

EXXONMOBIL CORPORATION

HOUSTON, Texas

Well: PCU 296-6A1 (Production)

Rig: H&P 239

Post Job Summary

Cement Production Casing

Prepared for: George McNary

Date Prepared: 11/20/10

Version: 1

Service Supervisor: Ben Anderson

Submitted by: Kyle King

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	0.0	9,654.0	0.0	9,507.0		
Open Hole	Production Open Hole		6.125		9,654.0	13,822.0	9,507.0	13,675.0	350.00	
Casing	Production Casing	4.50	3.826	15.10	0.0	13,812.0	0.0	13,665		88.91

Pumping Schedule

Fluid #	Fluid Type	Fluid Name	Density lbm/gal	Avg Rate bbl/min	Volume
1	Spacer	Tuned Spacer III	11.00	4.0	40.0 bbl
2	Cement	Primary Cement (Varicem)	12.00	6.0	940.0 sacks
3	Displacement	2% NaCl Water	8.45	4.0	190.0 bbl

Fluids Pumped

Fluid 1: Spacer

TUNED SPACER III - SBM (483826)

117.6 Barite
lbm/bbl

Fluid Density: 11.00 lbm/gal

Volume: 40.00 bbl

Pump Rate: 4.00 bbl/min

Fluid 2: Cement

VARICEM (TM) CEMENT

0.26 % Fe-2

Fluid Weight: 12.00 lbm/gal

Slurry Yield: 2.17 ft³/sack

Water Requirement: 11.95 Gal/sk

Volume: 940.0 sacks

Recorded Volume: 355 bbl

Calculated Top of Fluid: 7,060.00 ft

Pump Rate: 6.00 bbl/min

Fluid 3: Displacement

2% NaCl Water

7.15 lbm/bbl Salt

Fluid Density: 8.45 lbm/gal

Fluid Volume: 190.00 bbl

Pump Rate: 4.00 bbl/min

Job Summary

Job Information

Job Start Date	11/19/2010 3:00:00 AM
Job MD	13,812.0 ft
Job TVD	13,675.0 ft
Height of Plug Container/Swage Above Rig Floor	6.0 ft
Surface Temperature at Time of Job	25 degF
Mud Type	Water Based Mud
Name of Mud Company	BAROID
Mud Density	9.4 lbm/gal
Mud YP	6 lb/100 sqft
Mud PV	13 cp
Gels	4/11/17
Time Circulated before job	2.00 hour(s)
Mud Volume Circulated	660.00 bbl
Rate at Which Well was Circulated	5.500 bbl/min
Units of Gas Detected While Circulating	1800 API Gas Units
Pipe Movement During Hole Circulation	Reciprocated
Time From End Mud Circ. To Job Start	23.00 minute
Pipe Movement During Cementing	Reciprocated
Calculated Displacement	195.00 bbl
Recorded Displacement	190.00 bbl
Recorded Bump Pressure	1750 psi
Job Displaced by (rig/halco)	Cement Unit HP Pumps
Length of Rat Hole	10.00 ft

Cementing Equipment

Number of Centralizers Used	174
Pipe Centralization	Through Entire Cement Column
Did Float Equipment Hold?	Yes
Plug set used?	Yes
Brand of Plug set used?	Weatherford
Did Plugs Bump?	Yes
Calculated Pressure to Bump Plugs	2,200.0 psig

Service Supervisor Reports

Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pressure (psig)		Comments
11/18/2010 07:00		Call Out					CREW CALLED OUT, GOT TRUCKS PREPPED FOR CONVOY AND JOB
11/18/2010 08:30		Pre-Convoy Safety Meeting					DISCUSSED CONVOY PROCEDURES, ROUTE, STOPS, WEATHER, TRAFFIC, WILDLIFE, ROAD HAZARDS, EMERGENCY, AND BREAKDOWN PROCEDURES
11/18/2010 11:30		Arrive at Location from Service Center					Rig is running Casing
11/18/2010 12:00		Rig-Up Equipment					RIGGED UP SAFELY AND TO BOTH HALLIBURTON AND EXXON STANDARDS
11/18/2010 21:44		Casing on Bottom					@ 13,812 ft
11/18/2010 23:10		Other					Rig L/D Wash Down Joint and R/U Landing Joint
11/19/2010 01:00		Other					Rig L/D CRT
11/19/2010 01:30		Rig-Up Equipment					Stab Cement Head
11/19/2010 01:35		Circulate Well					Rig Circulating through Head @ 5.5 BPM, 900 PSI, 1800 Gas Units
11/19/2010 03:00		Pre-Job Safety Meeting					With Rig Crew and Company Man
11/19/2010 03:28		Start Job		2	300.0		Fill Lines 2 bbl Water
11/19/2010 03:34		Pressure Test					Low 500psi/High 5000 psi
11/19/2010 03:51		Pump Spacer	4	38	600.0		TS III DEN 11.0# VOL 40 bbl
11/19/2010 04:01		Shutdown					Dropped Bottom Plug

