

HALLIBURTON

iCem® Service

BP AMERICA PROD CO-SORAC/NAG EBIZ

For: MIKE COLBERT

Date: Tuesday, June 02, 2015

TUBBS 32-6-9 A #2 PRODUCTION

TUBBS 32-6-9 A #2 PRODUCTION

TUBBS 32-6-9 A #2 PRODUCTION

Job Date: Tuesday, June 02, 2015

Sincerely,

RICKEY JOHNSON

The Road to Excellence Starts with Safety

Sold To #: 358135	Ship To #: 3658112	Quote #:	Sales Order #: 0902466160
Customer: BP AMERICA PROD CO-SORAC/NAG EBIZ		Customer Rep: MIKE COLBERT	
Well Name: TUBBS 32-6-9 A	Well #: 2	API/UWI #: 05-067-09928-00	
Field: IGNACIO-BLANCO	City (SAP): IGNACIO	County/Parish: LA PLATA	State: COLORADO
Legal Description: SW NE-9-32N-6W-2478FNL-2240FEL			
Contractor: AZTEC WELL SERVICING CO		Rig/Platform Name/Num: AZTEC 507	
Job BOM: 7523			
Well Type: COAL DE-GAS			
Sales Person: HALAMERICA\HX38199		Srcv Supervisor: Rickey Johnson	

Job

Formation Name	
Formation Depth (MD)	Top Bottom
Form Type	BHST
Job depth MD	3579ft 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
Casing		8.625	8.097	24			0	726		
Casing		5.5	4.95	15.5			0	3579		
Open Hole Section			7.875				726	3590		

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	5.5			3579	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		HES
Stage Tool	5.5				Centralizers	5.5		HES

Miscellaneous Materials

Gelling Agt	Conc	Surfactant	Conc	Acid Type	Qty	Conc
Treatment Fld	Conc	Inhibitor	Conc	Sand Type	Size	Qty

Fluid Data

Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	Chemical Wash	Chemical Wash	20	bbl	8.35					
1000 gal/Mgal		FRESH WATER								

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
2	Lead Cement	Premium Plus - Type III	210	sack	12.3	2.42		5	13.58
	2 %	CAL-SEAL 60, 50 LB BAG (101217146)							
	0.60 %	D-AIR 5000, 50 LB SACK (102068797)							
	2 %	ECONOLITE (100001580)							
	0.40 %	FE-2 (100001615)							
	0.1250 lbm	POLY-E-FLAKE (101216940)							
	13.58 Gal	FRESH WATER							
	5 lbm	KOL-SEAL, BULK (100064233)							
	0.30 %	VERSASET, 55 LB SK (101376573)							
	6 %	SALT, 100 LB BAG (100003652)							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
3	Lead Cement (with Super CBL)	Premium Plus - Type III	40	sack	12.3	2.43		5	13.61
	2 %	CAL-SEAL 60, 50 LB BAG (101217146)							
	6 %	SALT, 100 LB BAG (100003652)							
	0.30 %	VERSASET, 55 LB SK (101376573)							
	5 lbm	KOL-SEAL, BULK (100064233)							
	0.1250 lbm	POLY-E-FLAKE (101216940)							
	2 %	ECONOLITE (100001580)							
	0.40 %	FE-2 (100001615)							
	0.30 %	SUPER CBL, 50 LB PAIL (100003668)							
	0.60 %	D-AIR 5000, 50 LB SACK (102068797)							
	13.61 Gal	FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
4	Tail Cement	Premium Plus - Type III	95	sack	13.5	1.86		5	9.39
	2 %	CAL-SEAL 60, 50 LB BAG (101217146)							
	0.30 %	SUPER CBL, 50 LB PAIL (100003668)							
	0.40 %	FE-2 (100001615)							
	0.30 %	VERSASET, 55 LB SK (101376573)							
	6 %	SALT, 100 LB BAG (100003652)							
	2 %	ECONOLITE (100001580)							
	0.1250 lbm	POLY-E-FLAKE (101216940)							
	0.60 %	D-AIR 5000, 50 LB SACK (102068797)							
	9.39 Gal	FRESH WATER							
	5 lbm	KOL-SEAL, BULK (100064233)							

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal	
5	Displacement	Displacement	85.2	bbl	8.33					
Cement Left In Pipe		Amount	41 ft		Reason			Shoe Joint		
Mix Water:		pH ##	Mix Water ## ppm		Mix Water Temperature: ## °F °C			Chloride:		
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										

Summary Report



Sales Order #: 0902466160
WO #: 0902466160
PO/AFE #: ZDCS01DRL1

Crew: _____
Job Start Date: 6/2/2015

Customer: BP AMERICA PROD CO-
SORAC/NAG EBIZ
UWI / API Number: 05-067-09928-00
Well Name: TUBBS 32-6-9 A
Well No: 2

Field: IGNACIO-BLANCO
County/Parish: LA PLATA
State: COLORADO
Latitude: 37.032289
Longitude: -107.504307
Sect / Twn / Rng: 9/32/6

