

HALLIBURTON

iCem® Service

CONOCO/PHILLIPS COMPANY-EBUS

State La Plata 5-65 13-15 3DH Surface

Job Date: Thursday, November 30, 2017

Sincerely,
Ryan Keeran

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **State La Plata 5-65 13-15 3DH** cement surface casing job. A pre-job safety meeting was held before the job where details of the job were discussed, potential safety hazards were reviewed, and environmental compliance procedures were outlined.

135 bbls of cement circulated to surface

Halliburton maintains a continuous quality improvement process and appreciates any comments or suggestions that you may have. Halliburton again thanks you for the opportunity to perform service work on this well. We hope to be your solutions provider for future projects.

Respectfully,

Halliburton Fort Lupton

The Road to Excellence Starts with Safety

Sold To #: 352431		Ship To #: 3781189		Quote #: 0022377485		Sales Order #: 0904472416					
Customer: CONOCO/PHILLIPS COMPANY-EBUS				Customer Rep: Jason Beach							
Well Name: STATE LA PLATA 5-65 13-15			Well #: 3DH		API/UWI #: 05-005-07259-00						
Field: WILDCAT		City (SAP): FOXFIELD		County/Parish: ARAPAHOE		State: COLORADO					
Legal Description: SE SW-13-5S-65W-1320FSL-1688FWL											
Contractor: H & P DRLG				Rig/Platform Name/Num: H & P 448							
Job BOM: 7521 7521											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA\HB41307				Srvc Supervisor: Steven Markovich							
Job											
Formation Name											
Formation Depth (MD)		Top		Bottom							
Form Type				BHST							
Job depth MD		2440ft		Job Depth TVD							
Water Depth				Wk Ht Above Floor							
Perforation Depth (MD)		From		To							
Well Data											
Description	New / Used	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft	
Open Hole Section			12.25				0	1836			
Casing		9.625	8.921	36	LTC	J-55	0	2440		0	
Open Hole Section			12.25				1836	2450		0	
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe	9.625			2440		Top Plug	9.625		HES		
Float Shoe	9.625					Bottom Plug	9.625		HES		
Float Collar	9.625					SSR plug set	9.625		HES		
Insert Float	9.625					Plug Container	9.625		HES		
Stage Tool	9.625					Centralizers	9.625		HES		
Fluid Data											
Stage/Plug #: 1											
Fluid #	Stage Type	Fluid Name			Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	10 lb/gal Tuned Spacer III	Tuned Spacer III			50	bbl	10	8.82			
38.32 gal/bbl		FRESH WATER									
63.66 lbm/bbl		BARITE, BULK (100003681)									

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
2	SwiftCem	SWIFTCEM (TM) SYSTEM	615	sack	12	2.56		6	15.11
3	SwiftCem	SWIFTCEM (TM) SYSTEM	255	sack	14.2	1.59		6	7.89
4	Displacement	Displacement	185	bbl	8.33			6	

Cement Left In Pipe	Amount	45.4 ft	Reason	Shoe Joint
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Mix Water: pH ##	Mix Water Chloride: ## ppm	Mix Water Temperature: ## °F °C
Cement Temperature: ## °F °C	Plug Displaced by: ## lb/gal kg/m3 XXXX	Disp. Temperature: ## °F °C
Plug Bumped? Yes/No	Bump Pressure: ##### psi MPa	Floats Held? Yes/No
Cement Returns: ## bbl m3	Returns Density: ## lb/gal kg/m3	Returns Temperature: ## °F °C

Comment Cement to surface at 50bbbls away bringing 135bbbls of cement to surface, final lifting pressure was 709psi brought pressure 500psi over and held for 5 mins. 30 min casing test had pressure go from 1800psi to 1857psi. Estimated Top of Tail Cement 1650'.

