

EXXONMOBIL CORPORATION

HOUSTON, Texas

PCU 296-6A3

H&P 239

Post Job Summary

Cement Production Casing

Date Prepared: 10/25/10
Version: 1

Service Supervisor: DEARING, KEN

Submitted by: Isaac Whorl

HALLIBURTON

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Wellbore Geometry

Job Tubulars					MD		TVD		Excess	Shoe Joint Length
Type	Description	Size in	ID in	Wt lbm/ft	Top ft	Bottom ft	Top ft	Bottom ft	%	ft
Casing	Intermediate Casing	7.00	6.276	26.00	0	9,498	0	9,430		80.00
Open Hole Section	Production Open Hole		6.125		9,498	13,278	9,430	13,202	350	
Casing	Production Casing	4.50	3.826	15.10	0	13,268	0	13,192		94.53

Pumping Schedule

Fluid #	Fluid Type	Fluid Name	Density lbm/gal	Avg Rate bbl/min	Volume
1	Spacer	TUNED SPACER III	11.00	6.00	40.0 bbl
2	Cement Slurry	Lightweight Tail Cement	12.00	6.00	965.0 sacks
3	Spacer	NaCl Displacement	8.44	6.00	183.0 bbl

Fluids Pumped

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

Fluid Density: 11.00 lbm/gal
Fluid Volume: 40.00 bbl

Stage/Plug # 1 Fluid 2: Lightweight Tail
 Cement
 VARICEM (TM) CEMENT
0.28 % Fe-2

Fluid Weight: 12.00 lbm/gal
Slurry Yield: 2.18 ft³/sack
Total Mixing Fluid: 12.12 Gal
Volume: 965.0 sacks

Stage/Plug # 1 Fluid 3: NaCl Displacement
DISPLACEMENT FLUID
7.15 lbm/bbl Salt

Fluid Density: 8.44 lbm/gal
Fluid Volume: 183.00 bbl

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Job Summary

Job Information

Job Start Date	10/20/2010 7:30:00 AM
Job MD	13,812.0 ft
Height of Plug Container/Swage Above Rig Floor	8.0 ft
Mud Type	Water Based Mud
Name of Mud Company	BAROID
Actual Mud Density	9 lbm/gal
Time Circulated before job	2.17 hour(s)
Mud Volume Circulated	550.00 bbl
Rate at Which Well was Circulated	4.200 bbl/min
Mud loss while Circulating	300.00 bbl
Units of Gas Detected While Circulating	500 API Gas Units
Pipe Movement During Hole Circulation	Reciprocated
Time From End Mud Circ. to Job Start	7.00 minute
Pipe Movement During Cementing	Reciprocated
Calculated Displacement	187.10 bbl
Job Displaced by (rig/halco)	Cement Unit HP Pumps
Annular flow Before Job? (Water/Gas)	No
Annular flow After Job? (Water/Gas)	No
Length of Rat Hole	10.00 ft

Cementing Equipment

Number of Centralizers Used	152
Pipe Centralization	Through Entire Cement Column
Brand of Float Equipment Used	Weatherford
Did Float Equipment Hold?	Yes
Plug set used?	Yes
Brand of Plug set used?	Weatherford
Did Plugs Bump?	Yes
Calculated Pressure to Bump Plugs	2,015.0 psig

