

*The Road to Excellence Starts with Safety*

Sold To #: 304535	Ship To #: 2358182	Quote #:	Sales Order #: 8545767
Customer: PDC ENERGY EBUS		Customer Rep: SAILORS, CHAD	
Well Name: Cattlemen	Well #: 23-31D	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: FLING, MATTHEW	Svc Supervisor: SNYDER, JONATHAN	MBU ID Emp #: 435616	

**Job Personnel**

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
DILLON, ALAN Davis	5	484871	HOLLOWAY, DUSTIN	5	504032	SANFORD, DALE A	5	219527
SNYDER, JONATHAN Leroy	5	435616	WILEY, JAMES A	5	440080			

**Equipment**

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10246780C	45 mile	10948695	45 mile	11064535	45 mile	11338223	45 mile
11362287C	45 mile	11518550	45 mile				

**Job Hours**

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
10/13/2011	5	2.5			
TOTAL			Total is the sum of each column separately		

Formation Name	Formation Depth (MD)	Top	Bottom	Called Out	On Location	Date	Time	Time Zone
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Form Type			BHST		On Location	13 - Oct - 2011	06:00	MST
Job depth MD	3440 ft		Job Depth TVD	3440 ft	Job Started	13 - Oct - 2011	07:39	MST
Water Depth			Wk Ht Above Floor		Job Completed	13 - Oct - 2011	10:13	MST
Perforation Depth (MD)	From		To		Departed Loc	13 - Oct - 2011	11:00	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
Open Hole				9.				451.	3440.		
Production Casing	Unknown		4.5	4.052	10.5		J-55		6775.		
Surface Casing	Unknown		8.625	8.097	24.		J-55		412.		
TUBING	Unknown		1.25	.671	3.02				3440.		

**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 Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
Fluid #	Stage Type							

1	Clay/Fix III 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	Caly/Fix III Water Spacer		10.00	bbl	8.33	.0	.0	2.0	
	59.525 gal/Mgal	CLAYFIX 3, TOTETANK (101583425)							
4	Varicem 12#	VARICEM (TM) CEMENT (452009)	375.0	sacks	12.	2.18	12.34	2.0	12.34
	12.34 Gal	FRESH WATER							
5	Varicem 13#	VARICEM (TM) CEMENT (452009)	195.0	sacks	13.	1.71	8.84		8.84
	8.84 Gal	FRESH WATER							
<b>Calculated Values</b>		<b>Pressures</b>	<b>Volumes</b>						
Displacement	2.5	Shut In: Instant		Lost Returns		Cement Slurry	204	Pad	
Top Of Cement	0	5 Min		Cement Returns	19	Actual Displacement	2.5	Treatment	
Frac Gradient		15 Min		Spacers	0	Load and Breakdown		Total Job	
<b>Rates</b>									
Circulating	2	Mixing		2	Displacement		2	Avg. Job	2
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: Cattleman	Well #: 23-31D	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: FLING, MATTHEW	Svc Supervisor: SNYDER, JONATHAN	MBU ID Emp #: 435616	

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl	Pressure psig	Comments
Test Lines	10/13/2011 07:40					PRESSURE TEST LINES TO 3500 PSI
Pump Spacer 1	10/13/2011 07:41		2.3	10	1830.0	RIG WATER MIXED W/ CLAYFIX III
Pump Spacer 2	10/13/2011 07:46		2.3	12	1850.0	RIG WATER MIXED W/ MUDEFUSH III
Pump Spacer 1	10/13/2011 07:52		2.3	10	1870.0	RIG WATER MIXED W/ CLAYFIXIII
Pump Lead Cement	10/13/2011 07:56		2.2	145.5	2050.0	375 SKS VARICEM CEMENT MIXED @ 12 PPG W/ RIG WATER
Pump Displacement	10/13/2011 09:01		2	1.5	2070.0	RIG WATER SUPPLIED BY RIG
Shutdown	10/13/2011 09:07					
Resume	10/13/2011 09:35					
Pump Tail Cement	10/13/2011 09:42		2.4	59.3	930.0	195 SKS VARICEM CEMENT MIXED @ 13 PPG W/ RIG WATER, 19 BBLs OF CEMENT BACK TO SURFACE
Pump Displacement	10/13/2011 10:08		2.4	1	975.0	RIG WATER SUPPLIED BY RIG
End Job	10/13/2011 10:13					GOOD RETURNS THROUGHOUT THE JOB