Sep 13:50	0.833
Deploy gun strings #3 and #4				
 Testing	MB_TE	Wed 9. Sep 13:50	Wed 9. Sep 14:38	0.800
Testing gun strings. Missing gun signatures on five solenoids.				
 Deployment	MB_DP	Wed 9. Sep 14:38	Wed 9. Sep 18:14	3.600
Recovering, repairing and re-deploying gun strings. Replaced five solenoids.				
 Production Prime	AC_PP	Wed 9. Sep 18:14	Wed 9. Sep 19:37	1.383
SOL MGL2003T01 Seq001 Wind: SE 21.3Kts Seas: 1.5m Dpt: 643.1 Lat 51 42.085642 N; Lon 179 06.942466 W				
 Prime Line Change	AC_PLC	Wed 9. Sep 19:37	Wed 9. Sep 19:41	0.067
Nominal Prime line change.				
 Production Prime	AC_PP	Wed 9. Sep 19:41	Wed 9. Sep 24:00	4.317
SOL MGL2003OBS1ASeq002 Wind: SE 21.3Kts Seas: 1.5m Dpt: 643.1 Lat 51 42.085642 N; Lon 179 06.942466 W Full Volume at 22:27 GMT Last SP of the Day is 2297				

Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

9-Sep	Hours	%Percent
Acquisition	5.767	24.028
Prime Line Change	0.067	0.278
Production Prime	5.700	23.750
Chargeable Standby	0.400	1.667
Reconfiguration	0.400	1.667
Source Reconfig	0.400	1.667
Mobilisation	17.833	74.306



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9-Sep	Hours	%Percent
Deployment	17.033	70.972
Testing	0.800	3.333
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	%Percent
Mobilisation	209.833	97.145
Deployment	49.500	22.917
Testing	4.250	1.968
Transit to Prospect	156.083	72.261
Acquisition	5.767	2.670
Prime Line Change	0.067	0.031
Production Prime	5.700	2.639
Chargeable Standby	0.400	0.185
Reconfiguration	0.400	0.185
Source Reconfig	0.400	0.185
Total	216.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	150 m
CoS to CNG:	208 m	Fold Coverage:	252		
Comment					
Andreanof Experiment					

Production Listing (Accpt km by interval) - Full Fold

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
1	T01	86.2	1089	1353	Prime	39.60	15.457	Complete	Complete
2	s1	77.6	845	2297	Prime	217.80	27.244	Part	Midnight
Total						257.40			

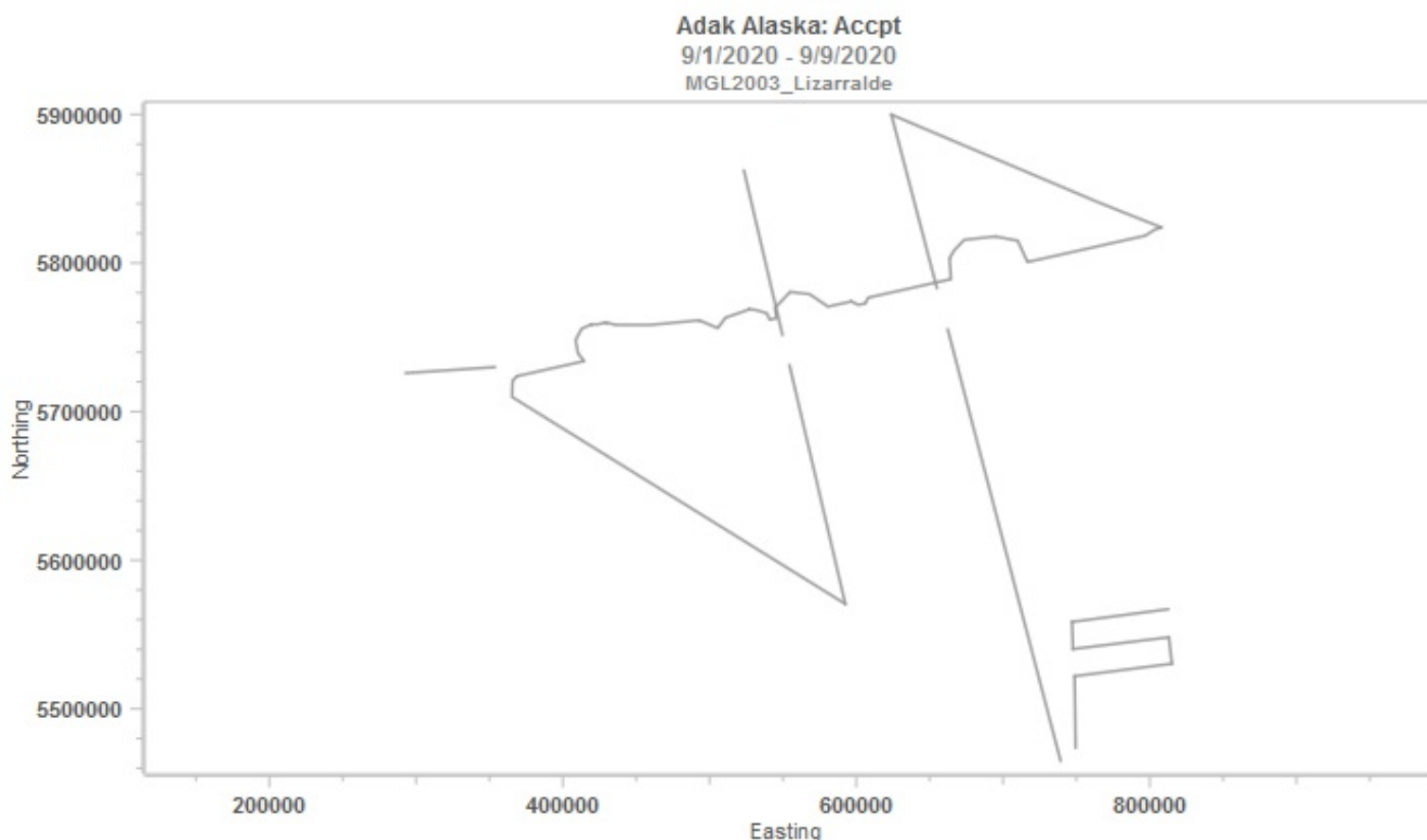
Production Totals (Accpt km) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	0.00	0.00	0.00
Combined	0.00	0.00	0.00	0.00



9/9/2020

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Daily Comment Summaries - Daily Comments On Status of Equipment

Wed 09 Sep

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Wed 09 Sep

Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Science Officer - Nav

Cody Bahlau L-DEO OMO Marine Science Technician - Obs

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

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Matt Dettrich Contract Personnel Marine Science Technician (Source)

Ray Hatton Contract Personnel Marine Science Technician (Source)

Patrick A'Hearn UNOLS Tech



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PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

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Cassandra Frey RPS PSO

Amelia McClure RPS PSO

Kaylee McRae RPS PSO

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Valeria Cortes Rivas NAU

Hannah Brewer WHOI

Tim Kane WHOI OBS Tech

Martin Rapa SIO OBS Tech

Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
Daily Total Category	Code	Count	
<div></div> Toolbox Meetings	Mtgs_Tbox	2	
9/9/2020			
Toolbox Meeting to discuss source retrieval/deployment Toolbox Meeting to discuss Maggie and Pam deployment			



Daily Science Report

9/10/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Thu 10 Sep

Spectra locked up between sequences 3 and 4 for about 35 minutes.

Brief Posnet crash that required a restart.

Daily Comment Summaries - Plan for Tomorrow

Thu 10 Sep

In production all day.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)





Category	Code	Start	End	Duration	
Production Prime	AC_PP	Thu 10. Sep 00:00	Thu 10. Sep 02:08	2.133	
SOL Seq 2 Line:s1 Preplot:S1ABlock=Adak Alaska FGSP=1325 Hdg=77.2° Prime EOL Seq 2 Line:s1 Preplot:S1ABlock=Adak Alaska LGSP=1440 Complete					
Prime Line Change	AC_PLC	Thu 10. Sep 02:08	Thu 10. Sep 02:13	0.083	
Nominal Prime line change.					
Production Prime	AC_PP	Thu 10. Sep 02:13	Thu 10. Sep 07:21	5.133	
SOL Seq 3 Line:S1B Block=Adak Alaska FGSP=1511 Hdg=318.7° Prime EOL Seq 3 Line:S1B Block=Adak Alaska LGSP=1797 Complete					
Nav Systems Onboard	DT_NO	Thu 10. Sep 07:21	Thu 10. Sep 07:56	0.583	
Downtime due to onboard navigation systems.					
Production Prime	AC_PP	Thu 10. Sep 07:56	Thu 10. Sep 16:27	8.517	
SOL Seq 4 Line:S1BB Block=Adak Alaska FGSP=1855 Hdg=90.7° Prime EOL Seq 4 Line:S1BB Block=Adak Alaska LGSP=2324 Complete					
Prime Line Change	AC_PLC	Thu 10. Sep 16:27	Thu 10. Sep 16:30	0.050	
Nominal Prime line change.					
Production Prime	AC_PP	Thu 10. Sep 16:30	Thu 10. Sep 21:35	5.083	
SOL Seq 5 Line:OBS1C Block=Adak Alaska FGSP=2405 Hdg=35.4° Prime					



Daily Science Report

9/10/2020

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Category	Code	Start	End	Duration
EOL Seq 5 Line:OBS1C Block=Adak Alaska LGSP=2686 Complete				
 Prime Line Change	AC_PLC	Thu 10. Sep 21:35	Thu 10. Sep 21:38	0.050
Nominal Prime line change.				
 Production Prime	AC_PP	Thu 10. Sep 21:38	Thu 10. Sep 22:56	1.300
SOL Seq 6 Line:OBS1C Block=Adak Alaska FGSP=2703 Hdg=77.8° Prime EOL Seq 6 Line:OBS1C Block=Adak Alaska LGSP=2779 Complete				
 Prime Line Change	AC_PLC	Thu 10. Sep 22:56	Thu 10. Sep 22:58	0.033
Nominal Prime line change.				
 Production Prime	AC_PP	Thu 10. Sep 22:58	Thu 10. Sep 24:00	1.033
Midnight shotpoint is 2858				

Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

10-Sep	Hours	%Percent
Acquisition	23.417	97.569
Prime Line Change	0.217	0.903
Production Prime	23.200	96.667
DownTime	0.583	2.431
Nav Systems Onboard	0.583	2.431
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	%Percent
Mobilisation	209.833	87.431
Deployment	49.500	20.625
Testing	4.250	1.771
Transit to Prospect	156.083	65.035
DownTime	0.583	0.243
Nav Systems Onboard	0.583	0.243
Acquisition	29.183	12.160
Prime Line Change	0.283	0.118
Production Prime	28.900	12.042
Chargeable Standby	0.400	0.167
Reconfiguration	0.400	0.167
Source Reconfig	0.400	0.167
Total	240.000	



9/10/2020

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Basic Project Details

MGL2003_Lizaralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	150 m
CoS to CNG:	208 m	Fold Coverage:	252		
Comment					
Andreanof Experiment					

Production Listing (Accpt km by interval) - Full Fold

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
2	s1	77.2	1325	1440	Prime	17.40	3.880	Complete	Complete
3	S1B	318.7	1511	1797	Prime	42.90	4.512	Complete	Complete
4	S1BB	90.7	1855	2324	Prime	70.35	4.460	Complete	Complete
5	OBS1C	35.4	2405	2686	Prime	42.15	4.477	Complete	Complete
6	OBS1D	77.8	2703	2779	Prime	11.40	4.735	Complete	Complete
7	OBS1E	43.9	2802	2858	Prime	8.40	4.389	Part	Midnight
Total						192.60			

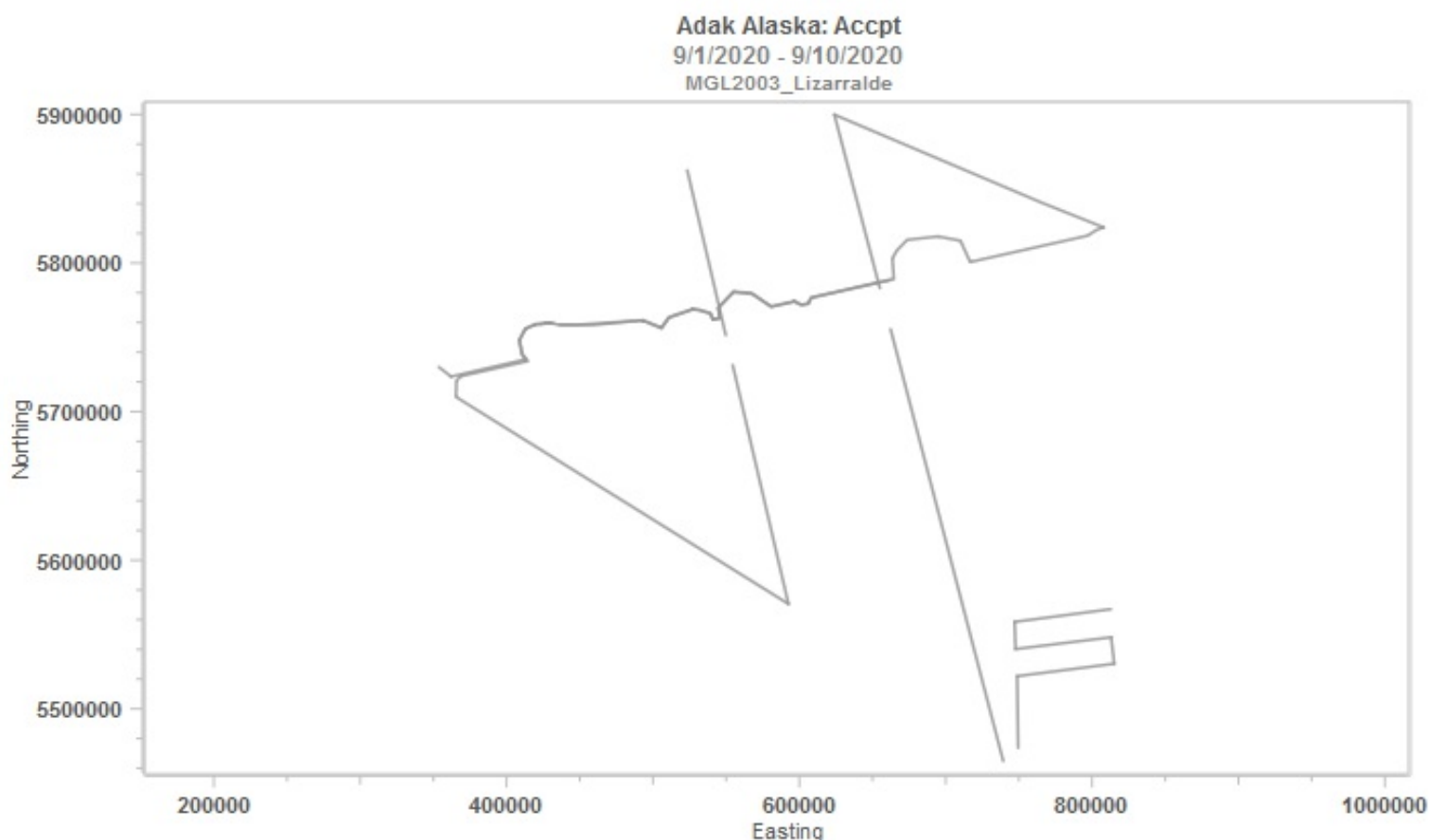
Production Totals (Accpt km) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	0.00	0.00	0.00
Combined	0.00	0.00	0.00	0.00



9/10/2020

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Daily Comment Summaries - Daily Comments On Status of Equipment

Thu 10 Sep

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Thu 10 Sep

Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Science Officer - Nav

Cody Bahlau L-DEO OMO Marine Science Technician - Obs

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9/10/2020

Page 5

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Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
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9/11/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Fri 11 Sep

We were in production all day and making steady progress.

Spectra was rebooted after several crashes.

Daily Comment Summaries - Plan for Tomorrow

Fri 11 Sep

We will finish shooting into the last segment of line S1 tomorrow morning at approximately 3AM local time. We will begin retrieving the towed gear immediately after we finish. OBS retrievals will start as soon as the gear is onboard and secured.

The weather is deteriorating somewhat for tomorrow, but we should be able to work safely through this period.

We will be retrieving OBS's for the remainder of the day.

Repairs will be made to the compression fitting on the high pressure air feed.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)

Category	Code	Start	End	Duration
Production Prime	AC_PP	Fri 11. Sep 00:00	Fri 11. Sep 00:53	0.883
SOL Seq 7 Line:OBS1E Block=Adak Alaska FGSP=2859 Hdg=43.9° Prime EOL Seq 7 Line:OBS1E Block=Adak Alaska LGSP=2964 Complete				
Prime Line Change	AC_PLC	Fri 11. Sep 00:53	Fri 11. Sep 00:56	0.050
Nominal Prime line change.				
Production Prime	AC_PP	Fri 11. Sep 00:56	Fri 11. Sep 01:10	0.233
SOL Seq 8 Line:OBS1E Block=Adak Alaska FGSP=2964 Hdg=43.9° Prime EOL Seq 8 Line:OBS1E Block=Adak Alaska LGSP=2979 Complete				
Prime Line Change	AC_PLC	Fri 11. Sep 01:10	Fri 11. Sep 01:16	0.100
Nominal Prime line change.				
Production Prime	AC_PP	Fri 11. Sep 01:16	Fri 11. Sep 02:10	0.900
SOL Seq 9 Line:1E3 Block=Adak Alaska FGSP=3001 Hdg=92.8° Prime EOL Seq 9 Line:1E3 Block=Adak Alaska LGSP=3050 Complete				



Category	Code	Start	End	Duration
Prime Line Change	AC_PLC	Fri 11. Sep 02:10	Fri 11. Sep 02:12	0.033
Nominal Prime line change.				
Production Prime	AC_PP	Fri 11. Sep 02:12	Fri 11. Sep 04:09	1.950
SOL Seq 10 Line:1E4 Block=Adak Alaska FGSP=3062 Hdg=123.9° Prime EOL Seq 10 Line:1E4 Block=Adak Alaska LGSP=3170 Complete				
Prime Line Change	AC_PLC	Fri 11. Sep 04:09	Fri 11. Sep 04:29	0.333
Nominal Prime line change.				
Production Prime	AC_PP	Fri 11. Sep 04:29	Fri 11. Sep 14:21	9.867
SOL Seq 11 Line:OBS Block=Adak Alaska FGSP=3218 Hdg=77.5° Prime EOL Seq 11 Line:OBS Block=Adak Alaska LGSP=3747 Complete				
Prime Line Change	AC_PLC	Fri 11. Sep 14:21	Fri 11. Sep 14:29	0.133
Nominal Prime line change.				
Production Prime	AC_PP	Fri 11. Sep 14:29	Fri 11. Sep 14:38	0.150
SOL Seq 12 Line:OBS Block=Adak Alaska FGSP=3756 Hdg=77.5° Prime EOL Seq 12 Line:OBS Block=Adak Alaska LGSP=3763 Complete				
Prime Line Change	AC_PLC	Fri 11. Sep 14:38	Fri 11. Sep 14:47	0.150
Nominal Prime line change.				
Production Prime	AC_PP	Fri 11. Sep 14:47	Fri 11. Sep 18:17	3.500
SOL Seq 13 Line:1F Block=Adak Alaska FGSP=4010 Hdg=356.1° Prime EOL Seq 13 Line:1F Block=Adak Alaska LGSP=4202 Complete				
Prime Line Change	AC_PLC	Fri 11. Sep 18:17	Fri 11. Sep 18:24	0.117
Nominal Prime line change.				
Production Prime	AC_PP	Fri 11. Sep 18:24	Fri 11. Sep 24:00	5.600
SOL Seq 14 Line:1G Block=Adak Alaska FGSP=4308 Hdg=100.6° Prime MSP Seq 14 Line:1G Block=Adak Alaska LGSP=4619 Midnight				

Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

11-Sep	Hours	%Percent
Acquisition	24.000	100.000
Prime Line Change	0.917	3.819
Production Prime	23.083	96.181
Day's Total	24.000	100.000



Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	% Percent
Mobilisation	209.833	79.482
Deployment	49.500	18.750
Testing	4.250	1.610
Transit to Prospect	156.083	59.122
DownTime	0.583	0.221
Nav Systems Onboard	0.583	0.221
Acquisition	53.183	20.145
Prime Line Change	1.200	0.455
Production Prime	51.983	19.691
Chargeable Standby	0.400	0.152
Reconfiguration	0.400	0.152
Source Reconfig	0.400	0.152
Total	264.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	150 m
CoS to CNG:	208 m	Fold Coverage:	252		
Comment					
Andreanof Experiment					

Production Listing (Accpt km by interval) - Full Fold

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
7	OBS1E	43.9	2859	2964	Prime	15.90	6.846	Complete	Complete
8	OBS1E	43.9	2964	2979	Prime	2.25	5.207	Complete	Complete
9	1E3	92.8	3001	3050	Prime	7.35	4.410	Complete	Complete
10	1E4	123.9	3062	3170	Prime	16.20	4.486	Complete	Complete
11	OBS	77.5	3218	3747	Prime	79.35	4.342	Complete	Complete
12	OBS	77.5	3756	3763	Prime	1.05	3.780	Complete	Complete
13	1F	356.1	4010	4202	Prime	28.80	4.443	Complete	Complete
14	1G	100.6	4308	4619	Prime	46.65	4.498	Part	Midnight
Total						197.55			

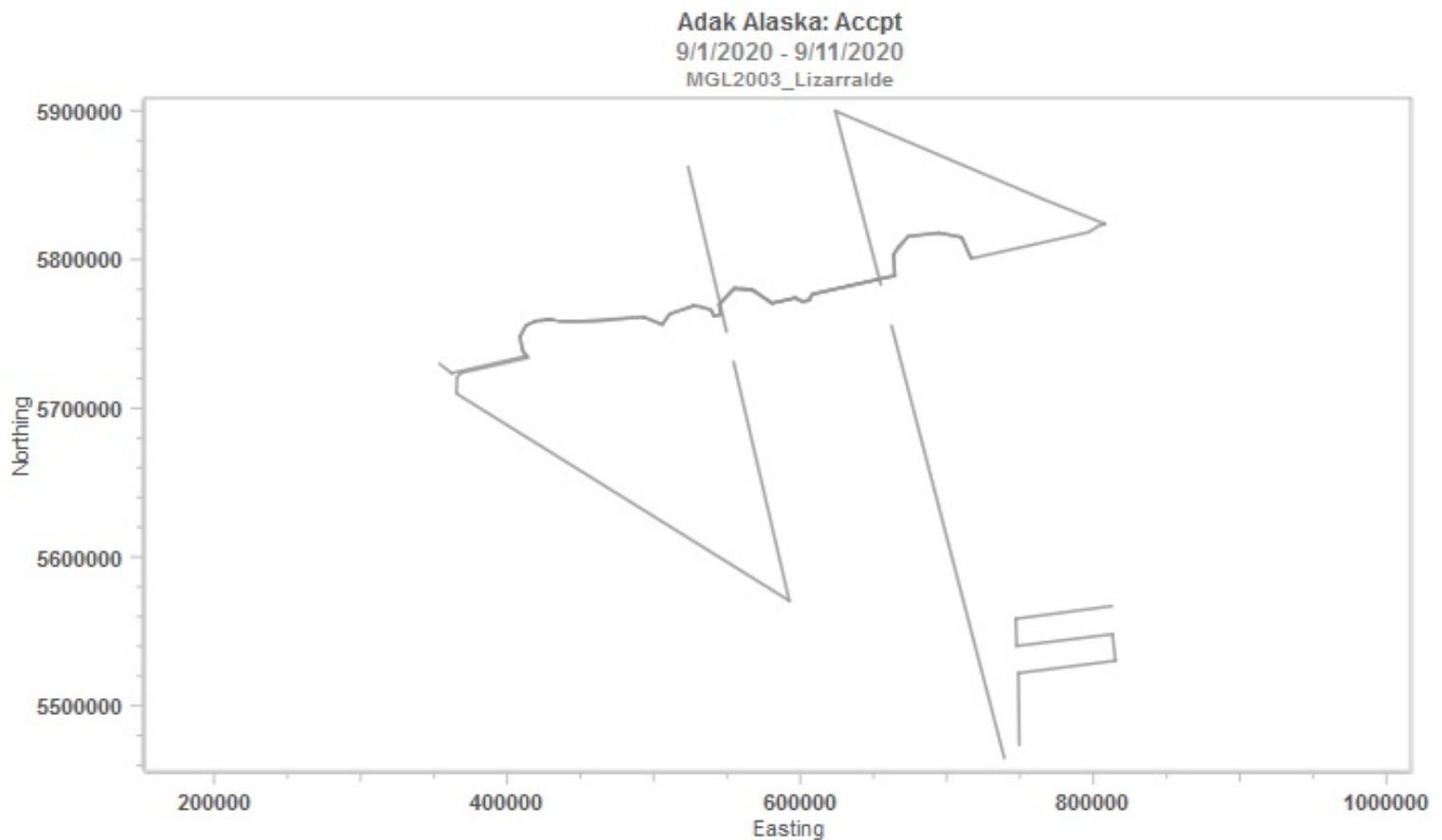
Production Totals (Accpt km) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	0.00	0.00	0.00
Combined	0.00	0.00	0.00	0.00



9/11/2020

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Daily Comment Summaries - Daily Comments On Status of Equipment

Fri 11 Sep

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Fri 11 Sep

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Alan Thompson L-DEO OMO Science Officer - Nav

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9/11/2020

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Valeria Cortes Rivas NAU

Hannah Brewer WHOI

Tim Kane WHOI OBS Tech

Martin Rapa SIO OBS Tech

Mark Gibaud SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
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9/12/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary**Sat 12 Sep**

We finished shooting the first OBS line and started picking up the source array at 11:55 GMT. We had them all onboard and secure at 13:24 GMT.

PAM and Magnetometer recovered at 13:37

We have 6 OBS's onboard by the end of the Julian Day.

The weather has been cooperating.

We tightened the compression fitting on the high pressure feed.

