

**EXXONMOBIL CORPORATION**

**HOUSTON, Texas**

PCU 197-36A3

H&P 326

## **Post Job Summary**

### **Cement Production Casing**

Date Prepared: April 12, 2011  
Version: 2

Service Supervisor: MCCONKIE, TRAVIS

Submitted by: Joshua Anglin

**HALLIBURTON**

# HALLIBURTON

## Wellbore Geometry

Job Tubulars					MD		TVD		Excess %	Shoe Joint Length ft
Type	Description	Size in	ID in	Wt lbm/ft	Top ft	Bottom ft	Top ft	Bottom ft		
Casing	Intermediate Casing	7.00	6.276	26.00	0	9,350	0	9,236		80.00
Open Hole Section	Production Open Hole		6.125		9,350	13,738	9,236	13,624	350	
Casing	Production Casing	4.50	3.826	15.10	0	13,713	0	13,599		80.00

## Pumping Schedule

Fluid #	Fluid Type	Fluid Name	Density lbm/gal	Avg Rate bbl/min	Volume
1	Spacer	TUNED SPACER III	10.00	6.00	40.0 bbl
2	Cement Slurry	Lightweight Lead Cement	10.50	6.00	215.0 sacks
3	Cement Slurry	Lightweight Tail Cement	12.00	6.00	745.0 sacks
4	Spacer	NaCl Displacement	8.44	6.00	193.0 bbl

## Fluids Pumped

**Stage/Plug # 1    Fluid 1:**    TUNED SPACER III  
TUNED SPACER III - SBM (483826)  
59.8 lbm/bbl    Barite

Fluid Density: 10.00 lbm/gal  
Fluid Volume: 40.00 bbl

**Stage/Plug # 1    Fluid 2:**    Lightweight Lead Cement  
TUNED LIGHT (TM) SYSTEM  
0.65 lbm    HR-601

Fluid Weight: 10.50 lbm/gal  
Slurry Yield: 2.37 ft<sup>3</sup>/sack  
Total Mixing Fluid: 10.10 Gal  
Surface Volume: 215.0 sacks  
Calculated Fill: 3,002.66 ft  
Calculated Top of Fluid: 6,936.42 ft

**Stage/Plug # 1    Fluid 3:**    Lightweight Tail Cement  
VARICEM (TM) CEMENT  
0.22 %    Fe-2

Fluid Weight: 12.00 lbm/gal  
Slurry Yield: 2.17 ft<sup>3</sup>/sack  
Total Mixing Fluid: 11.95 Gal  
Surface Volume: 745.0 sacks  
Calculated Fill: 3,799.92 ft  
Calculated Top of Fluid: 9,939.08 ft

**Stage/Plug # 1    Fluid 4:**    NaCl Displacement  
DISPLACEMENT FLUID  
7.15 lbm/bbl    Salt

Fluid Density: 8.44 lbm/gal  
Fluid Volume: 193.00 bbl

# HALLIBURTON

## ***Job Summary***

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### **Job Information**

<b>Job Start Date</b>	3/10/2011 12:52:00 PM
<b>Job MD</b>	13,713.0 ft
<b>Job TVD</b>	13,599.0 ft
<b>Height of Plug Container/Swage Above Rig Floor</b>	6.7 ft
<b>Surface Temperature at Time of Job</b>	40 degF
<b>Mud Type</b>	Water Based Mud
<b>Actual Mud Density</b>	10 lbm/gal
<b>Time Circulated before job</b>	2.00 hour(s)
<b>Mud Volume Circulated</b>	600.00 bbl
<b>Rate at Which Well was Circulated</b>	5.000 bbl/min
<b>Units of Gas Detected While Circulating</b>	1000 API Gas Units
<b>Pipe Movement During Hole Circulation</b>	Reciprocated
<b>Time From End Mud Circ. to Job Start</b>	2.00 minute
<b>Calculated Displacement</b>	193.70 bbl
<b>Annular flow After Job? (Water/Gas)</b>	No

### **Cementing Equipment**

<b>Did Float Equipment Hold?</b>	Yes
<b>Plug set used?</b>	Yes
<b>Did Plugs Bump?</b>	Yes

## Service Supervisor Reports

### Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Volume	Pressure (psig)	Comments
03/09/2011 12:00		Call Out				CREW CALLED OUT TO LOCATION
03/09/2011 14:00		Pre-Convoy Safety Meeting				SAFETY MEETING WITH CREW ABOUT TRAVEL TO WHITE RIVER MAN CAMP
03/09/2011 14:30		Crew Leave Yard				CREW DEPARTS YARD FOR WHITE RIVER MAN CAMP
03/09/2011 18:00		Arrive At Loc				CREW ARRIVES AT WHITE RIVER MAN CAMP TO PICK UP BULK EQUIPMENT
03/09/2011 19:00		Pre-Convoy Safety Meeting				SAFETY MEETING WITH CREW ABOUT TRAVEL FROM WHITE RIVER MAN CAMP TO LOCATION
03/09/2011 19:30		Crew Leave Yard				CREW DEPARTS WHITE RIVER MAN CAMP FOR LOCATION
03/09/2011 21:00		Arrive At Loc				CREW ARRIVES ON LOCATION, RIG IS RUNNING CASING, AND HAS ABOUT 40 JOINTS LEFT TO RUN
03/09/2011 21:30		Assessment Of Location Safety Meeting				CREW WALKS AROUND LOCATION LOOKING FOR RISKS, AND PREFORMS SPOTTING EQUIPMENT JSA, AND PRE RIG UP JSA
03/09/2011 22:00		Pre-Rig Up Safety Meeting				PRE RIG UP SAFETY MEETING WITH CREW ABOUT RIGGING UP EQUIPMENT, CREW WILL RIG UP ALL EQUIPMENT AND RUN HARD LINES TO RED ZONE
03/10/2011 09:00		Pre-Rig Up Safety Meeting				PRE RIG UP JSA PREFORMED FOR LIFTING IRON TO RIG FLOOR AND RIGGING UP FLOOR
03/10/2011 11:00		Rig-Up Equipment				START RIGGING UP FLOOR AND STAB PLUG CONTAINER
03/10/2011 12:30		Rig-Up Completed				RIG UP COMPLETE
03/10/2011 12:35		Pre-Job Safety Meeting				PRE JOB SAFETY MEETING WITH RIG CREW AND JSA'S
03/10/2011 12:52	1	Pressure Test			182.0	START LOW PRESSURE TEST