2.0 Real-Time Job Summary

2.1 Job Event Log

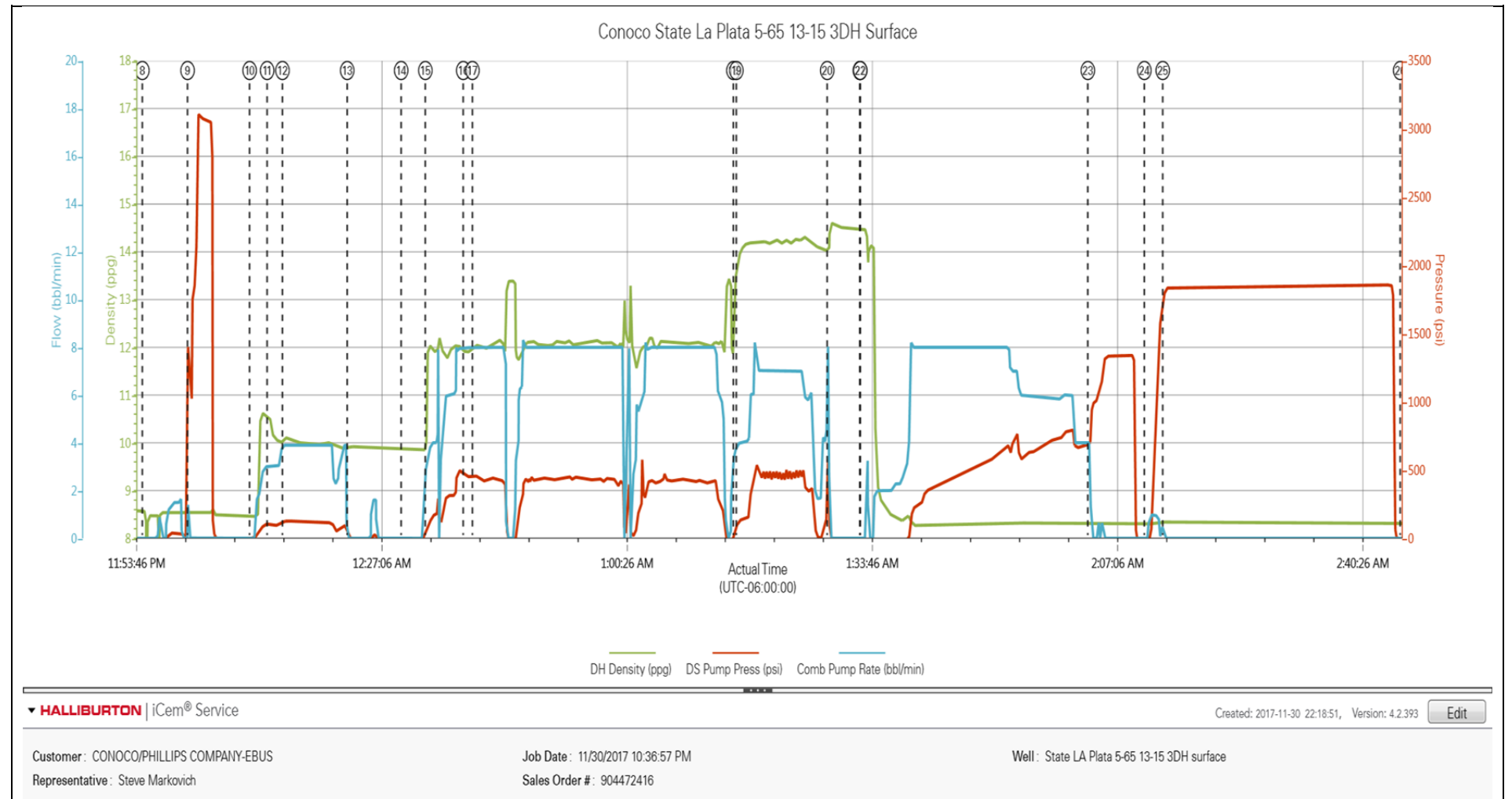
Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	DS Pump Press (psi)	Comb Pump Rate (bbl/min)	Comments
Event	1	Call Out	Call Out	11/30/2017	14:30:00	USER				Job called out with an on location time of 21:30
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	11/30/2017	19:00:00	USER				JSA with HES crew on driving safety and route to location.
Event	3	Arrive at Location from Service Center	Arrive at Location from Service Center	11/30/2017	20:15:00	USER				Arrived on location, rig still running casing. Approx. 400'
Event	4	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	11/30/2017	20:30:00	USER				JSA and hazard hunt with HES crew.
Event	5	Rig-Up Equipment	Rig-Up Equipment	11/30/2017	21:00:00	USER				Rigged up HES lines and equipment, after Conoco Safety man checked all iron to be used.
Event	6	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	11/30/2017	23:15:00	USER	0.35	-3.00	0.00	Pre rig up to the floor meeting with HES and rig crew.
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	11/30/2017	23:30:00	USER	0.36	-5.00	0.00	JSA with HES and rig crew on job procedure and job safety.
Event	8	Start Job	Start Job	11/30/2017	23:54:52	COM4	8.57	-14.00	0.00	TD 2450' TP 2439.6' FC 2394.2' 9 5/8" 36# surface casing 13.5" open hole. Estimated Top of Tail Cement 1650'
Event	9	Test Lines	Test Lines	12/1/2017	00:01:00	COM4	8.55	1156.00	0.00	Set kick outs to 500psi and check kick outs then bring pressure up to 3000psi and hold.