Daily Comment Summaries - Plan for Tomorrow**Sat 12 Sep**

We will be retrieving OBS's all day.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)

Category	Code	Start	End	Duration
Production Prime	AC_PP	Sat 12. Sep 00:00	Sat 12. Sep 00:32	0.533
SOL Seq 14 Line:1G Block=Adak Alaska FGSP=4620 Hdg=100.6° Prime EOL Seq 14 Line:1G Block=Adak Alaska LGSP=4649 Complete				
Prime Line Change	AC_PLC	Sat 12. Sep 00:32	Sat 12. Sep 00:35	0.050
Nominal Prime line change.				
Production Prime	AC_PP	Sat 12. Sep 00:35	Sat 12. Sep 11:53	11.300
SOL Seq 15 Line:OBS1H Block=Adak Alaska FGSP=4678 Hdg=77.7° Prime EOL Seq 15 Line:OBS1H Block=Adak Alaska LGSP=5305 Complete				
Recovery	DM_RC	Sat 12. Sep 11:53	Sat 12. Sep 13:37	1.733
Recovering Source, PAM, Maggie				
Transit	SB_TRT	Sat 12. Sep 13:37	Sat 12. Sep 14:29	0.867
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Sat 12. Sep 14:29	Sat 12. Sep 15:02	0.550



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Category	Code	Start	End	Duration
Recovery OBS S1-1				
Transit	SB_TRT	Sat 12. Sep 15:02	Sat 12. Sep 15:59	0.950
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Sat 12. Sep 15:59	Sat 12. Sep 17:11	1.200
Recovery OBS S1-2 Instrument took longer than expected d/t poor communications to unit.				
Transit	SB_TRT	Sat 12. Sep 17:11	Sat 12. Sep 18:05	0.900
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Sat 12. Sep 18:05	Sat 12. Sep 18:47	0.700
Recovery OBS 1-3				
Transit	SB_TRT	Sat 12. Sep 18:47	Sat 12. Sep 19:42	0.917
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Sat 12. Sep 19:42	Sat 12. Sep 20:23	0.683
Recovery OBS 1-4				
Transit	SB_TRT	Sat 12. Sep 20:23	Sat 12. Sep 21:16	0.883
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Sat 12. Sep 21:16	Sat 12. Sep 21:49	0.550
Recovery OBS 1-5				
Transit	SB_TRT	Sat 12. Sep 21:49	Sat 12. Sep 22:35	0.767
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Sat 12. Sep 22:35	Sat 12. Sep 23:08	0.550
Recovery OBS 1-6				
Transit	SB_TRT	Sat 12. Sep 23:08	Sat 12. Sep 23:52	0.733
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Sat 12. Sep 23:52	Sat 12. Sep 24:00	0.133
Recovery OBS 1-7				

Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

12-Sep	Hours	%Percent
Acquisition	11.883	49.514
Prime Line Change	0.050	0.208
Production Prime	11.833	49.306
Chargeable Standby	6.017	25.069
Transit	6.017	25.069
Demobilisation	6.100	25.417
Recovery	6.100	25.417
Day's Total	24.000	100.000



Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	% Percent
Mobilisation	209.833	72.859
Deployment	49.500	17.188
Testing	4.250	1.476
Transit to Prospect	156.083	54.196
DownTime	0.583	0.203
Nav Systems Onboard	0.583	0.203
Acquisition	65.067	22.593
Prime Line Change	1.250	0.434
Production Prime	63.817	22.159
Demobilisation	6.100	2.118
Recovery	6.100	2.118
Chargeable Standby	6.417	2.228
Reconfiguration	0.400	0.139
Source Reconfig	0.400	0.139
Transit	6.017	2.089
Total	288.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	150 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	0	Front Depth:	0 m
Tail Depth:	0 m	Length:	6000 m	Group interval:	0 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	9 m
Pressure:	2000 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	0 m		
Comment					
Andreanof Experiment					

Production Listing (Accpt km by interval) - Full Fold

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
14	1G	100.6	4620	4649	Prime	4.50	4.503	Complete	Complete
15	OBS1H	77.7	4678	5305	Prime	94.05	4.494	Complete	Complete
Total						98.55			

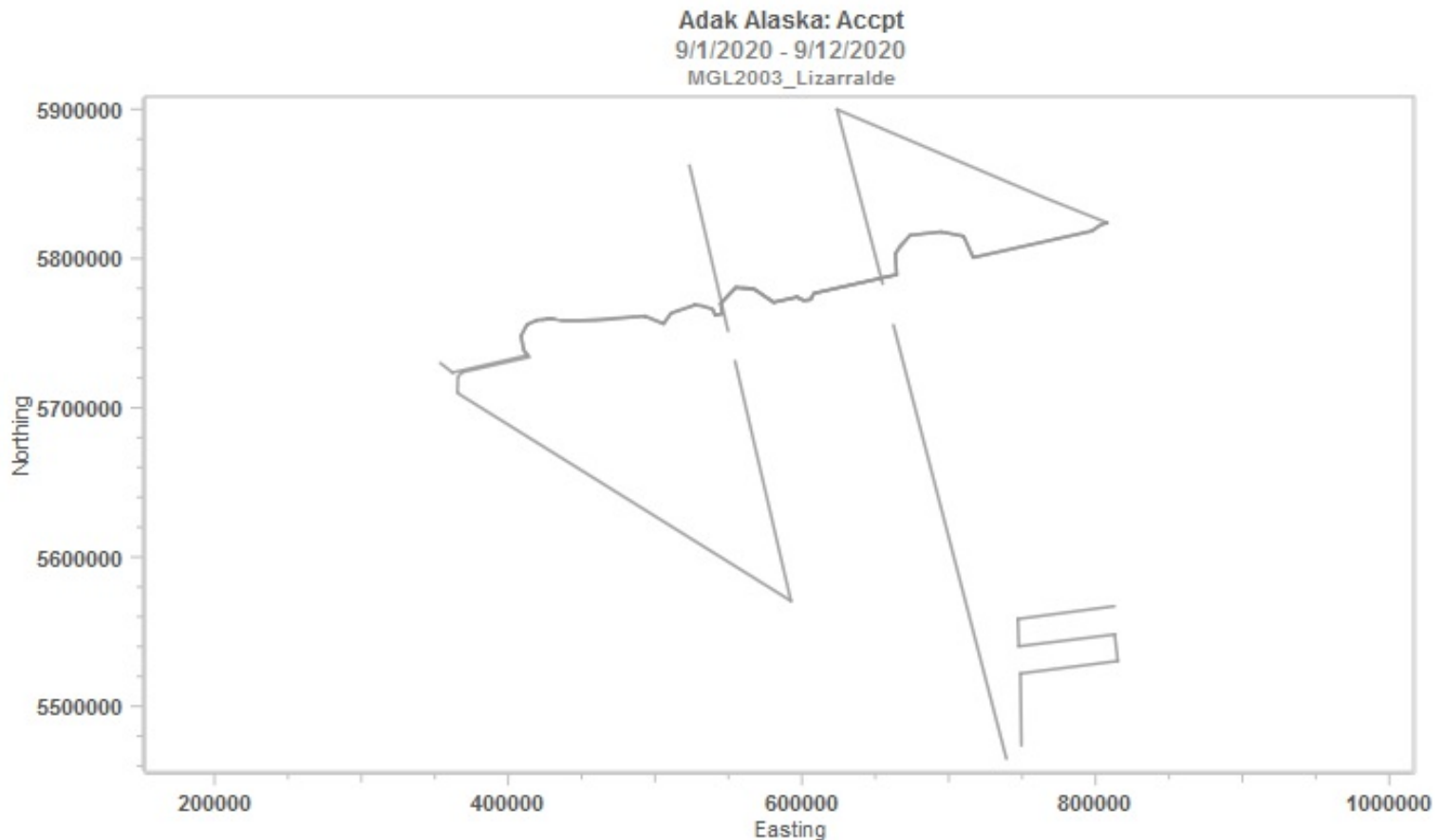


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Production Totals (Accpt km) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	0.00	0.00	0.00
Combined	0.00	0.00	0.00	0.00



Daily Comment Summaries - Daily Comments On Status of Equipment

Sat 12 Sep

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Sat 12 Sep

Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic



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Alan Thompson L-DEO OMO Science Officer - Nav
Cody Bahlau L-DEO OMO Marine Science Technician - Obs
Gilles Guerin L-DEO OMO Marine Science Technician - Obs
Brian Agee L-DEO OMO Source Mechanic
Matt Dettrich Contract Personnel Marine Science Technician (Source)
Ray Hatton Contract Personnel Marine Science Technician (Source)
Patrick A'Hearn UNOLS Tech

PSO Staff On-board the Langseth

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Maritza Martinez RPS Lead PAM
Cassandra Frey RPS PSO
Amelia McClure RPS PSO
Kaylee McRae RPS PSO

Science Party On-board the Langseth

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Donna Shillington NAU PI
Hannah Mark Wash. U. St. Louis
Valeria Cortes Rivas NAU
Hannah Brewer WHOI
Tim Kane WHOI OBS Tech
Martin Rapa SIO OBS Tech
Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
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Daily Science Report

9/13/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Sun 13 Sep

Solved Spectra Header to log3 issue.
Troubleshooting GPS on gunstring 1, found to be failing 1m jumper
Retrieved 12 OBS's.

Daily Comment Summaries - Plan for Tomorrow

Sun 13 Sep

Recover OBS's all day and transit to D1.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)



Category	Code	Start	End	Duration
Recovery	DM_RC	Sun 13. Sep 00:00	Sun 13. Sep 00:18	0.300
Recovery OBS 1-7				
Transit	SB_TRT	Sun 13. Sep 00:18	Sun 13. Sep 01:01	0.717
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Sun 13. Sep 01:01	Sun 13. Sep 01:29	0.467
Recovery OBS 1-8				
Transit	SB_TRT	Sun 13. Sep 01:29	Sun 13. Sep 06:18	4.817
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Sun 13. Sep 06:18	Sun 13. Sep 06:52	0.567
Recovery OBS S1-9				
Transit	SB_TRT	Sun 13. Sep 06:52	Sun 13. Sep 07:16	0.400
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Sun 13. Sep 07:16	Sun 13. Sep 07:41	0.417
OBS S1-10				
Transit	SB_TRT	Sun 13. Sep 07:41	Sun 13. Sep 09:24	1.717
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Sun 13. Sep 09:24	Sun 13. Sep 10:36	1.200
Recovery OBS S1-13				
Transit	SB_TRT	Sun 13. Sep 10:36	Sun 13. Sep 11:21	0.750
Chargeable standby d/t being in Transit				



Category	Code	Start	End	Duration
Recovery	DM_RC	Sun 13. Sep 11:21	Sun 13. Sep 12:05	0.733
Recovery OBS S1-14				
Transit	SB_TRT	Sun 13. Sep 12:05	Sun 13. Sep 12:46	0.683
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Sun 13. Sep 12:46	Sun 13. Sep 13:23	0.617
Recovery OBS S1-15				
Transit	SB_TRT	Sun 13. Sep 13:23	Sun 13. Sep 14:17	0.900
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Sun 13. Sep 14:17	Sun 13. Sep 14:53	0.600
Recovery OBS S1-16				
Transit	SB_TRT	Sun 13. Sep 14:53	Sun 13. Sep 15:27	0.567
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Sun 13. Sep 15:27	Sun 13. Sep 15:53	0.433
Recovery OBS S1-17				
Transit	SB_TRT	Sun 13. Sep 15:53	Sun 13. Sep 16:32	0.650
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Sun 13. Sep 16:32	Sun 13. Sep 17:08	0.600
Recovery OBS S1-18				
Transit	SB_TRT	Sun 13. Sep 17:08	Sun 13. Sep 19:43	2.583
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Sun 13. Sep 19:43	Sun 13. Sep 20:11	0.467
OBS Recovery S1-19				
Transit	SB_TRT	Sun 13. Sep 20:11	Sun 13. Sep 20:49	0.633
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Sun 13. Sep 20:49	Sun 13. Sep 21:17	0.467
OBS Recovery D2-6				
Transit	SB_TRT	Sun 13. Sep 21:17	Sun 13. Sep 22:06	0.817
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Sun 13. Sep 22:06	Sun 13. Sep 22:38	0.533
OBS Recovery S1-20				
Transit	SB_TRT	Sun 13. Sep 22:38	Sun 13. Sep 24:00	1.367
Chargeable standby d/t being in Transit				

Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

13-Sep	Hours	% Percent
Chargeable Standby	16.600	69.167
Transit	16.600	69.167
Demobilisation	7.400	30.833



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13-Sep	Hours	%Percent
Recovery	7.400	30.833
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	%Percent
Mobilisation	209.833	67.254
Deployment	49.500	15.865
Testing	4.250	1.362
Transit to Prospect	156.083	50.027
DownTime	0.583	0.187
Nav Systems Onboard	0.583	0.187
Acquisition	65.067	20.855
Prime Line Change	1.250	0.401
Production Prime	63.817	20.454
Demobilisation	13.500	4.327
Recovery	13.500	4.327
Chargeable Standby	23.017	7.377
Reconfiguration	0.400	0.128
Source Reconfig	0.400	0.128
Transit	22.617	7.249
Total	312.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	150 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	0	Front Depth:	0 m
Tail Depth:	0 m	Length:	6000 m	Group interval:	0 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	9 m
Pressure:	2000 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	0 m		
Comment					
Andreanof Experiment					



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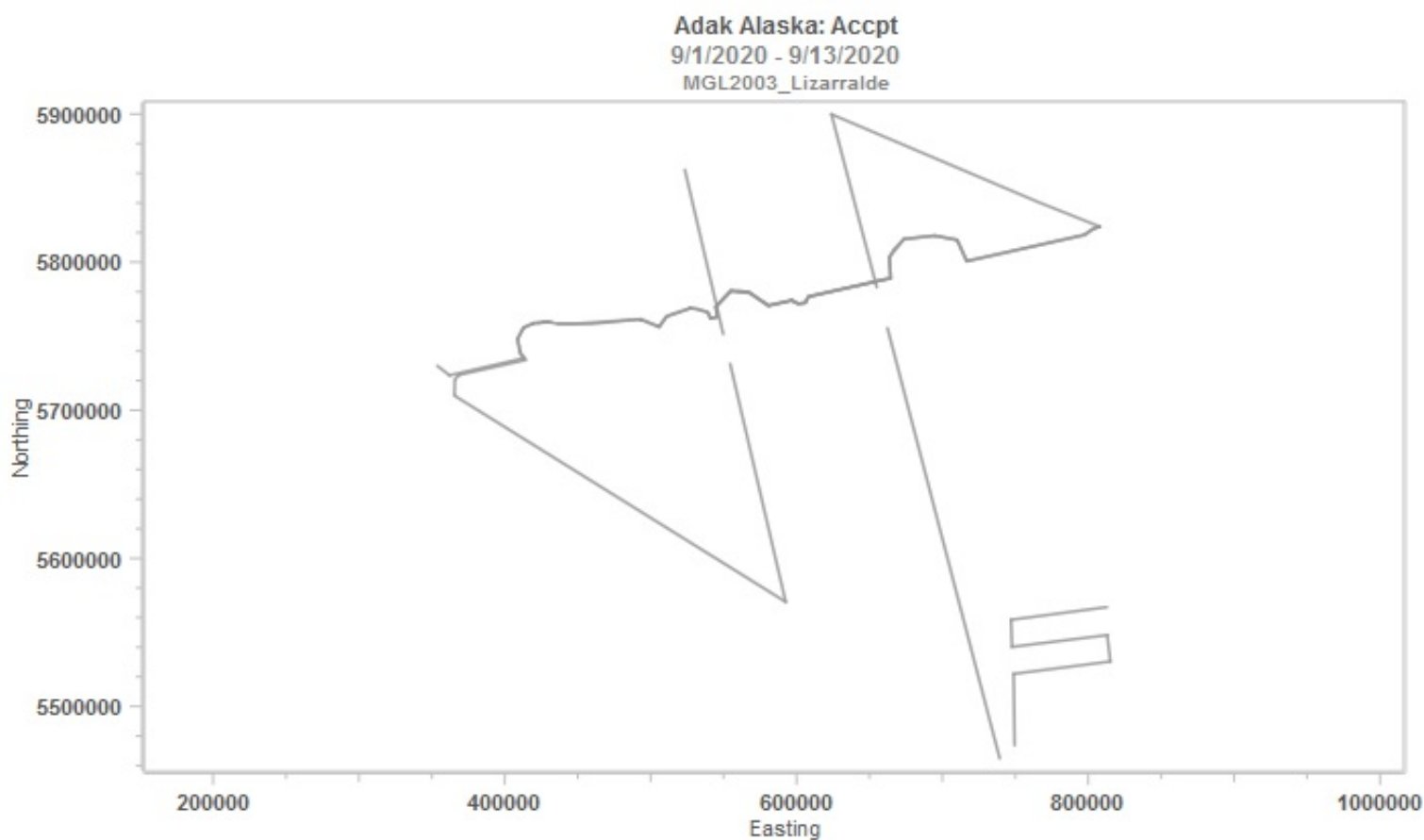
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Production Listing (Accpt km) - Full Fold

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
Total					0.00			

Production Totals (Accpt km) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	0.00	0.00	0.00
Combined	0.00	0.00	0.00	0.00



Daily Comment Summaries - Daily Comments On Status of Equipment

Sun 13 Sep

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report



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Daily Comment Summaries - Personnel Onboard

Sun 13 Sep

Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer
Josh Kasinger L-DEO OMO Chief Source Mechanic
Alan Thompson L-DEO OMO Science Officer - Nav
Cody Bahlau L-DEO OMO Marine Science Technician - Obs
Gilles Guerin L-DEO OMO Marine Science Technician - Obs
Brian Agee L-DEO OMO Source Mechanic
Matt Dettrich Contract Personnel Marine Science Technician (Source)
Ray Hatton Contract Personnel Marine Science Technician (Source)
Patrick A'Hearn UNOLS Tech

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Maritza Martinez RPS Lead PAM
Cassandra Frey RPS PSO
Amelia McClure RPS PSO
Kaylee McRae RPS PSO

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Donna Shillington NAU PI
Hannah Mark Wash. U. St. Louis
Valeria Cortes Rivas NAU
Hannah Brewer WHOI
Tim Kane WHOI OBS Tech
Martin Rapa SIO OBS Tech
Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
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Category	Code	Start	End	Duration
Recovery OBS S1-25				
 Transit	SB_TRT	Mon 14. Sep 07:03	Mon 14. Sep 11:42	4.650
Chargeable standby d/t being in Transit				
 Recovery	DM_RC	Mon 14. Sep 11:42	Mon 14. Sep 12:16	0.567
Recovery OBS S1-26				
 Transit	SB_TRT	Mon 14. Sep 12:16	Mon 14. Sep 12:52	0.600
Chargeable standby d/t being in Transit				
 Recovery	DM_RC	Mon 14. Sep 12:52	Mon 14. Sep 13:32	0.667
Recovery OBS S1-27				
 Transit	SB_TRT	Mon 14. Sep 13:32	Mon 14. Sep 14:23	0.850
Chargeable standby d/t being in Transit				
 Recovery	DM_RC	Mon 14. Sep 14:23	Mon 14. Sep 15:11	0.800
Recovery OBS S1-28				
 Transit	SB_TRT	Mon 14. Sep 15:11	Mon 14. Sep 15:54	0.717
Chargeable standby d/t being in Transit				
 Recovery	DM_RC	Mon 14. Sep 15:54	Mon 14. Sep 16:45	0.850
Recover OBS S1-29				
 Transit	SB_TRT	Mon 14. Sep 16:45	Mon 14. Sep 17:31	0.767
Chargeable standby d/t being in Transit				
 Recovery	DM_RC	Mon 14. Sep 17:31	Mon 14. Sep 18:14	0.717
Recovery OBS S1-30				
 Transit	SB_TRT	Mon 14. Sep 18:14	Mon 14. Sep 24:00	5.767
Chargeable standby d/t being in Transit				

Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

14-Sep	Hours	%Percent
Chargeable Standby	17.450	72.708
Transit	17.450	72.708
Demobilisation	6.550	27.292
Recovery	6.550	27.292
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	%Percent
Mobilisation	209.833	62.450
Deployment	49.500	14.732
Testing	4.250	1.265
Transit to Prospect	156.083	46.453
DownTime	0.583	0.174



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Category	Hours	% Percent
Nav Systems Onboard	0.583	0.174
Acquisition	65.067	19.365
Prime Line Change	1.250	0.372
Production Prime	63.817	18.993
Demobilisation	20.050	5.967
Recovery	20.050	5.967
Chargeable Standby	40.467	12.044
Reconfiguration	0.400	0.119
Source Reconfig	0.400	0.119
Transit	40.067	11.925
Total	336.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	150 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	0	Front Depth:	0 m
Tail Depth:	0 m	Length:	6000 m	Group interval:	0 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	9 m
Pressure:	2000 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	0 m		
Comment					
Andreanof Experiment					

Production Listing (Accpt km) - Full Fold

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
Total					0.00			

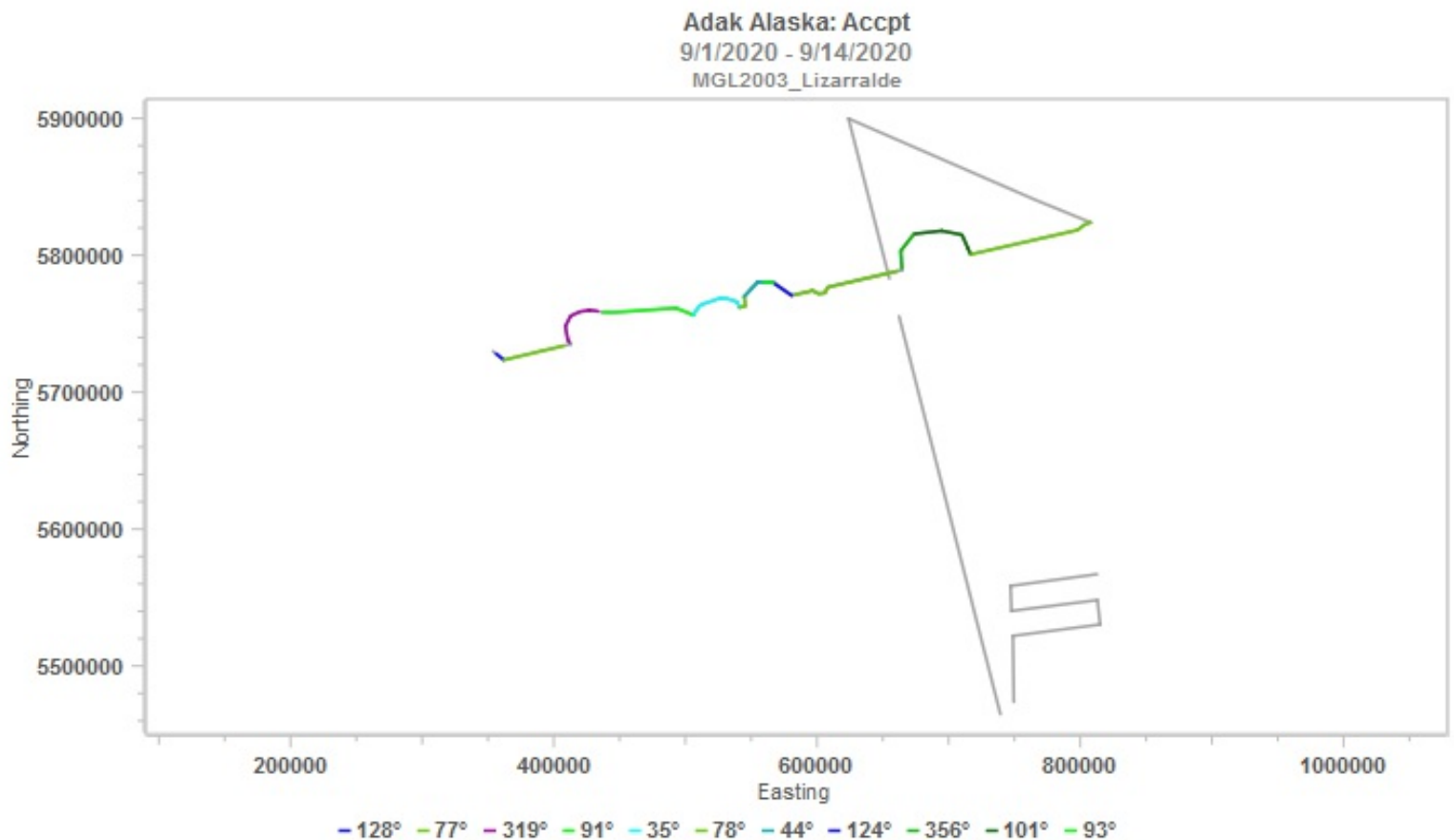
Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	0.00	525.00	525.00
Combined	0.00	0.00	525.00	525.00



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Daily Comment Summaries - Daily Comments On Status of Equipment

Mon 14 Sep

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Mon 14 Sep

Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Science Officer - Nav

Cody Bahlau L-DEO OMO Marine Science Technician - Obs

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Matt Dettrich Contract Personnel Marine Science Technician (Source)

Ray Hatton Contract Personnel Marine Science Technician (Source)

Patrick A'Hearn UNOLS Tech



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Cassandra Frey RPS PSO

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Hannah Brewer WHOI

Tim Kane WHOI OBS Tech

Martin Rapa SIO OBS Tech

Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
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Daily Science Report

9/15/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Tue 15 Sep

We deployed seven OBS's on the north side of D1 and then transited around the islands to continue deploying OBS's on the south end.

Daily Comment Summaries - Plan for Tomorrow

Tue 15 Sep

We will finish deploying the OBS's (D11 thru D19) on the south side of the islands. We will deploy the source array and begin shooting line D1 at approximately 6 AM local time.

We will not be deploying the tethered OBS's (D21,23,25) due to weather and time constraints.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)



Category	Code	Start	End	Duration
Transit	SB_TRT	Tue 15. Sep 00:00	Tue 15. Sep 11:04	11.067
Chargeable standby d/t being in Transit				
Deployment	MB_DP	Tue 15. Sep 11:04	Tue 15. Sep 12:04	1.000
Continue transit to next unit from OBS D1-1				
Deployment	MB_DP	Tue 15. Sep 12:04	Tue 15. Sep 13:24	1.333
Continue transit to next unit from OBS D1-2				
Deployment	MB_DP	Tue 15. Sep 13:24	Tue 15. Sep 14:22	0.967
Continue transit to next unit from OBS D1-3				
Deployment	MB_DP	Tue 15. Sep 14:22	Tue 15. Sep 15:53	1.517
Continue transit to next unit from OBS D1-4				
Deployment	MB_DP	Tue 15. Sep 15:53	Tue 15. Sep 16:55	1.033
Continue transit to next unit from OBS D1-5				
Deployment	MB_DP	Tue 15. Sep 16:55	Tue 15. Sep 17:48	0.883
Continue transit to next unit from OBS D1-6				
Deployment	MB_DP	Tue 15. Sep 17:48	Tue 15. Sep 24:00	6.200
Continue transit to next unit from OBS D1-7. Extended transit to go around islands.				



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Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

15-Sep	Hours	%Percent
Chargeable Standby	11.067	46.111
Transit	11.067	46.111
Mobilisation	12.933	53.889
Deployment	12.933	53.889
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	%Percent
Mobilisation	222.767	61.880
Deployment	62.433	17.343
Testing	4.250	1.181
Transit to Prospect	156.083	43.356
DownTime	0.583	0.162
Nav Systems Onboard	0.583	0.162
Acquisition	65.067	18.074
Prime Line Change	1.250	0.347
Production Prime	63.817	17.727
Demobilisation	20.050	5.569
Recovery	20.050	5.569
Chargeable Standby	51.533	14.315
Reconfiguration	0.400	0.111
Source Reconfig	0.400	0.111
Transit	51.133	14.204
Total	360.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	150 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	0	Front Depth:	0 m
Tail Depth:	0 m	Length:	6000 m	Group interval:	0 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	9 m
Pressure:	2000 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	0 m		



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Comment

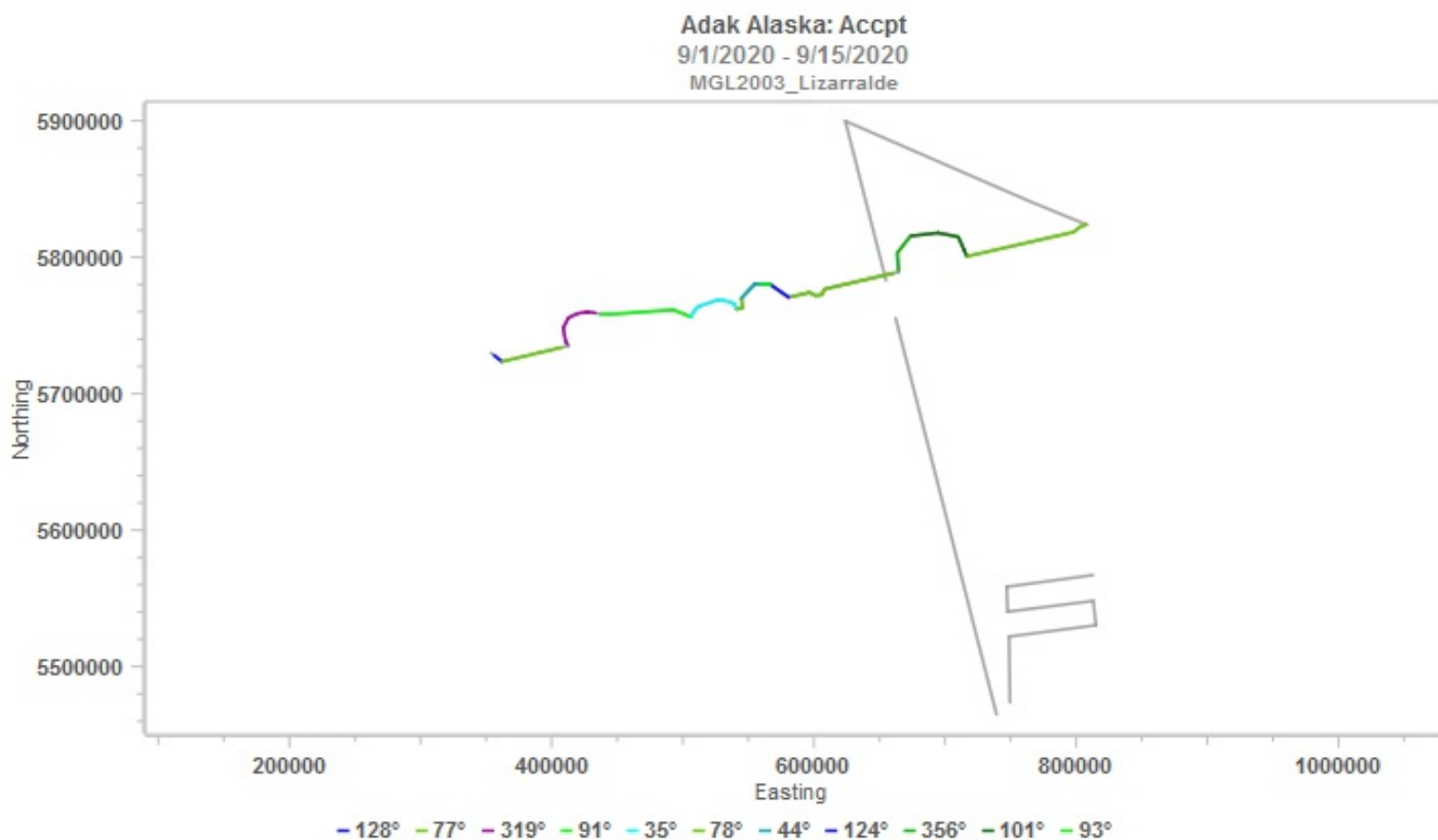
Andreanof Experiment

Production Listing (Acct km) - Full Fold

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
Total					0.00			

Production Totals (Acct km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	0.00	525.00	525.00
Combined	0.00	0.00	525.00	525.00



Daily Comment Summaries - Daily Comments On Status of Equipment

Tue 15 Sep

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Tue Sep 15 2020 02:28p.m.

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No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Tue 15 Sep

Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer
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Cody Bahlau L-DEO OMO Marine Science Technician - Obs
Gilles Guerin L-DEO OMO Marine Science Technician - Obs
Brian Agee L-DEO OMO Source Mechanic
Matt Dettrich Contract Personnel Marine Science Technician (Source)
Ray Hatton Contract Personnel Marine Science Technician (Source)
Patrick A'Hearn UNOLS Tech

PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO
Maritza Martinez RPS Lead PAM
Cassandra Frey RPS PSO
Amelia McClure RPS PSO
Kaylee McRae RPS PSO

Science Party On-board the Langseth

Dan Lizarralde WHOI PI
Donna Shillington NAU PI
Hannah Mark Wash. U. St. Louis
Valeria Cortes Rivas NAU
Hannah Brewer WHOI
Tim Kane WHOI OBS Tech
Martin Rapa SIO OBS Tech
Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
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Daily Science Report

9/16/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Wed 16 Sep

Deployed the last OBS (D1-19) at 8:02 GMT.
Deployed source array at 10:07 GMT
Began shooting MGL2003OBD1A at 11:53 GMT
We circled to make repairs to the Port Ariel and then resumed shooting on same line.