# HALLIBURTON

Date/Time	Chart #	Activity Code	Pump Rate	Volume	Pressure (psig)	Comments
03/10/2011 12:55	2	Pressure Test			175.0	END LOW PRESSURE TEST
03/10/2011 12:58	3	Pressure Test			4782.0	START HIGH PRESSURE TEST
03/10/2011 13:03	4	Pressure Test			4701.0	END HIGH PRESSURE TEST
03/10/2011 13:05		Circulate Well				RIG STARTS TO CIRCULATE WELL
03/10/2011 14:45		Other				TOLD BY CUSTOMER TO START MIXING UP SPACER AND GET READY TO PUMP JOB
03/10/2011 14:50	5	Pump Spacer	4	40	355.0	START PUMPING TUNED SPACER @ 10.0 LBS/GAL
03/10/2011 14:58	6	Shutdown				SHUTDOWN TO DROP BOTTOM PLUG
03/10/2011 15:00	7	Pump Lead Cement	5	90	617.0	START PUMPING LEAD CEMENT @ 10.5 LBS/GAL, 2.37 YLD, 10.01 WR, 215 SKS, TOTAL VOLUME PUMPED 85 BBLS
03/10/2011 15:16	8	Pump Tail Cement	5	287	674.0	START PUMPING TAIL CEMENT @ 12.0 LBS/GAL, 2.17 YLD, 11.95 WR, 745 SKS TOTAL VOLUME PUMPED 275 BBLS
03/10/2011 16:09	9	Shutdown				SHUTDOWN TO DROP TOP PLUG AND CLEAN PUMPS AND LINES
03/10/2011 16:11	10	Clean Lines				START CLEANING PUMPS AND LINES
03/10/2011 16:14	11	Clean Lines				END CLEANING PUMPS AND LINES
03/10/2011 16:16	12	Pump Displacement	6	193	.0	START PUMPING FRESH WATER DISPLACEMENT WITH 7.15 LBS/BBL SALT
03/10/2011 16:30	13	Slow Rate	5	193	1286.0	SLOW RATE TO 5.0 BPM
03/10/2011 16:38	14	Slow Rate	4	193	1367.0	SLOW RATE TO 4.0 BPM
03/10/2011 16:46	15	Slow Rate	3	193	1861.0	SLOW RATE TO 3.0 BPM
03/10/2011 16:49	16	Slow Rate	2	193	1912.0	SLOW RATE TO 2.0 BPM
03/10/2011 16:54	17	Slow Rate	1.5	193	1879.0	SLOW RATE TO 1.5 BPM
03/10/2011 17:01	18	Bump Plug	1.5	193	1950.0	LAND PLUG @ 1950 PSI, KICKED PUMPES OUT @ 2600 PSI

# HALLIBURTON

Date/Time	Chart #	Activity Code	Pump Rate	Volume	Pressure (psig)	Comments
03/10/2011 17:06	19	Check Floats			2801.0	CHECK FLOATS, FLOATS HELD WITH 2.0 BBLS BACK
03/10/2011 17:20		Post-Job Safety Meeting (Pre Rig-Down)				SAFETY MEETING WITH CREW ABOUT RIGGING DOWN JOB AND JSA
03/10/2011 17:30		Post-Job Safety Meeting (Pre Rig-Down)				PREFORMED POST JOB JSA WITH RIG CREW ABOUT RIGGING DOWN FLOOR AND LOWERING EQUIPMENT TO THE GROUND
03/10/2011 18:00		Rig-Down Equipment				START RIGGING DOWN EQUIPMENT
03/10/2011 20:30		Rig-Down Completed				RIG DOWN COMPLETE
03/10/2011 20:45		Pre-Convoy Safety Meeting				PREFORM PRE CONVOY JSA WITH CREW, SAFETY MEETING WITH CREW ABOUT TRAVEL BACK TO YARD
03/10/2011 21:00		Crew Leave Location				CREW DEPARTS LOCATION FOR YARD

### The Road to Excellence Starts with Safety

<b>Sold To #:</b> 331699	<b>Ship To #:</b> 2795938	<b>Quote #:</b>	<b>Sales Order #:</b> 7999176
<b>Customer:</b> EXXONMOBIL CORPORATION		<b>Customer Rep:</b> Kelly, Whitnee	
<b>Well Name:</b> PCU		<b>Well #:</b> 197-36A3	<b>API/UWI #:</b> 05103111820000
<b>Field:</b> PICEANCE CREEK	<b>City (SAP):</b> MEEKER	<b>County/Parish:</b> Rio Blanco	<b>State:</b> Colorado
<b>Legal Description:</b> Section 36 Township 1S Range 97W			
<b>Contractor:</b> H&P		<b>Rig/Platform Name/Num:</b> 326	
<b>Job Purpose:</b> Cement Production Casing			
<b>Well Type:</b> Development Well		<b>Job Type:</b> Cement Production Casing	
<b>Sales Person:</b> TURNER, JAMIE		<b>Srvc Supervisor:</b> MCCONKIE, TRAVIS	<b>MBU ID Emp #:</b> 471264

### Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
ANGLIN, JOSHUA B	7	462343	ARIZOLA, EDWARD Alan	24	468545	CHANEY, DAVID E	24	483674
ESTEP, KENNETH	24	121420	MCCONKIE, TRAVIS Terry	24	471264	SARVER, ZACHARY S	24	219539
WHITE, KAMEREON V	24	475856						

### Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10897881	45 mile	10948689	45 mile	11062230	45 mile	11076824	45 mile
11307422	45 mile	11410666	45 mile				

### Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
3-9-11	3	0	3-10-11	23	5			
<b>TOTAL</b>			Total is the sum of each column separately					

### Job

Formation Name	Formation Depth (MD)	Top	Bottom	Form Type	Job depth MD	Job Depth TVD	Water Depth	Perforation Depth (MD)	From	To	Deparated Loc
				BHST	13713. ft	13599 ft					
						6.7 ft					

### Job Times

Date	Time	Time Zone
09 - Mar - 2011	13:00	MST
09 - Mar - 2011	21:00	MST
10 - Mar - 2011	12:52	MST
10 - Mar - 2011	17:06	MST
10 - Mar - 2011	21:00	MST

### Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Production Open Hole				6.125				9350.	13738.	9236.	13624.
Intermediate Casing	Unknown		7.	6.276	26.	HYDRIL - SERIES 500 TYPE 513	P-110	.	9350.	.	9236.
Production Casing	Unknown		4.5	3.826	15.1	LTC	P-110	.	13713.	.	13599.

### Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug	4 ½	1	Weath
Float Collar	4 ½	1	Weath	13709	Bridge Plug					Bottom Plug	4 ½	1	Weath
Float Collar	4 ½	1	Weath	13624	Retainer					SSR plug set			
Insert Float										Plug Container	4 ½	1	HES

**HALLIBURTON**

## Cementing Job Summary

Stage Tool									Centralizers			
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 ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	TUNED SPACER III	TUNED SPACER III - SBM (483826)				40.00	bbl	10.	.0	.0	6.0	
	38.32 gal/bbl	FRESH WATER										
	59.8 lbm/bbl	BARITE, 100 LB SK (100003680)										
2	Lightweight Lead Cement	TUNED LIGHT (TM) SYSTEM (452984)				215.0	sacks	10.5	2.37	10.1	6.0	10.1
	0.65 lbm	HR-601, 50 LB BAG (101328348)										
	10.1 Gal	FRESH WATER										
3	Lightweight Tail Cement	VARICEM (TM) CEMENT (452009)				745.0	sacks	12.	2.17	11.95	6.0	11.95
	11.95 Gal	FRESH WATER										
	0.22 %	FE-2 (100001615)										
4	NaCl Displacement				193.00	bbl	8.44	.0	.0	6.0		
	7.15 lbm/bbl	SALT, 100 LB BAG (100003652)										
Calculated Values		Pressures			Volumes							
Displacement	193	Shut In: Instant			Lost Returns		Yes	Cement Slurry		Pad		
Top Of Cement	0	5 Min			Cement Returns		0	Actual Displacement		Treatment		
Frac Gradient		15 Min			Spacers			Load and Breakdown		Total Job		
Rates												
Circulating	5	Mixing			5	Displacement		5	Avg. Job		5	
Cement Left In Pipe		Amount	88.89 ft	Reason	Shoe Joint							
Frac Ring # 1 @	ID	Frac ring # 2 @	ID	Frac Ring # 3 @	ID	Frac Ring # 4 @	ID					
The Information Stated Herein Is Correct					Customer Representative Signature							

Summit  
Version:

Tuesday, April 12, 2011 10:54:00



# HALLIBURTON

## Lab Data

# HALLIBURTON

## Cementing Rockies, Meeker

## LAB RESULTS - Lead

### Job Information

Request/Slurry	131797/2	Rig Name	H&P 326	Date	27/FEB/2011
Submitted By	Isaac Whorl	Job Type	Production Casing	Bulk Plant	Meeker
Customer	ExxonMobil	Location	Rio Blanco	Well	PCU 197-36A3

### Well Information

Casing/Liner Size	4 1/2"	Depth MD	13739 ft	BHST	288 F
Hole Size	6 1/8"	Depth TVD	13629 ft	BHCT	224 F

### Cement Information - Lead Design

Conc	UOM	Cement/Additive	Sample Type	Sample Date	Lot No.	Cement Properties		
		<b>Tuned Light</b>				Slurry Density	10.50	PPG
19.5	%	> HGS 10000 (PB)	Bulk	Mar 01, 2011	98021229905	Slurry Yield	2.37	ft3/sk
13	%	> Silicalite - Compacted	Bulk	Mar 01, 2011		Water Requirement	10.12	GPS
90	%	> TXI Lightweight	Bulk	Mar 01, 2011	12-26-10	Water Source	Field (Fresh) Water	
100.00	% BWO	Cement Blend						
0.100	lb/sk	CFR-3	Bulk	Mar 01, 2011	06111006			
0.600	lb/sk	D-Air 3000	Bulk	Mar 01, 2011	2010326AC			
0.700	lb/sk	HALAD-344 (PB)	Bulk	Mar 01, 2011	BO321			
0.550	lb/sk	HR-601	Bulk	Mar 01, 2011	HR01X22S3JP			
10.12	gal/sack	Field (Fresh) Water	Lab	Feb 18, 2011	1-18-2011			

### Operation Test Results Request ID 131797/2

#### UCA Comp. Strength, Request Test ID:1338129, Historical Data

End Temp (°F)	Pressure (psi)	50 psi (hh:mm)	500 psi (hh:mm)	12 hr CS (psi)	24 hr CS (psi)	48 hr CS (psi)	End CS (psi)	End Time (hrs)
257	3,000	03:52	04:06	1,052	1,063	1,091	1,139	72

#### Thickening Time, Request Test ID:1338127, Historical Data

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)
224	6,585	39	11	04:19	04:21	04:21	04:24	04:24

#### Free Water, Request Test ID:1338131, Historical Data

Test Temp (°F)	% FW 45 Inc	Conditioning time
180	0	30

0 channeling, 0 settling, Trace FW.