Event	10	Pump Spacer 1	Pump Spacer 1	12/1/2017	00:09:27	COM4	8.46	0.00	0.00	Pump 50bbls of 10ppg 8.82yield Tuned Spacer.
Event	11	Check Weight	Check weight	12/1/2017	00:11:50	COM4	10.52	101.00	3.00	Weight verified by pressurized scales.
Event	12	Check Weight	Check weight	12/1/2017	00:13:55	COM4	10.10	126.00	3.90	Weight verified by pressurized scales.
Event	13	Drop Plug	Drop Plug	12/1/2017	00:22:43	COM4	9.92	0.00	0.00	Plug pre-loaded into HES head. Plug drop and loaded in front of company rep.
Event	14	Check Weight	Check weight	12/1/2017	00:30:03	COM4	9.85	-9.00	0.00	Weight verified by pressurized scales.
Event	15	Pump Lead Cement	Pump Lead Cement	12/1/2017	00:33:20	COM4	11.90	89.00	3.30	Pump 280.4bbls (615sks) of 12ppg 2.56yield Lead Cement. Pumped at 8bbl/min 498psi.
Event	16	Check Weight	Check weight	12/1/2017	00:38:29	COM4	11.90	465.00	7.90	Weight verified by pressurized scales.
Event	17	Check Weight	Check weight	12/1/2017	00:39:44	COM4	12.03	444.00	8.00	Weight verified by pressurized scales.
Event	18	Pump Tail Cement	Pump Tail Cement	12/1/2017	01:15:12	COM4	13.47	75.00	3.70	Pump 72.2bbls (255sks) of 14.2ppg 1.59yield Tail Cement. Pumped at 7bbl/min 501psi.
Event	19	Check Weight	Check weight	12/1/2017	01:15:36	COM4	13.95	124.00	4.00	Weight verified by pressurized scales.
Event	20	Shutdown	Shutdown	12/1/2017	01:27:57	COM4	14.55	94.00	0.00	Shutdown
Event	21	Drop Top Plug	Drop Top Plug	12/1/2017	01:32:23	COM4	14.47	-49.00	0.00	Plug pre-loaded into HES head. Plug drop and loaded in front of company rep.
Event	22	Pump Displacement	Pump Displacement	12/1/2017	01:32:27	COM4	14.47	-49.00	0.00	Pump 185bbls of H2O. Pumped at 8bbl/min and slowed rate with pressure increase. Spacer to surface when displacement started,

										cement to surface at 50bbbls away bringing 135bbbls of cement to surface.
Event	23	Bump Plug	Bump Plug	12/1/2017	02:03:22	COM4	8.32	709.00	4.00	Bumped plug at 185bbbls away. Final lifting pressure was 709psi. Brought pressure 500psi over and held for 5 mins. Checked floats and after 1.5bbs back the floats held.
Event	24	Test Lines	Test Lines	12/1/2017	02:11:03	COM4	8.31	-37.00	0.00	Kicked in pump to pressure up for 1800psi casing test.
Event	25	Test Lines	Test Lines	12/1/2017	02:13:33	COM4	8.34	1814.00	0.00	1800psi casing test for 30 mins. After 30 mins pressure was at 1857psi.
Event	26	End Job	End Job	12/1/2017	02:45:50	COM4				Thank you Steve Markovich and crew.

3.0 Job Chart

3.1 Job Chart



HALLIBURTON

iCem[®] Service

CONOCOPHILLIPS COMPANY-EBUS

Date: Tuesday, December 19, 2017

State La Plata 5-65 13-15 3DH Production

Job Date: Friday, December 08, 2017

Sincerely,
Bryce Hinsch

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **State La Plata 5-65 13-15 3DH** cement **production** casing job. A pre-job safety meeting was held before the job where details of the job were discussed, potential safety hazards were reviewed, and environmental compliance procedures were outlined.

Trace cement was seen at surface.

Halliburton maintains a continuous quality improvement process and appreciates any comments or suggestions that you may have. Halliburton again thanks you for the opportunity to perform service work on this well. We hope to be your solutions provider for future projects.

