

BILL BARRETT CORPORATION E-BILL

Greasewood 4-8H

Cade/24

## **Post Job Summary**

# **Cement Intermediate Casing**

Date Prepared: 10/3/2013  
Version: 1

Service Supervisor: FANTASIA, JOSEPH

Submitted by: LANSDALE, JUSTIN

**HALLIBURTON**

## Wellbore Geometry

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Job Tubulars					MD		TVD		Shoe Joint Length ft
Type	Description	Size in	ID in	Wt lbm/ft	Top ft	Bottom ft	Top ft	Bottom ft	
Casing	9 5/8" Surface Casing	9.63	8.921	36.00	0.00	864.00			
Open Hole Section	8 3/4" Open Hole		8.750		864.00	6,700.00	864.00	6,274.00	
Casing	7" Intermediate Casing	7.00	6.276	26.00	0.00	6,612.00	0.00	6,274.00	42.00

# HALLIBURTON

## Pumping Schedule

Stage /Plug #	Fluid #	Fluid Type	Fluid Name	Surface Density lbm/gal	Avg Rate bbl/min	Surface Volume	Downhole Volume
1	1	Spacer	TUNED SPACER III	11.50	3.00	40.0 bbl	40.0 bbl
1	2	Cement Slurry	ExtendaCem B1	12.50	5.00	405.0 sacks	405.0 sacks
1	3	Cement Slurry	EXPANDACEM B1	13.50	4.00	175.0 sacks	175.0 sacks
1	4	Mud	MUD DISPLACEMENT	9.60	7.00		250 bbl

## Fluids Pumped

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

Fluid Density: 11.50 lbm/gal  
Fluid Volume: 40.00 bbl

**Stage/Plug # 1      Fluid 2:**      ExtendaCem B1  
ECONOCEM (TM) SYSTEM  
5 lbm Silicalite Compacted

Fluid Weight: 12.50 lbm/gal  
Slurry Yield: 1.97 ft<sup>3</sup>/sack  
Total Mixing Fluid: 10.72 Gal  
Surface Volume: 405.0 sacks  
Sacks: 405.0 sacks

**Stage/Plug # 1      Fluid 3:**      EXPANDACEM B1  
FRACCEN (TM) SYSTEM

Fluid Weight: 13.50 lbm/gal  
Slurry Yield: 1.74 ft<sup>3</sup>/sack  
Total Mixing Fluid: 8.30 Gal  
Surface Volume: 175.0 sacks  
Sacks: 175.0 sacks

