

The Road to Excellence Starts with Safety

Sold To #: 304535	Ship To #: 2946714	Quote #:	Sales Order #: 9757998
Customer: PDC ENERGY EBUS	Customer Rep: SAILORS, CHAD		
Well Name: Wells Ranch	Well #: 43-15	API/UWI #:	
Field: WATTENBERG	City (SAP): KERSEY	County/Parish: Weld	State: Colorado
Job Purpose: Recement Service			
Well Type: Development Well	Job Type: Recement Service		
Sales Person: AARON, WESLEY	Srv Supervisor: WHEELER, JUSTIN	MBU ID Emp #:	196470

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
DIRKS, RICHARD E	3.5	485940	HOLMES, ANDREW Malcom	3.5	520802	MEADOWS, DANIEL Graham	3.5	500668
PETERSON, ERIC Eugene	3.5	213272	WHEELER, JUSTIN W	3.5	196470			

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
11036301	50 mile	11542778	50 mile	11605599	50 mile	11748359	50 mile
NA	50 mile						

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
8-21-12	3.5	3						

TOTAL Total is the sum of each column separately

Job

Job Times

Formation Name	Formation Depth (MD)	Top	Bottom	Called Out	Date	Time	Time Zone
Form Type			BHST	On Location	21 - Aug - 2012	06:00	MST
Job depth MD	3000. ft		Job Depth TVD	Job Started	21 - Aug - 2012	07:02	MST
Water Depth			Wk Ht Above Floor	Job Completed	21 - Aug - 2012	08:45	MST
Perforation Depth (MD)	From		To	Departed Loc	21 - Aug - 2012	09:30	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 Casing	Unknown		4.5	4.	11.6			.	6900.	.	6900.
Tubing	Unknown		1.25	.824	2.4			.	3000. 2754	.	3000. 2754

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
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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	ClayWeb Water Spacer		10.00	bbl	8.33	.0	.0	2.0		
2	MUD FLUSH III	MUD FLUSH III - SBM (528788)	12.00	bbl	8.4	.0	.0	2.0		
3	ClayWeb Water Spacer		10.00	bbl	8.33	.0	.0	2.0		
59.525 gal/Mgal		CLA-WEB - TOTE (101985045)								
4	Varicem 12#	VARICEM (TM) CEMENT (452009)	405.0	sacks	12.	2.18	12.32	2.0	12.32	
12.32 Gal		FRESH WATER								
Calculated Values			Pressures		Volumes					
Displacement	1.5	Shut In: Instant		Lost Returns	No	Cement Slurry	157.2	Pad		
Top Of Cement	Surface	5 Min		Cement Returns	6 bbls	Actual Displacement	1.5	Treatment		
Frac Gradient		15 Min		Spacers	32	Load and Breakdown		Total Job		
Rates										
Circulating		Mixing		Displacement		Avg. Job				
Cement Left In Pipe	Amount	0 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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Well Name: Wells Ranch	Well #: 43-15	API/UWI #:	
Field: WATTENBERG	City (SAP): KERSEY	County/Parish: Weld	State: Colorado
Legal Description:			
Lat:	Long:		
Contractor:	Rig/Platform Name/Num:		
Job Purpose: Recement Service	Ticket Amount:		
Well Type: Development Well	Job Type: Recement Service		
Sales Person: AARON, WESLEY	Srvc Supervisor: WHEELER, JUSTIN	MBU ID Emp #:	196470

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Depart from Service Center or Other Site	08/21/2012 04:45							Journey Management Meeting With HES Crew Prior to Leaving Yard
Arrive At Loc	08/21/2012 06:00							
Safety Meeting - Pre Rig-Up	08/21/2012 06:10							Pre Rig-Up Meeting With HES Crew Prior to Rigging Up
Safety Meeting - Pre Job	08/21/2012 06:55							Safety Meeting With HES Crew and All 3rd Party Employees
Test Lines	08/21/2012 07:03							Pressure Test Lines to 3500 PSI
Pump Spacer	08/21/2012 07:05		1	10		520.0		Pump ClayWeb Water Spacer
Pump Spacer	08/21/2012 07:11		2	12		1450.0		Pump Mud Flush
Pump Spacer	08/21/2012 07:17		2	10		1420.0		Pump ClayWeb Water Spacer
Pump Cement	08/21/2012 07:25		2	157.2		1330.0		Mix and Pump 405 sks VariCem Cement @ 12 lb/gal (Density Verified By Pressurized Scales)
Spacer Returns to Surface	08/21/2012 08:20							Mud Flush Returns to Surface
Cement Returns to Surface	08/21/2012 08:40							6 BBLS Cement to Surface
Pump Displacement	08/21/2012 08:44		2	1.5		1245.0		Pump 1.5 bbls Fresh Water Displacement
Shutdown	08/21/2012 08:45							Shut-Down
End Job	08/21/2012 08:45							
Safety Meeting - Pre Rig-Down	08/21/2012 09:02							