HALLIBURTON

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pressure (psig)		Comments
11/19/2010 04:03		Pump Cement	6	355	450.0		DEN 12.0#, YLD 2.17 cuft/sk, WR 11.95 gal/sk Design (Slurry Volume 363 bbl, MixWater Volume 267 bbl) Recorded (Slurry Volume 356 bbl, MixWater 227 bbl)***Volumes based off Barrel Counter
11/19/2010 04:04		Drop Top Plug					Plug Left Cement Head
11/19/2010 05:03		Shutdown					
11/19/2010 05:04		Clean Lines					Wash Pumps and Lines to Pit
11/19/2010 05:09		Pump Displacement	6	190	800.0		2% NaCl 7.15 lbm/bbl Design 195 bbl Recorded 190 bbl
11/19/2010 05:10		Other					Loss Returns
11/19/2010 05:16		Slow Rate	4	44	100.0		44 bbl away into displacement Slow Rate from 6 BPM to 4 BPM
11/19/2010 05:25		Displ Reached Cmmt	4	84	300.0		Caught Cement with 84 bbl away into displacement
11/19/2010 05:52		Slow Rate	2	185	1700.0		185 bbl away into displacement Slow Rate from 4 BPM to 2 BPM
11/19/2010 05:54		Bump Plug	2	190	1750.0		Design 2200 psi Recorded 1750 psi
11/19/2010 06:00		Check Floats	2600				Pressure up to 2600 psi, Hold for 6 minutes. Floats Hold, 1.75 bbl Flow Back
11/19/2010 06:02		End Job					Total Pumped 585 bbl, Total Returns bbl (Loss bbl)
11/19/2010 06:05		Pre-Rig Down Safety Meeting					Discussed Job outcome and discussed rig down procedures, pinch points, lifting, hammering, slips/trips/falls
11/19/2010 06:20		Rig-Down Equipment					RIGGED DOWN SAFELY AND TO BOTH HALLIBURTON AND EXXON STANDARDS
11/19/2010 08:20		Pre-Convoy Safety Meeting					DISCUSSED CONVOY PROCEDURES, ROUTE, STOPS, WEATHER, TRAFFIC, WILDLIFE, ROAD HAZARDS, EMERGENCY, AND BREAKDOWN PROCEDURES

HALLIBURTON

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pressure (psig)		Comments
11/19/2010 08:30		Depart Location for Service Center or Other Site					THANKS FOR USING HALLIBURTON!!!

The Road to Excellence Starts with Safety

Sold To #: 331699		Ship To #: 2791573		Quote #:		Sales Order #: 7764363	
Customer: EXXONMOBIL CORPORATION				Customer Rep: Dunn, Brian			
Well Name: PCU			Well #: 296-6A1			API/UWI #: 05-103-11475	
Field: PICEANCE CREEK		City (SAP): MEEKER		County/Parish: Rio Blanco		State: Colorado	
Contractor: H&P			Rig/Platform Name/Num: 239				
Job Purpose: Cement Production Casing							
Well Type: Development Well			Job Type: Cement Production Casing				
Sales Person: TURNER, JAMIE			Srvc Supervisor: ANDERSON, BENJAMIN			MBU ID Emp #: 342843	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
ANDERSON, BENJAMIN L		342843	BURROWS, DARREN Michael		475039	KING, KYLE Endres		465538
LAWTON, SCOTT		482816	MCCONKIE, TRAVIS Terry		471264	SAGE, JAMES Edwin		470468
SPENCER, WESTON Chad		391271						

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10948690	45 mile	10994445	45 mile	11062230	45 mile	11076824	45 mile
6441	45 mile						

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
11/18/10	12.5	0	11/19/10	8.5	2.5	-	-	-