Daily Comment Summaries - Plan for Tomorrow

Wed 16 Sep

In production all day.
We will transit thru Atka Pass and resume shooting on the North side of the islands.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)







Category	Code	Start	End	Duration
Deployment	MB_DP	Wed 16. Sep 00:00	Wed 16. Sep 00:59	0.983
Continue transit to next unit from OBS D1-7. Extended transit to go around islands.				
Deployment	MB_DP	Wed 16. Sep 00:59	Wed 16. Sep 01:53	0.900
Transit to next unit from OBS D1-11				
Deployment	MB_DP	Wed 16. Sep 01:53	Wed 16. Sep 02:44	0.850
Transit to next unit from OBS D1-12				
Deployment	MB_DP	Wed 16. Sep 02:44	Wed 16. Sep 03:35	0.850
Transit to next unit from OBS D1-13				
Deployment	MB_DP	Wed 16. Sep 03:35	Wed 16. Sep 04:28	0.883
Transit to next unit from OBS D1-14				
Deployment	MB_DP	Wed 16. Sep 04:28	Wed 16. Sep 05:21	0.883
Transit to next unit from OBS D1-15				
Deployment	MB_DP	Wed 16. Sep 05:21	Wed 16. Sep 06:13	0.867
Transit to next unit from OBS D1-16				
Deployment	MB_DP	Wed 16. Sep 06:13	Wed 16. Sep 07:07	0.900
Transit to next unit from OBS D1-17				
Deployment	MB_DP	Wed 16. Sep 07:07	Wed 16. Sep 08:02	0.917
Transit to next unit from OBS D1-18				



Daily Science Report

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Category	Code	Start	End	Duration
 Deployment	MB_DP	Wed 16. Sep 08:02	Wed 16. Sep 11:53	3.850
Deploy PAM, Magnetometer, Subarrays 1-4 followed by ramp up. Recover and repair subarray 2 then redeploy				
 Production Prime	AC_PP	Wed 16. Sep 11:53	Wed 16. Sep 19:09	7.267
SOL Seq 16 Line:OBD1ABlock=Adak Alaska FGSP=879 Hdg=345.1° Prime EOL Seq 16 Line:OBD1ABlock=Adak Alaska LGSP=1286 Complete				
 High Pressure	DT_HP	Wed 16. Sep 19:09	Wed 16. Sep 20:33	1.400
Downtime due to onboard source pressure issues. Ariel Compressor.				
 Production Prime	AC_PP	Wed 16. Sep 20:33	Wed 16. Sep 24:00	3.450

Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

16-Sep	Hours	%Percent
Acquisition	10.717	44.653
Production Prime	10.717	44.653
DownTime	1.400	5.833
High Pressure	1.400	5.833
Mobilisation	11.883	49.514
Deployment	11.883	49.514
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	%Percent
Mobilisation	234.650	61.107
Deployment	74.317	19.353
Testing	4.250	1.107
Transit to Prospect	156.083	40.647
DownTime	1.983	0.516
High Pressure	1.400	0.365
Nav Systems Onboard	0.583	0.152
Acquisition	75.783	19.735
Prime Line Change	1.250	0.326
Production Prime	74.533	19.410
Demobilisation	20.050	5.221
Recovery	20.050	5.221
Chargeable Standby	51.533	13.420
Reconfiguration	0.400	0.104
Source Reconfig	0.400	0.104
Transit	51.133	13.316
Total	384.000	



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Basic Project Details

MGL2003_Lizaralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	150 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	0	Front Depth:	0 m
Tail Depth:	0 m	Length:	6000 m	Group interval:	0 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	9 m
Pressure:	2000 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	0 m		
Comment					
Andreanof Experiment					

Production Listing (Accpt km by interval) - Full Fold

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
16	OBD1A	345.1	879	1286	Prime	61.05	4.536	Complete	Complete
17	OBD1A	345.1	1287	1640	Prime	52.95	8.287	Part	Midnight
Total						114.00			

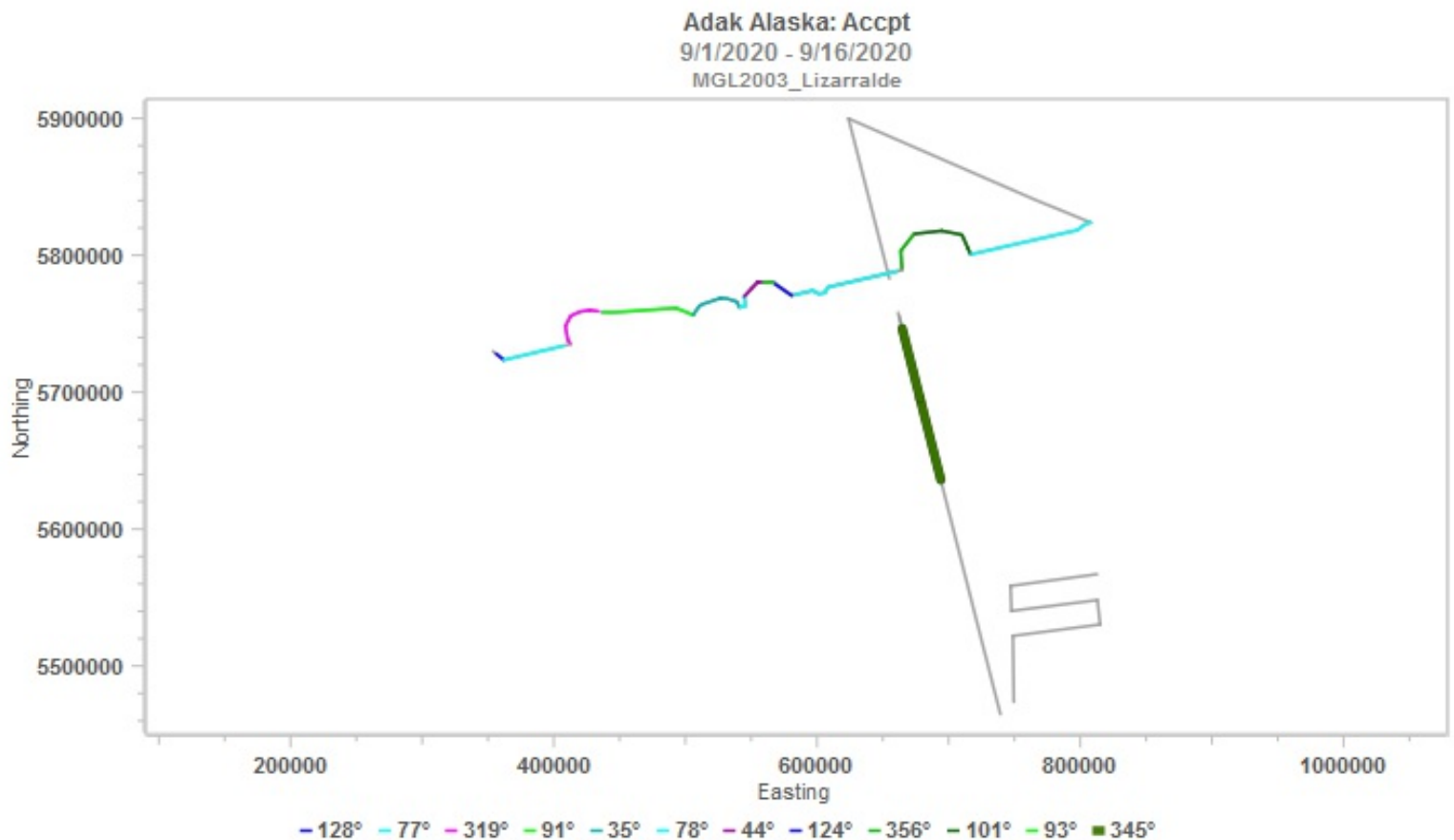
Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	114.00	114.00	639.00	639.00
Combined	114.00	114.00	639.00	639.00



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Daily Comment Summaries - Daily Comments On Status of Equipment

Wed 16 Sep

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Wed 16 Sep

Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Science Officer - Nav

Cody Bahlau L-DEO OMO Marine Science Technician - Obs

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Brian Agee L- DEO OMO Source Mechanic

Matt Dettrich Contract Personnel Marine Science Technician (Source)

Ray Hatton Contract Personnel Marine Science Technician (Source)

Patrick A'Hearn UNOLS Tech



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PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

Maritza Martinez RPS Lead PAM

Cassandra Frey RPS PSO

Amelia McClure RPS PSO

Kaylee McRae RPS PSO

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Donna Shillington NAU PI

Hannah Mark Wash. U. St. Louis

Valeria Cortes Rivas NAU

Hannah Brewer WHOI

Tim Kane WHOI OBS Tech

Martin Rapa SIO OBS Tech

Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
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Daily Science Report

9/17/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Thu 17 Sep

We transited thru Atka Pass and shot North of the islands on Lines OBS1I and OBD1BD.
Making preparations to retrieve towed gear and OBS's.
Securing decks.

Daily Comment Summaries - Plan for Tomorrow

Thu 17 Sep

We will retrieve source array, Magnetometer and PAM at approximately 9PM local time.
We will start recovering all of the OBS's and will continue throughout the day.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)



Category	Code	Start	End	Duration
Production Prime	AC_PP	Thu 17. Sep 00:00	Thu 17. Sep 04:24	4.400
SOL Seq 17 Line:OBD1ABlock=Adak Alaska FGSP=1641 Hdg=345.1° Prime EOL Seq 17 Line:OBD1ABlock=Adak Alaska LGSP=1721 Complete				
Prime Extended L/C	SB_PXL	Thu 17. Sep 04:24	Thu 17. Sep 12:27	8.050
Chargeable standby due to extended Prime line change.				
Production Prime	AC_PP	Thu 17. Sep 12:27	Thu 17. Sep 16:04	3.617
SOL Seq 18 Line:OBS1i Block=Adak Alaska FGSP=6015 Hdg=77.4° Prime EOL Seq 18 Line:OBS1i Block=Adak Alaska LGSP=6217 Complete				
Prime Line Change	AC_PLC	Thu 17. Sep 16:04	Thu 17. Sep 16:06	0.033
Nominal Prime line change.				
Production Prime	AC_PP	Thu 17. Sep 16:06	Thu 17. Sep 24:00	7.900
SOL Seq 19 Line:OBD1B Block=Adak Alaska FGSP=1006 Hdg=345.2° Prime MSP Seq 19 Line:OBD1B Block=Adak Alaska LGSP=1446 Midnight				

Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

17-Sep	Hours	%Percent
Acquisition	15.950	66.458
Prime Line Change	0.033	0.139
Production Prime	15.917	66.319
Chargeable Standby	8.050	33.542



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17-Sep	Hours	%Percent
Prime Extended L/C	8.050	33.542
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	%Percent
Mobilisation	234.650	57.512
Deployment	74.317	18.215
Testing	4.250	1.042
Transit to Prospect	156.083	38.256
DownTime	1.983	0.486
High Pressure	1.400	0.343
Nav Systems Onboard	0.583	0.143
Chargeable Standby	59.583	14.604
Prime Extended L/C	8.050	1.973
Reconfiguration	0.400	0.098
Source Reconfig	0.400	0.098
Transit	51.133	12.533
Acquisition	91.733	22.484
Prime Line Change	1.283	0.315
Production Prime	90.450	22.169
Demobilisation	20.050	4.914
Recovery	20.050	4.914
Total	408.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	150 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	0	Front Depth:	0 m
Tail Depth:	0 m	Length:	6000 m	Group interval:	0 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	9 m
Pressure:	2000 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	0 m		
Comment					
Andreanof Experiment					



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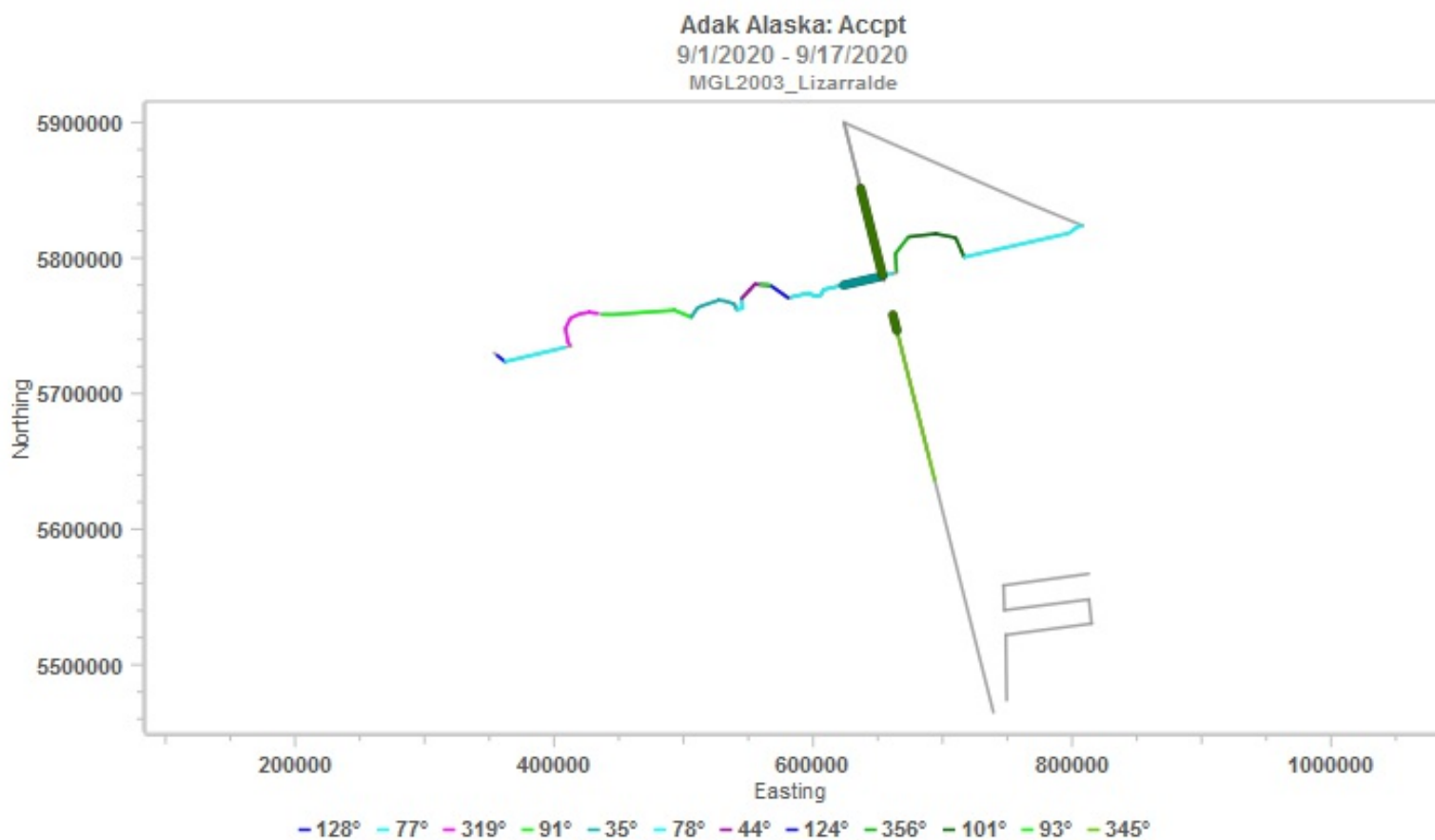
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Production Listing (Acpt km by interval) - Full Fold

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
17	OBD1A	345.1	1641	1721	Prime	12.15	4.478	Complete	Complete
18	OBS1i	77.4	6015	6217	Prime	30.30	4.524	Complete	Complete
19	OBD1B	345.2	1006	1446	Prime	66.00	4.511	Part	Midnight
Total						108.45			

Production Totals (Acpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	108.45	222.45	747.45	747.45
Combined	108.45	222.45	747.45	747.45

**Daily Comment Summaries - Daily Comments On Status of Equipment**

Thu 17 Sep

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report



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General Purpose Science:

No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Thu 17 Sep

Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer
Josh Kasinger L-DEO OMO Chief Source Mechanic
Alan Thompson L-DEO OMO Science Officer - Nav
Cody Bahlau L-DEO OMO Marine Science Technician - Obs
Gilles Guerin L-DEO OMO Marine Science Technician - Obs
Brian Agee L-DEO OMO Source Mechanic
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Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
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Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

9/18/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Fri 18 Sep

We finished shooting Line D1 at 06:07 GMT
The towed gear was onboard and secured by 07:29 GMT
We have the first 8 OBS's onboard at the end of the Julian Day.

Daily Comment Summaries - Plan for Tomorrow

Fri 18 Sep

We will retrieve OBS's all day. Weather will start to become an issue late in the day.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)



Category	Code	Start	End	Duration
Production Prime	AC_PP	Fri 18. Sep 00:00	Fri 18. Sep 06:07	6.117
SOL Seq 19 Line:OBD1B Block=Adak Alaska FGSP=1447 Hdg=345.2° Prime EOL Seq 19 Line:OBD1B Block=Adak Alaska LGSP=1783 Complete				
Recovery	DM_RC	Fri 18. Sep 06:07	Fri 18. Sep 07:29	1.367
Recovering Source, PAM, Maggie				
Transit	SB_TRT	Fri 18. Sep 07:29	Fri 18. Sep 08:07	0.633
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Fri 18. Sep 08:07	Fri 18. Sep 09:56	1.817
Recovery OBS-D1				
Transit	SB_TRT	Fri 18. Sep 09:56	Fri 18. Sep 10:34	0.633
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Fri 18. Sep 10:34	Fri 18. Sep 12:00	1.433
Recovery OBS-D2				
Transit	SB_TRT	Fri 18. Sep 12:00	Fri 18. Sep 12:50	0.833
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Fri 18. Sep 12:50	Fri 18. Sep 14:19	1.483
Recovery OBS-D3				
Transit	SB_TRT	Fri 18. Sep 14:19	Fri 18. Sep 15:02	0.717
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Fri 18. Sep 15:02	Fri 18. Sep 16:31	1.483
Recovery OBS-D4				



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Category	Code	Start	End	Duration
 Transit	SB_TRT	Fri 18. Sep 16:31	Fri 18. Sep 17:06	0.583
Chargeable standby d/t being in Transit				
 Recovery	DM_RC	Fri 18. Sep 17:06	Fri 18. Sep 18:50	1.733
Recovery OBS-D5				
 Transit	SB_TRT	Fri 18. Sep 18:50	Fri 18. Sep 19:11	0.350
Chargeable standby d/t being in Transit				
 Recovery	DM_RC	Fri 18. Sep 19:11	Fri 18. Sep 20:45	1.567
Recovery OBS-D6				
 Transit	SB_TRT	Fri 18. Sep 20:45	Fri 18. Sep 21:05	0.333
Chargeable standby d/t being in Transit				
 Recovery	DM_RC	Fri 18. Sep 21:05	Fri 18. Sep 22:25	1.333
Recovery OBS-D7				
 Transit	SB_TRT	Fri 18. Sep 22:25	Fri 18. Sep 22:57	0.533
Chargeable standby d/t being in Transit				
 Recovery	DM_RC	Fri 18. Sep 22:57	Fri 18. Sep 24:00	1.050
Recovery OBS-D8				

Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

18-Sep	Hours	%Percent
Acquisition	6.117	25.486
Production Prime	6.117	25.486
Chargeable Standby	4.617	19.236
Transit	4.617	19.236
Demobilisation	13.267	55.278
Recovery	13.267	55.278
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	%Percent
Mobilisation	234.650	54.317
Deployment	74.317	17.203
Testing	4.250	0.984
Transit to Prospect	156.083	36.130
DownTime	1.983	0.459
High Pressure	1.400	0.324
Nav Systems Onboard	0.583	0.135
Chargeable Standby	64.200	14.861
Prime Extended L/C	8.050	1.863
Reconfiguration	0.400	0.093



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Category	Hours	%Percent
Source Reconfig	0.400	0.093
Transit	55.750	12.905
Acquisition	97.850	22.650
Prime Line Change	1.283	0.297
Production Prime	96.567	22.353
Demobilisation	33.317	7.712
Recovery	33.317	7.712
Total	432.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	150 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	0	Front Depth:	0 m
Tail Depth:	0 m	Length:	6000 m	Group interval:	0 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	9 m
Pressure:	2000 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	0 m		
Comment					
Andreanof Experiment					

Production Listing (Accpt km by interval) - Full Fold

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
19	OBD1B	345.2	1447	1783	Prime	50.55	4.490	Complete	Complete
Total						50.55			

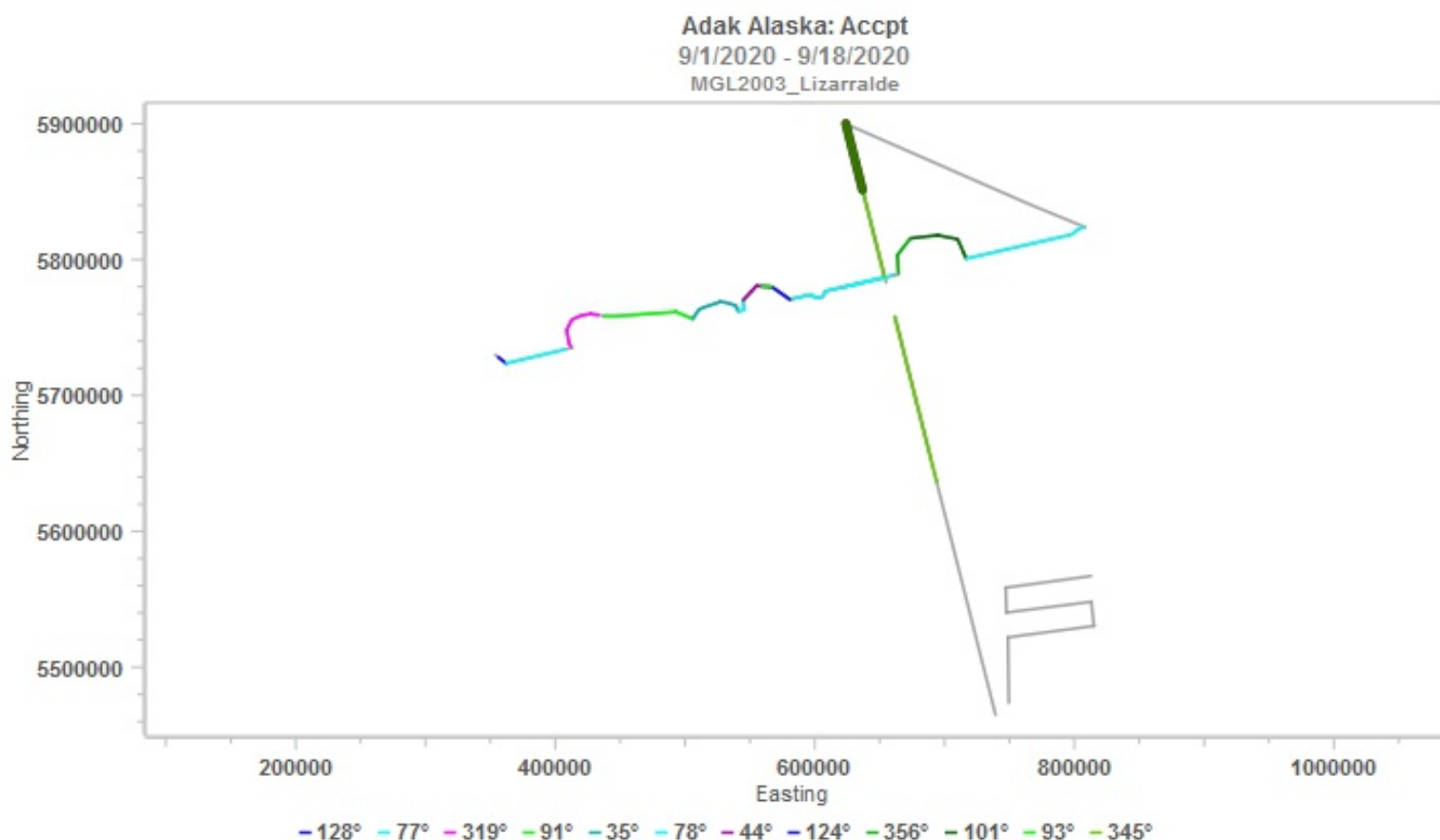
Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	50.55	273.00	798.00	798.00
Combined	50.55	273.00	798.00	798.00



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Daily Comment Summaries - Daily Comments On Status of Equipment

Fri 18 Sep

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Fri 18 Sep

Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Science Officer - Nav

Cody Bahlau L-DEO OMO Marine Science Technician - Obs

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Matt Dettrich Contract Personnel Marine Science Technician (Source)

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HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
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9/19/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Sat 19 Sep

We transited to the most southerly OBS and began recovering instruments.

We recovered seven units. OBS D-19 failed and was left behind. We could not establish communication with the instrument and was not able to get a sighting.

Weather is becoming an issue as the day goes.

Daily Comment Summaries - Plan for Tomorrow

Sat 19 Sep

We hope to have the remainder of the OBS's onboard and transit to Dutch Harbor. This is weather dependent.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)

Category	Code	Start	End	Duration
Recovery	DM_RC	Sat 19. Sep 00:00	Sat 19. Sep 00:23	0.383
Recovery OBS-D8				
Transit	SB_TRT	Sat 19. Sep 00:23	Sat 19. Sep 00:54	0.517
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Sat 19. Sep 00:54	Sat 19. Sep 01:30	0.600
Recovery OBS-D9				
Transit	SB_TRT	Sat 19. Sep 01:30	Sat 19. Sep 02:01	0.517
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Sat 19. Sep 02:01	Sat 19. Sep 02:45	0.733
Recovery OBS-D11				
Transit	SB_TRT	Sat 19. Sep 02:45	Sat 19. Sep 03:11	0.433
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Sat 19. Sep 03:11	Sat 19. Sep 03:38	0.450
Recovery OBS-D12				
Transit	SB_TRT	Sat 19. Sep 03:38	Sat 19. Sep 13:14	9.600
Chargeable standby d/t being in Transit. Extended transit to southern OBS due to weather considerations.				
Recovery	DM_RC	Sat 19. Sep 13:14	Sat 19. Sep 15:53	2.650
Failed recovery of OBS-D19. No response and no sighting.				
Transit	SB_TRT	Sat 19. Sep 15:53	Sat 19. Sep 16:39	0.767



Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

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Category	Code	Start	End	Duration
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Sat 19. Sep 16:39	Sat 19. Sep 18:29	1.833
Recovery OBS-D18				
Transit	SB_TRT	Sat 19. Sep 18:29	Sat 19. Sep 19:15	0.767
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Sat 19. Sep 19:15	Sat 19. Sep 20:59	1.733
Recovery OBS-D17				
Transit	SB_TRT	Sat 19. Sep 20:59	Sat 19. Sep 21:37	0.633
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Sat 19. Sep 21:37	Sat 19. Sep 23:25	1.800
Recovery OBS-D16				
Transit	SB_TRT	Sat 19. Sep 23:25	Sat 19. Sep 24:00	0.583
Chargeable standby d/t being in Transit				

Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

19-Sep	Hours	%Percent
Chargeable Standby	13.817	57.569
Transit	13.817	57.569
Demobilisation	10.183	42.431
Recovery	10.183	42.431
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	%Percent
Mobilisation	234.650	51.458
Deployment	74.317	16.298
Testing	4.250	0.932
Transit to Prospect	156.083	34.229
DownTime	1.983	0.435
High Pressure	1.400	0.307
Nav Systems Onboard	0.583	0.128
Chargeable Standby	78.017	17.109
Prime Extended L/C	8.050	1.765
Reconfiguration	0.400	0.088
Source Reconfig	0.400	0.088
Transit	69.567	15.256
Acquisition	97.850	21.458
Prime Line Change	1.283	0.281
Production Prime	96.567	21.177



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Category	Hours	%Percent
Demobilisation	43.500	9.539
Recovery	43.500	9.539
Total	456.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	150 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	0	Front Depth:	0 m
Tail Depth:	0 m	Length:	6000 m	Group interval:	0 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	9 m
Pressure:	2000 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	0 m		
Comment					
Andreanof Experiment					

Production Listing (Accpt km) - Full Fold

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
Total					0.00			

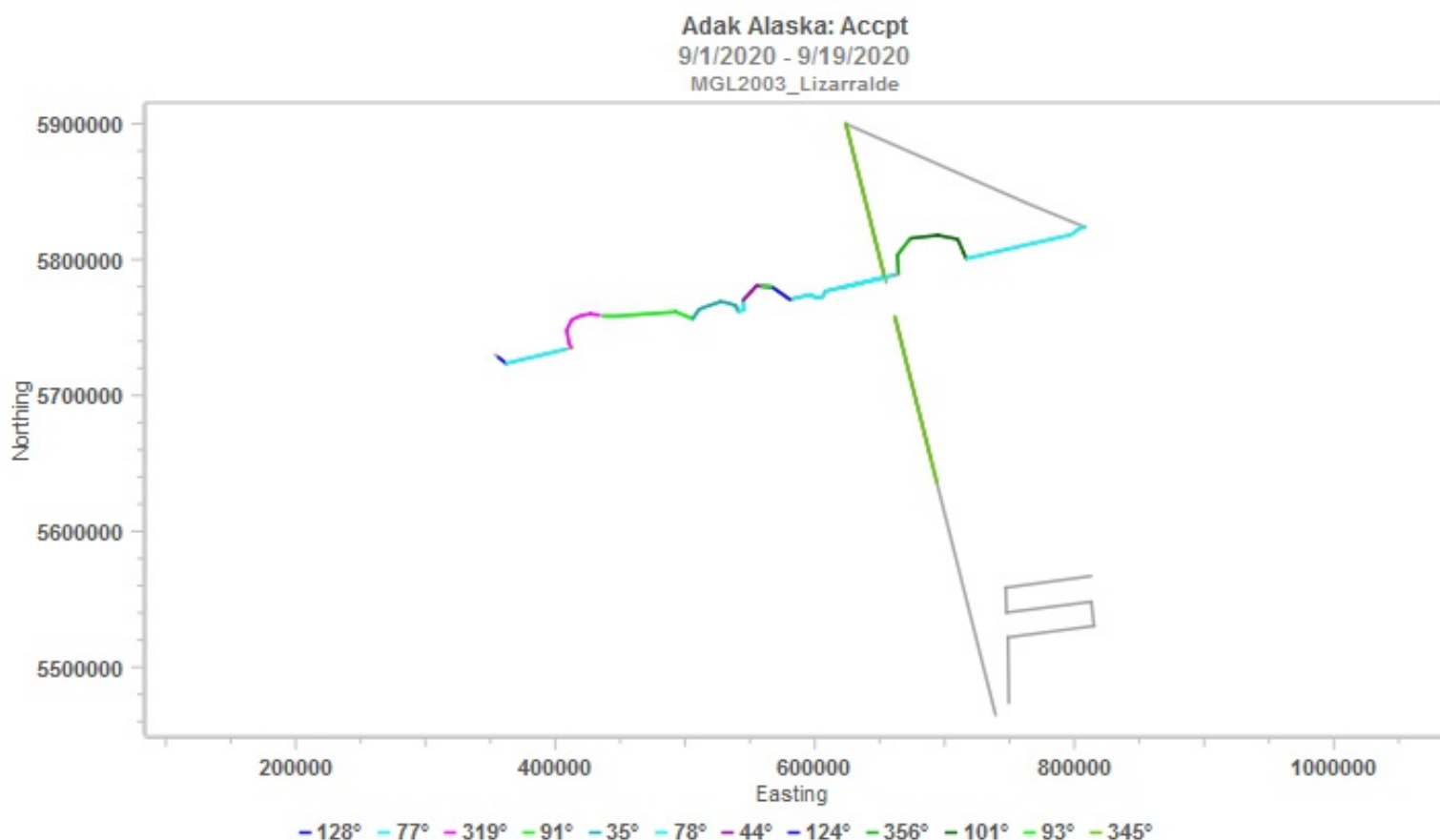
Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	273.00	798.00	798.00
Combined	0.00	273.00	798.00	798.00



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Daily Comment Summaries - Daily Comments On Status of Equipment

Sat 19 Sep

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Sat 19 Sep

Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Science Officer - Nav

Cody Bahlau L-DEO OMO Marine Science Technician - Obs

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Brian Agee L-DEO OMO Source Mechanic

Matt Dettrich Contract Personnel Marine Science Technician (Source)

Ray Hatton Contract Personnel Marine Science Technician (Source)

Patrick A'Hearn UNOLS Tech



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PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

Maritza Martinez RPS Lead PAM

Cassandra Frey RPS PSO

Amelia McClure RPS PSO

Kaylee McRae RPS PSO

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Donna Shillington NAU PI

Hannah Mark Wash. U. St. Louis

Valeria Cortes Rivas NAU

Hannah Brewer WHOI

Tim Kane WHOI OBS Tech

Martin Rapa SIO OBS Tech

Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
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Daily Science Report

9/20/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Sun 20 Sep

We completed the OBS recovery for Line D1 at 08:02 GMT.