#### API Rheology, Request Test ID:1338130, Historical Data

Temp (°F)	600	300	200	100	60	30	6	3	Cond Time (min)	PV/YP
80	123	69	50	30	22	14	8	8	20	61.9 / 8.5

#### API Fluid Loss, Request Test ID:1338132, Historical Data

Test Temp (°F)	Test Pressure (psi)	Test Time (min)	Meas. Vol (< 30 min, cc)	Extr. ISO FL (cc/30 min)	Conditioning time (min)
185	1,000	30	41	82	30

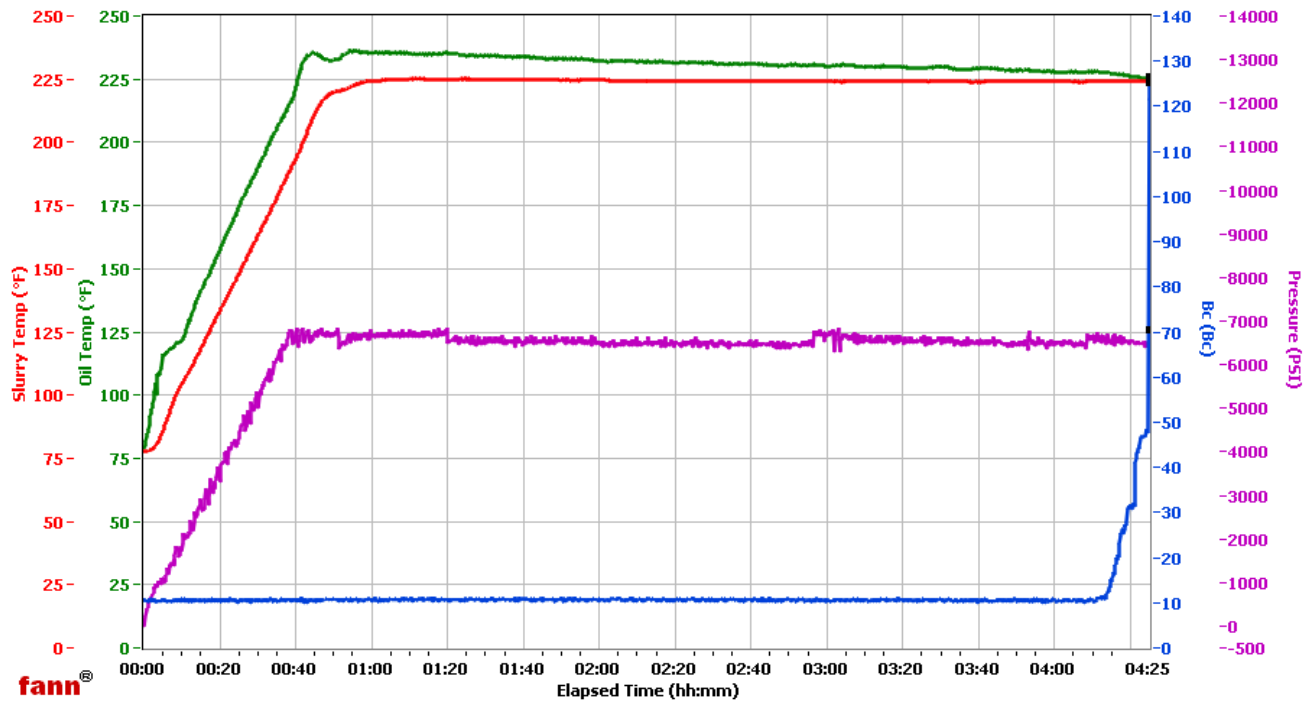
# HALLIBURTON

## WRCR

Fields	Values
Project Name	ExxonMobil 131797-2
Test ID	131797-2A
Request ID	HPHT 3
Tested by	ac
Customer	ExxonMobil
Well No	PCU 197-36A3
Rig	H&P 326
Casing/Liner Size	

Fields	Values
Job Type	Prod Lead
Cement Type	TXI
Cement Weight	Light Weight
Test Date	03/02/11
Test Time	12:28 AM
Temp. Units	degF
Pressure Units	PSI

Events	Results
30.00 Bc	04h:19m
40.00 Bc	04h:21m
50.00 Bc	04h:24m
70.00 Bc	04h:24m
100.00 Bc	04h:24m
200.00 Bc	NaN
03h:00m	10.22
06h:00m	NaN