Job Type: CMT PRODUCTION
CASING BOM
Service Supervisor: Rickey Johnson

Cust Rep Name: MIKE COLBERT
Cust Rep Phone #:

Remarks:		
The Information Stated Herein Is Correct	Customer Representative Signature <i>M. Colbert</i>	Date <i>6-2-15</i>
	Customer Representative Printed Name <i>MIKE COLBERT</i>	

2.0 Real-Time Job Summary

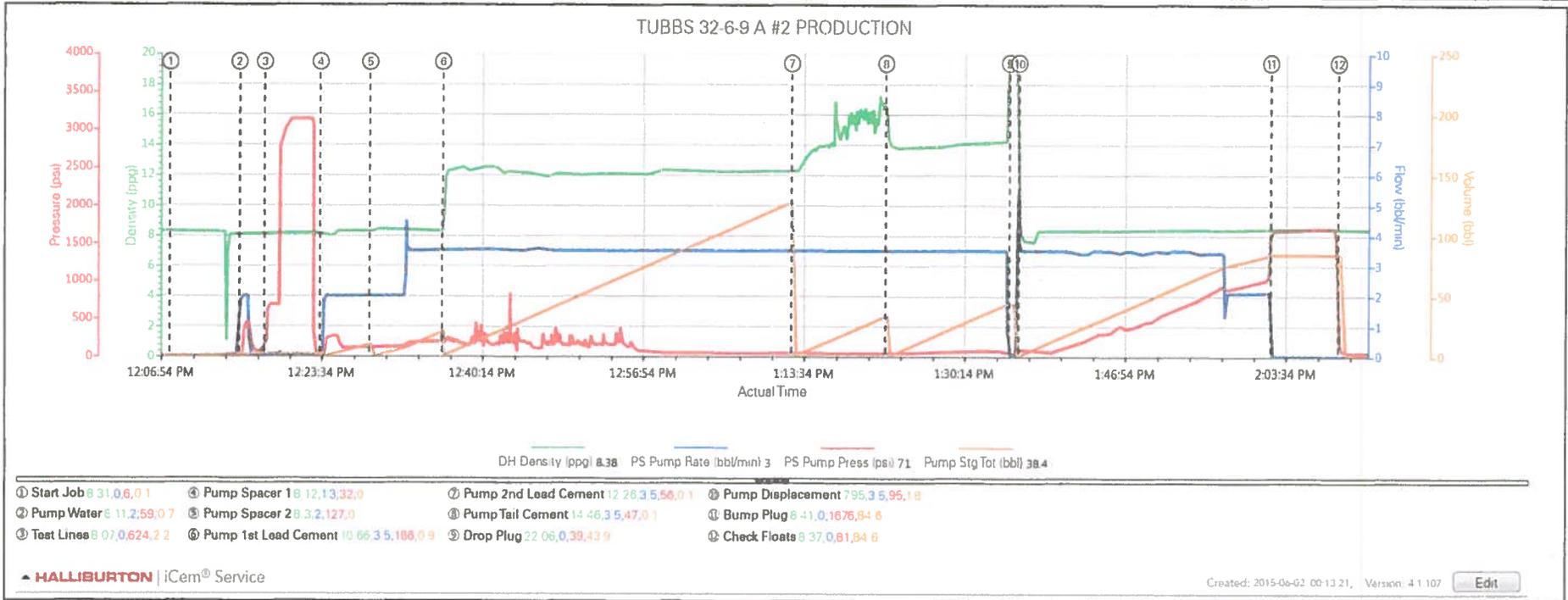
2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	PS Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Start Job	Start Job	6/2/2015	12:08:04	COM4	8.31	0.00	6.00	0.1	
Event	2	Pump Water	Pump Water	6/2/2015	12:15:15	USER	8.11	2.00	56.00	0.7	PUMPED 2 BBLS FRESH WATER TO LOAD LINES
Event	3	Test Lines	Test Lines	6/2/2015	12:17:52	COM4	8.07	0.00	612.00	2.2	PRESSURE TESTED LINES TO 700 PSI LOW AND 3100 PSI HIGH
Event	4	Pump Spacer 1	Pump Spacer 1	6/2/2015	12:23:38	COM4	8.12	1.30	32.00	0.0	PUMPED 10 BBLS FRESH WATER SPACER
Event	5	Pump Spacer 2	Pump Spacer 2	6/2/2015	12:28:45	COM4	8.30	2.00	127.00	0.0	PUMPED 20 BBLS CHEM WASH SPACER
Event	6	Pump Cement	Pump 1st Lead Cement	6/2/2015	12:36:17	COM4	10.36	3.50	182.00	0.9	PUMPED 90.5 BBLS 1ST LEAD CMT @ 12.3#, 2.42 YIELD, 13.58 GAL/SK, 210 SKS
Event	7	Pump Lead Cement	Pump 2nd Lead Cement	6/2/2015	13:12:30	COM4	12.27	3.50	54.00	0.0	PUMPED 17.3 BBLS 2ND LEAD CMT @ 12.3#, 2.43 YIELD, 13.61 GAL/SK, 40 SKS
Event	8	Pump Tail Cement	Pump Tail Cement	6/2/2015	13:22:14	COM4	14.53	3.50	46.00	0.0	PUMPED 31.5 BBLS TAIL CMT @ 13.5#, 1.86 YIELD, 9.39 GAL/SK, 95 SKS
Event	9	Drop Plug	Drop Plug	6/2/2015	13:35:08	USER	22.06	0.00	39.00	43.9	DROPPED PLUG, TATTLE TAIL INDICATOR ON PLUG CONTAINER INDICATED PLUG LEFT PLUG CONTAINER
Event	10	Pump Displacement	Pump Displacement	6/2/2015	13:36:06	COM4	7.95	3.50	95.00	1.8	PUMPED 84.2 BBLS FRESH WATER DISPLACEMENT

