

# HALLIBURTON

iCem® Service

## **BILL BARRETT CORPORATION E-BILL**

Date: Wednesday, April 30, 2014

**STATE OF CO 1S-66-36-1609CH**

Sincerely,  
Mollye Hinds

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**1.1 Cementing Job Summary**

<b>The Road to Excellence Starts with Safety</b>						
Sold To #: <b>343492</b>		Ship To #: <b>3363386</b>		Primary Sales Order #: <b>901238180</b>		
Customer: <b>BILL BARRETT CORPORATION E-BILL</b>				Job Purpose: <b>Plug Service - Whipstock</b>		
Well Name: <b>State of CO</b>				Well #: <b>1S-66-36-1609CH</b>		API/UWI #: <b>05-001-09785</b>
Field: <b>THIRD CREEK</b>		City: <b>COMMERCE CITY</b>		County/Parish: <b>Denver</b>		State/Prov: <b>Colorado</b>
Customer Rep: <b>BBC, ROBERT</b> Mobile: <b>970-309-0755</b>						
Ordered By: <b>BBC, ROBERT</b> Mobile: <b>970-309-0755</b>						
Contractor: <b>Nabors Drilling;</b>						
Rig/Platform Name/Num: <b>Nabors M-37</b>						Location: <b>Land</b>
Sales Person: <b>GREGORY, JON</b>				Status: <b>Pending/Will-Call</b>		
<b>PPE, Safety Huddles, JSA's, HOC &amp; Near Miss Reporting, BBP Observations</b>						
Distance/Mileage(1 way) Srvc's:		<b>20.0 miles</b>		Distance/Mileage(1 way) Mtls:		<b>20.0 miles</b>
Call Taken By:		<b>JARED WHIPPLE</b>		Call Taken Date/Time:		
				Rqstd Job Start Date/Time:		<b>01-Apr-2014 00:00 GMT</b>
<b>HSE Information</b>						
H2S Present:		<b>Unknown</b>		CO2 Present:		<b>Unknown</b>
<b>Drive Safely. Lights On for Safety. Wear Seat Belts. Observe all HES / Customer Safety Policies.</b>						
Directions: <b>South on HWY 85 to 136 AVE, east on 136 to Buckley RD, South on Buckley RD to 120th Ave, east on 120th AVE to Picadilly RD, Noth on Pciadilly Rd to location.</b>						
<b>Remarks</b>						
Materials: <b>4" XT39 Crossover needed</b> <b>will be setting plugs from 3600-3100 and form 2000-1500</b>						
<b>Job Procedures</b>						
<b>We have 80bbbls of Tuned Spacer Total. We are going to be using 40bbbls per plug and balance them in the hole</b>						
<b>Pumping Equipment (Generic)</b>						
Description	Qty	Comments	Description	Qty	Comments	
<b>RCM PUMP TRUCK</b>	<b>1</b>		<b>TRACTOR, STANDARD</b>	<b>2</b>		
<b>BULK TRUCKS</b>	<b>1</b>		<b>PICK UP TRUCK</b>	<b>1</b>		
<b>WINCH TRUCKS</b>	<b>1</b>		<b>FIELD STORAGE BIN</b>	<b>1</b>		
<b>Surface Equipment (Generic)</b>						
Description	Qty	Comments	Description	Qty	Comments	
<b>LO-TORC VALVES 2"</b>	<b>1</b>		<b>SWAGE</b>	<b>1</b>		
<b>Job Info / Well Data</b>						
Job Depth (MD) ft	Job Depth (TVD) ft	Max Pressure psig	Well Fluid Type	Well Fluid Weight lbm/gal	Displacement Fluid	Displ Fluid Weight lbm/gal
<b>3600.0</b>	<b>3100.0</b>		<b>Polymer Mud</b>	<b>10.0</b>		
<b>Tie on Connection</b>						
Size: <b>4 in</b>		Thread: <b>XT-39</b>		Type: <b>Drill Pipe</b>		Cross Over Required: <b>No</b>

Materials									
Stage/Plug #: 1									
Fluid #	Fluid Name	Package/SBM/Material Name	Rqstd Del Qty	UOM	Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Fluid+Liq AddGal/sk
1	TUNED SPACER III	TUNED SPACER III - SBM (483826)	80.00	bbl	12.0	10.48	78.7	5.0	
Fluid #	Fluid Name	Package/SBM/Material Name	Rqstd Del Qty	UOM	Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Fluid+Liq AddGal/sk
2	Plug 1	GRANITECEM (TM) SYSTEM (452966)	182	sacks	15.8	1.15	4.93		4.93
0.2 %		HR-5, 50 LB SK (100005050) Pre-Mix Dry							
4.93 Gal		FRESH WATER Mix-On-Fly to Slurry							
Fluid #	Fluid Name	Package/SBM/Material Name	Rqstd Del Qty	UOM	Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Fluid+Liq AddGal/sk
3	Plug 2	GRANITECEM (TM) SYSTEM (452966)	225	sacks	17.5	.94	3.34		3.34
0.1 %		HR-5, 50 LB SK (100005050) Pre-Mix Dry							
3.34 Gal		FRESH WATER Mix-On-Fly to Slurry							
Packaged Materials									
SAP #	Material		Qty	UOM	Comments				
100003681	BARITE, BULK		23500.0	lbm					
101552352	TUNED SPACER III, 40 LB SACK		1708.0	lbm					

## 1.2 Planned Pumping Schedule

Fluid #	Fluid Name	Package/SBM/Material Name	Volume	Density lbm/gal	Rate bbl/min
1	Spacer	TUNED SPACER III	80 bbl	12.0	3.0
2	Plug 1	GRANITECEM	182 sacks	15.8	3.0
3	Plug 2	GRANITECEM	225 sacks	17.5	5.0

**1.3 Job Event Log**

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	PS Pump Press (psi)	Recirc Density (ppg)	Driv-Side Pump Rate (bbl/min)	Comment
Event	1	Start Job	Start Job	4/10/2014	02:29:35	COM1	8.32	-2.00	12.32	0.00	
Event	2	Test Lines	Test Lines	4/10/2014	02:37:06	COM1	8.34	126.00	11.74	0.00	
Event	3	Pump Spacer 1	Pump Spacer 1	4/10/2014	02:40:45	COM1	8.43	26.00	11.64	3.00	
Event	4	Pump Lead Cement	Pump Lead Cement	4/10/2014	02:55:24	COM1	11.84	348.00	12.49	3.30	
Event	5	Pump Tail Cement	Pump Tail Cement	4/10/2014	03:20:20	COM1	12.61	141.00	13.69	5.10	
Event	6	Shutdown	Shutdown	4/10/2014	03:42:55	COM1	13.73	29.00	11.40	0.00	
Event	7	Drop Top Plug	Drop Top Plug	4/10/2014	03:45:35	COM1	13.66	4.00	-0.13	0.00	
Event	8	Pump Displacement	Pump Displacement	4/10/2014	03:45:39	COM1	13.69	4.00	-0.13	0.00	
Event	9	Bump Plug	Bump Plug	4/10/2014	04:45:03	COM1	8.34	2415.00	-0.13	0.00	
Event	10	Pressure Up Well	Pressure Up Well	4/10/2014	04:48:40	COM1	8.43	1516.00	-0.13	0.00	
Event	11	Other	Other	4/10/2014	04:54:04	COM1	9.20	80.00	-0.13	0.00	
Event	12	End Job	End Job	4/10/2014	04:54:09	COM1	9.30	50.00	-0.13	0.00	

## 2.0 Job Graphs

### 2.1 Job Summary