TOTAL		Total is the sum of each column separately
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Job**Job Times**

Formation Name					Date	Time	Time Zone
Formation Depth (MD)	Top		Bottom		Called Out	18 - Nov - 2010	07:00 MST
Form Type		BHST			On Location	18 - Nov - 2010	11:30 MST
Job depth MD	13812. ft	Job Depth TVD	13675. ft		Job Started	19 - Nov - 2010	03:00 MST
Water Depth		Wk Ht Above Floor	6. ft		Job Completed	19 - Nov - 2010	06:02 MST
Perforation Depth (MD)	From		To		Departed Loc	19 - Nov - 2010	08:30 MST

Well Data

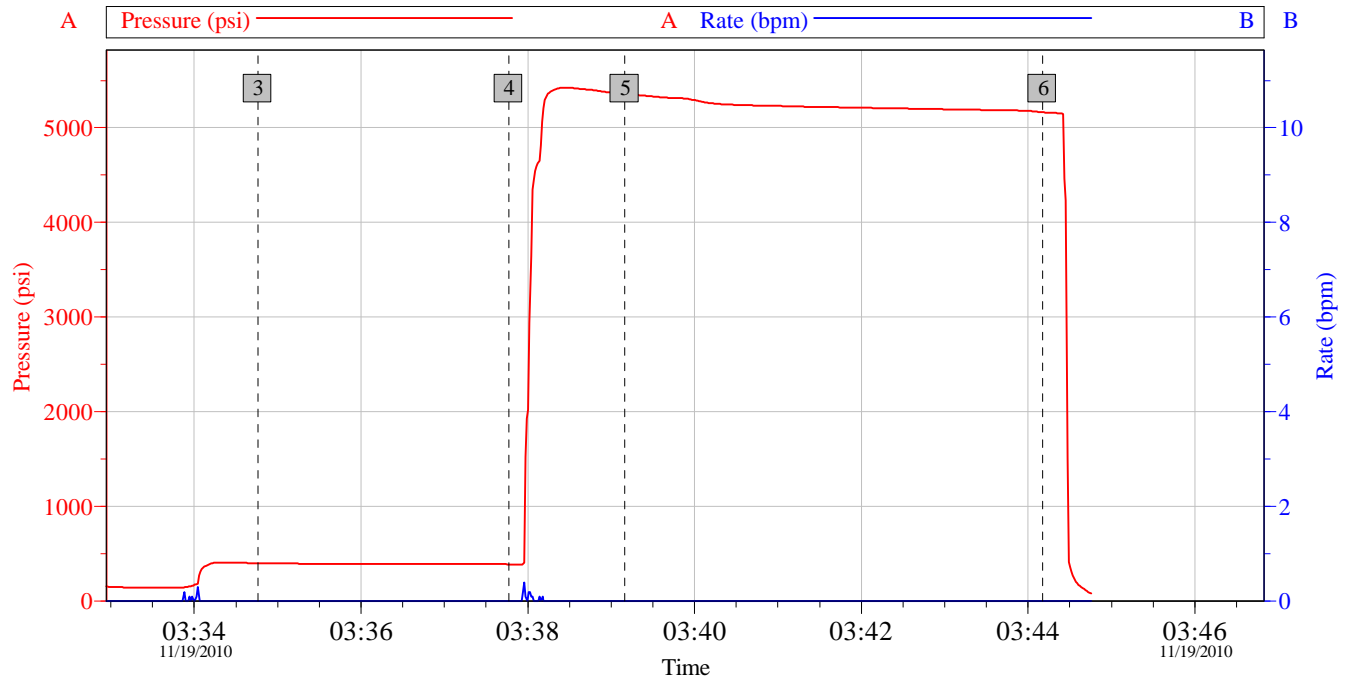
Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Production Open Hole				6.125				9654	13822	9507	13675
Intermediate Casing	Unknown		7.	6.276	26.	HYDRIL - SERIES 500 TYPE 513	P-110	0	9654	0	9507
Production Casing	Unknown		4.5	3.826	15.1	LTC	P-110	0	13812	0	13665.