Event	11	Cement Returns to Surface	Cement Returns To Surface	6/2/2015	13:56:31	USER	8.35	3.50	908.00	72.6	GOT 14 BBLS GOOD CMT TO SURFACE
Event	12	Bump Plug	Bump Plug	6/2/2015	14:02:16	COM4	8.40	0.00	1673.00	84.6	BUMPED PLUG @ 990 PSI TOOK UP TO 1680 PSI
Event	13	Check Floats	Check Floats	6/2/2015	14:09:14	USER	8.37	0.00	86.00	84.6	CHECKED FLOATS THEY HELD GOT 1/2 BBL BACK

2.0 Attachments

2.1 TUBBS 32-6-9 A #2 PRODUCTION-Custom Results.png



Job Information

Request/Slurry	2246177/1	Rig Name	AZTEC WELL SERVICING #507	Date	01/JUN/2015
Submitted By	Derek James	Job Type	Production Casing	Bulk Plant	
Customer	BP	Location		Well	Tubbs 32-6-9 A 2

Well Information

Casing/Liner Size	5.5 in / 139.7 mm	Depth MD	1088 m / 3570 ft	BHST	47°C / 117°F
Hole Size	7.875 in / 200.025 mm	Depth TVD	944 m / 3097 ft	BHCT	36°C / 96°F
Pressure	124 bar / 1803 psi				

Drilling Fluid Information

Mud Supplier Name	AES Drilling Fluids	Mud Trade Name	Density
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Cement Information - Lead Design

Conc	UOM	Cement/Additive	Sample Type	Sample Date	Lot No.	Cement Properties		
		GCC Type III	Bulk Blend	01.06.15	14040-OTB	Slurry Density	12.3	lbm/gal
		Fresh Water	Chemicals	15.01.15	2015	Slurry Yield	2.4219	ft3/sack
		D-Air 5000	Bulk Blend	01.06.15	2014213AC	Water Requirement	13.5784	gal/sack
		Fe-2 (citric acid)	Bulk Blend	01.06.15	6040624	Total Mix Fluid	13.58	gal/sack
		Kol-Seal	Bulk Blend	01.06.15	7987			
		Pol-E-Flake	Bulk Blend	01.06.15	6/1/2015			
		Econolite (Powder - PB)	Bulk Blend	01.06.15	44243004	Water Source	Fresh Water	
		Cal-Seal 60	Bulk Blend	01.06.15	4/1/2037	Water Chloride		
		NaCl (Sodium Chloride) Salt	Bulk Blend	01.06.15	02615ADCAA			
		VERSASET (PB)	Bulk Blend	01.06.15	249-16-2			

Operation Test Results Request ID 2246177/1

Mixability (0 - 5) - 0 is not mixable, Request Test ID:32724513 02/JUN/2015

Mixability rating (0 - 5)	Avg rpm mixing under load (~12,000)
5	12000

Thickening Time, Request Test ID:32724514 02/JUN/2015

Temp (°F)	Pressure (psi)	Reached in (min)	Start BC	30 Bc (hh:mm)	40 Bc (hh:mm)	50 Bc (hh:mm)	70 Bc (hh:mm)	100 Bc (hh:mm)
97	1803	21	2	3:11	3:20	3:34	3:46	5:56

UCA Comp. Strength, Request Test ID:32724515 04/JUN/2015

End Temp (°F)	Pressure (psi)	50 psi (hh:mm)	100 psi (hh:mm)	500 psi (hh:mm)	8 hr CS (psi)	12 hr CS (psi)	16 hr CS (psi)	24 hr CS (psi)	48 hr CS (psi)	End CS (psi)	End Time (hrs)
80	3000	6:35	7:24	13:34	145.3	413.3	611.1	801.07	974.4	1047.66	72