Respectfully,

Halliburton [Fort Lupton]

The Road to Excellence Starts with Safety

Sold To #: 352431		Ship To #: 3781189		Quote #: 0022377215		Sales Order #: 0904482057					
Customer: CONOCO/PHILLIPS COMPANY-EBUS				Customer Rep: RICHARD PEREZ							
Well Name: STATE LA PLATA 5-65 13-15			Well #: 3DH		API/UWI #: 05-005-07259-00						
Field: WILDCAT		City (SAP): FOXFIELD		County/Parish: ARAPAHOE		State: COLORADO					
Legal Description: SE SW-13-5S-65W-1320FSL-1688FWL											
Contractor: H & P DRLG				Rig/Platform Name/Num: H & P 448							
Job BOM: 7523 7523											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA\HB41307				Srv Supervisor: Jordan Larue							
Job											
Formation Name											
Formation Depth (MD)		Top				Bottom					
Form Type						BHST					
Job depth MD		17733ft		Job Depth TVD		7983					
Water Depth				Wk Ht Above Floor		4					
Perforation Depth (MD)		From				To					
Well Data											
Description	New / Used	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft	
Casing		9.625	8.921	36	LTC	J-55	0	2440			
Casing		5.5	4.67	23	TXP-BTC	P-110	0	17718			
Open Hole Section			8.5				2440	7412			
Open Hole Section			8.5				7412	17733			
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe	5.5			17889		Top Plug	5.5		HES		
Float Shoe	5.5					Bottom Plug	5.5		HES		
Float Collar	5.5					SSR plug set	5.5		HES		
Insert Float	5.5					Plug Container	5.5	1	HES		
Stage Tool	5.5					Centralizers	5.5		HES		
Fluid Data											
Stage/Plug #: 1											
Fluid #	Stage Type	Fluid Name			Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	10.5 lb/gal Tuned Spacer III	Tuned Spacer III			60	bbl	10.5	6.47		6	
0.10 gal/bbl		D-AIR 3000L, 5 GAL PAIL (101007444)									

0.60 gal/bbl	MUSOL A, 330 GAL TOTE - (790828)								
36 gal/bbl	FRESH WATER								
86.45 lbm/bbl	BARITE, BULK (100003681)								
0.60 gal/bbl	DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)								
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
2	ElastiCem LEAD	ELASTICEM (TM) SYSTEM	935	sack	13.2	1.57		8	7.54
24.50 lbm	POZMIX A FLYASH (100003690)								
0.20 %	HALAD(R)-344, 50 LB (100003670)								
61.10 lbm	TYPE I / II CEMENT, BULK (101439798)								
0.10 %	SA-1015, 50 LB SACK (102077046)								
7.54 Gal	FRESH WATER								
0.30 %	SCR-100 (100003749)								
5 lbm	WELLIFE 708 - 2000 LB BAG (807637)								
1 lbm	SILICALITE, COMPACTED - 2200 LB (870283)								
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
3	EconoCem TAIL	ECONOCEM (TM) SYSTEM	1485	sack	13.5	1.79		8	8.73
0.30 %	HR-5, 50 LB SK (100005050)								
8.73 Gal	FRESH WATER								
0.80 %	HALAD(R)-344, 50 LB (100003670)								
25 %	SS-200 - BULK (102240841)								
24.50 lbm	POZMIX A FLYASH (100003690)								
0.10 %	SA-1015, 50 LB SACK (102077046)								
61.10 lbm	TYPE I / II CEMENT, BULK (101439798)								
0.20 %	HALAD(R)-413, 50 LB (100003738)								
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
4	MMCR Displacement	MMCR Displacement	40	bbl	8.34				
0.50 gal/bbl	MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781)								
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
5	Water	Water/BIO/ALGACIDE	433	bbl	8.33				

Cement Left In Pipe	Amount	93 ft	Reason		Shoe Joint
Mix Water:	pH ##	Mix Water Chloride:	## ppm	Mix Water Temperature:	## °F °C
Cement Temperature:	## °F °C	Plug Displaced by:	8.33 lb/gal kg/m3 XXXX	Disp. Temperature:	## °F °C
Plug Bumped?	Yes	Bump Pressure:	3650 psi MPa	Floats Held?	Yes 3.5BBLs BACK
Cement Returns:	0 bbl m3	Returns Density:	10.5 lb/gal kg/m3	Returns Temperature:	## °F °C
Comment :TOP CMT RIGHT AT SURFACE					