Fluid Data									
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 bbl
1	Spacer	TUNED SPACER III - SBM (483826)	40.00	bbl	11.0	6.8	44.69	4.0	35.11
	36.83 gal/bbl	FRESH WATER							
	117.6 lbm/bbl	BARITE, BULK (100003681)							
2	Cement	VARICEM (TM) CEMENT (452009)	940.0	sacks	12.0	2.17	11.95	6.0	267
	12.124 Gal	FRESH WATER							
	0.26 %	FE-2 (100001615)							
3	Displacement	2% NaCl Water	190.0	bbl	8.45			4.0	
	7.15 lbm/bbl	SALT, 100 LB BAG (100003652)							
The Information Stated Herein Is Correct			Customer Representative Signature						

Data Acquisition

PCU 296-6A1 Production

Pressure Test

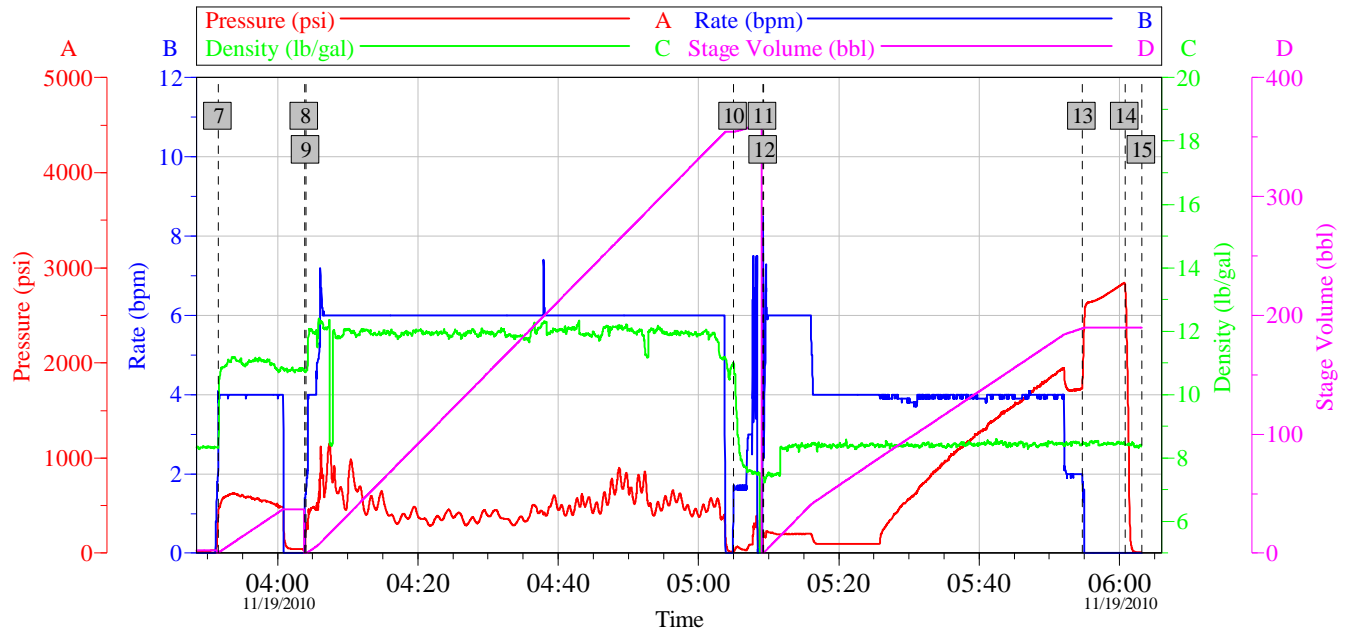


Job Log							
Intersection			PSI	Intersection			PSI
3	Start Low Pressure Test	03:34:46	402.0	4	End Low Pressure Test	03:37:46	390.0
5	Start High Pressure Test	03:39:10	5356	6	End High Pressure Test	03:44:10	5163

Customer: ExxonMobile	Job Date: 18-Nov-2010	Sales Order #: 7764362
Well Description: PCU 296-6A1	UWI: 05-103-11475	Rig: H&P 239