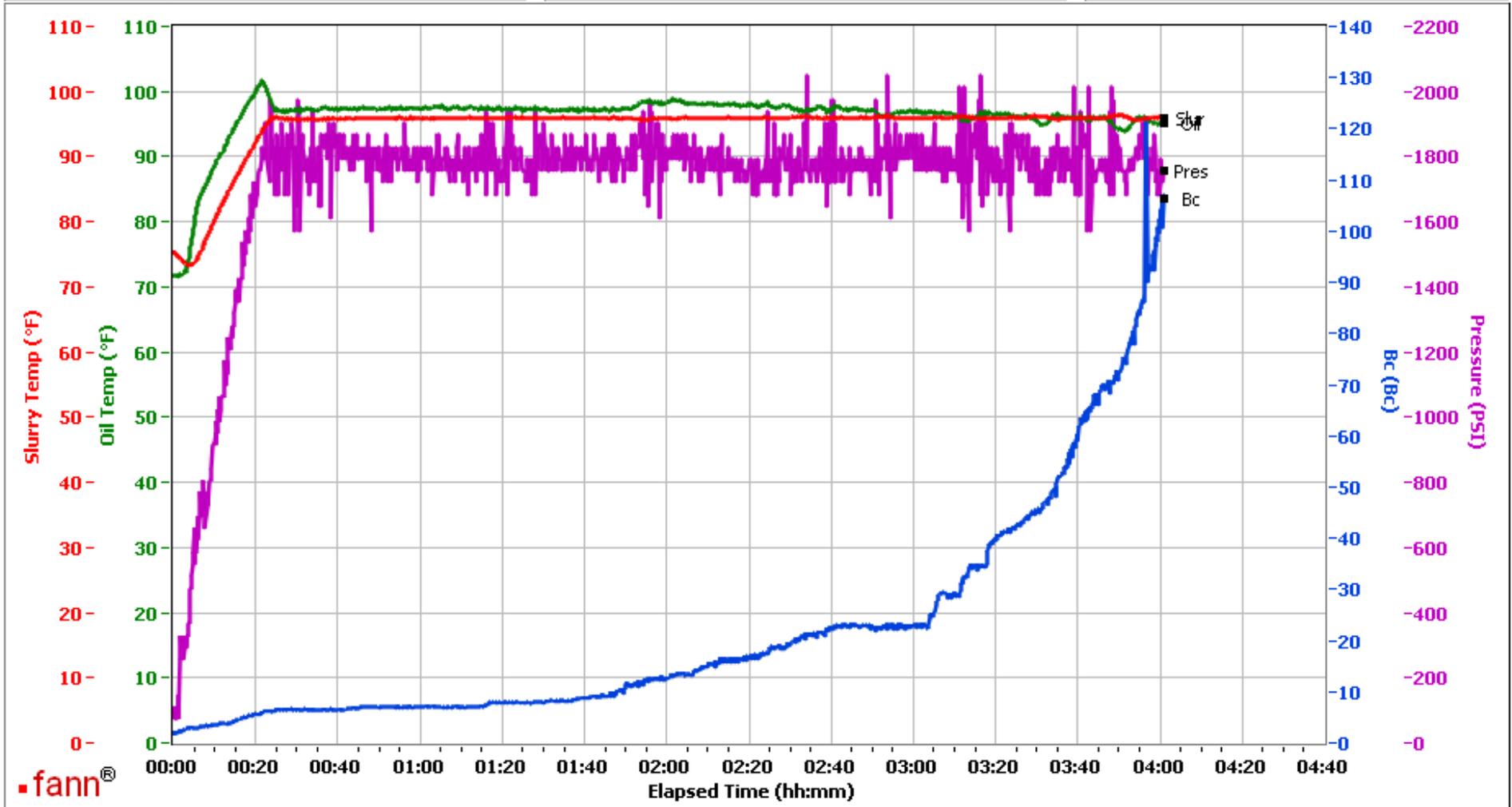
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Farmington

Fields	Values
Project Name	FM2246117-1 BP Tubbs Lead Bulk 12.3 ppg
Test ID	2246177-1
Request ID	
Tested by	MJ
Customer	BP
Well No	Tubbs 32-6-9 A 2
Rig	
Casing/Liner Size	

Fields	Values
Job Type	
Cement Type	III
Cement Weight	Standard
Test Date	06/01/15
Test Time	06:12 PM
Temp. Units	degF
Pressure Units	PSI
SW Version	2.0.2.206

Events	Results
30.00 Bc	03h:11m
40.00 Bc	03h:20m
50.00 Bc	03h:34m
70.00 Bc	03h:46m
100.00 Bc	03h:56m
00h:30m	6.31
01h:00m	7.07
01h:30m	7.88



Data File C:\Documents and Settings\M290\Desktop\TT Graphs\FM2246117-1 BP Tubbs Lead Bulk 12.3 ppg.tdms