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Service Supervisor Reports

Job Log

Date/Time	Activity Code	Pump Rate	Volume	Pressure (psig)	Comments
10/19/2010 08:30	Call Out				
10/19/2010 08:40	Pre-Convoy Safety Meeting				DISCUSS SAFETY AND HAZARDS OF TRAVEL.
10/19/2010 10:10	Other				ARRIVE AT WHITE RIVER YARD TO PICK UP BULK TRUCK.
10/19/2010 10:50	Depart Yard Safety Meeting				DISCUSS SAFETY AND HAZARDS OF TRAVEL.
10/19/2010 11:00	Crew Leave Yard				
10/19/2010 12:30	Arrive At Loc				
10/19/2010 12:35	Assessment Of Location Safety Meeting				SIGN IN AT SAFETY SHACK, GET WORK PERMIT SIGNED, WALK LOCATION, DISCUSS SPOTTING OF VEHICLES AND RIGGING UP, DISCUSS SAFETY AND HAZARDS.
10/19/2010 12:40	Safety Meeting				MEET WITH CO.MAN, GET WELL INFORMATION, DISCUSS WELL CONDITIONS, DISCUSS PRESSURE TEST AND MAX PRESSURE, DISCUSS SPOTTING OF VEHICLES AND RIG UP, DISCUSS SAFETY AND HAZARDS, CASING AT 9400', CASING RUNNING WELL, RIG HAS LOTS OF LOSSES.
10/19/2010 12:45	Other				WATER TRUCKS DELIVERING MUD TO LOCATION, NEED TO STAY OUT OF THE WAY, CAN NOT SPOT VEHICLES AS PER CO.MAN, TEST H2O.
10/19/2010 14:30	Safety Meeting				MEET WITH CO.MAN, GO OVER CALCULATIONS AND JOB PROCEDURE, STILL WAITING ON WATER TRUCKS SO WE CAN SPOT VEHICLES, CASING AT 11000'.
10/19/2010 16:50	Safety Meeting				DISCUSS SAFETY AND HAZARDS.
10/19/2010 17:00	Other				SPOT EQUIPMENT.
10/19/2010 17:10	Safety Meeting - Pre Rig-Up				DISCUSS SAFETY AND HAZARDS.

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Date/Time	Activity Code	Pump Rate	Volume	Pressure (psig)	Comments
10/19/2010 17:15	Rig-Up Equipment				RIG UP IRON AND SUCTION HOSE TO RIG.
10/19/2010 18:13	Prime Pumps				CHECK OUT AND GET EQUIPMENT READY FOR JOB.
10/19/2010 19:00	Pressure Test				PRE JOB PRESSURE TEST.
10/19/2010 19:30	Other				WAIT ON RIG AND CASERS TO FINISH RUNNING CASING.
10/19/2010 23:00	Safety Meeting - Pre Rig-Up				DISCUSS SAFETY AND HAZARDS.
10/19/2010 23:15	Rig-Up Equipment				RIG UP IRON TO RIG FLOOR, RIG REAMING DOWN LAST JOINT.
10/19/2010 23:30	Other				WAIT FOR RIG TO FINISH REAMING DOWN CASING.
10/20/2010 03:15	Casing on Bottom				
10/20/2010 03:15	Circulate Well				RIG CIRCULATING AND CONDITIONING HOLE FROM 1:30-4:00am.
10/20/2010 03:15	Pre-Job Safety Meeting				SAFETY MEETING WITH RIG CREW AND CASING CREW AND CO.MAN, DISCUSS SAFETY AND HAZARDS OF RIGGING DOWN CASERS AND RIGGING UP ON RIG FLOOR.
10/20/2010 04:00	Other				RIG SHUTS DOWN, RIGS DOWN CRT AND CASERS..
10/20/2010 04:30	Safety Meeting - Pre Rig-Up				DISCUSS SAFETY AND HAZARDS.
10/20/2010 04:40	Rig-Up Equipment				RIG UP CEMENT HEAD TO CASING.
10/20/2010 05:00	Circulate Well				RIG CIRCULATES THROUGH CEMENT HEAD WHILE RIG RIGS UP ELEVATORS AND BALES..
10/20/2010 06:00	Safety Meeting - Pre Rig-Up				DISCUSS SAFETY AND HAZARDS.
10/20/2010 06:05	Rig-Up Equipment				FINISH RIGGING UP IRON ON RIG FLOOR.
10/20/2010 06:35	Safety Meeting - Pre Job				SAFETY MEETING WITH RIG CREW AND CO.MAN, DISCUSS SAFETY AND HAZARDS OF JOB.
10/20/2010 07:10	Safety Meeting - Pre Rig-Up				DISCUSS SAFETY AND HAZARDS.
10/20/2010 07:13	Rig-Up Equipment				RIG SHUTS DOWN, SWAP FROM RIG TO HES IRON ON CEMENT HEAD.
10/20/2010 07:20	Pump Water	4		350.0	PUMP 5bbl H2O TO FILL LINES.