Transiting to Dutch Harbor for OBS Tech crew change and to receive some supplies.

Demobilizing and packing OBS equipment for offload in Newport.

Preparing for MCS mission.

Daily Comment Summaries - Plan for Tomorrow

Sun 20 Sep

Continue transit to Dutch Harbor. OBS Techs will depart the vessel for crew change and we will take on some provisions.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)



Category	Code	Start	End	Duration
Transit	SB_TRT	Sun 20. Sep 00:00	Sun 20. Sep 00:02	0.033
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Sun 20. Sep 00:02	Sun 20. Sep 02:14	2.200
Recovery OBS-D15				
Transit	SB_TRT	Sun 20. Sep 02:14	Sun 20. Sep 02:46	0.533
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Sun 20. Sep 02:46	Sun 20. Sep 04:12	1.433
Recovery OBS-D14				
Transit	SB_TRT	Sun 20. Sep 04:12	Sun 20. Sep 04:39	0.450
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Sun 20. Sep 04:39	Sun 20. Sep 05:38	0.983
Recovery OBS-D13				
Transit	SB_TRT	Sun 20. Sep 05:38	Sun 20. Sep 06:04	0.433
Chargeable standby d/t being in Transit				
Recovery	DM_RC	Sun 20. Sep 06:04	Sun 20. Sep 06:49	0.750
Recovery OBS-D12				
Transit	SB_TRT	Sun 20. Sep 06:49	Sun 20. Sep 07:21	0.533



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Category	Code	Start	End	Duration
Chargeable standby d/t being in Transit				
 Recovery	DM_RC	Sun 20. Sep 07:21	Sun 20. Sep 08:02	0.683
Recovery OBS-D11				
 Transit	SB_TRT	Sun 20. Sep 08:02	Sun 20. Sep 24:00	15.967
Chargeable standby d/t being in Transit. Heading to Dutch Harbor for crew change and supplies.				

Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

20-Sep	Hours	% Percent
Chargeable Standby	17.950	74.792
Transit	17.950	74.792
Demobilisation	6.050	25.208
Recovery	6.050	25.208
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	% Percent
Mobilisation	234.650	48.885
Deployment	74.317	15.483
Testing	4.250	0.885
Transit to Prospect	156.083	32.517
DownTime	1.983	0.413
High Pressure	1.400	0.292
Nav Systems Onboard	0.583	0.122
Chargeable Standby	95.967	19.993
Prime Extended L/C	8.050	1.677
Reconfiguration	0.400	0.083
Source Reconfig	0.400	0.083
Transit	87.517	18.233
Acquisition	97.850	20.385
Prime Line Change	1.283	0.267
Production Prime	96.567	20.118
Demobilisation	49.550	10.323
Recovery	49.550	10.323
Total	480.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	150 m
CoS to CNG:	208 m	Fold Coverage:	252		



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MGL2003_Lizarralde

Cable Details

No of Cables:	1	Chans Per Cable:	0	Front Depth:	0 m
Tail Depth:	0 m	Length:	6000 m	Group interval:	0 m

Source Details

No of Sources:	1	Total Volume:	6600 cu ins	Depth:	9 m
Pressure:	2000 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	0 m		

Comment

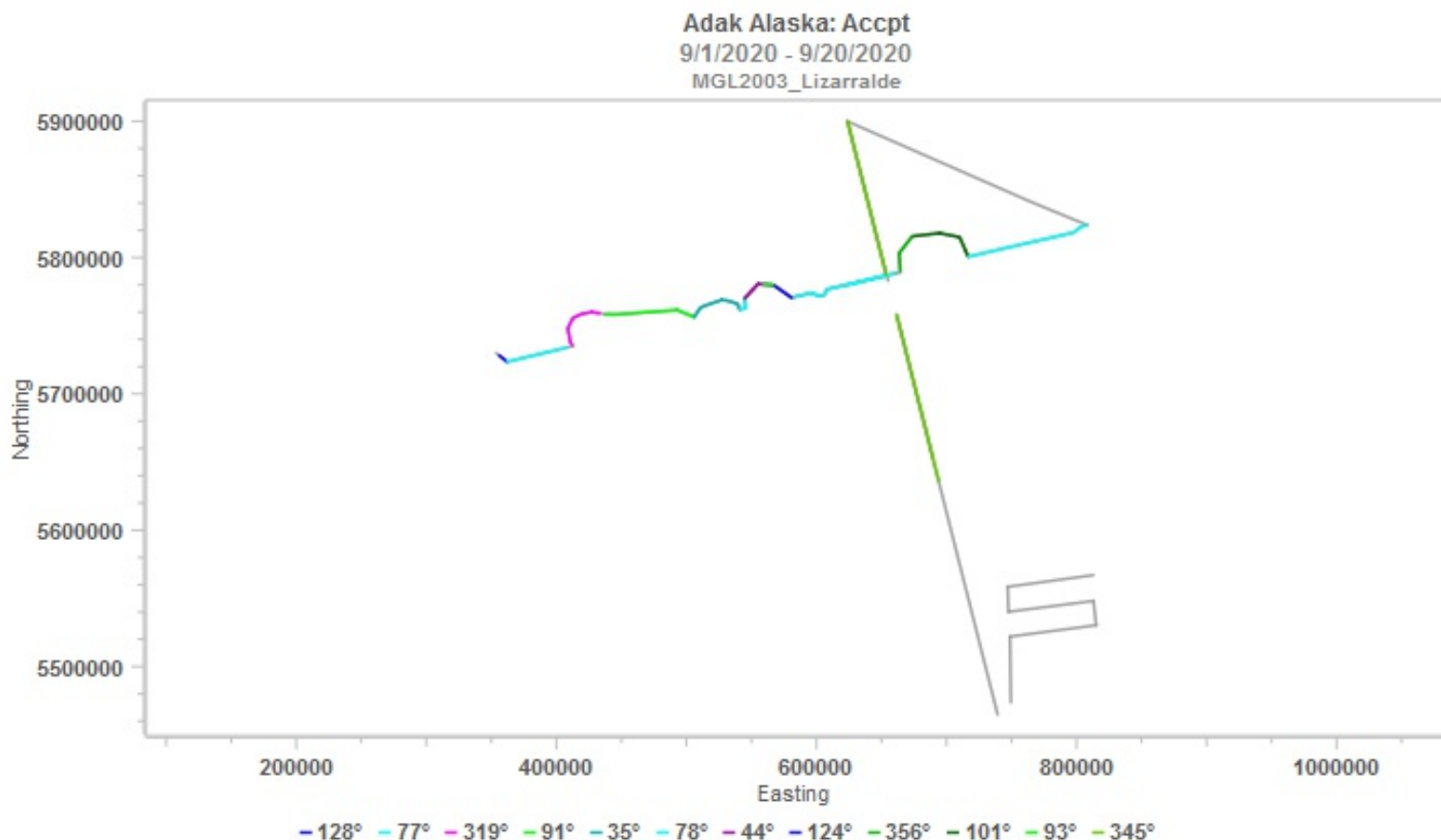
Andreanof Experiment

Production Listing (Accpt km) - Full Fold

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
Total					0.00			

Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	273.00	798.00	798.00
Combined	0.00	273.00	798.00	798.00





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Daily Comment Summaries - Daily Comments On Status of Equipment

Sun 20 Sep

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Sun 20 Sep

Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Science Officer - Nav

Cody Bahlau L-DEO OMO Marine Science Technician - Obs

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Brian Agee L-DEO OMO Source Mechanic

Matt Dettrich Contract Personnel Marine Science Technician (Source)

Ray Hatton Contract Personnel Marine Science Technician (Source)

Patrick A'Hearn UNOLS Tech

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Amanda Dubuque RPS Lead PSO

Maritza Martinez RPS Lead PAM

Cassandra Frey RPS PSO

Amelia McClure RPS PSO

Kaylee McRae RPS PSO

Science Party On-board the Langseth

Dan Lizarralde WHOI PI

Donna Shillington NAU PI

Hannah Mark Wash. U. St. Louis

Valeria Cortes Rivas NAU

Hannah Brewer WHOI

Tim Kane WHOI OBS Tech

Martin Rapa SIO OBS Tech

Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
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Daily Science Report

9/21/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Mon 21 Sep

Crew change for OBS Techs in Dutch Harbor via tugboat. We aborted the first attempt to transfer personnel because of very rough seas. We moved closer to shore and better shelter so that we could bring the tugboat alongside safely. Second attempt was successful.

We received some provisions, but not the compressor parts that we expected. We are standing by for these parts to be delivered.

We prepared the back decks for streamer deployment. Tested all of the remote boxes, decked out tail drags and cleared the deployment areas.

Repair tail swivel adapter and prep the tail buoy.



Daily Comment Summaries - Plan for Tomorrow

Mon 21 Sep

We will transit back to the MCS survey area to begin deploying streamer.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)



Category	Code	Start	End	Duration
 Transit	SB_TRT	Mon 21. Sep 00:00	Mon 21. Sep 22:40	22.667
Chargeable standby d/t being in Transit. Heading to Dutch Harbor for crew change and supplies.				
OBS Techs disembark. Fresh bananas.				
 Operator Error	DT_OP	Mon 21. Sep 22:40	Mon 21. Sep 24:00	1.333
Standing by waiting for parts. The agent didn't get them loaded onto the tugboat with the rest of the provisions.				

Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

21-Sep	Hours	%Percent
Chargeable Standby	22.667	94.444
Transit	22.667	94.444
DownTime	1.333	5.556
Operator Error	1.333	5.556
Day's Total	24.000	100.000



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Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	%Percent
Mobilisation	234.650	46.558
Deployment	74.317	14.745
Testing	4.250	0.843
Transit to Prospect	156.083	30.969
DownTime	3.317	0.658
High Pressure	1.400	0.278
Nav Systems Onboard	0.583	0.116
Operator Error	1.333	0.265
Chargeable Standby	118.633	23.538
Prime Extended L/C	8.050	1.597
Reconfiguration	0.400	0.079
Source Reconfig	0.400	0.079
Transit	110.183	21.862
Acquisition	97.850	19.415
Prime Line Change	1.283	0.255
Production Prime	96.567	19.160
Demobilisation	49.550	9.831
Recovery	49.550	9.831
Total	504.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	150 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	0	Front Depth:	0 m
Tail Depth:	0 m	Length:	6000 m	Group interval:	0 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	9 m
Pressure:	2000 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	0 m		
Comment					
Andreanof Experiment					

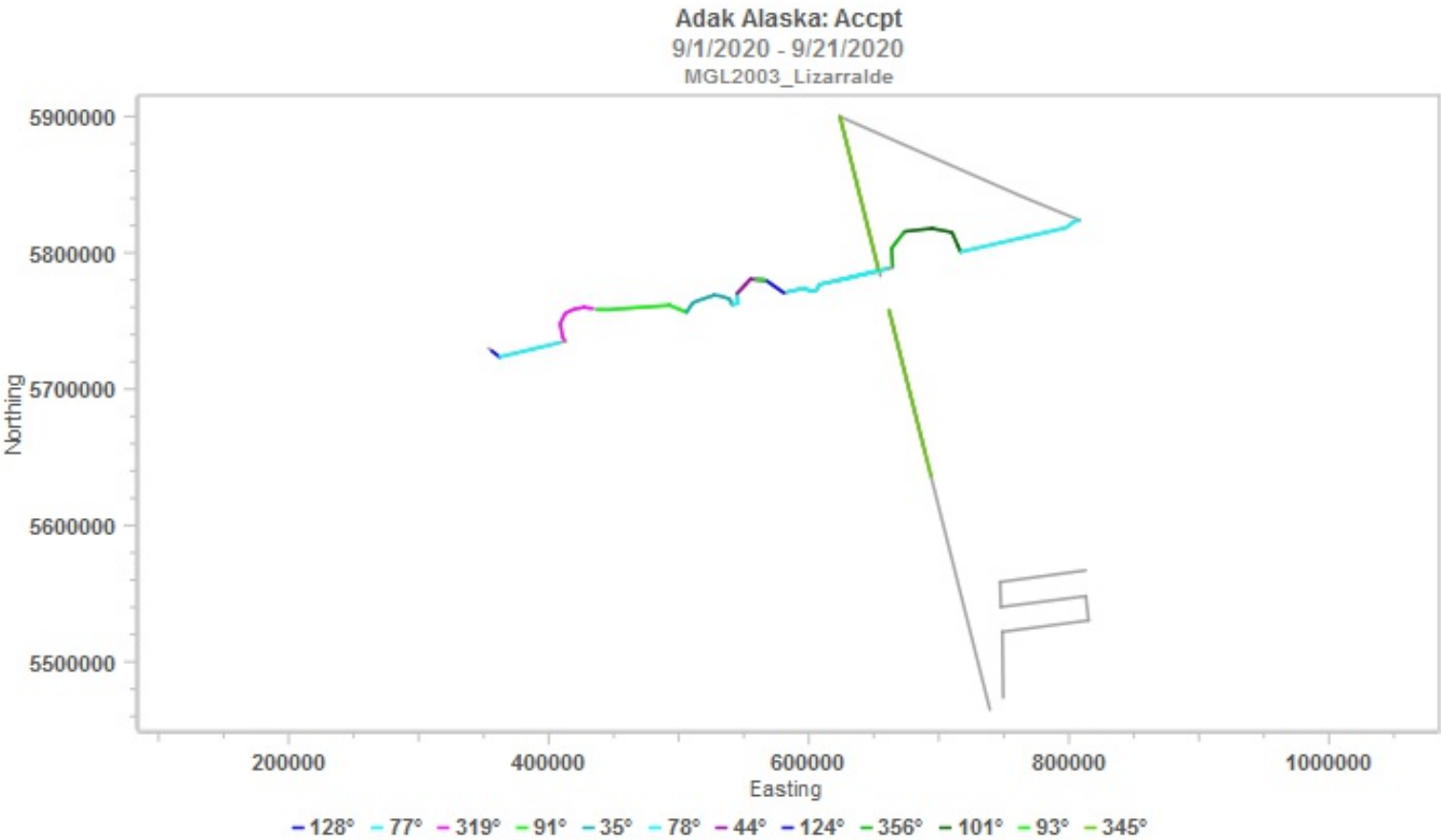
Production Listing (Accpt km) - Full Fold

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
Total					0.00			



Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	0.00	798.00	798.00
Combined	0.00	0.00	798.00	798.00



Daily Comment Summaries - Daily Comments On Status of Equipment

Mon 21 Sep

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Mon 21 Sep

Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer
Josh Kasinger L-DEO OMO Chief Source Mechanic



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Alan Thompson L-DEO OMO Science Officer - Nav
Cody Bahlau L-DEO OMO Marine Science Technician - Obs
Gilles Guerin L-DEO OMO Marine Science Technician - Obs
Brian Agee L-DEO OMO Source Mechanic
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Hannah Mark Wash. U. St. Louis
Valeria Cortes Rivas NAU
Hannah Brewer WHOI
Tim Kane WHOI OBS Tech
Martin Rapa SIO OBS Tech
Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
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Daily Science Report

9/22/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Tue 22 Sep

Transiting back to survey area after crew change.

Very rough seas all day.

We conducted a safety meeting with Science personnel to discuss upcoming streamer deployment, rough seas, reporting safety observations/suggestions and everyone's right to stop work.

Continued making preparations to deploy steamer. Birds, layout sheets, tail buoy riggings..



Daily Comment Summaries - Plan for Tomorrow

Tue 22 Sep

We will start to deploy streamer after midnight local time.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)



Category	Code	Start	End	Duration
 Operator Error	DT_OP	Tue 22. Sep 00:00	Tue 22. Sep 01:10	1.167
Standby waiting for parts in Dutch Harbor				
 Transit	SB_TRT	Tue 22. Sep 01:10	Tue 22. Sep 24:00	22.833
Chargeable standby d/t being in Transit. Heading back to survey area after OBS Tech crew change.				

Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

22-Sep	Hours	%Percent
Chargeable Standby	22.833	95.139
Transit	22.833	95.139
DownTime	1.167	4.861
Operator Error	1.167	4.861
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	%Percent
Mobilisation	234.650	44.441
Deployment	74.317	14.075
Testing	4.250	0.805



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Category	Hours	% Percent
Transit to Prospect	156.083	29.561
DownTime	4.483	0.849
High Pressure	1.400	0.265
Nav Systems Onboard	0.583	0.110
Operator Error	2.500	0.473
Chargeable Standby	141.467	26.793
Prime Extended L/C	8.050	1.525
Reconfiguration	0.400	0.076
Source Reconfig	0.400	0.076
Transit	133.017	25.193
Acquisition	97.850	18.532
Prime Line Change	1.283	0.243
Production Prime	96.567	18.289
Demobilisation	49.550	9.384
Recovery	49.550	9.384
Total	528.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	150 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	0	Front Depth:	0 m
Tail Depth:	0 m	Length:	6000 m	Group interval:	0 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	9 m
Pressure:	2000 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	0 m		
Comment					
Andreanof Experiment					

Production Listing (Accpt km) - Full Fold

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
Total					0.00			

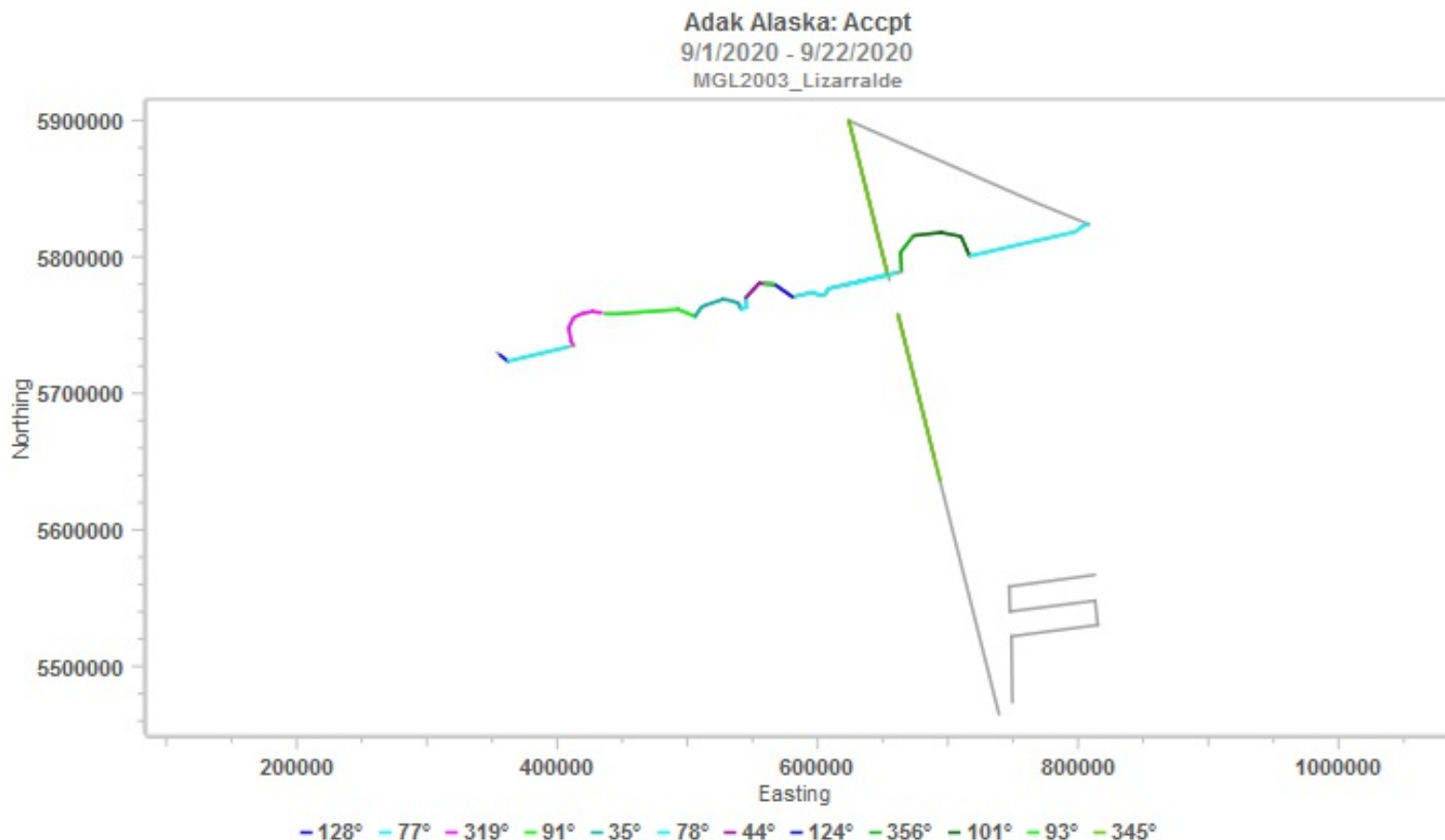


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Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	0.00	798.00	798.00
Combined	0.00	0.00	798.00	798.00



Daily Comment Summaries - Daily Comments On Status of Equipment

Tue 22 Sep

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Tue 22 Sep

Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic



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Alan Thompson L-DEO OMO Science Officer - Nav
Cody Bahlau L-DEO OMO Marine Science Technician - Obs
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Hannah Mark Wash. U. St. Louis
Valeria Cortes Rivas NAU
Hannah Brewer WHOI
Tim Kane WHOI OBS Tech
Martin Rapa SIO OBS Tech
Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
 Full Safety Meeting	Mtgs_FS	Tue 22. Sep 21:00	Tue 22. Sep 22:00
HSE - Full Safety Meeting with Science Personnel			



Daily Science Report

9/23/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Wed 23 Sep

We started to deploy streamer at 9:30 GMT. We completed streamer deployment by 19:40 GMT.

We started to deploy guns at 20:05 GMT and finished at 21:40 GMT.

We tested the source array with a soft start and then went silent while transited for about two hours toward the first sequence.

We had to troubleshoot some bird line drop outs and ended up moving some of the birds to the front coils on the cable sections. We have several units that have dropped out.

We ended the day by starting to ramp up the guns for the first line.

Daily Comment Summaries - Plan for Tomorrow

Wed 23 Sep

We will be towing 9 km MCS and acquiring data all day.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)



Category	Code	Start	End	Duration
Transit	SB_TRT	Wed 23. Sep 00:00	Wed 23. Sep 09:30	9.500
Chargeable standby d/t being in Transit. Heading back to survey area after OBS Tech crew change.				
Deployment	MB_DP	Wed 23. Sep 09:30	Wed 23. Sep 11:30	2.000
Deployed tail buoy and began deploying the streamer from reel #3.				
Deployment	MB_DP	Wed 23. Sep 11:30	Wed 23. Sep 13:55	2.417
Deploying the streamer from reel #2.				
Deployment	MB_DP	Wed 23. Sep 13:55	Wed 23. Sep 17:05	3.167
Deploying the streamer from reel #3. Trouble shooting bird coms.				
Deployment	MB_DP	Wed 23. Sep 17:05	Wed 23. Sep 19:01	1.933
Streamer deployment.				
Deployment	MB_DP	Wed 23. Sep 19:01	Wed 23. Sep 19:40	0.650
Adding head float and measuring lead-in for tow point. Streamer fully deployed and in position.				
Deployment	MB_DP	Wed 23. Sep 19:40	Wed 23. Sep 20:05	0.417
Deploy Magnetometer and PAM cables.				



Daily Science Report

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Category	Code	Start	End	Duration
Deployment	MB_DP	Wed 23. Sep 20:05	Wed 23. Sep 20:42	0.617
Deploying gun string #1				
Deployment	MB_DP	Wed 23. Sep 20:42	Wed 23. Sep 20:59	0.283
Deploying gun string #2				
Deployment	MB_DP	Wed 23. Sep 20:59	Wed 23. Sep 21:23	0.400
Deploying gun string #4				
Deployment	MB_DP	Wed 23. Sep 21:23	Wed 23. Sep 21:40	0.283
Deploying gun string #3; All strings deployed.				
Testing	MB_TE	Wed 23. Sep 21:40	Wed 23. Sep 22:12	0.533
Mobilisation - Testing. Ramping up guns to check array. Testing spare guns as well.				
Transit	SB_TRT	Wed 23. Sep 22:12	Wed 23. Sep 23:56	1.733
Chargeable standby d/t being in Transit towards first line. Guns are silent.				
Deployment	MB_DP	Wed 23. Sep 23:56	Wed 23. Sep 24:00	0.067
Ramping up guns to start first sequence.				

Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

23-Sep	Hours	%Percent
Chargeable Standby	11.233	46.806
Transit	11.233	46.806
Mobilisation	12.767	53.194
Deployment	12.233	50.972
Testing	0.533	2.222
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	%Percent
Mobilisation	247.417	44.822
Deployment	86.550	15.679
Testing	4.783	0.867
Transit to Prospect	156.083	28.276
DownTime	4.483	0.812
High Pressure	1.400	0.254
Nav Systems Onboard	0.583	0.106
Operator Error	2.500	0.453
Chargeable Standby	152.700	27.663
Prime Extended L/C	8.050	1.458
Reconfiguration	0.400	0.072
Source Reconfig	0.400	0.072
Transit	144.250	26.132



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Category	Hours	%Percent
Acquisition	97.850	17.726
Prime Line Change	1.283	0.232
Production Prime	96.567	17.494
Demobilisation	49.550	8.976
Recovery	49.550	8.976
Total	552.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	150 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	0	Front Depth:	0 m
Tail Depth:	0 m	Length:	6000 m	Group interval:	0 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	9 m
Pressure:	2000 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	0 m		
Comment					
Andreanof Experiment					

Production Listing (Accpt km) - Full Fold

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
Total					0.00			

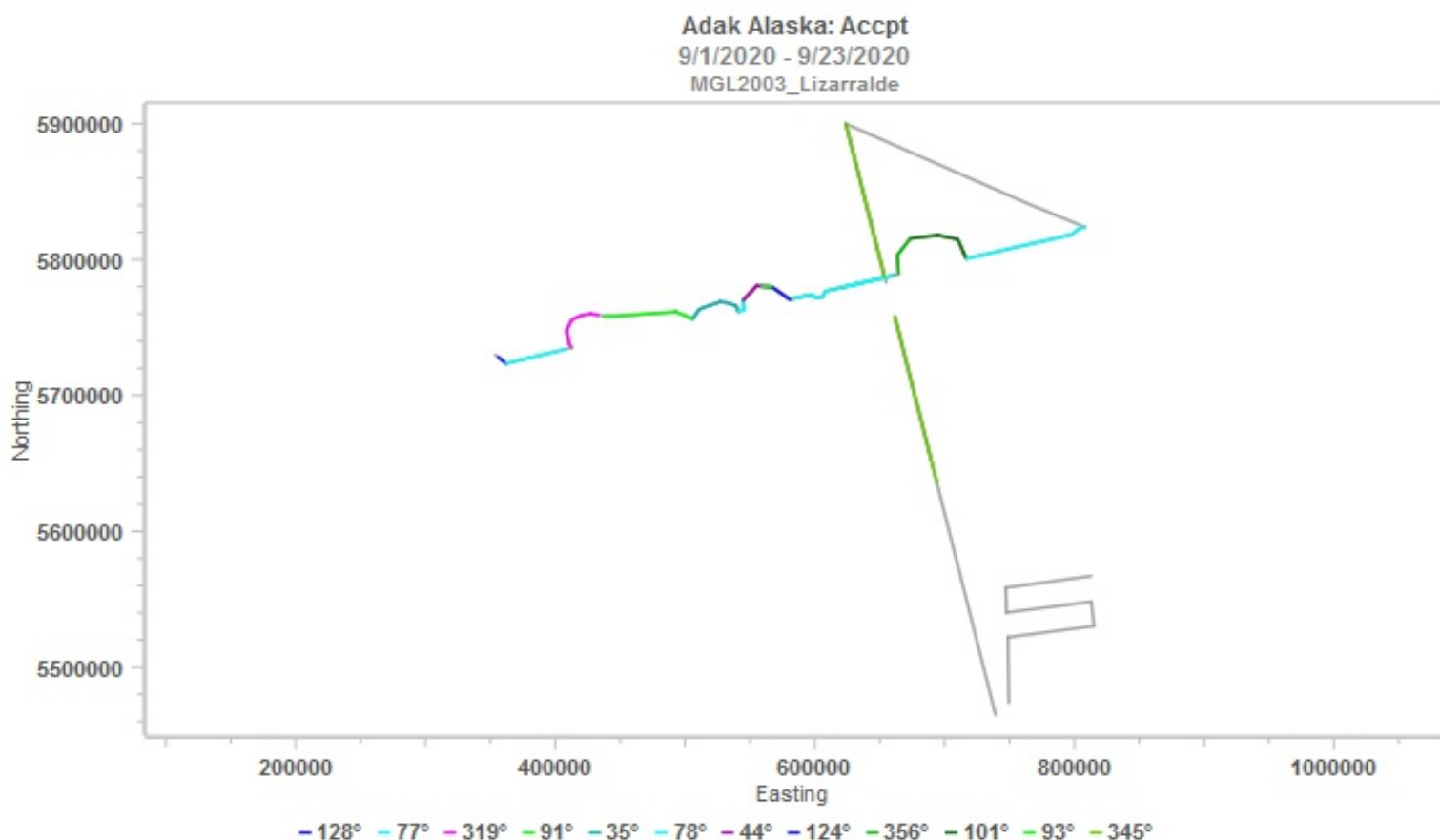
Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	0.00	798.00	798.00
Combined	0.00	0.00	798.00	798.00



9/23/2020

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Daily Comment Summaries - Daily Comments On Status of Equipment

Wed 23 Sep

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Wed 23 Sep

Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Science Officer - Nav

Cody Bahlau L-DEO OMO Marine Science Technician - Obs

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Brian Agee L-DEO OMO Source Mechanic

Matt Dettrich Contract Personnel Marine Science Technician (Source)

Ray Hatton Contract Personnel Marine Science Technician (Source)

Patrick A'Hearn UNOLS Tech



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PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

Maritza Martinez RPS Lead PAM

Cassandra Frey RPS PSO

Amelia McClure RPS PSO

Kaylee McRae RPS PSO

Science Party On-board the Langseth

Dan Lizarralde WHOI PI

Donna Shillington NAU PI

Hannah Mark Wash. U. St. Louis

Valeria Cortes Rivas NAU

Hannah Brewer WHOI

Tim Kane WHOI OBS Tech

Martin Rapa SIO OBS Tech

Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
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Daily Science Report

9/24/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Thu 24 Sep

We have completed the first four sequences over the Amlia Fraction Zone portion of the survey.