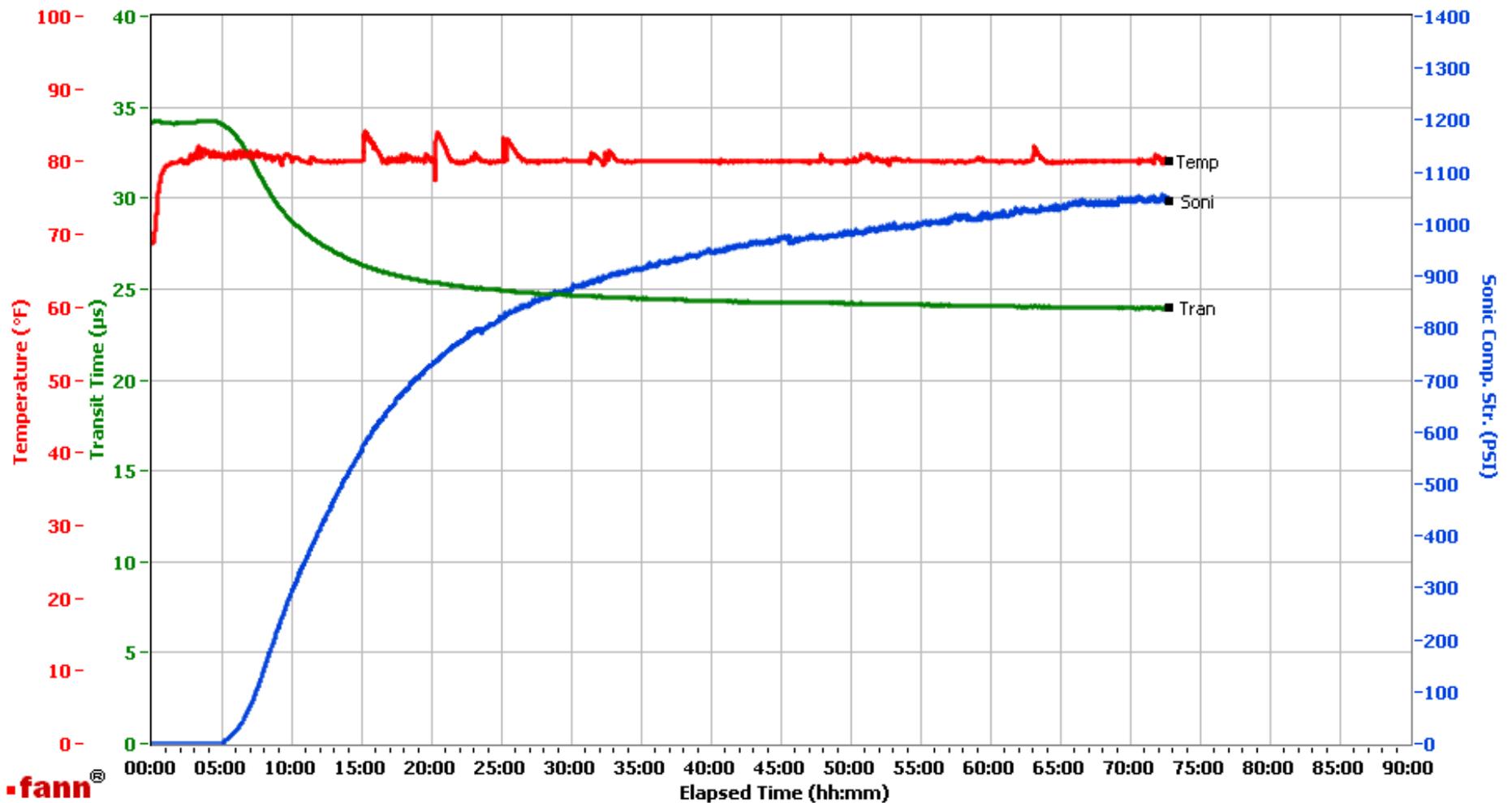
Comments 12.3 ppg

Farmington

Fields	Values
Project Name	FM2246177-1 UCA BP Tubbs Lead Bulk 12.3
Test ID	2246177-1
Request ID	
Tested by	MJ
Customer	BP
Well No	Tubbs 32-6-9-A 2
Rig	
Casing/Liner Size	

Fields	Values
Job Type	
Cement Type	III
Cement Weight	Light Weight
Test Date	6/1/2015
Test Time	5:09 PM
Temp. Units	degF
Pressure Units	PSI

Events	Results
50.00 PSI	06h:35m
100.00 PSI	07h:24m
500.00 PSI	13h:34m
1000.00 PSI	56h:50m
72h:00m	1047.66
12h:00m	413.30
24h:00m	801.07
48h:00m	974.40



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Data File C:\Documents and Settings\UCA\My Documents\FM2246177-1 UCA BP Tubbs Lead Bulk 12.3 ppg.tdms

Comments 12.3 ppg

Job Information

Request/Slurry	2246178/1	Rig Name	AZTEC WELL SERVICING #507	Date	01/JUN/2015
Submitted By	Derek James	Job Type	Production Casing	Bulk Plant	
Customer	BP	Location		Well	Tubbs 32-6-9 A 2