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Date/Time	Activity Code	Pump Rate	Volume	Pressure (psig)	Comments
10/20/2010 07:30	Pressure Test			250.0	LOW PRESSURE TEST.
10/20/2010 07:35	Pressure Test			5000.0	HIGH PRESSURE TEST.
10/20/2010 07:44	Pump Spacer	4	40	400.0	START PUMPING 11.0# TUNED SPACER.
10/20/2010 07:57	Shutdown				
10/20/2010 07:59	Drop Bottom Plug				
10/20/2010 08:01	Pump Cement	4	373	240.0	START PUMPING 12.0# CEMENT, 373bbls, 965sk, 2.17cf/ft, 11.91gal/sk.
10/20/2010 08:25	Other	4		255.0	GOOD RETURNS, 700 UNITS OF GAS COMING BACK.
10/20/2010 09:35	Shutdown				END CEMENT-SHUT DOWN.
10/20/2010 09:37	Clean Lines				WASH PUMPS AND LINES TO PIT.
10/20/2010 09:40	Drop Top Plug				
10/20/2010 09:42	Pump Displacement	7		335.0	START H2O DISPLACEMENT WITH SALT ADDED ON THE SIDE, 7.15lbs/bbl.
10/20/2010 09:52	Displ Reached Cmmt	7		595.0	SEE CEMENT LIFT PRESSURE
10/20/2010 09:52	Slow Rate	6		455.0	SLOW RATE AS PER CO.MAN.
10/20/2010 10:07	Slow Rate	4		1125.0	SLOW RATE AS PER CO.MAN.
10/20/2010 10:09	Slow Rate	3		1100.0	SLOW RATE AS PER CO.MAN.
10/20/2010 10:13	Slow Rate	2		1110.0	SLOW RATE AS PER CO.MAN.
10/20/2010 10:14	Bump Plug	2		1250.0	BUMP PLUG AT 1250psi.
10/20/2010 10:14	Shutdown			1900.0	PRESSURE OVER 650psi OVER TO 1900psi-SHUT DOWN.
10/20/2010 10:20	Check Floats				FLOATS HOLD, 1.5bbls BACK.
10/20/2010 10:30	Post-Job Safety Meeting (Pre Rig-Down)				DISCUSS JOB, GO OVER BBP AND HOC OBSERVATIONS, DISCUSS SAFETY AND HAZARDS OF RIGGING DOWN.
10/20/2010 10:50	Safety Meeting - Pre Rig-Down				SAFETY MEETING WITH RIG CREW, DISCUSS SAFETY AND HAZARDS.
10/20/2010 11:00	Rig-Down Equipment				RIG IRON OFF OF RIG FLOOR.

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Date/Time	Activity Code	Pump Rate	Volume	Pressure (psig)	Comments
10/20/2010 11:25	Safety Huddle				DISCUSS SAFETY AND HAZARDS.
10/20/2010 11:30	Other				WASH RCM TO PIT AND BLOW OFF SILOS INTO BULK TRUCK.
10/20/2010 11:55	Other				THANK YOU-KEN, KEN, ISSAC, AND CREW.
10/20/2010 12:15	Safety Meeting - Pre Rig-Down				DISCUSS SAFETY AND HAZARDS.
10/20/2010 12:25	Rig-Down Equipment				RIG DOWN AND RACK UP IRON AND SUCTION HOSE.
10/20/2010 13:45	Pre-Convoy Safety Meeting				DISCUSS SAFETY AND HAZARDS OF TRAVEL.
10/20/2010 14:00	Crew Leave Location				