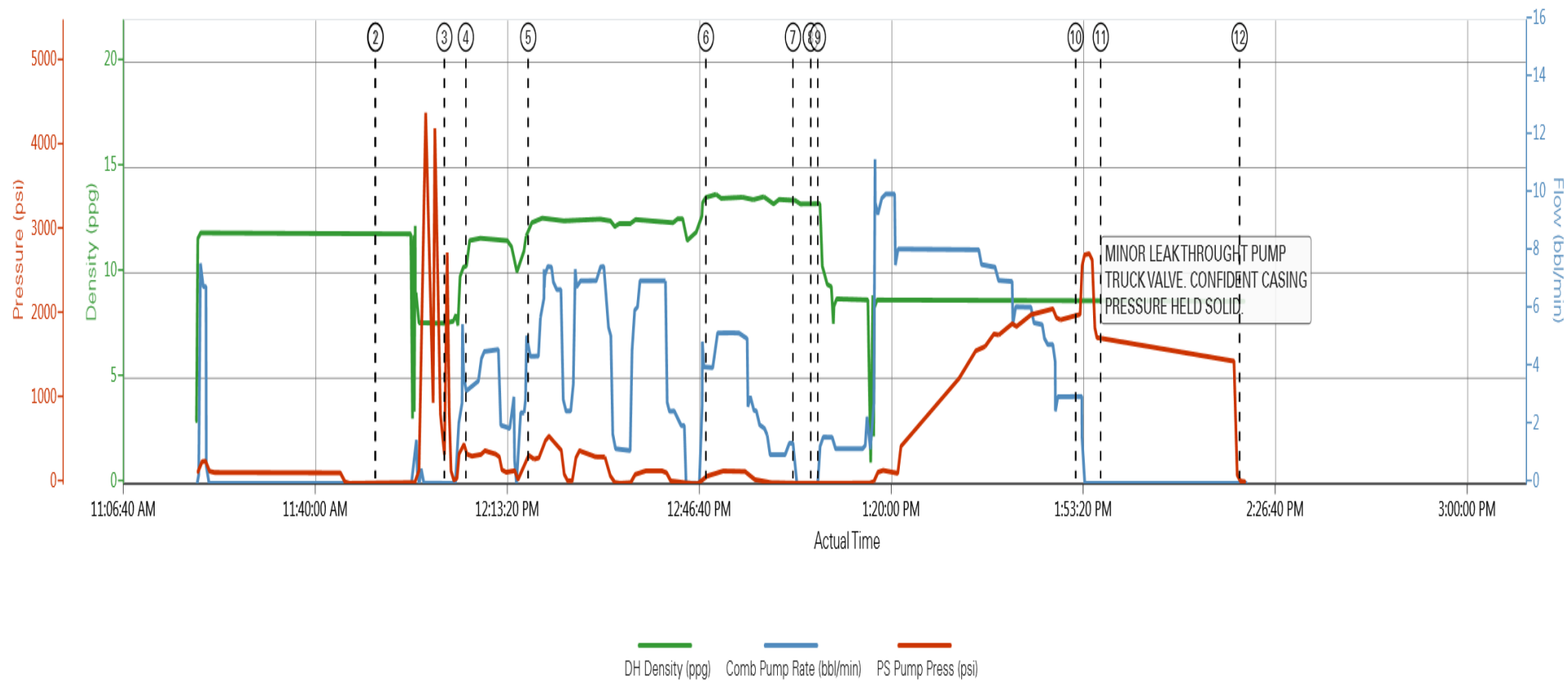
**Stage/Plug # 1      Fluid 4:**      MUD  
DISPLACEMENT

Fluid Density: 9.60 lbm/gal

# HALLIBURTON

## Data Acquisition

### GREASEWOOD 4-8H INTERMEDIATE



- |                    |                     |                        |
|--------------------|---------------------|------------------------|
| ① Other            | ⑥ Pump Tail Cement  | ⑪ Casing Pressure Test |
| ② Start Job        | ⑦ Shutdown          | ⑫ End Job              |
| ③ Test Lines       | ⑧ Drop Top Plug     |                        |
| ④ Pump Spacer 1    | ⑨ Pump Displacement |                        |
| ⑤ Pump Lead Cement | ⑩ Bump Plug         |                        |

▲ Halliburton | iCem Service®

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Edit

# HALLIBURTON

## Service Supervisor Reports

### Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump		Pressure (psig)		Comments
09/15/2013 08:00		Arrive at Location from Service Center							ARRIVE AT LOCATION AND PERFORM HAZARD HUNT AND SITE ASSESSMENT WITH CREW.
09/15/2013 08:15		Assessment Of Location Safety Meeting							
09/15/2013 11:45		Start Job							PERFORM PRE JOB SAFETY MEETING WITH ALL PRESENT PERSONELL.
09/15/2013 12:02		Test Lines							PRESSURE TEST LINES TO 4000 PSI.
09/15/2013 12:06		Pump Spacer 1	3	40				339.0	40 BBLS TUNED SPACER MIXED AT 11.5 PPG
09/15/2013 12:17		Pump Lead Cement	5	142				318.0	405 SKS EXTENDACEM MIXED AT 12.5 PPG USING RIG WATER
09/15/2013 12:48		Pump Tail Cement	4	54				120.0	175SKS EXPANDACEM MIXED AT 13.5 PPG USING RIG WATER
09/15/2013 13:03		Shutdown							
09/15/2013 13:06		Drop Top Plug							TOP PLUG PRELOADED
09/15/2013 13:07		Pump Displacement	7	250				168.0	GOOD RETURNS THROUGHOUT. SPACER TO SURFACE AT 190 BBLS INTO 250 BBLS TOTAL DISPLACEMENT. APPROX 40 BBLS SPACER AND 20 BBLS CEMENT TO SURFACE.
09/15/2013 13:52		Bump Plug	3						PLUG LANDED AT 2000 PSI. PRESSURE BROUGHT TO 2800 PSI AND HELD FOR 3 MIN.
09/15/2013 13:56		Pressure Test						1600.0	BLEED BUMP PRESSURE OFF TO 1500 PSI AND HOLD FOR 30 MIN. PRESSURE BLEED OFF SLOWLY DUE TO SMALL LEAK ON PUMP TRUCK RELEASE LINE.LOST ABOUT 200 PSI.
09/15/2013 14:25		Check Floats							FLOATS HELD
09/15/2013 14:35		Post-Job Safety Meeting (Pre Rig-Down)							PERFORM PRE RIG DOWN SAFETY MEETING WITH CREW PRIOR TO RIGGING DOWN.
09/15/2013 14:45		End Job							