Well Information

Casing/Liner Size	5.5 in / 139.7 mm	Depth MD	1095 m / 3593 ft	BHST	47°C / 117°F
Hole Size	7.875 in / 200.025 mm	Depth TVD	943 m / 3093 ft	BHCT	36°C / 96°F
Pressure	124 bar / 1801 psi				

Drilling Fluid Information

Mud Supplier Name	AES Drilling Fluids	Mud Trade Name		Density	
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Cement Information - Lead Design ✓

Conc	UOM	Cement/Additive	Sample Type	Sample Date	Lot No.	Cement Properties		
		GCC Type III	Bulk Blend	01.06.15	14040-OTB	Slurry Density	12.3	lbm/gal
		Fresh Water	Chemicals	15.01.15	2015	Slurry Yield	2.4277	ft3/sack
		D-Air 5000	Bulk Blend	01.06.15	2014213AC	Water Requirement	13.6092	gal/sack
		Fe-2 (citric acid)	Bulk Blend	01.06.15	6040624	Total Mix Fluid	13.61	gal/sack
		Kol-Seal	Bulk Blend	01.06.15	7987			
		Pol-E-Flake	Bulk Blend	01.06.15	6/1/2015			
		Econolite (Powder - PB)	Bulk Blend	01.06.15	44243004	Water Source	Fresh Water	
		Cal-Seal 60	Bulk Blend	01.06.15	4/1/2037	Water Chloride		
		NaCl (Sodium Chloride) Salt	Bulk Blend	01.06.15	02615ADCAA			
		VERSASET (PB)	Bulk Blend	01.06.15	249-16-2			
		SUPER CBL	Bulk Blend	01.06.15	14L0057(114)			

Operation Test Results Request ID 2246178/1

Mixability (0 - 5) - 0 is not mixable, Request Test ID:32724516 02/JUN/2015

Mixability rating (0 - 5)	Avg rpm mixing under load (~12,000)
5	12000

Thickening Time, Request Test ID:32724517 02/JUN/2015

Temp (°F)	Pressure (psi)	Reached in (min)	Start BC	30 Bc (hh:mm)	40 Bc (hh:mm)	50 Bc (hh:mm)	70 Bc (hh:mm)	100 Bc (hh:mm)
96	1803	22	3	3:17	3:24	3:38	3:55	4:07

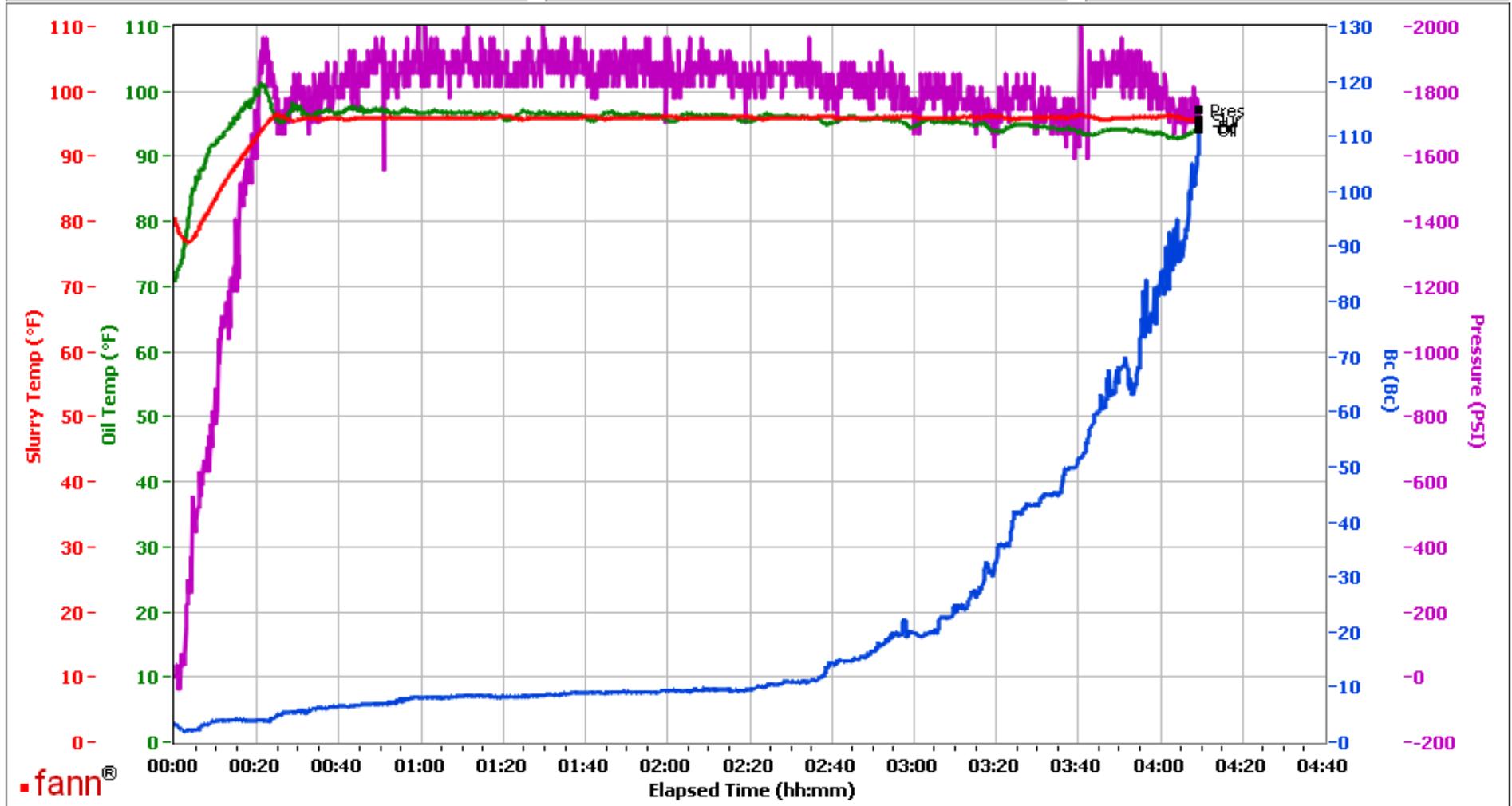
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Farmington