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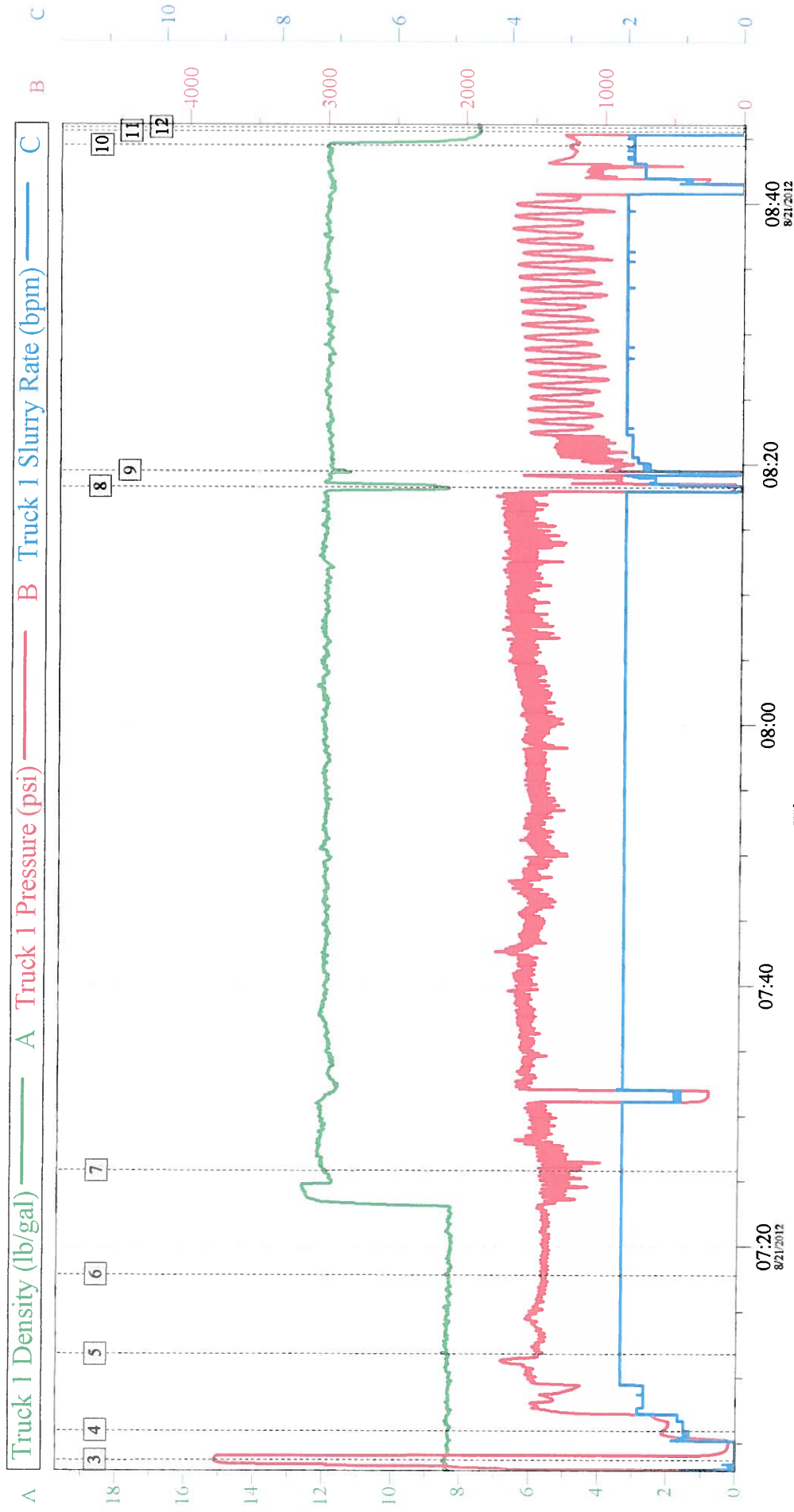
SUMMIT Version: 7.20.130

Tuesday, August 21, 2012 09:09:00

Cementing Job Log

Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Safety Meeting - Departing Location	08/21/2012 09:02							Journey Management Meeting With HES crew Prior to Leaving Location

**PDC - Wells Ranch 43-15
Annular Fill**

[illegible]

Customer:	PDC	Job Date: 21-Aug-2012	Sales Order #: 9757998
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OptiCem v6.4.9
21-Aug-12 09:00