## The Road to Excellence Starts with Safety

The Road to Excellence Starts with Safety			
Sold To #: 343492	Ship To #: 3099539	Quote #:	Sales Order #: 900746106
Customer: BILL BARRETT CORPORATION E-BILL		Customer Rep: Gritts, Kim	
Well Name: Greasewood		Well #: 4-8H	API/UWI #: 05-123-36317
Field: WATTENBURG	City (SAP): KERSEY	County/Parish: Weld	State: Colorado
Lat: N 40.497 deg. OR N 40 deg. 29 min. 48.89 secs.		Long: W 104.234 deg. OR W -105 deg. 45 min. 58.111 secs.	
Contractor: CADE		Rig/Platform Name/Num: Cade 24	
Job Purpose: Cement Intermediate Casing			
Well Type: Development Well		Job Type: Cement Intermediate Casing	
Sales Person: GREGORY, JON		Srvc Supervisor: FANTASIA, JOSEPH	MBU ID Emp #: 485445

## Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
CORONADO, EDI	7.0	123456	FANTASIA, JOSEPH Brandon	7.0	485445	HINKLE, BRADLEY Dean	7.0	512123
MILLS, CHUCK	7.0	123456	PRICE, JEREMIAH	7.0	123456			

## Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10866497C	80 mile	11064046C	80 mile	11488570C	80 mile	11764052	80 mile
11764737	80 mile						

## Job

## Job Times

Formation Name				Date	Time	Time Zone
Formation Depth (MD)	Top	Bottom		Called Out	15 - Sep - 2013	03:00 MST
Form Type	BHST			On Location	15 - Sep - 2013	08:00 MST
Job depth MD	6612. ft	Job Depth TVD	6274. ft	Job Started	15 - Sep - 2013	11:45 MST
Water Depth		Wk Ht Above Floor		Job Completed	15 - Sep - 2013	14:20 MST
Perforation Depth (MD)	From	To		Departed Loc	15 - Sep - 2013	15:00 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
8 3/4" Open Hole				8.75				864.	6700.	864.	6274.
7" Intermediate Casing	New		7.	6.276	26.	LTC	HCP110	.	6612.	.	6274.
9 5/8" Surface Casing	Unknown		9.625	8.921	36.		J-55	.	864.		

## Fluid Data

Stage/Plug #: 1											
Fluid #	Stage Type	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		

1	TUNED SPACER III	TUNED SPACER III - SBM (483826)	40.00	bbl	11.5	7.21	53.96	3	
	146.5 lbm/bbl	BARITE, 100 LB SK (100003680)							
	36.09 gal/bbl	FRESH WATER							
2	ExtendaCem B1	ECONOCEM (TM) SYSTEM (452992)	405.0	sacks	12.5	1.97	10.72	5	10.72
	5 lbm	SILICALITE - COMPACTED, 50 LB SK (100012223)							
	10.72 Gal	FRESH WATER							
3	EXPANDACEM B1	FRACCEM (TM) SYSTEM (452963)	175.0	sacks	13.5	1.74	8.3	4	8.3
	8.3 Gal	FRESH WATER							
4	MUD DISPLACEMENT			bbl	9.6			7	
<b>Rates</b>									
Circulating		Mixing		Displacement		Avg. Job			
Cement Left In Pipe	Amount	42 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					