The Road to Excellence Starts with Safety

Sold To #: 331699	Ship To #: 2791690	Quote #:	Sales Order #: 7699168
Customer: EXXONMOBIL CORPORATION		Customer Rep: SCANLAN, MIKE	
Well Name: PCU		Well #: 296-6A3	API/UWI #: 05-103-11481
Field: PICEANCE CREEK	City (SAP): MEEKER	County/Parish: Rio Blanco	State: Colorado
Legal Description: Section 6 Township 2S Range 96W			
Job Purpose: Cement Production Casing			
Well Type: Development Well		Job Type: Cement Production Casing	
Sales Person: TURNER, JAMIE		Srvc Supervisor: DEARING, KEN	MBU ID Emp #: 239372

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BURKE, RYAN A		480688	DEAN, MARK Christophe		454214	DEARING, KEN A		239372
ESTEP, KENNETH		121420	OKONKWO, CHIJOKE Jude		480660	WHITE, KAMEREON V		475856
WHORL, ISAAC Jacob		464968						

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10872435	45 mile	10897817	45 mile	10948686	45 mile	11138984	45 mile
11263211	45 mile	11307428	45 mile				

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
TOTAL			Total is the sum of each column separately					

Job

Formation Name	Formation Depth (MD)	Top	Bottom	Form Type	Job depth MD	Water Depth	Perforation Depth (MD)	From	To
				BHST	13812. ft				
					Job Depth TVD				
					Wk Ht Above Floor	8. ft			

Job Times

	Date	Time	Time Zone
Called Out	19 - Oct - 2010	08:30	MST
On Location	19 - Oct - 2010	12:30	MST
Job Started	20 - Oct - 2010	07:30	MST
Job Completed	20 - Oct - 2010	10:30	MST
Departed Loc	20 - Oct - 2010	14:00	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				9498.	13278.	9430.	13202.