The streamer dropped power at LAUM 1257 four times on Seq 21 and twice on Seq 23. There were small gaps in the data during these dropouts.

Daily Comment Summaries - Plan for Tomorrow







Thu 24 Sep

We will be acquiring MCS data all day.

We should finish AFZ portion of the survey and will begin Line D1-S

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)



Category	Code	Start	End	Duration
 Deployment	MB_DP	Thu 24. Sep 00:00	Thu 24. Sep 00:35	0.583
Ramping up guns to start first sequence.				
 Production Prime	AC_PP	Thu 24. Sep 00:35	Thu 24. Sep 01:07	0.533
SOL Seq 20 Line:MCT0 Block=Adak Alaska FGSP=1037 Hdg=186.4° Prime EOL Seq 20 Line:MCT0 Block=Adak Alaska LGSP=1065 Complete				
 Prime Line Change	AC_PLC	Thu 24. Sep 01:07	Thu 24. Sep 01:10	0.050
Nominal Prime line change.				
 Production Prime	AC_PP	Thu 24. Sep 01:10	Thu 24. Sep 09:53	8.717
SOL Seq 21 Line:AFZ1 Block=Adak Alaska FGSP=957 Hdg=262.6° Prime EOL Seq 21 Line:AFZ1 Block=Adak Alaska LGSP=1436 Complete				
 Prime Line Change	AC_PLC	Thu 24. Sep 09:53	Thu 24. Sep 09:58	0.083
Nominal Prime line change.				
 Production Prime	AC_PP	Thu 24. Sep 09:58	Thu 24. Sep 11:58	2.000
SOL Seq 22 Line:AFZ2 Block=Adak Alaska FGSP=1006 Hdg=178.1° Prime EOL Seq 22 Line:AFZ2 Block=Adak Alaska LGSP=1115 Complete				
 Prime Line Change	AC_PLC	Thu 24. Sep 11:58	Thu 24. Sep 12:02	0.067



Daily Science Report

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Category	Code	Start	End	Duration
Nominal Prime line change.				
Production Prime	AC_PP	Thu 24. Sep 12:02	Thu 24. Sep 19:52	7.833
SOL Seq 23 Line:AFZ3 Block=Adak Alaska FGSP=1007 Hdg=83.1° Prime EOL Seq 23 Line:AFZ3 Block=Adak Alaska LGSP=1432 Complete				
Prime Line Change	AC_PLC	Thu 24. Sep 19:52	Thu 24. Sep 19:57	0.083
Nominal Prime line change.				
Production Prime	AC_PP	Thu 24. Sep 19:57	Thu 24. Sep 21:57	2.000
Prime Line Change	AC_PLC	Thu 24. Sep 21:57	Thu 24. Sep 22:01	0.067
Nominal Prime line change.				
Production Prime	AC_PP	Thu 24. Sep 22:01	Thu 24. Sep 24:00	1.983
SOL Seq 25 Line:AFZ5 Block=Adak Alaska FGSP=1024 Hdg=262.8° Prime MSP Seq 25 Line:AFZ5 Block=Adak Alaska LGSP=1118 Midnight				

Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

24-Sep	Hours	%Percent
Acquisition	23.417	97.569
Prime Line Change	0.350	1.458
Production Prime	23.067	96.111
Mobilisation	0.583	2.431
Deployment	0.583	2.431
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	%Percent
Mobilisation	248.000	43.056
Deployment	87.133	15.127
Testing	4.783	0.830
Transit to Prospect	156.083	27.098
DownTime	4.483	0.778
High Pressure	1.400	0.243
Nav Systems Onboard	0.583	0.101
Operator Error	2.500	0.434
Chargeable Standby	152.700	26.510
Prime Extended L/C	8.050	1.398
Reconfiguration	0.400	0.069
Source Reconfig	0.400	0.069
Transit	144.250	25.043
Acquisition	121.267	21.053



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Category	Hours	%Percent
Prime Line Change	1.633	0.284
Production Prime	119.633	20.770
Demobilisation	49.550	8.602
Recovery	49.550	8.602
Total	576.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	150 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	0	Front Depth:	0 m
Tail Depth:	0 m	Length:	6000 m	Group interval:	0 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	9 m
Pressure:	2000 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	0 m		
Comment					
Andreanof Experiment					

Production Listing (Accept km by interval) - Full Fold

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
20	MCT0	186.4	1037	1065	Prime	4.20	4.252	Complete	Complete
21	AFZ1	262.6	957	1436	Prime	71.85	4.451	Complete	Complete
22	AFZ2	178.1	1006	1115	Prime	16.35	4.414	Complete	Complete
23	AFZ3	83.1	1007	1432	Prime	63.75	4.394	Complete	Complete
24	AFZ4	173.4	1019	1121	Prime	15.30	4.506	Complete	Complete
25	AFZ5	262.8	1024	1118	Prime	14.10	3.839	Part	Midnight
Total						185.55			

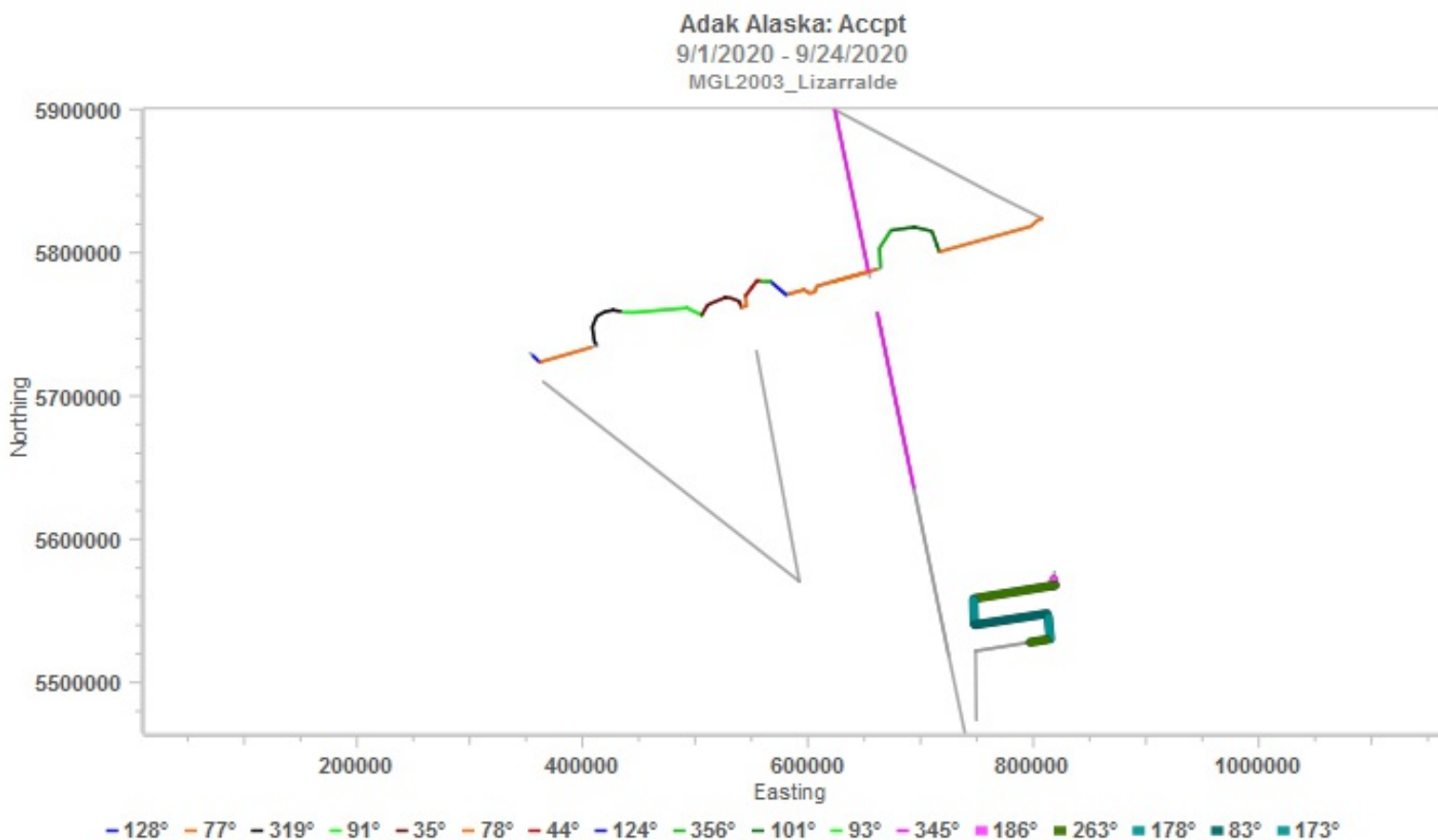
Production Totals (Accept km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	185.55	185.55	983.55	983.55
Combined	185.55	185.55	983.55	983.55



9/24/2020

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Daily Comment Summaries - Daily Comments On Status of Equipment

Thu 24 Sep

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Thu 24 Sep

Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Science Officer - Nav

Cody Bahlau L-DEO OMO Marine Science Technician - Obs

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

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Matt Dettrich Contract Personnel Marine Science Technician (Source)

Ray Hatton Contract Personnel Marine Science Technician (Source)

Patrick A'Hearn UNOLS Tech



9/24/2020

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PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

Maritza Martinez RPS Lead PAM

Cassandra Frey RPS PSO

Amelia McClure RPS PSO

Kaylee McRae RPS PSO

Science Party On-board the Langseth

Dan Lizarralde WHOI PI

Donna Shillington NAU PI

Hannah Mark Wash. U. St. Louis

Valeria Cortes Rivas NAU

Hannah Brewer WHOI

Tim Kane WHOI OBS Tech

Martin Rapa SIO OBS Tech

Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
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Daily Science Report

9/25/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Fri 25 Sep

We had to retrieve the front 1/3 of the streamer to make repairs today after the streamer died. We changed out two LAUM's and redeployed the gear. We were down for about ten hours while making these repairs and circling the ship to re-shoot a portion of the line and finish MGL2003MCAFZ5.

Daily Comment Summaries - Plan for Tomorrow

Fri 25 Sep

We will be in production all day acquiring data on Line MGL2003MCD1S.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)



Category	Code	Start	End	Duration
Production Prime	AC_PP	Fri 25. Sep 00:00	Fri 25. Sep 05:31	5.517
SOL Seq 25 Line:AFZ5 Block=Adak Alaska FGSP=1119 Hdg=262.8° Prime EOL Seq 25 Line:AFZ5 Block=Adak Alaska LGSP=1421 Incomplete				
Production Prime	AC_PP	Fri 25. Sep 05:31	Fri 25. Sep 06:18	0.783
SOL Seq 25 Line:AFZ5 Block=Adak Alaska FGSP=1460 Hdg=262.8° Prime EOL Seq 25 Line:AFZ5 Block=Adak Alaska LGSP=1459 Incomplete				
Streamers	DT_ST	Fri 25. Sep 06:18	Fri 25. Sep 16:20	10.033
Downtime due to streamer failure. Replaced 2 LAUM's during repairs				
Production Prime	AC_PP	Fri 25. Sep 16:20	Fri 25. Sep 20:27	4.117
SOL Seq 26 Line:AFZ5 Block=Adak Alaska FGSP=1381 Hdg=262.8° Prime EOL Seq 26 Line:AFZ5 Block=Adak Alaska LGSP=1603 Complete				
Prime Line Change	AC_PLC	Fri 25. Sep 20:27	Fri 25. Sep 20:29	0.033
Nominal Prime line change.				
Production Prime	AC_PP	Fri 25. Sep 20:29	Fri 25. Sep 24:00	3.517
SOL Seq 27 Line:D1S Block=Adak Alaska FGSP=1006 FCSP=N/AHdg=345.2° Prime MSP Seq 27 Line:D1S Block=Adak Alaska LGSP=1200 LCSP=1200 Midnight				

Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

25-Sep	Hours	%Percent
Acquisition	13.967	58.194
Prime Line Change	0.033	0.139



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25-Sep	Hours	%Percent
Production Prime	13.933	58.056
DownTime	10.033	41.806
Streamers	10.033	41.806
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	%Percent
Mobilisation	248.000	41.333
Deployment	87.133	14.522
Testing	4.783	0.797
Transit to Prospect	156.083	26.014
DownTime	14.517	2.419
High Pressure	1.400	0.233
Nav Systems Onboard	0.583	0.097
Operator Error	2.500	0.417
Streamers	10.033	1.672
Chargeable Standby	152.700	25.450
Prime Extended L/C	8.050	1.342
Reconfiguration	0.400	0.067
Source Reconfig	0.400	0.067
Transit	144.250	24.042
Acquisition	135.233	22.539
Prime Line Change	1.667	0.278
Production Prime	133.567	22.261
Demobilisation	49.550	8.258
Recovery	49.550	8.258
Total	600.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	150 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	0	Front Depth:	0 m
Tail Depth:	0 m	Length:	6000 m	Group interval:	0 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	9 m
Pressure:	2000 PSI	Volume:	6600	Strings per source:	4



9/25/2020

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MGL2003_Lizarralde

String Separation: 6 m

String length: 0 m

Comment

Andreanof Experiment

Production Listing (Acpt km by interval) - Full Fold

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
25	AFZ5	262.8	1119	1459	Prime	45.60	3.892	Complete	Incomplete
26	AFZ5	262.8	1381	1603	Prime	33.30	4.368	Complete	Complete
27	D1S	345.2	1006	1200	Prime	29.10	4.468	Part	Midnight
Total						108.00			

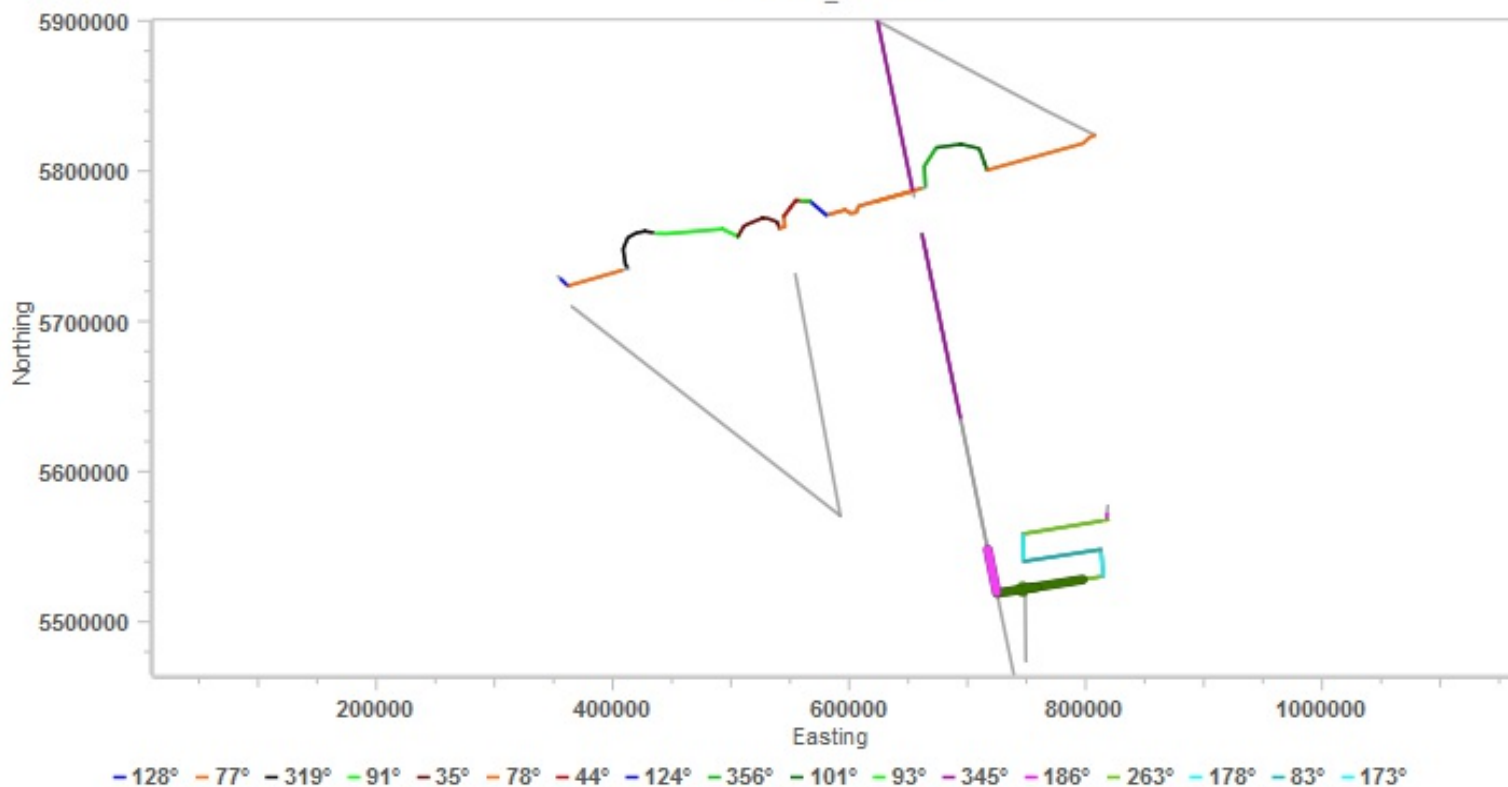
Production Totals (Acpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	108.00	293.55	1091.55	1091.55
Combined	108.00	293.55	1091.55	1091.55

Adak Alaska: Acpt

9/1/2020 - 9/25/2020

MGL2003_Lizarralde



Daily Comment Summaries - Daily Comments On Status of Equipment

Fri 25 Sep

Navigation:

No Major Issues to Report

Information Technology (IT):

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Sat Sep 26 2020 03:47a.m.

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No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Fri 25 Sep

Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer
Josh Kasinger L-DEO OMO Chief Source Mechanic
Alan Thompson L-DEO OMO Science Officer - Nav
Cody Bahlau L-DEO OMO Marine Science Technician - Obs
Gilles Guerin L-DEO OMO Marine Science Technician - Obs
Brian Agee L-DEO OMO Source Mechanic
Matt Dettrich Contract Personnel Marine Science Technician (Source)
Ray Hatton Contract Personnel Marine Science Technician (Source)
Patrick A'Hearn UNOLS Tech


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Hannah Mark Wash. U. St. Louis
Valeria Cortes Rivas NAU
Hannah Brewer WHOI
Tim Kane WHOI OBS Tech
Martin Rapa SIO OBS Tech
Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
Daily Total Category		Code	Count
 Toolbox Meetings	Mtgs_Tbox		2
9/25/2020			
4 Toolbox Meeting: Recover Source Arrays Recover Headfloat Deploy Headfloat Deploy Source Arrays			



Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

9/26/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Sat 26 Sep

We acquired data for the entire day on Line MGL2003MCD1S.

We had one shutdown for a protected species detection. One hour elapsed from the shutdown to complete full ramp up.

We secured the sonars for approximately one hour to attempt to talk to the previously deployed OBS. Still no comms detected.

Daily Comment Summaries - Plan for Tomorrow

Sat 26 Sep

Complete Line MGL2003MCD1S and make a long transit over to MGL2003MCD2S to begin shooting the southern portion of the second dip line..

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)



Category	Code	Start	End	Duration
Production Prime	AC_PP	Sat 26. Sep 00:00	Sat 26. Sep 02:32	2.533
SOL Seq 27 Line:D1S Block=Adak Alaska FGSP=1201 Hdg=345.2° Prime EOL Seq 27 Line:D1S Block=Adak Alaska LGSP=1341 Complete				
Cetacean	SB_CT	Sat 26. Sep 02:32	Sat 26. Sep 03:23	0.850
NTBP Seq 27 D1S Block=Adak Alaska FSP=1342 LSP=1385				
Production Prime	AC_PP	Sat 26. Sep 03:23	Sat 26. Sep 24:00	20.617
SOL Seq 27 Line:D1S Block=Adak Alaska FGSP=1386 Hdg=345.2° Prime MSP Seq 27 Line:D1S Block=Adak Alaska LGSP=2600 Midnight				

Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

26-Sep	Hours	%Percent
Acquisition	23.150	96.458
Production Prime	23.150	96.458
Chargeable Standby	0.850	3.542
Cetacean	0.850	3.542
Day's Total	24.000	100.000



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Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	% Percent
Chargeable Standby	153.550	24.607
Cetacean	0.850	0.136
Prime Extended L/C	8.050	1.290
Reconfiguration	0.400	0.064
Source Reconfig	0.400	0.064
Transit	144.250	23.117
Mobilisation	248.000	39.744
Deployment	87.133	13.964
Testing	4.783	0.767
Transit to Prospect	156.083	25.013
DownTime	14.517	2.326
High Pressure	1.400	0.224
Nav Systems Onboard	0.583	0.093
Operator Error	2.500	0.401
Streamers	10.033	1.608
Acquisition	158.383	25.382
Prime Line Change	1.667	0.267
Production Prime	156.717	25.115
Demobilisation	49.550	7.941
Recovery	49.550	7.941
Total	624.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	150 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	0	Front Depth:	0 m
Tail Depth:	0 m	Length:	6000 m	Group interval:	0 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	9 m
Pressure:	2000 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	0 m		
Comment					
Andreanof Experiment					



9/26/2020

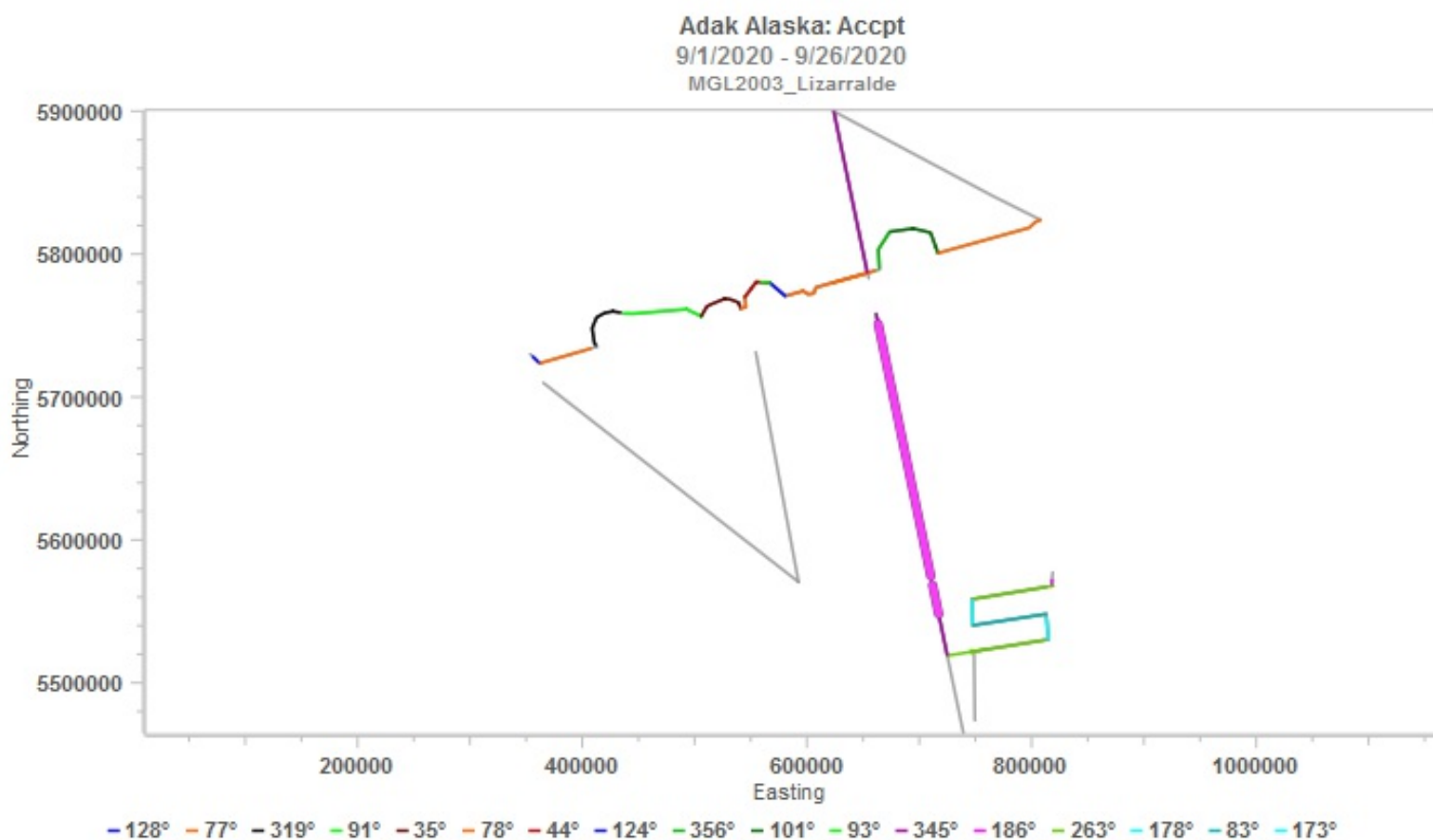
Page 3

Production Listing (Accpt km by interval) - Full Fold

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
27	D1S	345.2	1201	2600	Prime	203.55	4.711	Part	Midnight
NTBP: 1342 - 1385 (not chgd)									
Total						203.55			

Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	203.55	497.10	1295.10	1295.10
Combined	203.55	497.10	1295.10	1295.10

**Daily Comment Summaries - Daily Comments On Status of Equipment**

Sat 26 Sep

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report



9/26/2020

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Daily Comment Summaries - Personnel Onboard

Sat 26 Sep

Technical Staff On-board the Langseth

Todd Jenvold L-DEO OMO Chief Science Officer
Josh Kasinger L-DEO OMO Chief Source Mechanic
Alan Thompson L-DEO OMO Science Officer - Nav
Cody Bahlau L-DEO OMO Marine Science Technician - Obs
Gilles Guerin L-DEO OMO Marine Science Technician - Obs
Brian Agee L-DEO OMO Source Mechanic
Matt Dettrich Contract Personnel Marine Science Technician (Source)
Ray Hatton Contract Personnel Marine Science Technician (Source)
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Valeria Cortes Rivas NAU
Hannah Brewer WHOI
Tim Kane WHOI OBS Tech
Martin Rapa SIO OBS Tech
Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
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Daily Science Report

9/27/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Sun 27 Sep

We completed Line D1S and transited over to begin D2S. The transit was approximately 10.5 hours long.

We are currently shooting Line D2S and will be all day.

We picked up the PAM cable for maintenance/inspection during the transit.