Data File O:\HPHT Data Files WRCR\WRCR Consistometer #3\ExxonMobil 131797-2.tdms

Comments 90% TXI, 0.550% HR-601, 2.37 Yield, 10.499 Den

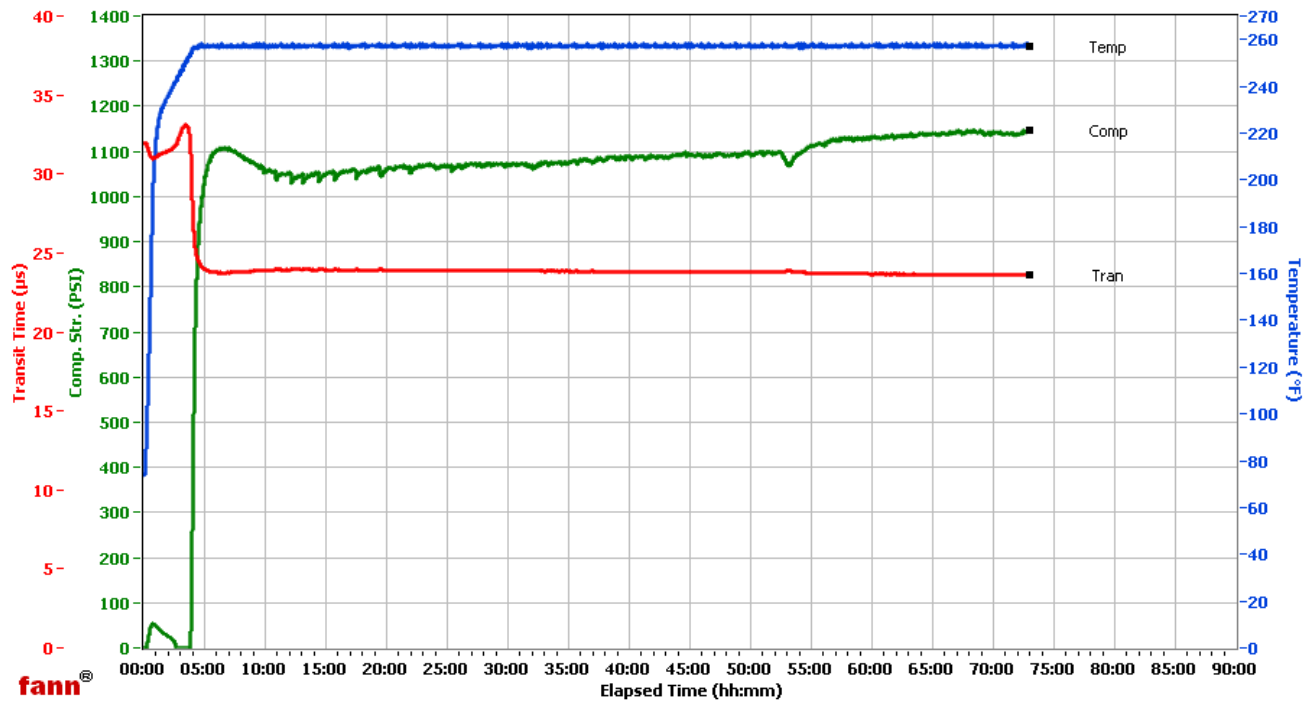
# HALLIBURTON

## WRCR

Fields	Values
Project Name	ExxonMobil 131797-2
Test ID	131797-2
Request ID	UCA 3
Tested by	ac
Customer	ExxonMobil
Well No	PCU 197-36A3
Rig	H&P 326
Casing/Liner Size	

Fields	Values
Job Type	Prod Lead
Cement Type	TXI
Cement Weight	Light Weight
Test Date	3/2/2011
Test Time	9:37 AM
Temp. Units	degF
Pressure Units	PSI

Events	Results
50.00 PSI	03h:52m
100.00 PSI	03h:54m
500.00 PSI	04h:06m
1000.00 PSI	04h:49m
12h:00m	1052.28
24h:00m	1063.08
48h:00m	1091.28
72h:00m	1138.99



Data File C:\UCA Data\131797-2.tdms

Comments 90% TXI, 0.550% HR-601, 2.37 Yield, 10.499 Den

# HALLIBURTON

## HALLIBURTON

Cementing Rockies, Meeker

### LAB RESULTS - Tail

#### Job Information

Request/Slurry	131798/1	Rig Name	H&P 326	Date	27/FEB/2011
Submitted By	Isaac Whorl	Job Type	Production Casing	Bulk Plant	Meeker
Customer	ExxonMobil	Location	Rio Blanco	Well	PCU 197-36A3

#### Well Information

Casing/Liner Size	4 1/2"	Depth MD	13739 ft	BHST	288 F
Hole Size	6 1/8"	Depth TVD	13629 ft	BHCT	224 F

#### Cement Information - Tail Design

<u>Conc</u>	<u>UOM</u>	<u>Cement/Additive</u>	<u>Sample Type</u>	<u>Sample Date</u>	<u>Lot No.</u>	<u>Cement Properties</u>		
						Slurry Density	12.00	PPG
		<b>VariCem</b>				Slurry Yield	2.17	ft3/sk
100.00	% BWOC	TXI Lightweight	Bulk	Feb 28, 2011	12-26-10	Water Requirement	11.95	GPS
25.000	% BWOC	Silicalite - Compacted	Bulk	Feb 28, 2011	2-22-11	Water Source	Field (Fresh) Water	
0.600	% BWOC	HALAD-344 (PB)	Bulk	Feb 28, 2011	BO321			
0.600	% BWOC	D-Air 3000	Bulk	Feb 28, 2011	2010326AC			
0.100	% BWOC	Econolite (Powder - PB)	Bulk	Feb 28, 2011	U110210			
0.220	% BWOC	Fe-2 (citric acid)	Bulk	Feb 28, 2011	G59L28AK5R			
11.95	gal/sack	Field (Fresh) Water	Lab	Feb 18, 2011	1-18-2011			

#### Operation Test Results Request ID 131798/1

##### UCA Comp. Strength, Request Test ID:1333968, Historical Data

End Temp (°F)	Pressure (psi)	50 psi (hh:mm)	500 psi (hh:mm)	12 hr CS (psi)	24 hr CS (psi)	48 hr CS (psi)	End CS (psi)	End Time (hrs)
257	3,000	04:22	04:54	938	1,088	1,163	1,193	72

##### Thickening Time, Request Test ID:1333967, Historical Data

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)
224	6,585	39	6	03:29	03:35	03:35	03:36	03:41

##### Free Water, Request Test ID:1333970, Historical Data

Test Temp (°F)	% FW 45 Inc	Conditioning time
180	0	30

Trace FW, 0 channeling, 0 settling.

