

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 304535	Ship To #: 2845538	Quote #:	Sales Order #: 8065038
Customer: PDC ENERGY EBUS	Well Name: Wells Ranch	Customer Rep: Lefore, Tom	
Field: WATTENBERG	City (SAP):	Well #: 14-14	API/UWI #: 05-123-25608-00
Lat: N 40.394 deg. OR N 40 deg. 23 min. 39.61 secs.	County/Parish: Weld	State: Colorado	
Contractor: BWS	Rig/Platform Name/Num: #21		
Job Purpose: Recement Service	Job Type: Recement Service		
Well Type: Development Well	Svc Supervisor: LAVALLEY, LARRY	MBU ID Emp #: 419296	
Sales Person: FLING, MATTHEW			

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
HALE, ROBERT E	3	470588	LAVALLEY, LARRY P	3	419296	OZBUN, RYAN Jacob	3	475709

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10025030	57 mile	10822531C	57 mile	11488570C	57 mile	11518549	57 mile

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
3/28/11	3	1			
TOTAL			Total is the sum of each column separately		

Job

Formation Name	Formation Depth (MD)	Top	Bottom	Called Out	Date	Time	Time Zone
Form Type		BHST		On Location	28 - Mar - 2011	10:00	MST
Job depth MD	1750. ft	Job Depth TVD	1750. ft	Job Started	28 - Mar - 2011	12:12	MST
Water Depth		Wk Ht Above Floor	6. ft	Job Completed	28 - Mar - 2011	13:17	MST
Perforation Depth (MD)	From	To		Departed Loc	28 - Mar - 2011	14:15	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.				409.	1750.		
Production Casing	Unknown		4.5	4.052	10.5		J-55		6755.		
Surface Casing	Unknown		8.625	8.097	24.		J-55		409.		
TUBING	Unknown		1.25	.671	3.02				1750.		

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	Conc	Surfactant	Conc	Acid Type	Qty	Conc	%
Treatment Fld	Conc	Conc	Inhibitor	Conc	Sand Type	Size	Qty	

HALLIBURTON

Cementing Job Summary

Stage/Plug #: 1				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 Gal/sk		
1	ClayFix 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	CalyFix III Water Spacer		10.00	bbl	8.33	.0	.0	2.0			
59.525 gal/Mgal			CLAYFIX 3, TOTETANK (101583425)								
4	Extendacem 11.3#	EXTENDACEM (TM) SYSTEM (452981)	165.0	sacks	11.3	2.4	13.85	2.0	13.85		
13.85 Gal			FRESH WATER								
5	VarCem 13.0#	VARICEM (TM) CEMENT (452009)	85.0	sacks	13.	1.71	8.82	2.0	8.82		
3 lbm			SILICALITE - COMPACTED, 50 LB SK (100012223)								
3 %			SALT, 100 LB BAG (100003652)								
1.5 %			ECONOLITE (100001580)								
8.823 Gal			FRESH WATER								
Calculated Values			Pressures			Volumes					
Displacement	3	Shut In: Instant	Lost Returns	0	Cement Slurry	97	Pad				
Top Of Cement		5 Min	Cement Returns	5	Actual Displacement	3	Treatment				
Frac Gradient		15 Min	Spacers	32	Load and Breakdown		Total Job	132			
Rates											
Circulating		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							

The Road to Excellence Starts with Safety

Sold To #: 304535		Ship To #: 2845538		Quote #:		Sales Order #: 8065038	
Customer: PDC ENERGY EBUS				Customer Rep: Lefore, Tom			
Well Name: Wells Ranch		Well #: 14-14		API/UWI #: 05-123-25608-00			
Field: WATTENBERG		City (SAP):		County/Parish: Weld		State: Colorado	
Legal Description:							
Lat: N 40.394 deg. OR N 40 deg. 23 min. 39.61 secs.				Long: W 104.41 deg. OR W -105 deg. 35 min. 23.316 secs.			
Contractor: BWS		Rig/Platform Name/Num: #21		Ticket Amount:			
Job Purpose: Recement Service		Job Type: Recement Service					
Well Type: Development Well		Srv Supervisor: LAVALLEY, LARRY		MBU ID Emp #: 419296			
Sales Person: FLING, MATTHEW							

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Start Job	03/28/2011 12:12							WELL CIRCULATED 1 HOUR PRIOR TO CEMENTING
Test Lines	03/28/2011 12:13					3500.0		TEST LINES WITH RIG WATER
Pump Spacer 1	03/28/2011 12:14		2	10	10		50.0	RIG WATER WITH CLAYFIX III
Pump Spacer 2	03/28/2011 12:19		2	12	22		953.0	RIG WATER WITH MUDEFUSH III
Pump Spacer 1	03/28/2011 12:26		2	10	32		954.0	RIG WATER WITH CLAYFIX III
Pump Lead Cement	03/28/2011 12:32		2	70	102		1006.0	165 SKS EXTENDACEM 11.3 PPG MIXED WITH RIG WATER
Pump Displacement	03/28/2011 13:07		2	1.5	103.5		1084.0	RIG WATER
Shutdown	03/28/2011 13:17							SHUTDOWN WHILE RIG PULLED STANDS
Pump Tail Cement	03/28/2011 13:27		2	27	130.5		579.0	85 SKS VARICEM 13 PPG MIXED WITH RIG WATER
Pump Displacement	03/28/2011 13:40		2	1.5	132		567.0	RIG WATER
End Job	03/28/2011 13:42							