Daily Comment Summaries - Plan for Tomorrow

Sun 27 Sep

We will finish Line D2S and then begin the transit Line D2S1 towards the Northwest.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)



Category	Code	Start	End	Duration
 Production Prime	AC_PP	Sun 27. Sep 00:00	Sun 27. Sep 01:52	1.867
SOL Seq 27 Line:D1S Block=Adak Alaska FGSP=2601 Hdg=345.2° Prime EOL Seq 27 Line:D1S Block=Adak Alaska LGSP=2631 Complete				
 Prime Extended L/C	AC_PXL	Sun 27. Sep 01:52	Sun 27. Sep 11:43	9.850
Extended Prime line change.				
 Deployment	MB_DP	Sun 27. Sep 11:43	Sun 27. Sep 12:27	0.733
Ramping up guns to start next Sequence				
 Production Prime	AC_PP	Sun 27. Sep 12:27	Sun 27. Sep 24:00	11.550
SOL Seq 28 Line:D2S Block=Adak Alaska FGSP=1024 Hdg=166.7° Prime MSP Seq 28 Line:D2S Block=Adak Alaska LGSP=1754 Midnight				

Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

27-Sep	Hours	%Percent
Acquisition	23.267	96.944
Prime Extended L/C	9.850	41.042
Production Prime	13.417	55.903
Mobilisation	0.733	3.056
Deployment	0.733	3.056
Day's Total	24.000	100.000



9/27/2020

Page 2

Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	% Percent
Chargeable Standby	153.550	23.696
Cetacean	0.850	0.131
Prime Extended L/C	8.050	1.242
Reconfiguration	0.400	0.062
Source Reconfig	0.400	0.062
Transit	144.250	22.261
Mobilisation	248.733	38.385
Deployment	87.867	13.560
Testing	4.783	0.738
Transit to Prospect	156.083	24.087
DownTime	14.517	2.240
High Pressure	1.400	0.216
Nav Systems Onboard	0.583	0.090
Operator Error	2.500	0.386
Streamers	10.033	1.548
Acquisition	181.650	28.032
Prime Extended L/C	9.850	1.520
Prime Line Change	1.667	0.257
Production Prime	170.133	26.255
Demobilisation	49.550	7.647
Recovery	49.550	7.647
Total	648.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	150 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	0	Front Depth:	0 m
Tail Depth:	0 m	Length:	6000 m	Group interval:	0 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	9 m
Pressure:	2000 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	0 m		
Comment					
Andreanof Experiment					



9/27/2020

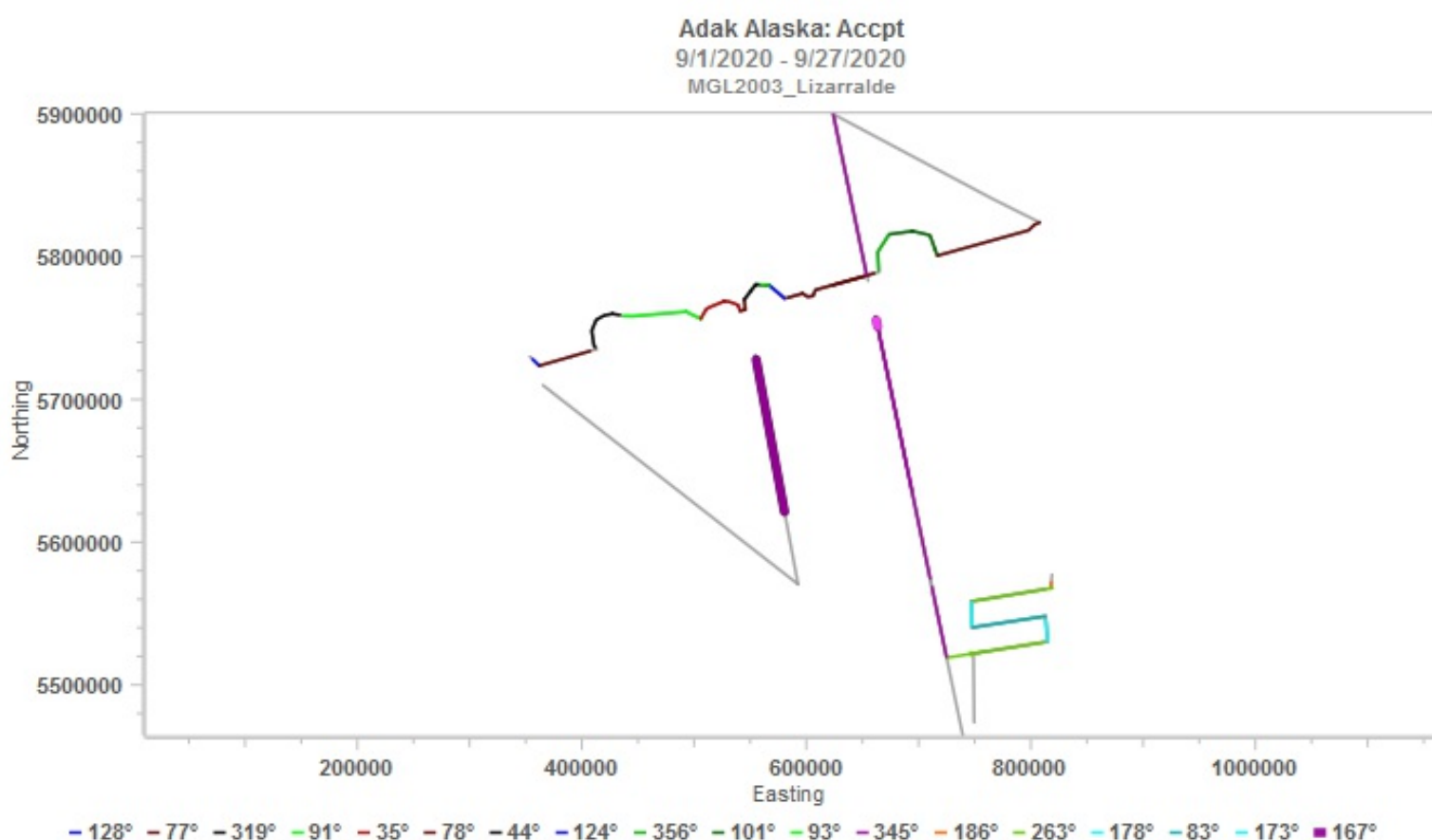
Page 3

Production Listing (Accpt km by interval) - Full Fold

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
27	D1S	345.2	2601	2631	Prime	4.65	4.491	Complete	Complete
28	D2S	166.7	1024	1754	Prime	109.50	5.119	Part	Midnight
Total						114.15			

Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	114.15	611.25	1409.25	1409.25
Combined	114.15	611.25	1409.25	1409.25

**Daily Comment Summaries - Daily Comments On Status of Equipment****Sun 27 Sep****Navigation:**

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report



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Daily Comment Summaries - Personnel Onboard

Sun 27 Sep

Technical Staff On-board the Langseth

Todd Jenvold L-DEO OMO Chief Science Officer
Josh Kasinger L-DEO OMO Chief Source Mechanic
Alan Thompson L-DEO OMO Science Officer - Nav
Cody Bahlau L-DEO OMO Marine Science Technician - Obs
Gilles Guerin L-DEO OMO Marine Science Technician - Obs
Brian Agee L-DEO OMO Source Mechanic
Matt Dettrich Contract Personnel Marine Science Technician (Source)
Ray Hatton Contract Personnel Marine Science Technician (Source)
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Hannah Mark Wash. U. St. Louis
Valeria Cortes Rivas NAU
Hannah Brewer WHOI
Tim Kane WHOI OBS Tech
Martin Rapa SIO OBS Tech
Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
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9/28/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary**Mon 28 Sep**

We completed Line D2S and have started shooting D2S1 toward the northwest corner.

We picked up gun strings 1 and 2 for repairs and maintenance after the end of the pre-plotted line for D2S and finished with reduced volume. We started the next line D2S1 with reduced volume while we made repairs. We were at full gun volume within an hour of SOL.

Later, the clutch on the SME sprung an air-leak so we dropped to a single engine while troubleshooting the failure. It was decided to pick up the guns and the front end of the streamer to minimize the risk of entanglement with the low vessel speed. We reconfigured the streamer to 6km and redeployed.

Daily Comment Summaries - Plan for Tomorrow**Mon 28 Sep**

We will finish MGL2003MCD21 around 11 AM local time. We will transition thru the islands on the west end of the survey and begin shooting the strike line with the shorter 6km streamer.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)

Category	Code	Start	End	Duration
Production Prime	AC_PP	Mon 28. Sep 00:00	Mon 28. Sep 08:35	8.583
SOL Seq 28 Line:D2S Block=Adak Alaska FGSP=1755 Hdg=166.7° Prime EOL Seq 28 Line:D2S Block=Adak Alaska LGSP=2136 Complete				
Prime Extended L/C	AC_PXL	Mon 28. Sep 08:35	Mon 28. Sep 10:16	1.683
Extended Prime line change.				
Production Prime	AC_PP	Mon 28. Sep 10:16	Mon 28. Sep 20:46	10.500
SOL Seq 29 Line:D2S1 Block=Adak Alaska FGSP=961 Hdg=301.5° Prime EOL Seq 29 Line:D2S1 Block=Adak Alaska LGSP=1540 Incomplete				
Vessel	DT_VE	Mon 28. Sep 20:46	Mon 28. Sep 22:30	1.733
Loss of propulsion on one engine. Clutch on SME. Retrieving guns.				
Vessel	DT_VE	Mon 28. Sep 22:30	Mon 28. Sep 24:00	1.500
Downtime due to vessel. Retrieving Streamer. Reconfiguring to 6km streamer.				



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Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

28-Sep	Hours	%Percent
Acquisition	20.767	86.528
Prime Extended L/C	1.683	7.014
Production Prime	19.083	79.514
DownTime	3.233	13.472
Vessel	3.233	13.472
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	%Percent
Chargeable Standby	153.550	22.850
Cetacean	0.850	0.126
Prime Extended L/C	8.050	1.198
Reconfiguration	0.400	0.060
Source Reconfig	0.400	0.060
Transit	144.250	21.466
Mobilisation	248.733	37.014
Deployment	87.867	13.075
Testing	4.783	0.712
Transit to Prospect	156.083	23.227
DownTime	17.750	2.641
High Pressure	1.400	0.208
Nav Systems Onboard	0.583	0.087
Operator Error	2.500	0.372
Streamers	10.033	1.493
Vessel	3.233	0.481
Acquisition	202.417	30.122
Prime Extended L/C	11.533	1.716
Prime Line Change	1.667	0.248
Production Prime	189.217	28.157
Demobilisation	49.550	7.374
Recovery	49.550	7.374
Total	672.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	150 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					



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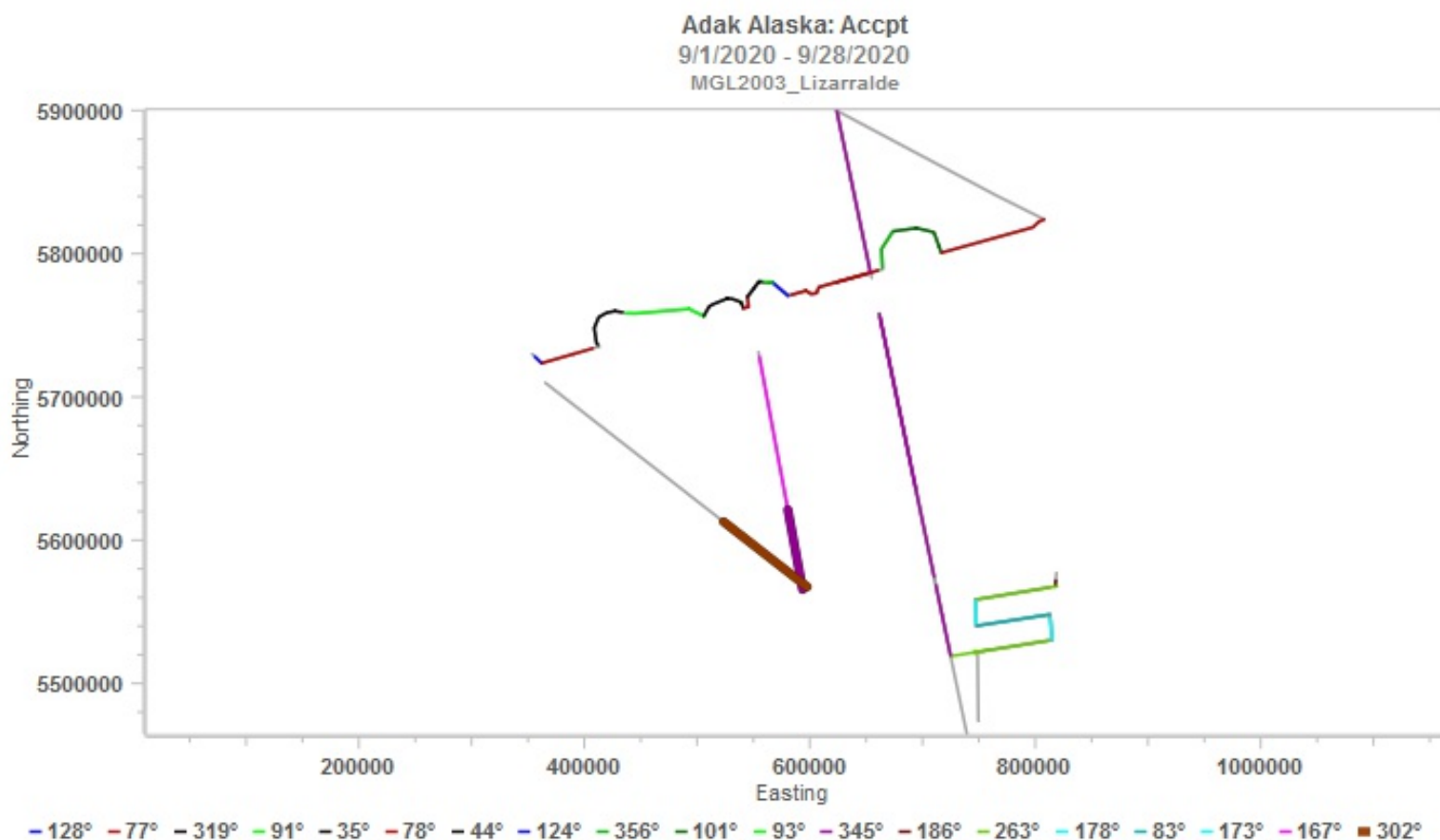
MGL2003_Lizarralde					
No of Cables:	1	Chans Per Cable:	0	Front Depth:	0 m
Tail Depth:	0 m	Length:	6000 m	Group interval:	0 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	9 m
Pressure:	2000 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	0 m		
Comment					
Andreanof Experiment					

Production Listing (Accpt km by interval) - Full Fold

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
28	D2S	166.7	1755	2136	Prime	57.30	4.473	Complete	Complete
29	D2S1	301.5	961	1540	Prime	86.85	4.466	Complete	Incomplete
Total						144.15			

Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	144.15	144.15	1553.40	1553.40
Combined	144.15	144.15	1553.40	1553.40





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Daily Comment Summaries - Daily Comments On Status of Equipment

Mon 28 Sep

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Mon 28 Sep

Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Science Officer - Nav

Cody Bahlau L-DEO OMO Marine Science Technician - Obs

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

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Hannah Mark Wash. U. St. Louis

Valeria Cortes Rivas NAU

Hannah Brewer WHOI

Tim Kane WHOI OBS Tech

Martin Rapa SIO OBS Tech

Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
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Daily Science Report

9/29/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Tue 29 Sep

We completed Line D2S2 at approximately 19:18 GMT and began our transit around the islands to begin the strike line.

Fishing gear was tangled on the streamer for a brief period. It came free on its own.


Daily Comment Summaries - Plan for Tomorrow

Tue 29 Sep

We will acquire data on Line S1 all day.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)



Category	Code	Start	End	Duration
 Streamer Reconfig	SB_REC_SR	Tue 29. Sep 00:00	Tue 29. Sep 04:22	4.367
Chargeable standby due to re-configuring streamer.				
 Production Prime	AC_PP	Tue 29. Sep 04:22	Tue 29. Sep 19:18	14.933
SOL Seq 30 Line:D2S1 Block=Adak Alaska FGSP=1841 Hdg=301.5° Prime EOL Seq 30 Line:D2S1 Block=Adak Alaska LGSP=2667 Complete				
 Prime Extended L/C	AC_PXL	Tue 29. Sep 19:18	Tue 29. Sep 24:00	4.700
Extended Prime line change.				

Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

29-Sep	Hours	%Percent
Acquisition	19.633	81.806
Prime Extended L/C	4.700	19.583
Production Prime	14.933	62.222
Chargeable Standby	4.367	18.194
Reconfiguration	4.367	18.194
Streamer Reconfig	4.367	18.194
DownTime	0.000	0.000
Vessel	0.000	0.000
Day's Total	24.000	100.000



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Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	% Percent
Chargeable Standby	157.917	22.689
Cetacean	0.850	0.122
Prime Extended L/C	8.050	1.157
Reconfiguration	4.767	0.685
Source Reconfig	0.400	0.057
Streamer Reconfig	4.367	0.627
Transit	144.250	20.726
Mobilisation	248.733	35.738
Deployment	87.867	12.625
Testing	4.783	0.687
Transit to Prospect	156.083	22.426
DownTime	17.750	2.550
High Pressure	1.400	0.201
Nav Systems Onboard	0.583	0.084
Operator Error	2.500	0.359
Streamers	10.033	1.442
Vessel	3.233	0.465
Acquisition	222.050	31.904
Prime Extended L/C	16.233	2.332
Prime Line Change	1.667	0.239
Production Prime	204.150	29.332
Demobilisation	49.550	7.119
Recovery	49.550	7.119
Total	696.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	150 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	0	Front Depth:	0 m
Tail Depth:	0 m	Length:	6000 m	Group interval:	0 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	9 m
Pressure:	2000 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	0 m		



9/29/2020

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Comment

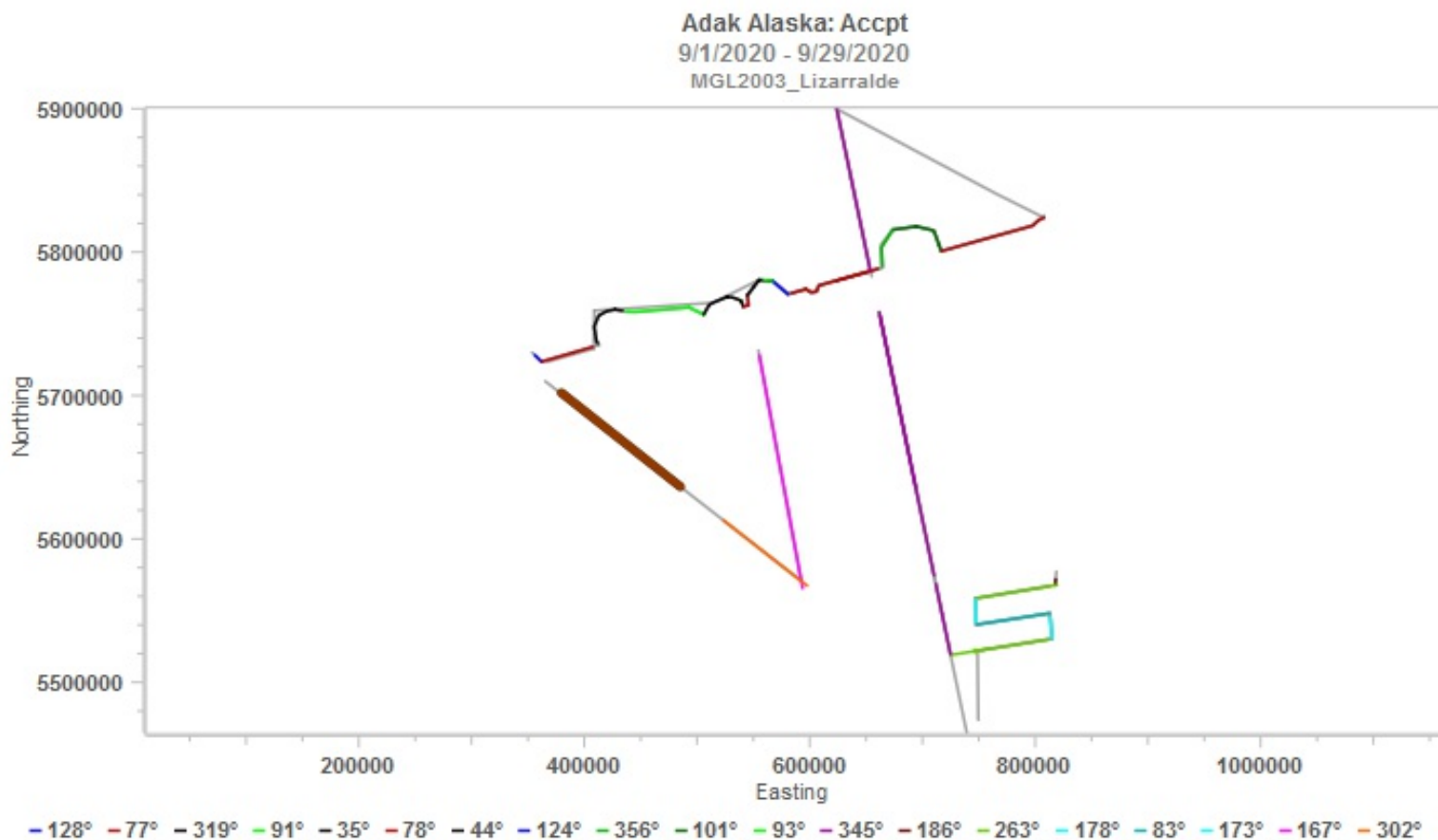
Andreanof Experiment

Production Listing (Accpt km by interval) - Full Fold

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
30	D2S1	301.5	1841	2667	Prime	123.90	4.480	Complete	Complete
Total						123.90			

Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	123.90	268.05	1677.30	1677.30
Combined	123.90	268.05	1677.30	1677.30



Daily Comment Summaries - Daily Comments On Status of Equipment

Tue 29 Sep

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report



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General Purpose Science:

No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Tue 29 Sep

Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer
Josh Kasinger L-DEO OMO Chief Source Mechanic
Alan Thompson L-DEO OMO Science Officer - Nav
Cody Bahlau L-DEO OMO Marine Science Technician - Obs
Gilles Guerin L-DEO OMO Marine Science Technician - Obs
Brian Agee L-DEO OMO Source Mechanic
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Hannah Brewer WHOI
Tim Kane WHOI OBS Tech
Martin Rapa SIO OBS Tech
Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
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Daily Science Report

9/30/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Wed 30 Sep

We acquired data on Line MCS1 the entire day.

The currents were very strong as we started the line on the west end. The currents eased considerably as we progressed down the line.

Abandon Ship and MOB Drills were conducted today.

Daily Comment Summaries - Plan for Tomorrow

Wed 30 Sep

We will continue acquiring data on Line MCS1 until we reach Line MCSD1N. We will then turn northerly and shoot MCSD1N.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)



Category	Code	Start	End	Duration
Prime Extended L/C	AC_PXL	Wed 30. Sep 00:00	Wed 30. Sep 01:20	1.333
Extended Prime line change.				
Production Prime	AC_PP	Wed 30. Sep 01:20	Wed 30. Sep 06:58	5.633
SOL Seq 31 Line:MGLS1ABlock=Adak Alaska FGSP=967 Hdg=77.6° Prime EOL Seq 31 Line:MGLS1ABlock=Adak Alaska LGSP=1275 Complete				
Prime Line Change	AC_PLC	Wed 30. Sep 06:58	Wed 30. Sep 07:00	0.033
Nominal Prime line change.				
Production Prime	AC_PP	Wed 30. Sep 07:00	Wed 30. Sep 10:06	3.100
SOL Seq 32 Line:MGLS1B Block=Adak Alaska FGSP=1004 Hdg=1° Prime EOL Seq 32 Line:MGLS1B Block=Adak Alaska LGSP=1174 Complete				
Prime Line Change	AC_PLC	Wed 30. Sep 10:06	Wed 30. Sep 10:10	0.067
Nominal Prime line change.				
Production Prime	AC_PP	Wed 30. Sep 10:10	Wed 30. Sep 24:00	13.833
SOL Seq 33 Line:MGLS1C Block=Adak Alaska FGSP=1001 Hdg=87° Prime MSP Seq 33 Line:MGLS1C Block=Adak Alaska LGSP=1766 Midnight				



9/30/2020

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Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

30-Sep	Hours	% Percent
Acquisition	24.000	100.000
Prime Extended L/C	1.333	5.556
Prime Line Change	0.100	0.417
Production Prime	22.567	94.028
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	% Percent
Chargeable Standby	157.917	21.933
Cetacean	0.850	0.118
Prime Extended L/C	8.050	1.118
Reconfiguration	4.767	0.662
Source Reconfig	0.400	0.056
Streamer Reconfig	4.367	0.606
Transit	144.250	20.035
Mobilisation	248.733	34.546
Deployment	87.867	12.204
Testing	4.783	0.664
Transit to Prospect	156.083	21.678
DownTime	17.750	2.465
High Pressure	1.400	0.194
Nav Systems Onboard	0.583	0.081
Operator Error	2.500	0.347
Streamers	10.033	1.394
Vessel	3.233	0.449
Acquisition	246.050	34.174
Prime Extended L/C	17.567	2.440
Prime Line Change	1.767	0.245
Production Prime	226.717	31.488
Demobilisation	49.550	6.882
Recovery	49.550	6.882
Total	720.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	150 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					



9/30/2020

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MGL2003_Lizarralde					
No of Cables:	1	Chans Per Cable:	0	Front Depth:	0 m
Tail Depth:	0 m	Length:	6000 m	Group interval:	0 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	9 m
Pressure:	2000 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	0 m		
Comment					
Andreanof Experiment					

Production Listing (Accpt km by interval) - Full Fold

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
31	MGLS1A	77.6	967	1275	Prime	46.20	4.428	Complete	Complete
32	MGLS1B	1.0	1004	1174	Prime	25.50	4.442	Complete	Complete
33	MGLS1C	87.0	1001	1766	Prime	114.75	4.479	Part	Midnight
Total						186.45			

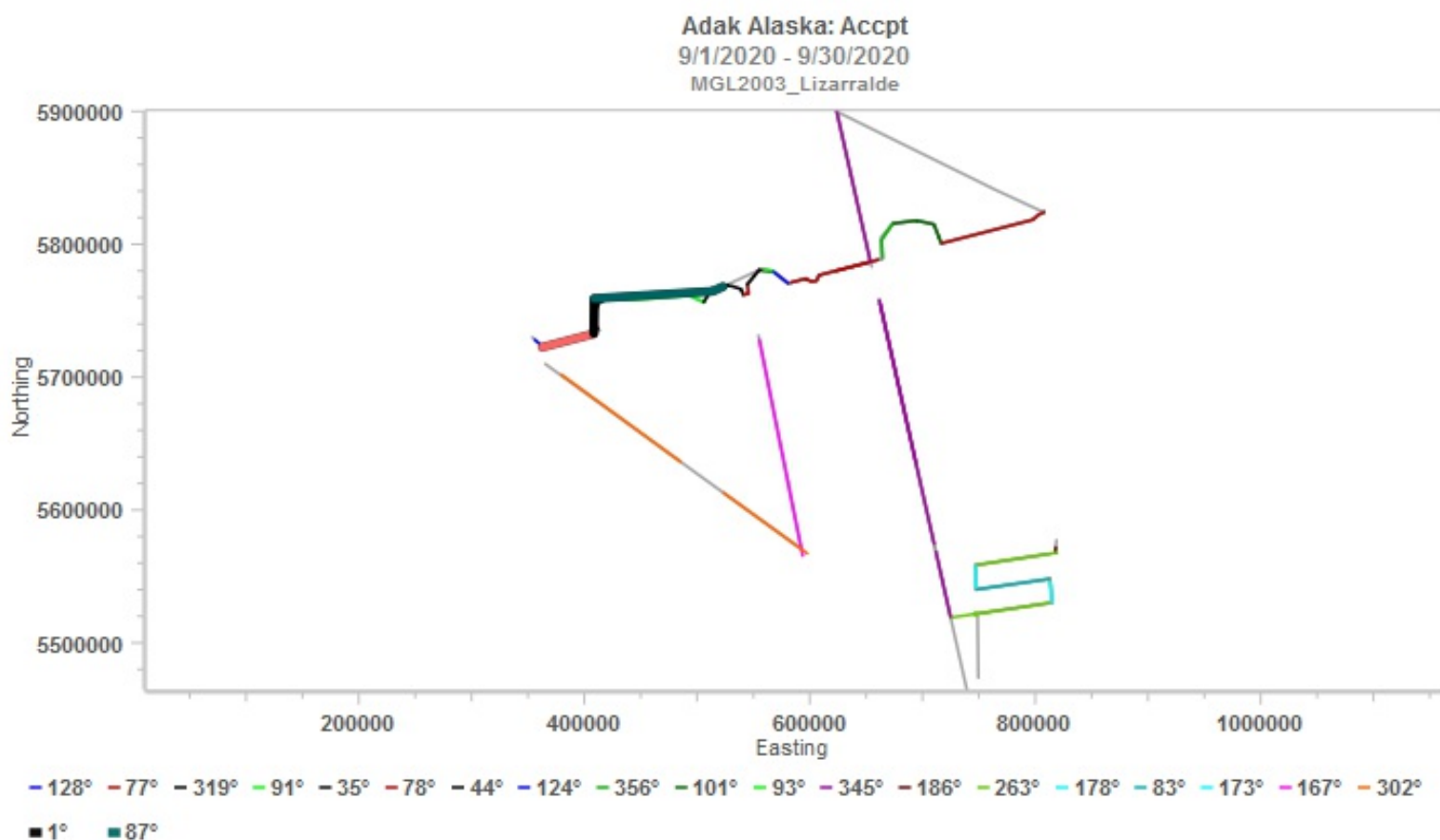
Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	186.45	454.50	1863.75	1863.75
Combined	186.45	454.50	1863.75	1863.75



9/30/2020

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Daily Comment Summaries - Daily Comments On Status of Equipment

Wed 30 Sep

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Wed 30 Sep

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Josh Kasinger L-DEO OMO Chief Source Mechanic

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Matt Dettrich Contract Personnel Marine Science Technician (Source)

Ray Hatton Contract Personnel Marine Science Technician (Source)

Patrick A'Hearn UNOLS Tech



9/30/2020

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PSO Staff On-board the Langseth

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Cassandra Frey RPS PSO

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Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
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10/1/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Thu 01 Oct

Steady production all day.

We recorded on Line S1 until 15:48 GMT and then turned onto the dip line D1N.

We encountered some strong currents near the Atka Pass that caused a lot of noise on the streamer and some control issues for about an hour.

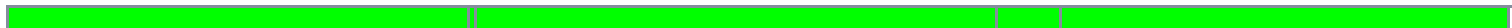
Three brief Posnet crashes.