Intermediate Casing	Unknown		7.	6.276	26.	HYDRIL - SERIES 500 TYPE 513	P-110	.	9498.	.	9430.
Production Casing	New		4.5	3.826	15.1	LTC	P-110	.	13268.	.	13190.

Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug			
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container			
Stage Tool										Centralizers			

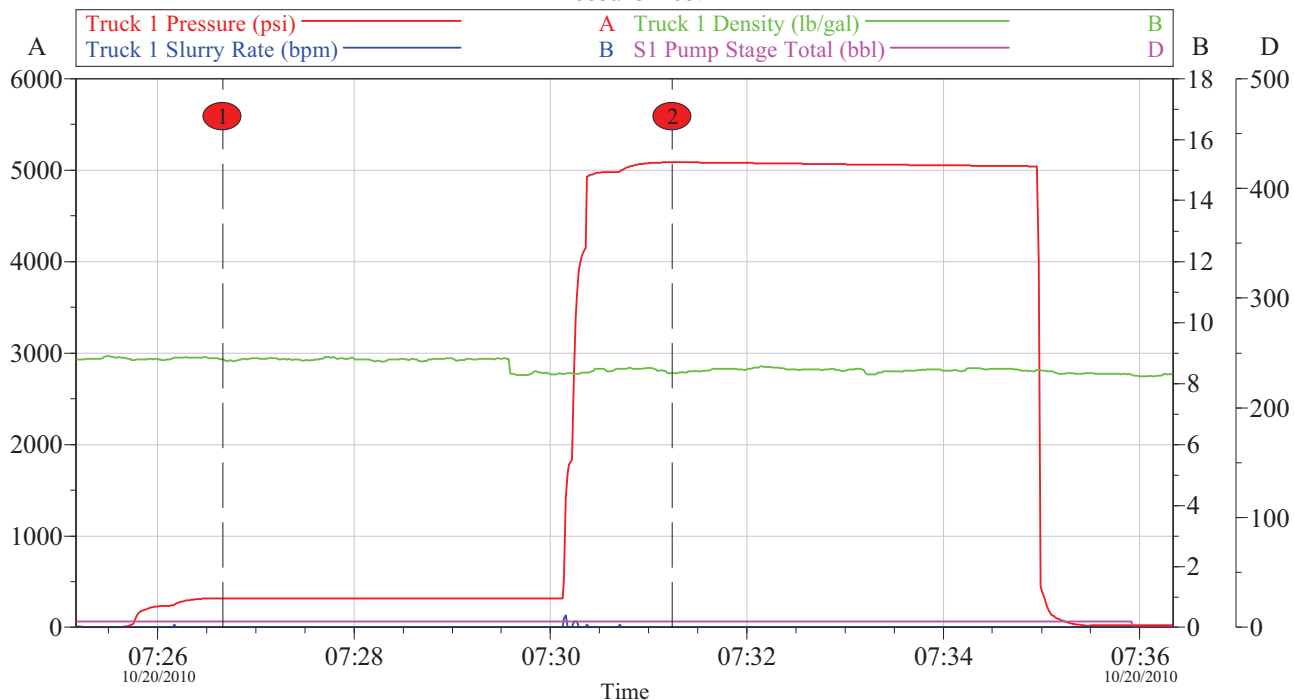
Miscellaneous Materials																			
Gelling Agt		Conc		Surfactant		Conc		Acid Type		Qty		Conc %							
Treatment Fld		Conc		Inhibitor		Conc		Sand Type		Size		Qty							
Fluid Data																			
Stage/Plug #: 1																			
Fluid #	Stage Type	Fluid Name			Qty	Qty uom	Mixing Density lbm/gal	Yield ft ³ /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	11.	.0	.0	6.0									
	36.83 gal/bbl	FRESH WATER																	
	117.6 lbm/bbl	BARITE, BULK (100003681)																	
2	Lightweight Tail Cement	VARICEM (TM) CEMENT (452009)			965.0	sacks	12.	2.18	12.12	6.0	12.12								
	12.124 Gal	FRESH WATER																	
	0.28 %	FE-2 (100001615)																	
3	NaCl Displacement				183.00	bbl	8.44	.0	.0	6.0									
	7.15 lbm/bbl	SALT, 100 LB BAG (100003652)																	
Calculated Values			Pressures			Volumes													
Displacement				Shut In: Instant				Lost Returns				Cement Slurry				Pad			
Top Of Cement				5 Min				Cement Returns				Actual Displacement				Treatment			
Frac Gradient				15 Min				Spacers				Load and Breakdown				Total Job			
Rates																			
Circulating				Mixing				Displacement				Avg. Job							
Cement Left In Pipe		Amount		94.53 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									