Fields	Values
Project Name	2246178-1 BP Tubbs Lead Bulk 12.3 ppg
Test ID	2246178-1
Request ID	
Tested by	MJ
Customer	BP
Well No	Tubbs 32-6-9 A 2
Rig	
Casing/Liner Size	

Fields	Values
Job Type	
Cement Type	III
Cement Weight	Standard
Test Date	06/01/15
Test Time	06:23 PM
Temp. Units	degF
Pressure Units	PSI
SW Version	2.0.2.206

Events	Results
30.00 Bc	03h:17m
40.00 Bc	03h:24m
50.00 Bc	03h:38m
70.00 Bc	03h:55m
100.00 Bc	04h:07m
00h:30m	5.51
01h:00m	8.09
01h:30m	8.50



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Data File	C:\Documents and Settings\M290\Desktop\TT graphs\2246178-1 BP Tubbs Lead Bulk 12.3 ppg.tdms
Comments	12.3 ppg

Job Information

Request/Slurry	2246179/1	Rig Name	AZTEC WELL SERVICING #507	Date	01/JUN/2015
Submitted By	Derek James	Job Type	Production Casing	Bulk Plant	
Customer	BP	Location		Well	Tubbs 32-6-9 A 2

Well Information

Casing/Liner Size	5.5 in / 139.7 mm	Depth MD	1095 m / 3593 ft	BHST	47°C / 117°F
Hole Size	7.875 in / 200.025 mm	Depth TVD	943 m / 3093 ft	BHCT	36°C / 96°F
Pressure	124 bar / 1801 psi				

Drilling Fluid Information

Mud Supplier Name	AES Drilling Fluids	Mud Trade Name		Density	
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Cement Information - Tail Design

Conc	UOM	Cement/Additive	Sample Type	Sample Date	Lot No.	Cement Properties		
		GCC Type III	Bulk Blend	01.06.15	14040-OTB	Slurry Density	13.5	lbm/gal
		Fresh Water	Chemicals	15.01.15	2015	Slurry Yield	1.8637	ft3/sack
		D-Air 5000	Bulk Blend	01.06.15	2014213AC	Water Requirement	9.3864	gal/sack
		Fe-2 (citric acid)	Bulk Blend	01.06.15	6040624	Total Mix Fluid	9.39	gal/sack
		Kol-Seal	Bulk Blend	01.06.15	7987			
		Pol-E-Flake	Bulk Blend	01.06.15	6/1/2015			
		Econolite (Powder - PB)	Bulk Blend	01.06.15	44243004	Water Source	Fresh Water	
		Cal-Seal 60	Bulk Blend	01.06.15	4/1/2037	Water Chloride		
		NaCl (Sodium Chloride) Salt	Bulk Blend	01.06.15	02615ADCAA			
		VERSASET (PB)	Bulk Blend	01.06.15	249-16-2			
		SUPER CBL	Bulk Blend	01.06.15	14L0057(114)			

Operation Test Results Request ID 2246179/1

Mixability (0 - 5) - 0 is not mixable, Request Test ID:32724518 **02/JUN/2015**

Mixability rating (0 - 5)	Avg rpm mixing under load (~12,000)
5	12000

Thickening Time, Request Test ID:32724519 **02/JUN/2015**

Temp (°F)	Pressure (psi)	Reached in (min)	Start BC	30 Bc (hh:mm)	40 Bc (hh:mm)	50 Bc (hh:mm)	70 Bc (hh:mm)	100 Bc (hh:mm)
96	1801	22	13	0:19	0:53	2:15	2:53	3:21