##### API Rheology, Request Test ID:1333969, Historical Data

Temp (°F)	600	300	200	100	60	30	6	3	Cond Time (min)	PV/YP
80	52	31	24	16	13	10	8	7	0	23.9 / 8.2

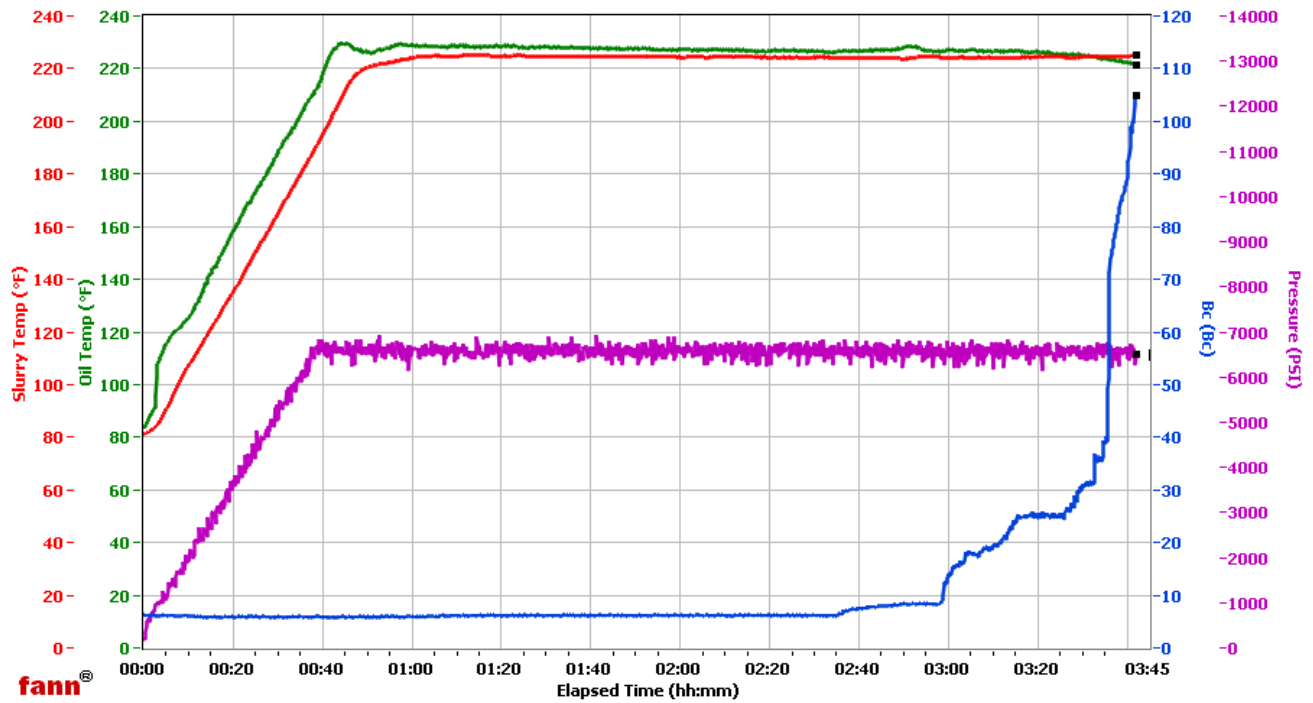
##### API Fluid Loss, Request Test ID:1333971, Historical Data

Test Temp (°F)	Test Pressure (psi)	Test Time (min)	Meas. Vol (< 30 min, cc)	Extr. ISO FL (cc/30 min)
180	1,000	16.58	58	156

# HALLIBURTON

## WRCR

Fields	Values	Fields	Values	Events	Results
Project Name	ExxonMobil 131798-1	Job Type	Prod Tail	30.00 Bc	03h:29m
Test ID	131798-1	Cement Type	TXI	40.00 Bc	03h:35m
Request ID	HPHT 4	Cement Weight	Light Weight	50.00 Bc	03h:35m
Tested by	ac	Test Date	01/04/70	70.00 Bc	03h:36m
Customer	ExxonMobil	Test Time	01:01 AM	100.00 Bc	03h:41m
Well No	PCU 197-36A3	Temp. Units	degF	200.00 Bc	NaN
Rig	H&P 326	Pressure Units	PSI	03h:00m	13.88
Casing/Liner Size				06h:00m	NaN