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Data Acquisition

PCU 296-6A3 Production

Pressure Test



Local Event Log

Intersection	Pressure	Volume	Intersection	Pressure	Volume
1 Low Pressure Test 07:26:40	318.0	5.600	2 High Pressure Test 07:31:14	5084	5.600

Customer: EXXONMOBIL
Well Description: PCU 296-6A3

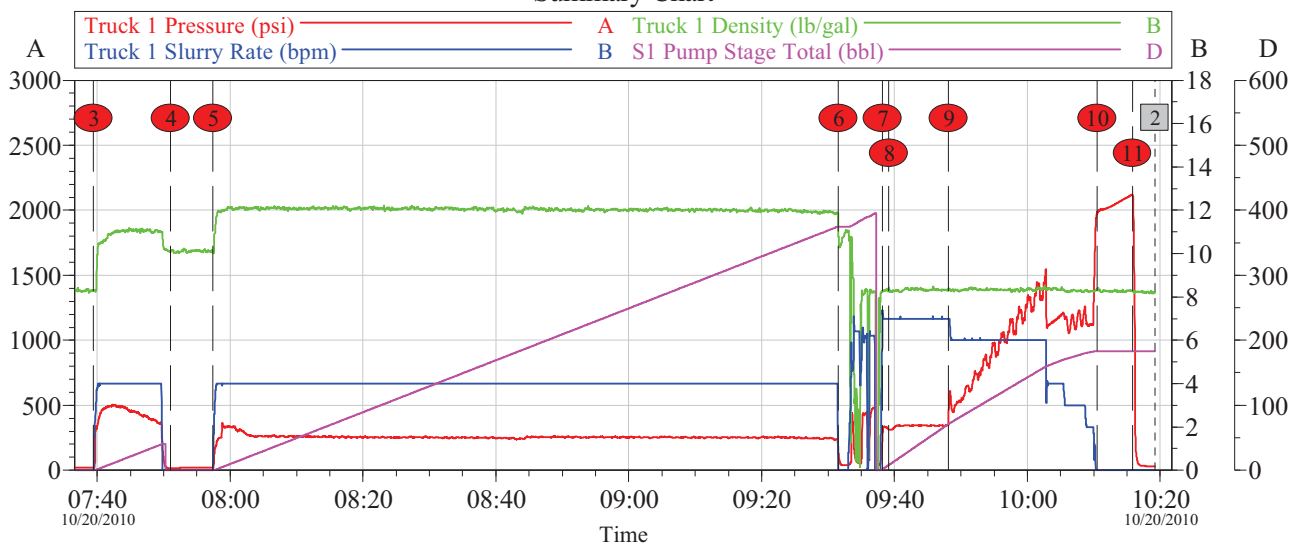
Job Date: 20-Oct-2010
UWI: 05-103-11481

Sales Order #: 7699167

OptiCem v6.4.9
20-Oct-10 10:18

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PCU 296-6A3 Production Summary Chart



Local Event Log									
Intersection			Pressure	Volume	Intersection			Pressure	Volume
3	Pump Spacer	07:39:25	19.00	0.000	4	Drop Bottom Plug	07:51:02	15.00	0.000
5	Pump Cement	07:57:25	20.00	0.000	6	Wash Up	09:31:33	149.3	374.7
7	Drop Top Plug	09:38:13	285.1	1.495	8	Pump Displacement	09:39:09	312.0	8.067
9	Caught Cement	09:48:07	388.5	71.08	10	Bump Plug	10:10:29	1973	182.9
11	Check Floats	10:15:49	2122	182.9					

Customer: EXXONMOBIL
Well Description: PCU 296-6A3

Job Date: 20-Oct-2010
UWI: 05-103-11481

Sales Order #: 7699167

OptiCem v6.4.9
20-Oct-10 10:19

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Lab Data

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Cementing Rockies, Meeker

LAB RESULTS - Primary

Job Information

Request/Slurry	104288/1	Rig Name	H&P 239	Date	October 10th 2010
Submitted By	Simukayi Mutasa	Job Type	Production Casing	Bulk Plant	Meeker
Customer	ExxonMobil	Location	Rio Blanco	Well	PCU 296-6A3

Well Information

Casing/Liner Size	4 1/2"	Depth MD	13278 ft	BHST	270 F
Hole Size	6 1/8"	Depth TVD	13202 ft	BHCT	210 F

Cement Information - Tail Design

Conc	UOM	Cement/Additive	Sample Type	Sample Date	Lot No.	Cement Properties		
		VariCem				Slurry Density	12.001	PPG
100.00	% BWOC	TXI Lightweight	Bulk	Oct 12, 2010		Slurry Yield	2.17	FT3
25.00	% BWOC	Silicalite - Compacted	Bulk	Oct 12, 2010	08-10-10	Water Requirement	11.95	GPS
0.60	% BWOC	HALAD-344 (PB)	Bulk	Oct 12, 2010	B0-239	Water Source	Field (Fresh) Water	
0.60	% BWOC	D-Air 3000	Bulk	Oct 12, 2010	2010223AC			
0.10	% BWOC	Econolite (Powder - PB)	Bulk	Oct 12, 2010	U020610			
0.28	% BWOC	Fe-2 (citric acid)	Bulk	Oct 12, 2010	CA0E03284			
132.94	L/100kg	Field (Fresh) Water	Lab	Oct 06, 2010	10-06-10			

Operation Test Results Request ID 104288/1

UCA Comp. Strength, Request Test ID:1088921

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)
242	3,000	05:48	06:10	1,234	1,348	1,332	1,065

Thickening Time, Request Test ID:1088920

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)
210	9,133	65	0	04:02	04:09	04:12	04:17	04:22

Free Water, Request Test ID:1088923

Test Temp (°F)	% FW 45 Inc
180	0

API Rheology, Request Test ID:1088922

Temp (°F)	600	300	200	100	60	30	6	3	Cond Time (min)	PV/YP
80	44	25	18	12	8	6	4	4	0	21.3 / 4.2