Daily Comment Summaries - Plan for Tomorrow

Thu 01 Oct

We will complete Line D1N and begin the D1N to S1 transit line.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)



Category	Code	Start	End	Duration
Production Prime	AC_PP	Thu 1. Oct 00:00	Thu 1. Oct 07:25	7.417
SOL Seq 33 Line:MGLS1C Block=Adak Alaska FGSP=1767 Hdg=87° Prime EOL Seq 33 Line:MGLS1C Block=Adak Alaska LGSP=2186 Complete				
Prime Line Change	AC_PLC	Thu 1. Oct 07:25	Thu 1. Oct 07:27	0.033
Nominal Prime line change.				
Production Prime	AC_PP	Thu 1. Oct 07:27	Thu 1. Oct 15:48	8.350
SOL Seq 34 Line:MGLS1D Block=Adak Alaska FGSP=1002 Hdg=77.5° Prime EOL Seq 34 Line:MGLS1D Block=Adak Alaska LGSP=1469 Complete				
Prime Line Change	AC_PLC	Thu 1. Oct 15:48	Thu 1. Oct 16:51	1.050
Nominal Prime line change.				
Production Prime	AC_PP	Thu 1. Oct 16:51	Thu 1. Oct 24:00	7.150
SOL Seq 35 Line:MCD1N Block=Adak Alaska FGSP=1003 Hdg=345.1° Prime MSP Seq 35 Line:MCD1N Block=Adak Alaska LGSP=1394 Midnight				



10/1/2020

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Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

1-Oct	Hours	% Percent
Acquisition	24.000	100.000
Prime Line Change	1.083	4.514
Production Prime	22.917	95.486
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	% Percent
Chargeable Standby	157.917	21.225
Cetacean	0.850	0.114
Prime Extended L/C	8.050	1.082
Reconfiguration	4.767	0.641
Source Reconfig	0.400	0.054
Streamer Reconfig	4.367	0.587
Transit	144.250	19.388
Mobilisation	248.733	33.432
Deployment	87.867	11.810
Testing	4.783	0.643
Transit to Prospect	156.083	20.979
DownTime	17.750	2.386
High Pressure	1.400	0.188
Nav Systems Onboard	0.583	0.078
Operator Error	2.500	0.336
Streamers	10.033	1.349
Vessel	3.233	0.435
Acquisition	270.050	36.297
Prime Extended L/C	17.567	2.361
Prime Line Change	2.850	0.383
Production Prime	249.633	33.553
Demobilisation	49.550	6.660
Recovery	49.550	6.660
Total	744.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	150 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	0	Front Depth:	0 m



10/1/2020

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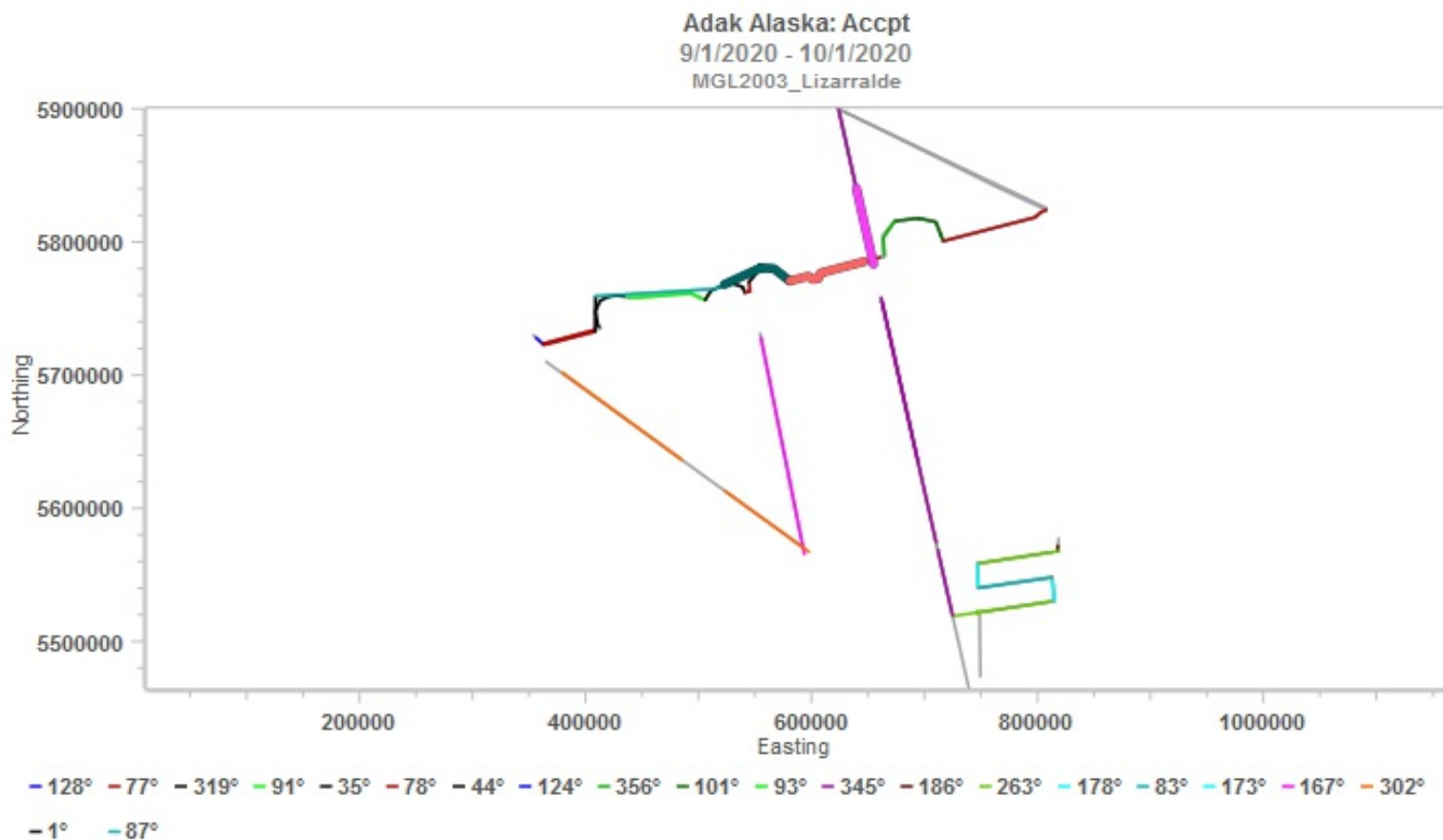
MGL2003_Lizarralde					
Tail Depth:	0 m	Length:	6000 m	Group interval:	0 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	9 m
Pressure:	2000 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	0 m		
Comment					
Andreanof Experiment					

Production Listing (Accpt km by interval) - Full Fold

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
33	MGLS1C	87.0	1767	2186	Prime	63.00	4.517	Complete	Complete
34	MGLS1D	77.5	1002	1469	Prime	70.05	4.530	Complete	Complete
35	MCD1N	345.1	1003	1394	Prime	58.65	4.429	Part	Midnight
Total						191.70			

Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	191.70	646.20	191.70	2055.45
Combined	191.70	646.20	191.70	2055.45





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Daily Comment Summaries - Daily Comments On Status of Equipment

Thu 01 Oct

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Thu 01 Oct

Technical Staff On-board the Langseth

Todd Jenvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Science Officer - Nav

Cody Bahlau L-DEO OMO Marine Science Technician - Obs

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Brian Agee L-DEO OMO Source Mechanic

Matt Dettrich Contract Personnel Marine Science Technician (Source)

Ray Hatton Contract Personnel Marine Science Technician (Source)

Patrick A'Hearn UNOLS Tech

PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

Maritza Martinez RPS Lead PAM

Cassandra Frey RPS PSO

Amelia McClure RPS PSO

Kaylee McRae RPS PSO

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Dan Lizarralde WHOI PI

Donna Shillington NAU PI

Hannah Mark Wash. U. St. Louis

Valeria Cortes Rivas NAU

Hannah Brewer WHOI

Tim Kane WHOI OBS Tech

Martin Rapa SIO OBS Tech

Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
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Daily Science Report

10/2/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Fri 02 Oct

We completed line Line D1N at 07:54GMT and began acquiring Line D1S1.

Daily Comment Summaries - Plan for Tomorrow

Fri 02 Oct

We will finish Line D1S1 at approximately midnight local time. We will then do an outside turn and begin acquiring the final portion of Line S1.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)



Category	Code	Start	End	Duration
Production Prime	AC_PP	Fri 2. Oct 00:00	Fri 2. Oct 07:54	7.900
SOL Seq 35 Line:MCD1N Block=Adak Alaska FGSP=1395 Hdg=345.1° Prime EOL Seq 35 Line:MCD1N Block=Adak Alaska LGSP=1828 Complete				
Prime Line Change	AC_PLC	Fri 2. Oct 07:54	Fri 2. Oct 08:29	0.583
Nominal Prime line change.				
Production Prime	AC_PP	Fri 2. Oct 08:29	Fri 2. Oct 24:00	15.517
SOL Seq 36 Line:S1D1N Block=Adak Alaska FGSP=2304 FCSP=N/AHdg=112° Prime MSP Seq 36 Line:S1D1N Block=Adak Alaska LGSP=1395 LCSP=1395 Midnight				

Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

2-Oct	Hours	%Percent
Acquisition	24.000	100.000
Prime Line Change	0.583	2.431
Production Prime	23.417	97.569
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	%Percent
Chargeable Standby	157.917	20.562
Cetacean	0.850	0.111
Prime Extended L/C	8.050	1.048
Reconfiguration	4.767	0.621



10/2/2020

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Category	Hours	% Percent
Source Reconfig	0.400	0.052
Streamer Reconfig	4.367	0.569
Transit	144.250	18.783
Mobilisation	248.733	32.387
Deployment	87.867	11.441
Testing	4.783	0.623
Transit to Prospect	156.083	20.323
DownTime	17.750	2.311
High Pressure	1.400	0.182
Nav Systems Onboard	0.583	0.076
Operator Error	2.500	0.326
Streamers	10.033	1.306
Vessel	3.233	0.421
Acquisition	294.050	38.288
Prime Extended L/C	17.567	2.287
Prime Line Change	3.433	0.447
Production Prime	273.050	35.553
Demobilisation	49.550	6.452
Recovery	49.550	6.452
Total	768.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	150 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	0	Front Depth:	0 m
Tail Depth:	0 m	Length:	6000 m	Group interval:	0 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	9 m
Pressure:	2000 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	0 m		
Comment					
Andreanof Experiment					



10/2/2020

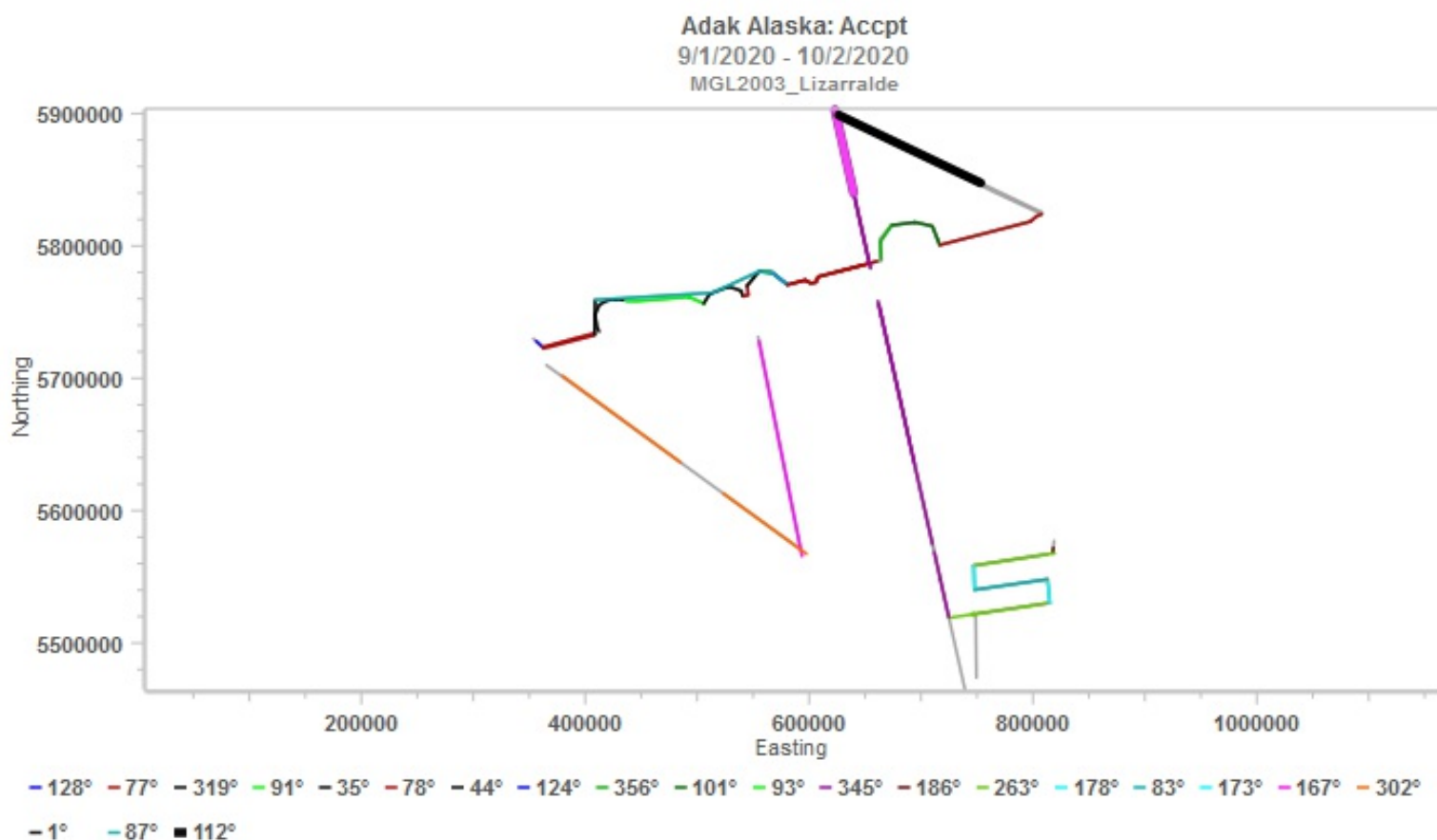
Page 3

Production Listing (Accpt km by interval) - Full Fold

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
35	MCD1N	345.1	1395	1828	Prime	65.10	4.440	Complete	Complete
36	S1D1N	112.0	2304	1395	Prime	136.35	4.745	Part	Midnight
Total						201.45			

Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	201.45	847.65	393.15	2256.90
Combined	201.45	847.65	393.15	2256.90

**Daily Comment Summaries - Daily Comments On Status of Equipment**

Fri 02 Oct

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report



10/2/2020

Page 4

Daily Comment Summaries - Personnel Onboard

Fri 02 Oct

Technical Staff On-board the Langseth

Todd Jenvold L-DEO OMO Chief Science Officer
Josh Kasinger L-DEO OMO Chief Source Mechanic
Alan Thompson L-DEO OMO Science Officer - Nav
Cody Bahlau L-DEO OMO Marine Science Technician - Obs
Gilles Guerin L-DEO OMO Marine Science Technician - Obs
Brian Agee L-DEO OMO Source Mechanic
Matt Dettrich Contract Personnel Marine Science Technician (Source)
Ray Hatton Contract Personnel Marine Science Technician (Source)
Patrick A'Hearn UNOLS Tech

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Hannah Mark Wash. U. St. Louis
Valeria Cortes Rivas NAU
Hannah Brewer WHOI
Tim Kane WHOI OBS Tech
Martin Rapa SIO OBS Tech
Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
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Daily Science Report

10/3/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Sat 03 Oct

We completed Line MCD1S1 and have started the last segments of Line S1.

Daily Comment Summaries - Plan for Tomorrow

Sat 03 Oct

We will finish Line S1 and begin our transit to the north end of the final sequence, Line D2N.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)



Category	Code	Start	End	Duration
Production Prime	AC_PP	Sat 3. Oct 00:00	Sat 3. Oct 09:05	9.083
SOL Seq 36 Line:S1D1N Block=Adak Alaska FGSP=1394 Hdg=112° Prime EOL Seq 36 Line:S1D1N Block=Adak Alaska LGSP=959 Complete				
Prime Line Change	AC_PLC	Sat 3. Oct 09:05	Sat 3. Oct 10:42	1.617
Nominal Prime line change.				
Production Prime	AC_PP	Sat 3. Oct 10:42	Sat 3. Oct 22:48	12.100
SOL Seq 37 Line:MGLS1G Block=Adak Alaska FGSP=1652 Hdg=236.8° Prime EOL Seq 37 Line:MGLS1G Block=Adak Alaska LGSP=1001 Complete				
Prime Line Change	AC_PLC	Sat 3. Oct 22:48	Sat 3. Oct 22:50	0.033
Nominal Prime line change.				
Production Prime	AC_PP	Sat 3. Oct 22:50	Sat 3. Oct 24:00	1.167
SOL Seq 38 Line:MGLS1F Block=Adak Alaska FGSP=1001 Hdg=83.9° Prime MSP Seq 38 Line:MGLS1F Block=Adak Alaska LGSP=1068 Midnight				

Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

3-Oct	Hours	%Percent
Acquisition	24.000	100.000
Prime Line Change	1.650	6.875
Production Prime	22.350	93.125
Day's Total	24.000	100.000



10/3/2020

Page 2

Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	% Percent
Chargeable Standby	157.917	19.939
Cetacean	0.850	0.107
Prime Extended L/C	8.050	1.016
Reconfiguration	4.767	0.602
Source Reconfig	0.400	0.051
Streamer Reconfig	4.367	0.551
Transit	144.250	18.213
Mobilisation	248.733	31.406
Deployment	87.867	11.094
Testing	4.783	0.604
Transit to Prospect	156.083	19.707
DownTime	17.750	2.241
High Pressure	1.400	0.177
Nav Systems Onboard	0.583	0.074
Operator Error	2.500	0.316
Streamers	10.033	1.267
Vessel	3.233	0.408
Acquisition	318.050	40.158
Prime Extended L/C	17.567	2.218
Prime Line Change	5.083	0.642
Production Prime	295.400	37.298
Demobilisation	49.550	6.256
Recovery	49.550	6.256
Total	792.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	150 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	0	Front Depth:	0 m
Tail Depth:	0 m	Length:	6000 m	Group interval:	0 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	9 m
Pressure:	2000 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	0 m		



10/3/2020

Page 3

Comment

Andreanof Experiment

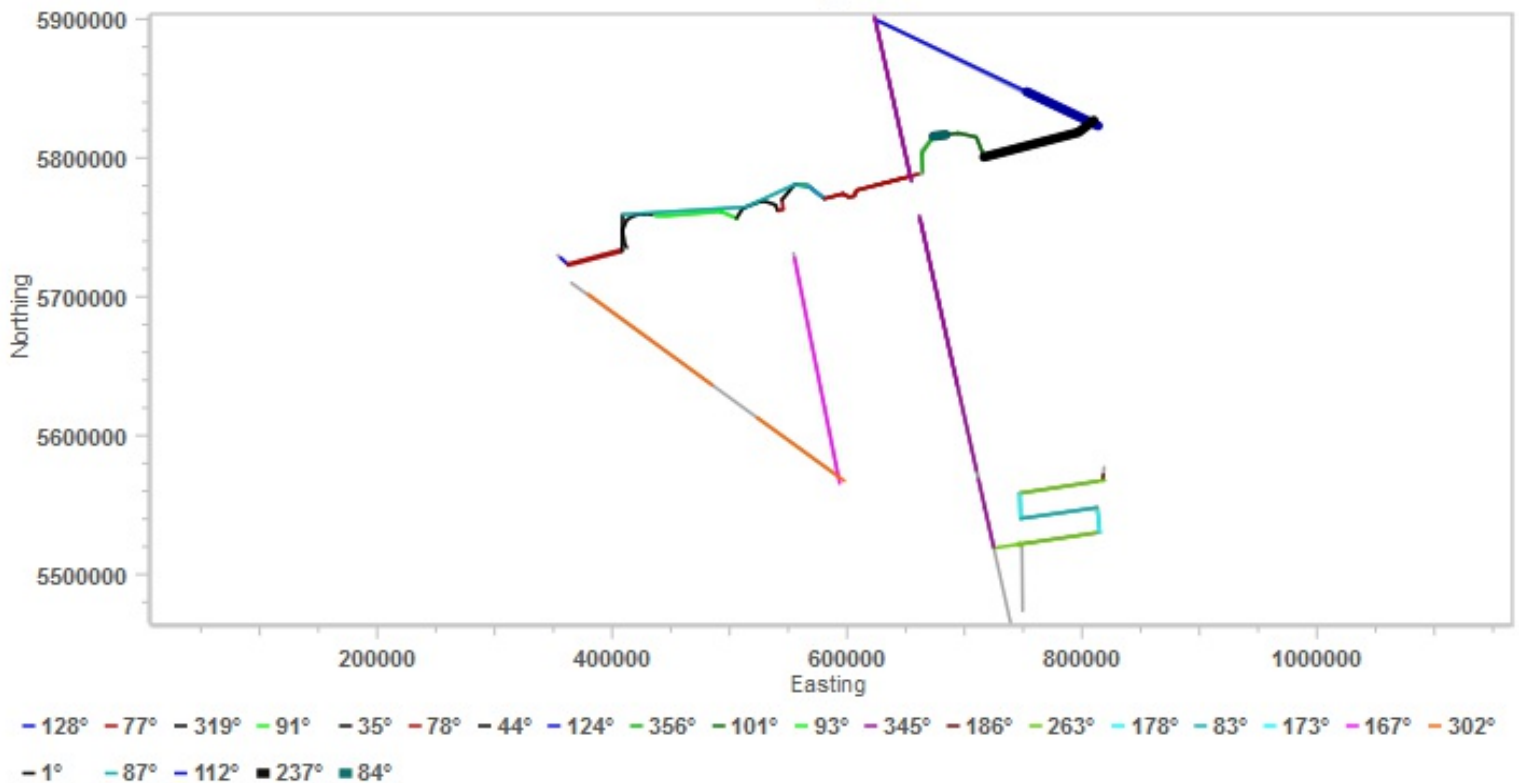
Production Listing (Accpt km by interval) - Full Fold

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
36	S1D1N	112.0	1394	959	Prime	65.40	4.428	Complete	Complete
37	MGLS1G	236.8	1652	1001	Prime	97.65	4.358	Complete	Complete
38	MGLS1F	83.9	1001	1068	Prime	10.05	4.651	Part	Midnight
Total						173.10			

Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	173.10	1020.75	566.25	2430.00
Combined	173.10	1020.75	566.25	2430.00

Adak Alaska: Accpt
9/1/2020 - 10/3/2020
MGL2003_Lizarralde



Daily Comment Summaries - Daily Comments On Status of Equipment

Sat 03 Oct

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report



10/3/2020

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Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Sat 03 Oct

Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer
Josh Kasinger L-DEO OMO Chief Source Mechanic
Alan Thompson L-DEO OMO Science Officer - Nav
Cody Bahlau L-DEO OMO Marine Science Technician - Obs
Gilles Guerin L-DEO OMO Marine Science Technician - Obs
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Hannah Mark Wash. U. St. Louis
Valeria Cortes Rivas NAU
Hannah Brewer WHOI
Tim Kane WHOI OBS Tech
Martin Rapa SIO OBS Tech
Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category

Code

Start

End



Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

10/4/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Sun 04 Oct

We have completed the strike line entirely and are transiting to the North side of the final dip line.

Daily Comment Summaries - Plan for Tomorrow

Sun 04 Oct

We will acquire Line D2N and recover all of the towed gear. We should begin our transit to Dutch Harbor just ahead of the rough weather.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)



Category	Code	Start	End	Duration
Production Prime	AC_PP	Sun 4. Oct 00:00	Sun 4. Oct 05:15	5.250
SOL Seq 38 Line:MGLS1F Block=Adak Alaska FGSP=1069 Hdg=83.9° Prime EOL Seq 38 Line:MGLS1F Block=Adak Alaska LGSP=1352 Complete				
Prime Line Change	AC_PLC	Sun 4. Oct 05:15	Sun 4. Oct 05:17	0.033
Nominal Prime line change.				
Production Prime	AC_PP	Sun 4. Oct 05:17	Sun 4. Oct 08:57	3.667
SOL Seq 39 Line:MGLS1E Block=Adak Alaska FGSP=1204 Hdg=225.2° Prime EOL Seq 39 Line:MGLS1E Block=Adak Alaska LGSP=1005 Complete				
Prime Line Change	AC_PLC	Sun 4. Oct 08:57	Sun 4. Oct 08:59	0.033
Nominal Prime line change.				
Production Prime	AC_PP	Sun 4. Oct 08:59	Sun 4. Oct 11:52	2.883
SOL Seq 40 Line:MGLS1D Block=Adak Alaska FGSP=1586 Hdg=257.8° Prime EOL Seq 40 Line:MGLS1D Block=Adak Alaska LGSP=1427 Complete				
Prime Extended L/C	AC_PXL	Sun 4. Oct 11:52	Sun 4. Oct 24:00	12.133
Extended Prime line change.				

Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

4-Oct	Hours	%Percent
Acquisition	24.000	100.000
Prime Extended L/C	12.133	50.556
Prime Line Change	0.067	0.278



10/4/2020

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4-Oct	Hours	% Percent
Production Prime	11.800	49.167
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	% Percent
Chargeable Standby	157.917	19.353
Cetacean	0.850	0.104
Prime Extended L/C	8.050	0.987
Reconfiguration	4.767	0.584
Source Reconfig	0.400	0.049
Streamer Reconfig	4.367	0.535
Transit	144.250	17.678
Mobilisation	248.733	30.482
Deployment	87.867	10.768
Testing	4.783	0.586
Transit to Prospect	156.083	19.128
DownTime	17.750	2.175
High Pressure	1.400	0.172
Nav Systems Onboard	0.583	0.071
Operator Error	2.500	0.306
Streamers	10.033	1.230
Vessel	3.233	0.396
Acquisition	342.050	41.918
Prime Extended L/C	29.700	3.640
Prime Line Change	5.150	0.631
Production Prime	307.200	37.647
Demobilisation	49.550	6.072
Recovery	49.550	6.072
Total	816.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	150 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	0	Front Depth:	0 m
Tail Depth:	0 m	Length:	6000 m	Group interval:	0 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	9 m



10/4/2020

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MGL2003_Lizarralde

Pressure:	2000 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	0 m		

Comment

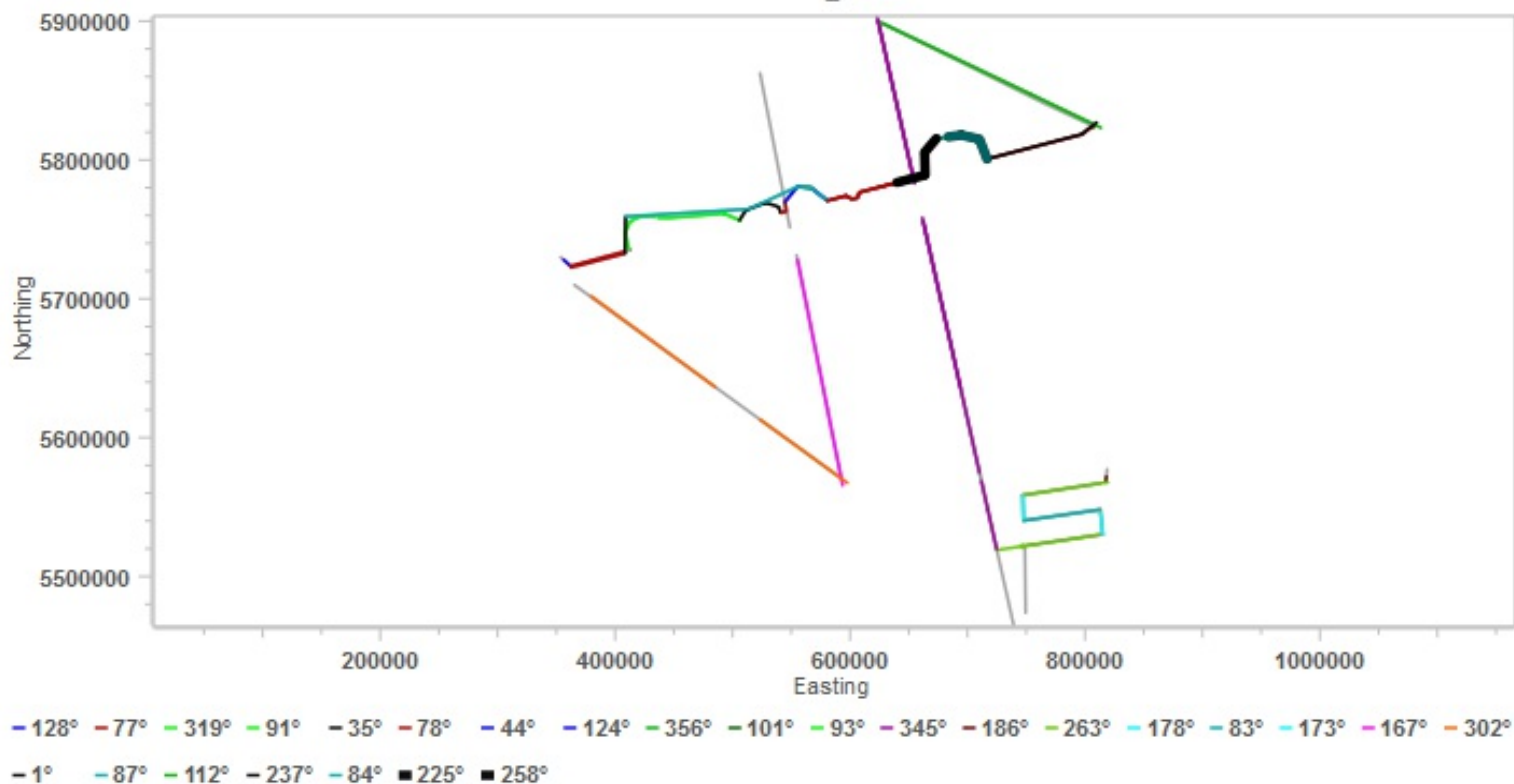
Andreanof Experiment

Production Listing (Accept km by interval) - Full Fold

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
38	MGLS1F	83.9	1069	1352	Prime	42.60	4.430	Complete	Complete
39	MGLS1E	225.2	1204	1005	Prime	29.85	4.396	Complete	Complete
40	MGLS1D	257.8	1586	1427	Prime	23.85	4.466	Complete	Complete
Total						96.30			

Production Totals (Accept km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	96.30	1117.05	662.55	2526.30
Combined	96.30	1117.05	662.55	2526.30

Adak Alaska: Accept
9/1/2020 - 10/4/2020
MGL2003_Lizarralde



10/4/2020

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Daily Comment Summaries - Daily Comments On Status of Equipment

Sun 04 Oct

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Sun 04 Oct

Technical Staff On-board the Langseth

Todd Jenvold L-DEO OMO Chief Science Officer

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Alan Thompson L-DEO OMO Science Officer - Nav

Cody Bahlau L-DEO OMO Marine Science Technician - Obs

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Hannah Brewer WHOI

Tim Kane WHOI OBS Tech

Martin Rapa SIO OBS Tech

Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
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Daily Science Report

10/5/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Mon 05 Oct

We completed the final sequence of the Andreanof Mission at 17:49 GMT.