OptiCem v6.4.9
19-Nov-10 03:44

PCU 296-6A1 Production



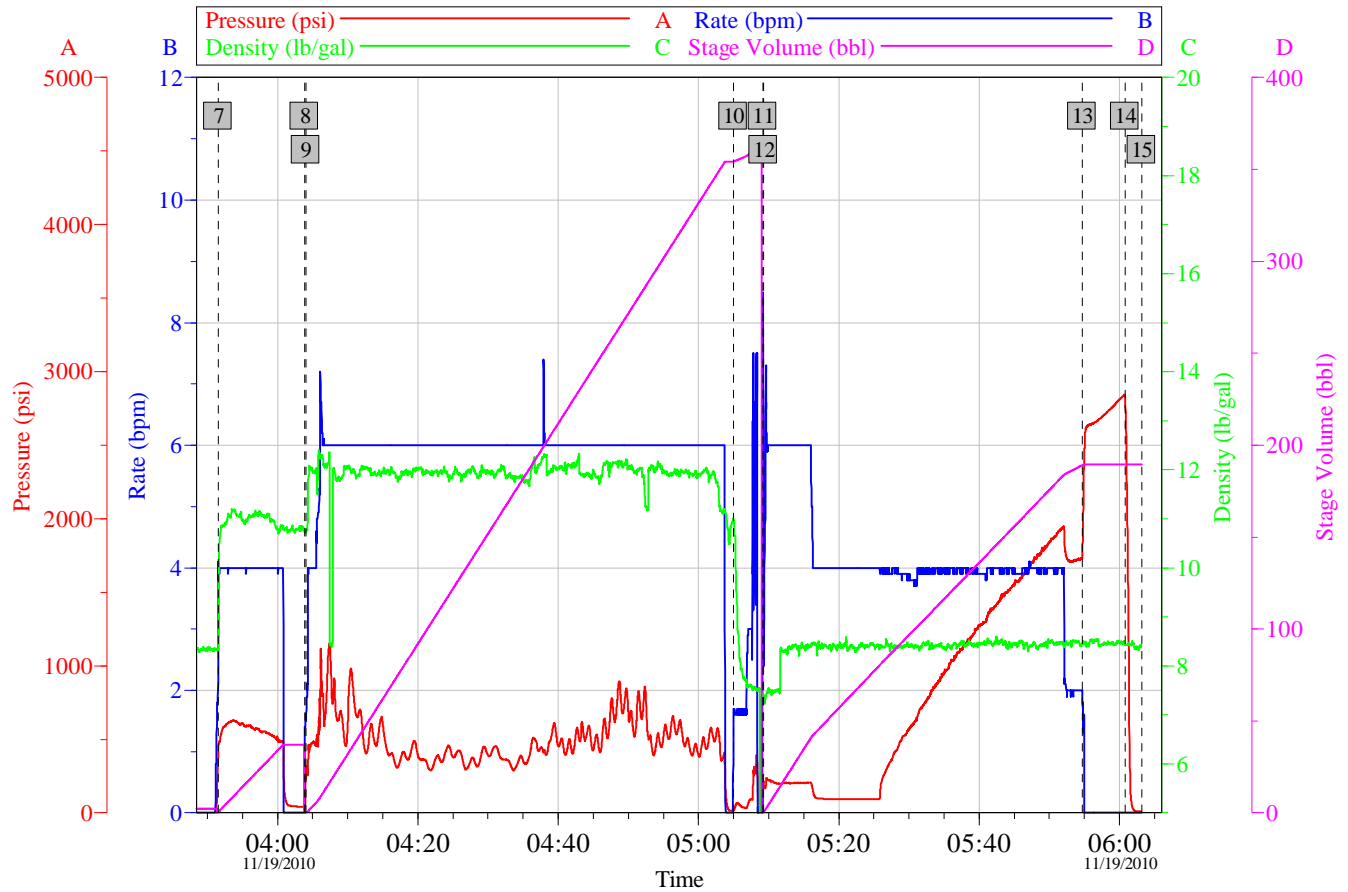
Job Log

7	TS III 11.0#	03:51:34	8	Primary Cement 12.0# (VariCem)	04:03:52
9	Drop Bottom Plug	04:04:02	10	Wash Lines to Pit	05:04:59
11	Displacement 2% NaCl	05:09:11	12	Drop Top Plug	05:09:16
13	Bump Plug	05:54:41	14	Check Floats	06:00:49
15	Ending Job	06:03:11			

Customer:	ExxonMobile	Job Date:	18-Nov-2010	Sales Order #:	7764362
Well Description:	PCU 296-6A1	UWI:	05-103-11475	Rig:	H&P 239

OptiCem v6.4.9
19-Nov-10 06:04

PCU 296-6A1 Production



Customer: ExxonMobile	Job Date: 18-Nov-2010	Sales Order #: 7764362
Well Description: PCU 296-6A1	UWI: 05-103-11475	Rig: H&P 239