API Fluid Loss, Request Test ID:1088924

Test Temp (°F)	Test Pressure (psi)	Test Time (min)	Meas. Vol (< 30 min, cc)	Extr. ISO FL (cc/30 min)
180	1,000	7.96	50	194

50 mls in 7.96 min = 194 API

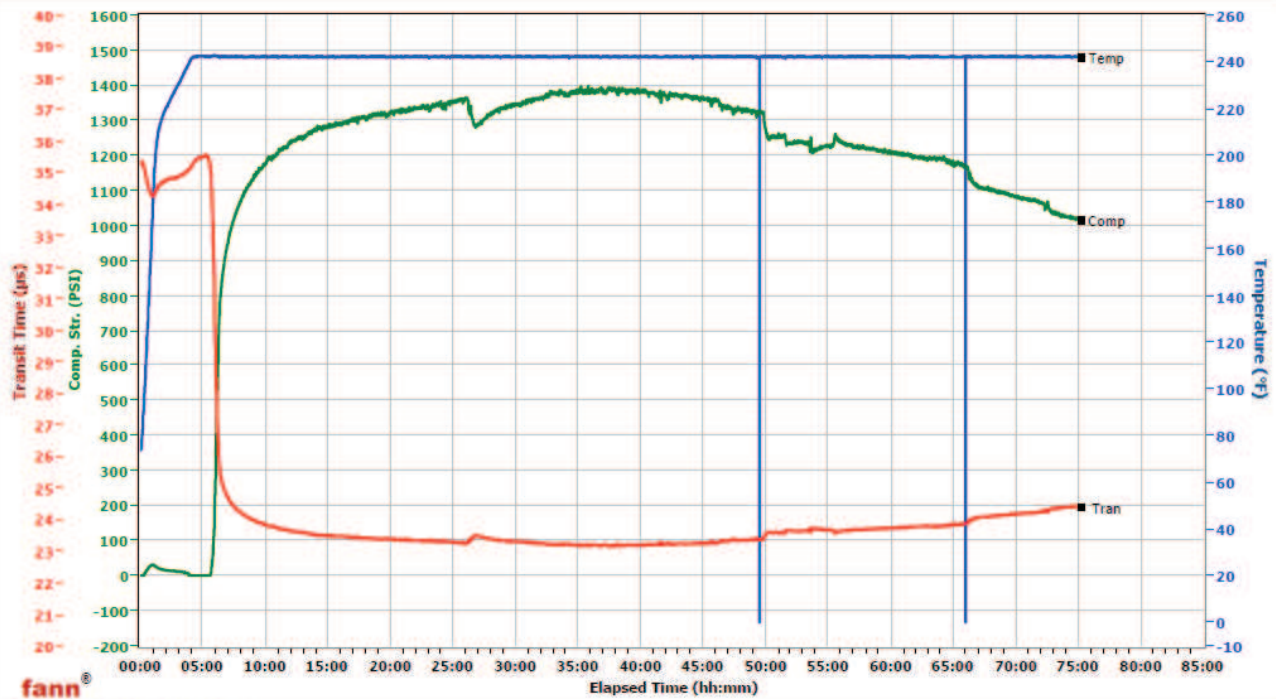
HALLIBURTON

White River City Ranch

Fields	Values
Project Name	ExxonMobil 104288-1
Test ID	104288-1
Request ID	UCA #3
Tested by	JRP
Customer	ExxonMobil
Well No	PCU 297-6A3
Rig	H&P 239
Casing/Liner Size	4.5
Job Type	Production Primary

Fields	Values
Cement Type	TXI
Cement Weight	Light Weight
Comments	TXI, 0.28% Fe-2, 12.001 Den, 2.17 Yld
Test Date	10/12/2010
Test Time	4:07 PM
Temp. Units	degF
Pressure Units	PSI

Events	Results
50.00 PSI	05h:48m
100.00 PSI	05h:53m
500.00 PSI	06h:10m
1000.00 PSI	07h:22m
12h:00m	1234.26
24h:00m	1348.09
48h:00m	1332.16
72h:00m	1065.01