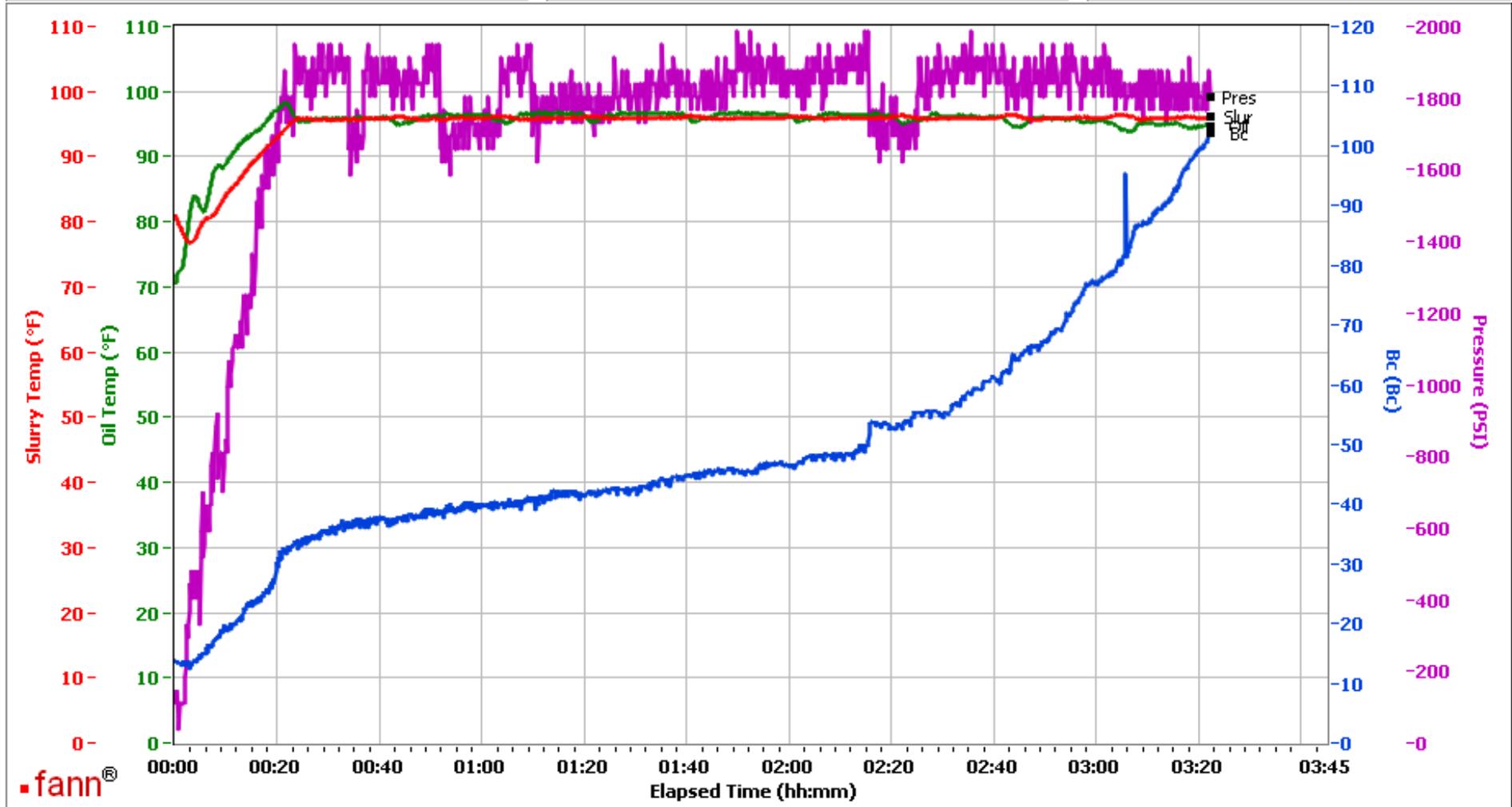
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Farmington

Fields	Values
Project Name	FM2246179-1 BP Tubbs Tail bulk 13.5 ppg
Test ID	2246179-1
Request ID	
Tested by	MJ
Customer	BP
Well No	Tubbs 23-6-9 A 2
Rig	
Casing/Liner Size	

Fields	Values
Job Type	
Cement Type	III
Cement Weight	Standard
Test Date	06/01/15
Test Time	08:17 PM
Temp. Units	degF
Pressure Units	PSI
SW Version	2.0.2.206

Events	Results
30.00 Bc	00h:19m
40.00 Bc	00h:53m
50.00 Bc	02h:15m
70.00 Bc	02h:53m
100.00 Bc	03h:21m
00h:30m	34.95
01h:00m	39.65
01h:30m	42.86



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Data File	C:\Documents and Settings\M290\Desktop\TT Graphs\FM2246179-1 BP Tubbs Tail bulk 13.5 ppg.tdms
Comments	13.5 ppg