OptiCem v6.4.9
19-Nov-10 06:05

HALLIBURTON

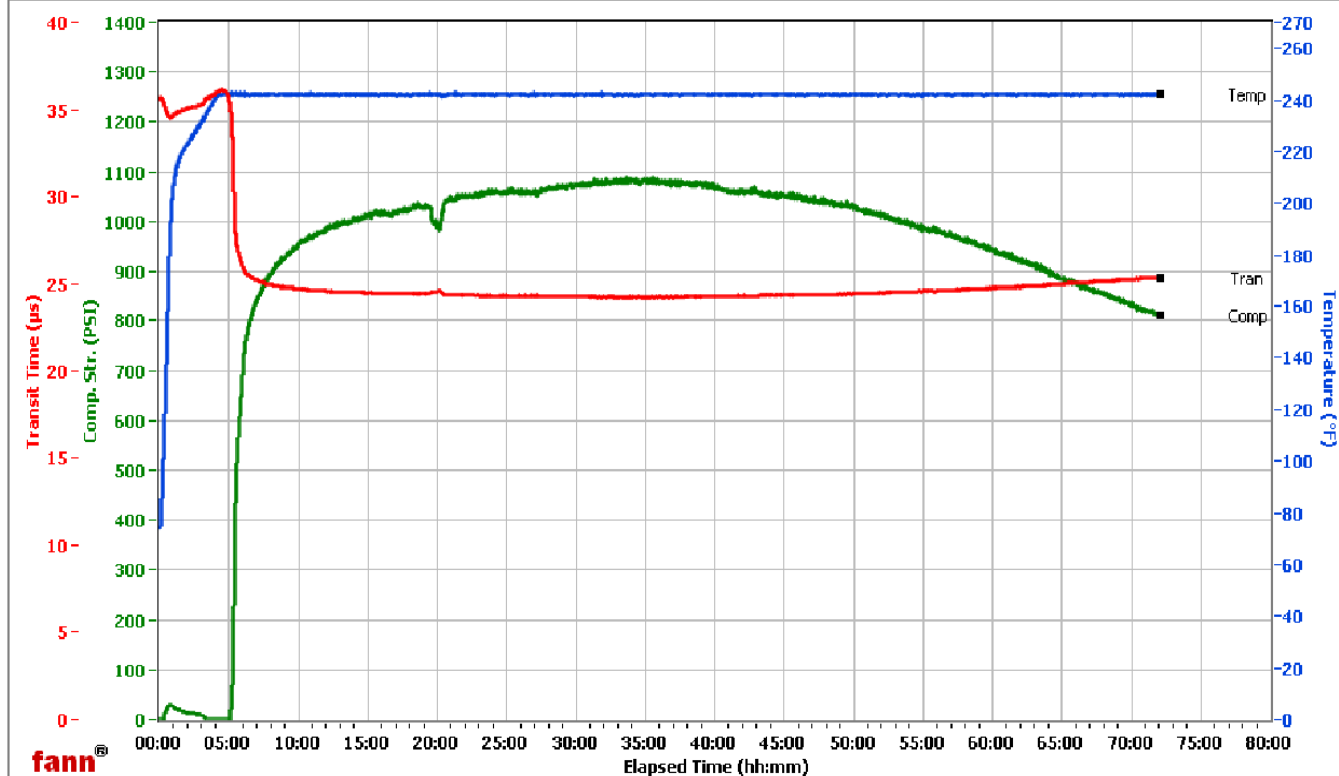
Lab Data

WRCR

Fields	Values
Project Name	ExxonMobil 109852-2
Test ID	109852-2
Request ID	UCA 1
Tested by	ac
Customer	ExxonMobil
Well No	PCU 296-6A1
Rig	H&P 239
Casing/Liner Size	

Fields	Values
Job Type	Prod Tail
Cement Type	TXI
Cement Weight	Light Weight
Test Date	11/13/2010
Test Time	2:20 PM
Temp. Units	degF
Pressure Units	PSI

Events	Results
50.00 PSI	05h:12m
100.00 PSI	05h:16m
500.00 PSI	05h:32m
1000.00 PSI	53h:53m
12h:00m	985.53
24h:00m	1060.54
48h:00m	1040.56
72h:00m	812.70



Data File C:\UCA Data\109852-2.tdms

Comments 100% TXI, 0.230% Fe-2, 2.17 Yield, 12.001 Den