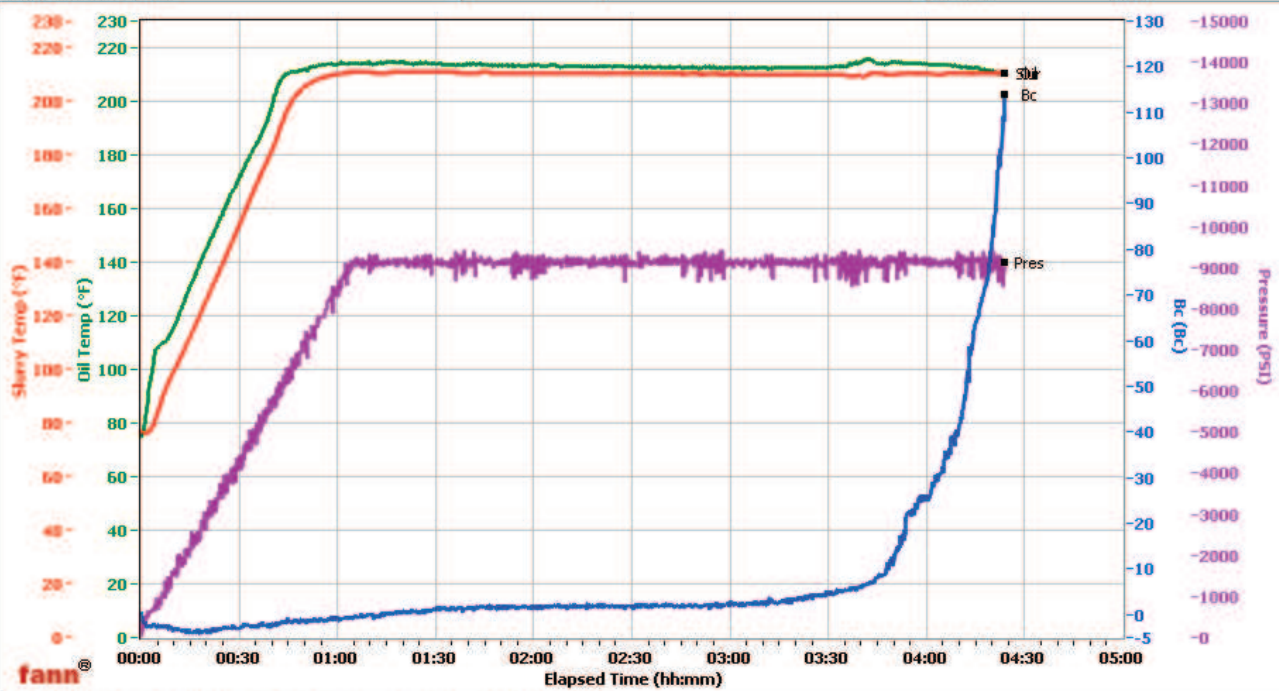


Data File C:\UCA Data\104288-1.tdms

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WRCR

Fields	Values	Fields	Values	Events	Results
Project Name	ExxonMobil 104288-1	Job Type	Production Primary	30.00 Bc	04h:02m
Test ID	104288-1	Cement Type	TXI	40.00 Bc	04h:09m
Request ID	HPHT #5	Cement Weight	Light Weight	50.00 Bc	04h:12m
Tested by	JRP	Test Date	10/12/10	70.00 Bc	04h:17m
Customer	ExxonMobil	Test Time	11:07 PM	100.00 Bc	04h:22m
Well No	PCU 296-6A3	Temp. Units	degF	200.00 Bc	NaN
Rig	H&P 239	Pressure Units	PSI	03h:00m	2.95
Casing/Liner Size	4.5			06h:00m	NaN



Data File O:\HPHT Data Files WRCR\WRCR Consistometer #5\ExxonMobil 104288-1.tdms

Comments TXI, FE-2 0.28%, 12.001 Den, 2.17 YLD