The started retrieving gun strings while still shooting in the reduced source volume area. We had three gun strings onboard before we completed the last line. We turned back offshore near the Great Sitkin Island and completed the recovery of the streamer and towed equipment.

We began our transit to Dutch Harbor.

Daily Comment Summaries - Plan for Tomorrow

Mon 05 Oct

We will be in transit all day.

Crew change preparations. Rough weather preparations.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)



Category	Code	Start	End	Duration
Prime Extended L/C	AC_PXL	Mon 5. Oct 00:00	Mon 5. Oct 04:21	4.350
Extended Prime line change.				
Production Prime	AC_PP	Mon 5. Oct 04:21	Mon 5. Oct 17:49	13.467
SOL Seq 41 Line:MCD2N Block=Adak Alaska FGSP=986 Hdg=166.7° Prime EOL Seq 41 Line:MCD2N Block=Adak Alaska LGSP=1734 Complete				
Recovery	DM_RC	Mon 5. Oct 17:49	Mon 5. Oct 22:02	4.217
Demobilising offshore, recovering outboard equipment. Gunstrings, Streamer, PAM, Maggie, Tail Buoy.				
Transit	SB_TRT	Mon 5. Oct 22:02	Mon 5. Oct 24:00	1.967
Transit to Dutch Harbor for crew change.				

Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

5-Oct	Hours	%Percent
Acquisition	17.817	74.236
Prime Extended L/C	4.350	18.125
Production Prime	13.467	56.111
Chargeable Standby	1.967	8.194
Transit	1.967	8.194



10/5/2020

Page 2

5-Oct	Hours	%Percent
Demobilisation	4.217	17.569
Recovery	4.217	17.569
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	%Percent
Chargeable Standby	159.883	19.034
Cetacean	0.850	0.101
Prime Extended L/C	8.050	0.958
Reconfiguration	4.767	0.567
Source Reconfig	0.400	0.048
Streamer Reconfig	4.367	0.520
Transit	146.217	17.407
Mobilisation	248.733	29.611
Deployment	87.867	10.460
Testing	4.783	0.569
Transit to Prospect	156.083	18.581
DownTime	17.750	2.113
High Pressure	1.400	0.167
Nav Systems Onboard	0.583	0.069
Operator Error	2.500	0.298
Streamers	10.033	1.194
Vessel	3.233	0.385
Acquisition	359.867	42.841
Prime Extended L/C	34.050	4.054
Prime Line Change	5.150	0.613
Production Prime	320.667	38.175
Demobilisation	53.767	6.401
Recovery	53.767	6.401
Total	840.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	150 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	0	Front Depth:	0 m
Tail Depth:	0 m	Length:	6000 m	Group interval:	0 m
Source Details					



10/5/2020

Page 3

MGL2003_Lizarralde

No of Sources:	1	Total Volume:	6600 cu ins	Depth:	9 m
Pressure:	2000 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	0 m		

Comment

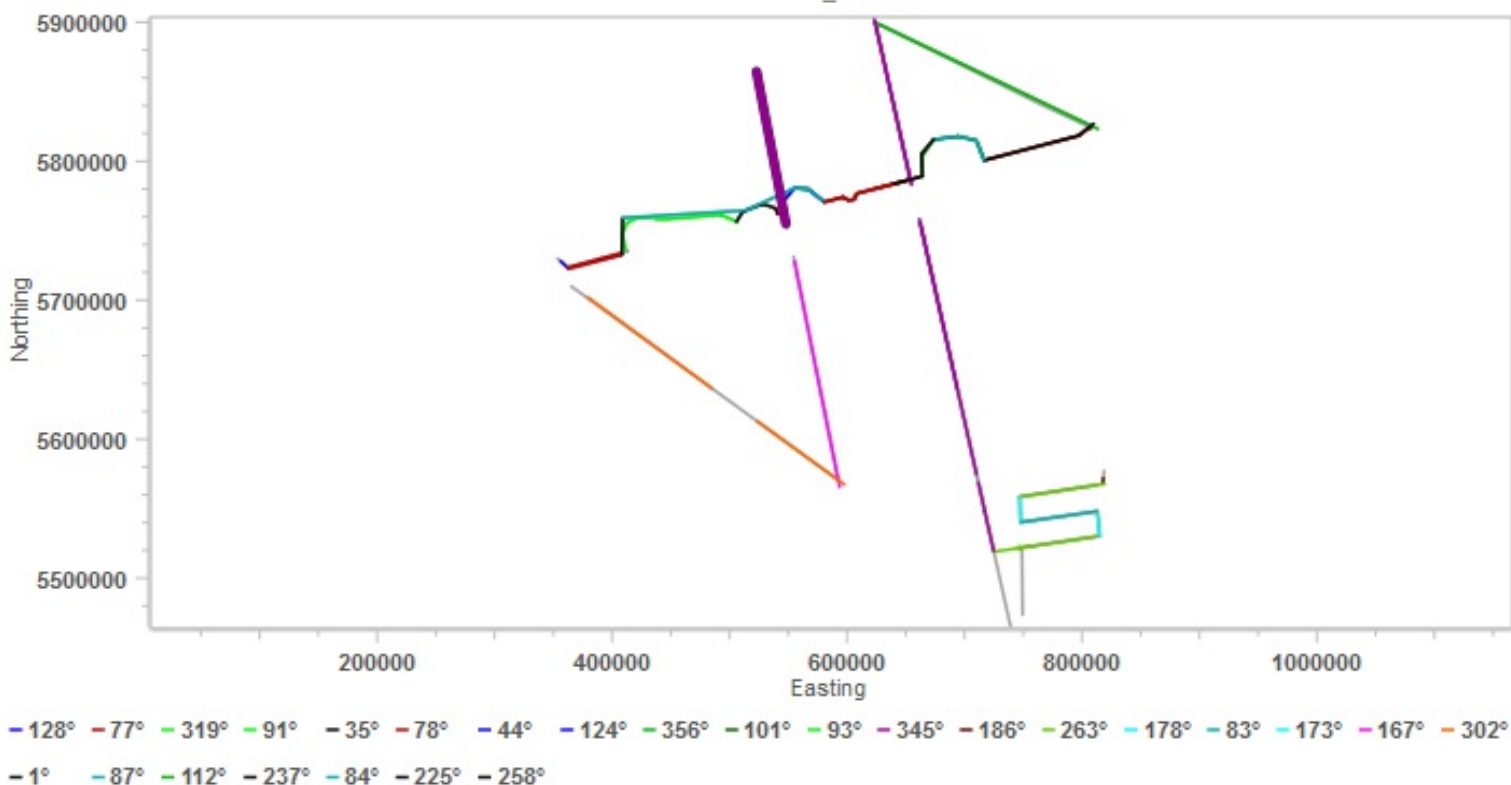
Andreanof Experiment

Production Listing (Accept km by interval) - Full Fold

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
41	MCD2N	166.7	986	1734	Prime	112.20	4.499	Complete	Complete
Total						112.20			

Production Totals (Accept km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	112.20	112.20	774.75	2638.50
Combined	112.20	112.20	774.75	2638.50

Adak Alaska: Accpt
9/1/2020 - 10/5/2020
MGL2003_Lizarralde



10/5/2020

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Daily Comment Summaries - Daily Comments On Status of Equipment

Mon 05 Oct

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Mon 05 Oct

Technical Staff On-board the Langseth

Todd Jenvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Science Officer - Nav

Cody Bahlau L-DEO OMO Marine Science Technician - Obs

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Brian Agee L-DEO OMO Source Mechanic

Matt Dettrich Contract Personnel Marine Science Technician (Source)

Ray Hatton Contract Personnel Marine Science Technician (Source)

Patrick A'Hearn UNOLS Tech

PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

Maritza Martinez RPS Lead PAM

Cassandra Frey RPS PSO

Amelia McClure RPS PSO

Kaylee McRae RPS PSO

Science Party On-board the Langseth

Dan Lizarralde WHOI PI

Donna Shillington NAU PI

Hannah Mark Wash. U. St. Louis

Valeria Cortes Rivas NAU

Hannah Brewer WHOI

Tim Kane WHOI OBS Tech

Martin Rapa SIO OBS Tech

Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
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Daily Science Report

10/6/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Tue 06 Oct

Transit all day toward Dutch Harbor for crew change.


Crew change preparations.

Daily Comment Summaries - Plan for Tomorrow

Tue 06 Oct

Transit to Dutch Harbor for crew change.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)

Category	Code	Start	End	Duration
 Transit	SB_TRT	Tue 6. Oct 00:00	Tue 6. Oct 24:00	24.000
Transit to Dutch Harbor for crew change.				

Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

6-Oct	Hours	%Percent
Chargeable Standby	24.000	100.000
Transit	24.000	100.000
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	%Percent
Chargeable Standby	183.883	21.283
Cetacean	0.850	0.098
Prime Extended L/C	8.050	0.932
Reconfiguration	4.767	0.552
Source Reconfig	0.400	0.046
Streamer Reconfig	4.367	0.505
Transit	170.217	19.701
Mobilisation	248.733	28.789
Deployment	87.867	10.170
Testing	4.783	0.554
Transit to Prospect	156.083	18.065



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Category	Hours	% Percent
DownTime	17.750	2.054
High Pressure	1.400	0.162
Nav Systems Onboard	0.583	0.068
Operator Error	2.500	0.289
Streamers	10.033	1.161
Vessel	3.233	0.374
Acquisition	359.867	41.651
Prime Extended L/C	34.050	3.941
Prime Line Change	5.150	0.596
Production Prime	320.667	37.114
Demobilisation	53.767	6.223
Recovery	53.767	6.223
Total	864.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	150 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	0	Front Depth:	0 m
Tail Depth:	0 m	Length:	6000 m	Group interval:	0 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	9 m
Pressure:	2000 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	0 m		
Comment					
Andreanof Experiment					

Production Listing (Accept km) - Full Fold

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
Total					0.00			

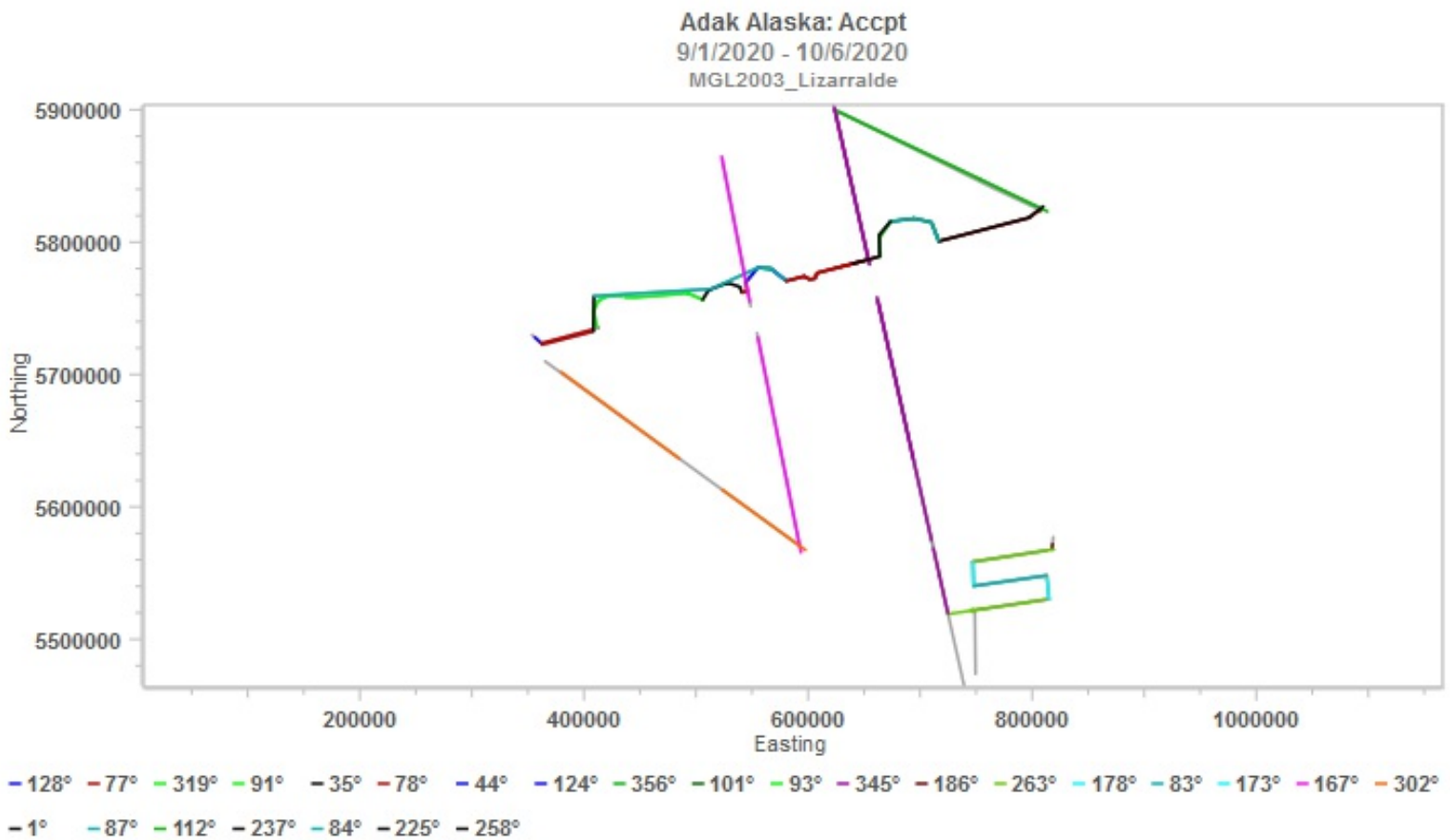
Production Totals (Accept km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	112.20	774.75	2638.50
Combined	0.00	112.20	774.75	2638.50



10/6/2020

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Daily Comment Summaries - Daily Comments On Status of Equipment

Tue 06 Oct

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Tue 06 Oct

Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Science Officer - Nav

Cody Bahlau L-DEO OMO Marine Science Technician - Obs

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Brian Agee L-DEO OMO Source Mechanic

Matt Dettrich Contract Personnel Marine Science Technician (Source)

Ray Hatton Contract Personnel Marine Science Technician (Source)

Patrick A'Hearn UNOLS Tech



10/6/2020

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PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

Maritza Martinez RPS Lead PAM

Cassandra Frey RPS PSO

Amelia McClure RPS PSO

Kaylee McRae RPS PSO

Science Party On-board the Langseth

Dan Lizarralde WHOI PI

Donna Shillington NAU PI

Hannah Mark Wash. U. St. Louis

Valeria Cortes Rivas NAU

Hannah Brewer WHOI

Tim Kane WHOI OBS Tech

Martin Rapa SIO OBS Tech

Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
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Daily Science Report

10/7/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Wed 07 Oct


Transit to Dutch Harbor. Standing by outside harbor until morning.

Daily Comment Summaries - Plan for Tomorrow

Wed 07 Oct

We will go alongside the pier in Dutch Harbor at approximately 9AM local time for partial crew change.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)

Category	Code	Start	End	Duration
 Transit	SB_TRT	Wed 7. Oct 00:00	Wed 7. Oct 24:00	24.000
Transit to Dutch Harbor for crew change.				

Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

7-Oct	Hours	%Percent
Chargeable Standby	24.000	100.000
Transit	24.000	100.000
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	%Percent
Chargeable Standby	207.883	23.410
Cetacean	0.850	0.096
Prime Extended L/C	8.050	0.907
Reconfiguration	4.767	0.537
Source Reconfig	0.400	0.045
Streamer Reconfig	4.367	0.492
Transit	194.217	21.871
Mobilisation	248.733	28.011
Deployment	87.867	9.895
Testing	4.783	0.539
Transit to Prospect	156.083	17.577
DownTime	17.750	1.999
High Pressure	1.400	0.158



10/7/2020

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Category	Hours	% Percent
Nav Systems Onboard	0.583	0.066
Operator Error	2.500	0.282
Streamers	10.033	1.130
Vessel	3.233	0.364
Acquisition	359.867	40.526
Prime Extended L/C	34.050	3.834
Prime Line Change	5.150	0.580
Production Prime	320.667	36.111
Demobilisation	53.767	6.055
Recovery	53.767	6.055
Total	888.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	20000 ms	Sample rate:	2 ms	Shotpoint interval:	150 m
CoS to CNG:	190 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	480	Front Depth:	9 m
Tail Depth:	9 m	Length:	6000 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	9 m
Pressure:	2000 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	0 m		
Comment					
Andreanof Experiment					

Production Listing (Accpt km) - Full Fold

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
Total					0.00			

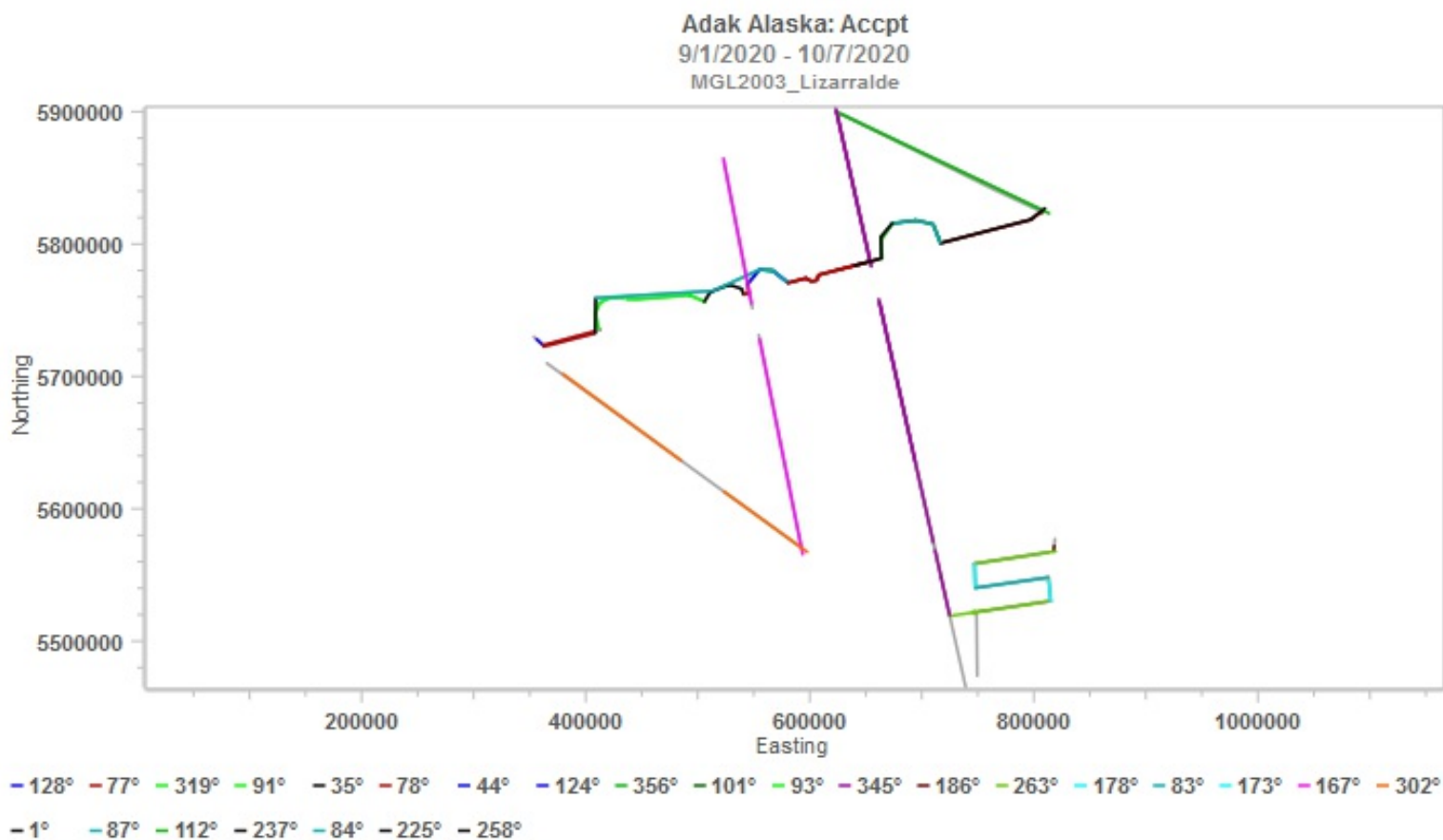
Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	112.20	774.75	2638.50
Combined	0.00	112.20	774.75	2638.50



10/7/2020

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Daily Comment Summaries - Daily Comments On Status of Equipment

Wed 07 Oct

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Wed 07 Oct

Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Science Officer - Nav

Cody Bahlau L-DEO OMO Marine Science Technician - Obs

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Brian Agee L-DEO OMO Source Mechanic

Matt Dettrich Contract Personnel Marine Science Technician (Source)

Ray Hatton Contract Personnel Marine Science Technician (Source)

Patrick A'Hearn UNOLS Tech



10/7/2020

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PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

Maritza Martinez RPS Lead PAM

Cassandra Frey RPS PSO

Amelia McClure RPS PSO

Kaylee McRae RPS PSO

Science Party On-board the Langseth

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Donna Shillington NAU PI

Hannah Mark Wash. U. St. Louis

Valeria Cortes Rivas NAU

Hannah Brewer WHOI

Tim Kane WHOI OBS Tech

Martin Rapa SIO OBS Tech

Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
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Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

10/8/2020

Page 1

Client:	United States National Science Foundation	Contractor:	Lamont-Doherty Earth Observatory
Job No:	MGL2003	Job No:	MGL2003
Block:	Adak Alaska	Vessel:	Marcus G Langseth
Client Contact:	Dan Lizarralde	Supervisor:	Sean Higgins
Consultancy:		Party Chiefs:	Sean Higgins
Job No:		Client Reps:	Dan Lizarralde

Daily Comment Summaries - Daily Summary

Thu 08 Oct

Pilot onboard at approximately 9AM local.

Secure on pier at 10:20 local time.

Science Party departed at 11:30 local time.

Standing by in Dutch Harbor.

Daily Comment Summaries - Plan for Tomorrow

Thu 08 Oct

End of MGL2003.

Crew change for five PSO's, two contractors and two Techs.

Depart for Newport, Oregon.

Timing Diary (Marcus G Langseth, MGL2003_Lizarralde)



Category	Code	Start	End	Duration
Transit	SB_TRT	Thu 8. Oct 00:00	Thu 8. Oct 18:30	18.500
Transit to Dutch Harbor for crew change.				
Alongside	OC_AS	Thu 8. Oct 18:30	Thu 8. Oct 24:00	5.500
Dutch Harbor				

Timing Day By Day (Marcus G Langseth, MGL2003_Lizarralde)

8-Oct	Hours	%Percent
Chargeable Standby	18.500	77.083
Transit	18.500	77.083
Off Charter	5.500	22.917
Alongside	5.500	22.917
Day's Total	24.000	100.000



10/8/2020

Page 2

Timing Breakdown Summary - Project (Marcus G Langseth, MGL2003_Lizarralde)

Category	Hours	% Percent
Off Charter	5.500	0.603
Alongside	5.500	0.603
Chargeable Standby	226.383	24.823
Cetacean	0.850	0.093
Prime Extended L/C	8.050	0.883
Reconfiguration	4.767	0.523
Source Reconfig	0.400	0.044
Streamer Reconfig	4.367	0.479
Transit	212.717	23.324
Mobilisation	248.733	27.273
Deployment	87.867	9.635
Testing	4.783	0.524
Transit to Prospect	156.083	17.114
DownTime	17.750	1.946
High Pressure	1.400	0.154
Nav Systems Onboard	0.583	0.064
Operator Error	2.500	0.274
Streamers	10.033	1.100
Vessel	3.233	0.355
Acquisition	359.867	39.459
Prime Extended L/C	34.050	3.734
Prime Line Change	5.150	0.565
Production Prime	320.667	35.161
Demobilisation	53.767	5.895
Recovery	53.767	5.895
Total	912.000	

Basic Project Details

MGL2003_Lizarralde					
General Details					
Record length:	20000 ms	Sample rate:	2 ms	Shotpoint interval:	150 m
CoS to CNG:	190 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	480	Front Depth:	9 m
Tail Depth:	9 m	Length:	6000 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	9 m
Pressure:	2000 PSI	Volume:	6600	Strings per source:	4



10/8/2020

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MGL2003_Lizarralde

String Separation: 6 m

String length: 0 m

Comment

Andreanof Experiment

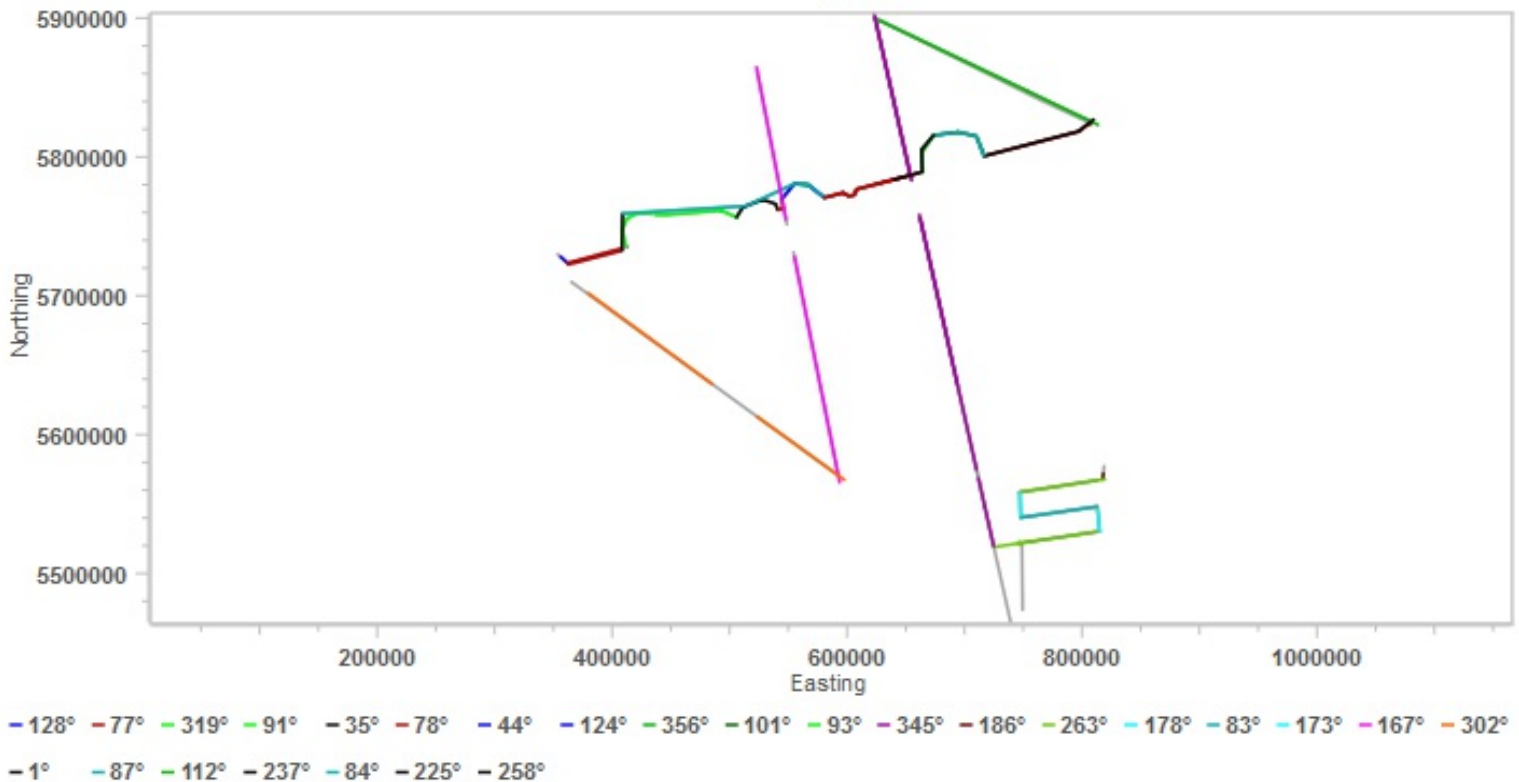
Production Listing (Accpt km) - Full Fold

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
Total					0.00			

Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	112.20	774.75	2638.50
Combined	0.00	112.20	774.75	2638.50

Adak Alaska: Accpt
9/1/2020 - 10/8/2020
MGL2003_Lizarralde



Daily Comment Summaries - Daily Comments On Status of Equipment

Thu 08 Oct

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (OBS):

No Major Issues to Report



10/8/2020

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Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Thu 08 Oct

Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer
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Tim Kane WHOI OBS Tech
Martin Rapa SIO OBS Tech
Mark Gibaund SIO OBS Tech

HSE Events Diary (Marcus G Langseth)

Category

Code

Start

End