Data File O:\HPHT Data Files WRCR\WRCR Consistometer #4\ExxonMobil 131798-1.tdms

Comments 100% TXI, 0.220% Fe-2, 2.17 Yield, 12.001 Den

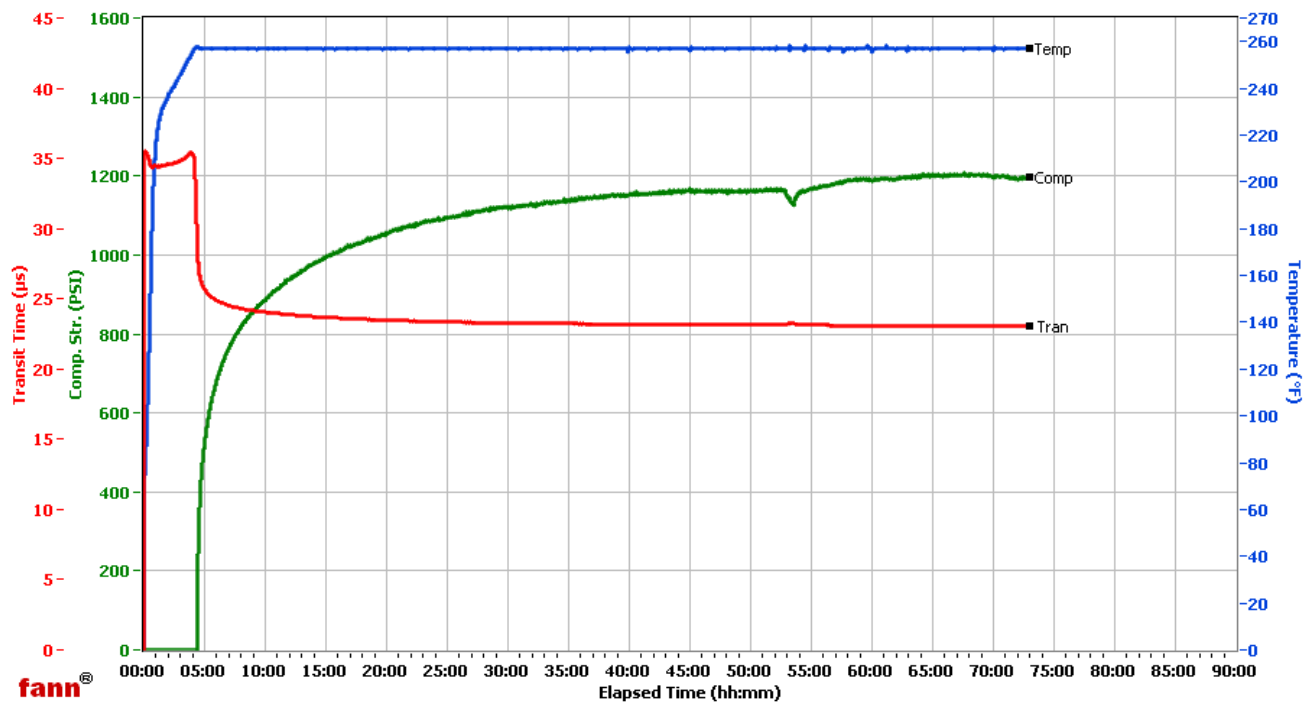
# HALLIBURTON

## WRCR

Fields	Values
Project Name	ExxonMobil 131798-1
Test ID	131798-1
Request ID	UCA 4
Tested by	ac
Customer	ExxonMobil
Well No	PCU 197-36A3
Rig	H&P 326
Casing/Liner Size	

Fields	Values
Job Type	Prod Tail
Cement Type	TXI
Cement Weight	Light Weight
Test Date	3/2/2011
Test Time	9:18 AM
Temp. Units	degF
Pressure Units	PSI

Events	Results
50.00 PSI	04h:22m
100.00 PSI	04h:23m
500.00 PSI	04h:54m
1000.00 PSI	15h:27m
12h:00m	937.88
24h:00m	1088.00
48h:00m	1163.39
72h:00m	1192.97