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Driv-Side Pump Pressure (psi)	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Pump Stage Total (bbl)	Comments
Event	1	Call Out	Call Out	12/8/2017	00:30:00	USER					ON LOCATION TIME 630
Event	2	Arrive At Loc	Arrive At Loc	12/8/2017	06:30:00	USER					RIG RUNNING CASING
Event	3	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	12/8/2017	06:45:00	USER					TALK TO COMPANY REP AND SAFETY REP
Event	4	Other	Well Info	12/8/2017	06:50:00	USER					TD-17733, TP-17718.3, FC-17621.8, PC-9.625" 36# J55, OH-8.5", CASING-5.5" 23# P110, MW-10#
Event	5	Other	Water Test	12/8/2017	06:55:00	USER					TEMP-50F, PH-6, CHLORIDES-0, SULFATES <200, IRON-0, ALKALINTY-120,
Event	6	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	12/8/2017	07:00:00	USER					JSA COMPLETED, HANDS SIGN JSA ON CEMENTING PROGRAM
Event	7	Rig-Up Equipment	Rig-Up Equipment	12/8/2017	07:15:00	USER					NO ACCIDENTS OR INJURIES
Event	8	Pre-Job Safety Meeting	Pre-Job Safety Meeting	12/8/2017	11:30:00	USER	-1.00	8.26	0.00	0.0	JSA COMPLETED, ALL PERSONNEL SIGNED SIGN UP SHEET, REVIEW PUMP SCHEDULE AND WASH UP
Event	9	Start Job	Start Job	12/8/2017	11:52:35	COM7	-4.00	8.35	0.00	0.0	
Event	10	Test Lines	Test Lines	12/8/2017	12:02:02	COM7	4961.00	8.55	0.00	2.3	PRESSURE TEST LINES TO 5000 PSI, SUCCESSFUL
Event	11	Pump Spacer 1	Pump Spacer 1	12/8/2017	12:05:03	COM7	11.00	8.10	0.00	2.3	PUMP 20 BBLS 10.5PPG TSIII
Event	12	Drop Bottom Plug	Drop Bottom Plug	12/8/2017	12:09:59	COM7	159.00	10.48	0.00	20.1	SHUTDOWN TO DROP BOTTOM PLUG, WITNESSED

BY COMPANY REP											
Event	13	Pump Spacer 1	Pump Spacer 1	12/8/2017	12:10:50	COM7	127.00	10.00	6.70	0.1	PUMP 40 BBLS 10.5PPG TSIII
Event	14	Pump Lead Cement	Pump Lead Cement	12/8/2017	12:18:13	COM7	1020.00	12.91	8.20	0.1	PUMP 261 BBLS, 935 SACKS 13.2PPG LEAD CEMENT
Event	15	Pump Tail Cement	Pump Tail Cement	12/8/2017	12:51:34	COM7	500.00	13.01	8.20	0.1	PUMP 473 BBLS, 1485 SACKS 13.5PPG TAIL CEMENT
Event	16	Drop Top Plug	Drop Top Plug	12/8/2017	14:09:28	COM7	12.00	8.28	0.00	569.0	TOP PLUG DROPPED, WITNESSED BY COMPANY REP
Event	17	Pump Displacement	Pump Displacement	12/8/2017	14:09:30	COM7	11.00	8.27	0.00	0.0	PUMP 373 BBLS FRESHWATER DISPLACEMENT, FIRST 40 BBLS WITH 20 GALLONS MMCR, REMAINDER WE METERED IN ALDACIDE AND CORROSION INHIBITOR
Event	18	Bump Plug	Bump Plug	12/8/2017	14:59:28	COM7	3019.00	8.32	3.10	366.0	BUMP PLUG AT 2650PSI, BROUGHT UP TO 3650PSI AND HELD FOR 5 MINUTES
Event	19	Check Floats	Check Floats	12/8/2017	15:06:27	USER	1582.00	8.39	0.00	366.5	FLOATS HELD, 3.5 BBLS BACK TO SURFACE
Event	20	End Job	End Job	12/8/2017	15:07:48	COM7					JOB A SUCCESS, ALL 60 BBLS OF SPACER TO SURFACE, INTERFACE OF CEMENT SEEN PRIOR TO BUMPING
Event	21	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	12/8/2017	15:20:00	USER					DISCUSS HAZARDS
Event	22	Rig-Down Equipment	Rig-Down Equipment	12/8/2017	15:25:00	USER					NO ACCIDENTS OR INJURIES
Event	23	Crew Leave Location	Crew Leave Location	12/8/2017	17:00:00	USER					CREW HEADED BACK TO YARD

3.0 Attachments

3.1 Conoco State La Plata 5-65 13-15 3DH Production Job Chart