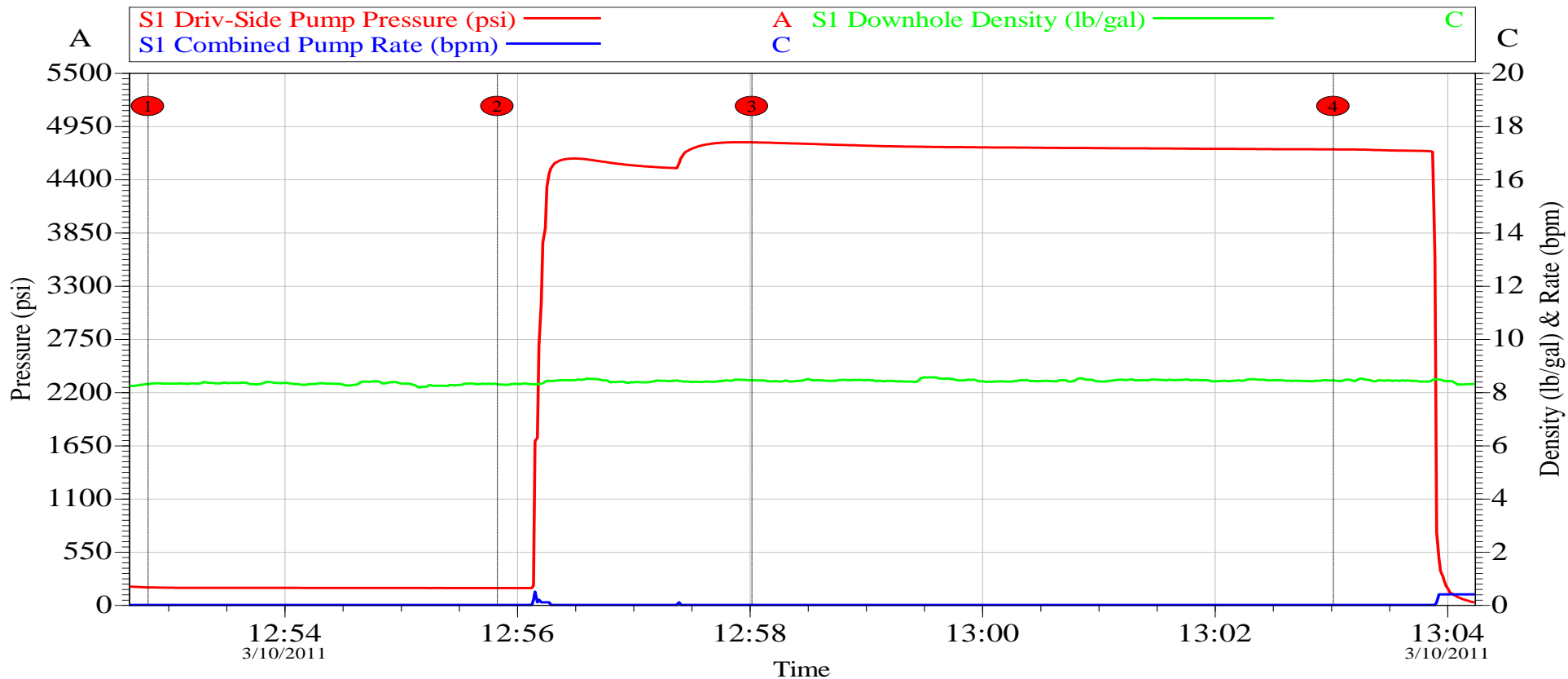
Data File C:\UCA Data\131798-1.tdms

Comments 100% TXI, 0.220 Fe-2, 2.17 Yield, 12.001 Den

# HALLIBURTON

## Data Acquisition

EXXON MOBIL CORPORATION  
PCU 197-36A6, 4 1/2" PRODUCTION, PRESSURE TEST  
MARCH 10, 2011

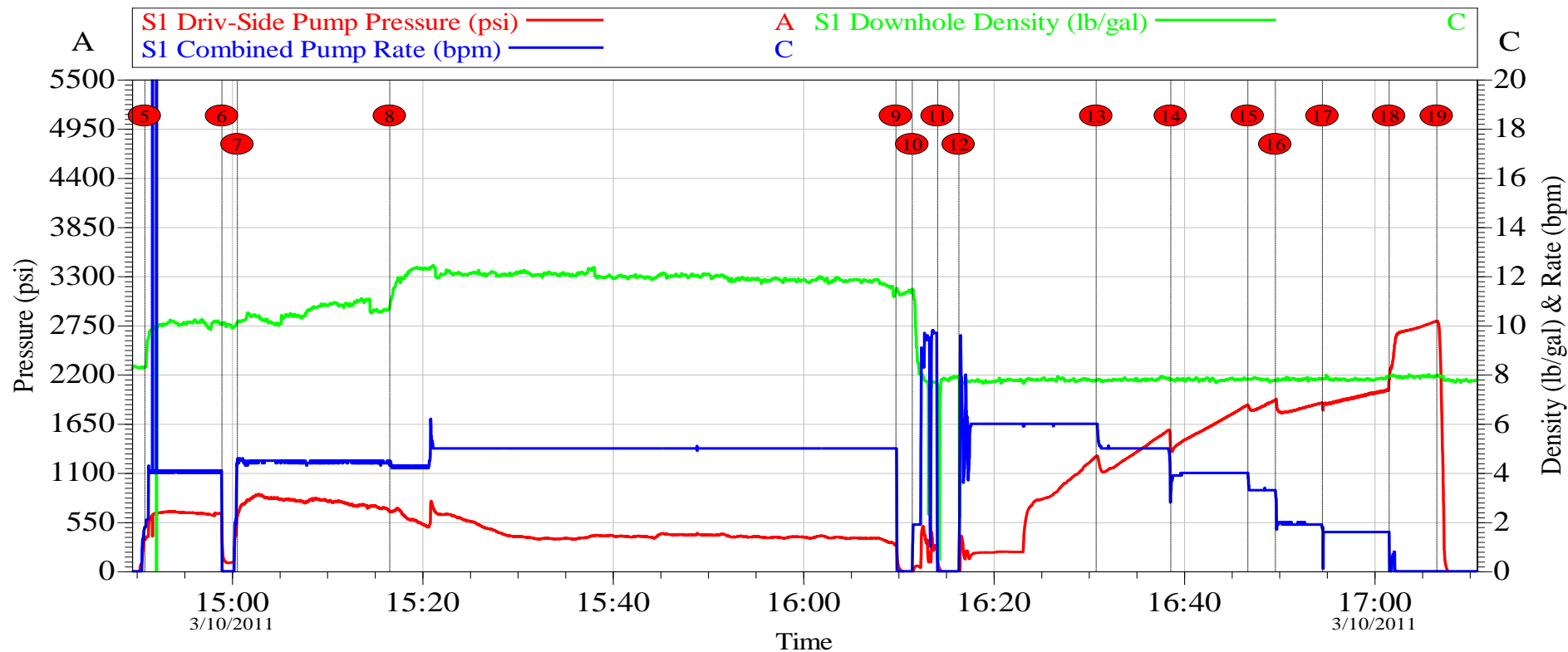


Local Event Log			
Intersection		SDPP	
1	Start Low Pressure Test	12:52:50	182.0
2	End Low Pressure Test	12:55:50	175.0
3	Start High Pressure Test	12:58:01	4782
4	End High Pressure Test	13:03:01	4710

Customer:	Exxon mobil 326	Job Date:	10-Mar-2011	Sales Order #:	7999176
Well Description:	197-36A3	UWI:			
Service Supervisor	Travis Mcconkie	Operator	Alan Arizola	Service Leader	Ken Estep Sr.

OptiCem v6.3.3  
10-Mar-11 18:58

EXXON MOBIL CORPORATION  
PCU 197-36A6, 4 1/2" PRODUCTION  
MARCH 10, 2011



Intersection		SDPP	Local Event Log		SDPP	Intersection		SDPP
5	Pump Tuned Spacer @ 10.0 lbs/gal	14:50:52 355.0	6	Shutdown To Drop Bottom Plug	14:58:58 385.4	7	Pump Lead Cement @ 10.5 lbs/gal	15:00:35 617.5
8	Pump Tail Cement @ 12.0 lbs/gal	15:16:35 674.2	9	Shutdown To Drop Top Plug	16:09:45 306.8	10	Start Wash Pumps & Lines	16:11:28 -2.000
11	End Wash Pumps & Lines	16:14:08 123.4	12	Start Displacement	16:16:21 -11.00	13	Slow Rate to 5.0 bpm	16:30:47 1286
14	Slow Rate to 4.0 bpm	16:38:37 1367	15	Slow Rate to 3.0 bpm	16:46:43 1861	16	Slow Rate to 2.0 bpm	16:49:36 1912
17	Slow Rate to 1.5 bpm	16:54:33 1879	18	Land Plug	17:01:33 2149	19	Check Floats	17:06:33 2801

Customer: Exxon mobil 326	Job Date: 10-Mar-2011	Sales Order #: 7999176
Well Description: 197-36A3	UWI:	
Service Supervisor Travis Mcconkie	Operator Alan Arizola	Service Leader Ken Estep Sr.

OptiCem v6.3.3  
10-Mar-11 18:57