
WEXPRO COMPANY E-BILL

**BW Musser 39
POWDER WASH
Moffat County, Colorado**

Cement Production Casing
28-November-2011

Post Job Report

The Road to Excellence Starts with Safety

Sold To #: 343491	Ship To #: 2890402	Quote #:	Sales Order #: 9070690
Customer: WEXPRO COMPANY E-BILL		Customer Rep: SST 88, Wexpro	
Well Name: BW Musser		Well #: 39	API/UWI #: 05-081-07619
Field: POWDER WASH	City (SAP): CRAIG	County/Parish: Moffat	State: Colorado
Legal Description: Section 4 Township 11N Range 97W			
Contractor: Wexpro		Rig/Platform Name/Num: SST 88	
Job Purpose: Cement Production Casing			
Well Type: Development Well		Job Type: Cement Production Casing	
Sales Person: VOLNER, THOMAS		Srvc Supervisor: CAUDILL, BRIAN	MBU ID Emp #: 433515

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BARKER, DANIEL Robert	8	495985	BERRY, TYREE Douglas	8	490164	CAUDILL, BRIAN David	8	433515
DICKENSON, STEVEN Patrick	8	444481	RASMUSSEN, BRYCE L	8	489414	TIPPETTS, LLOYD Allen	8	441109

Equipment

HES Unit #	Distance-1 way						
10025026C	100 mile	10238645C	100 mile	10624096C	100 mile	10783485	100 mile
10998520	100 mile	11056351	100 mile	11106721	100 mile	11139332	100 mile
11288862	100 mile	11380725	100 mile	11700026	100 mile		

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
11/28/11	8	4.5						
TOTAL	<i>Total is the sum of each column separately</i>							

Job

Job Times

Formation Name	Date	Time	Time Zone
Formation Depth (MD) Top Bottom	Called Out	28 - Nov - 2011	01:00 MST
Form Type BHST	On Location	28 - Nov - 2011	06:15 MST
Job depth MD 9139. ft	Job Started	28 - Nov - 2011	10:34 MST
Water Depth	Job Completed	28 - Nov - 2011	13:01 MST
Perforation Depth (MD) From To	Departed Loc	28 - Nov - 2011	14:30 MST

Well Data

Description	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Surface Casing		9.625	8.921	36.		J-55	.	1523.		
Production Open Hole			7.875				1523.	9145.		
Production Casing		4.5	3.92	13.5		P-110	.	9139.		

Sales/Rental/3rd Party (HES)

Description	Qty	Qty uom	Depth	Supplier
MICRO MATRIX RETARDER	3	GAL		
PLUG,CMTG, TOP,4 1/2,HWE,3.65 MIN/4.14 MA	1	EA		
PLUG,CMTG,BOT,4 1/2,HWE,3.65 MIN/4.14 MA	1	EA		

Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug	4.5	1	HES
Float Shoe					Bridge Plug					Bottom Plug	4.5	1	HES
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container	4.5	1	HES
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
1	MUD FLUSH III	MUD FLUSH III - SBM (528788)	20.00	bbl	8.4			2.0	
	42 gal/bbl	FRESH WATER							
	0.25 gal/bbl	D-AIR 3000L, 5 GAL PAIL (101007444)							
2	ExtendaCem RS1	EXTENDACEM (TM) SYSTEM (452981)	445.0	sacks	11.5	2.63	15.5	7.0	15.5
	0.8 %	HR-7 (100005055)							
	0.125 lbm	POLY-E-FLAKE (101216940)							
	0.25 lbm	KWIK SEAL, SK (100064010)							
	15.5 Gal	FRESH WATER							
3	EconoCem RS13	ECONOCEM (TM) SYSTEM (452992)	1630.0	sacks	14.2	1.26	5.52	7.0	5.52
	0.2 %	HR-5, 50 LB SK (100005050)							
	0.125 lbm	POLY-E-FLAKE (101216940)							
	3 lbm	SILICALITE - COMPACTED, 50 LB SK (100012223)							
	0.25 lbm	KWIK SEAL, SK (100064010)							
	5.52 Gal	FRESH WATER							
4	ClaySurf EZ		150.00	bbl	8.4			6.0	
	0.1 gal/bbl	CLAYSURF-EZ, TOTETANK (101532967)							
Calculated Values		Pressures		Volumes					
Displacement	136	Shut In: Instant		Lost Returns		Cement Slurry	574	Pad	
Top Of Cement	SURFACE	5 Min		Cement Returns	227	Actual Displacement	136	Treatment	
Frac Gradient		15 Min		Spacers	23	Load and Breakdown		Total Job	733
Rates									
Circulating	7	Mixing		7	Displacement	6	Avg. Job		7
Cement Left In Pipe	Amount	15 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					

Planned Pump Schedule

Wexpro BW Musser 39 Production Casing

1. Pressure Test HES Lines

2. Pump Spacer

	Name	Density (lb/gal)	Volume (bbls)	Rate (bpm)	Surfactants
2a.	Mud Flush III	8.4	20	3	

3. Pump Cement

	Name	Density (lb/gal)	Slurry Volume (bbls)	Rate (bpm)	Mix Water Required (bbls)
3a.	ExtendaCem RS1-Lead	11.5	208.8	6	164.2
3b.	EconoCem RS13-Tail	14.2	365.6	6	214.3

4. Shutdown, Wash Pumps and Lines, Drop Top Plug

5. Displacement

	Name	Density (lb/gal)	Volume (bbls)	Rate (bpm)
5a.	WBM	10.5	110.0	6
5b.	WBM	10.5	25.8	2

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Field: POWDER WASH	City (SAP): CRAIG	County/Parish: Moffat	State: Colorado
Legal Description: Section 4 Township 11N Range 97W			
Lat: N 0 deg. OR N 0 deg. 0 min. 0 secs.		Long: E 0 deg. OR E 0 deg. 0 min. 0 secs.	
Contractor: Wexpro		Rig/Platform Name/Num: SST 88	
Job Purpose: Cement Production Casing			Ticket Amount:
Well Type: Development Well		Job Type: Cement Production Casing	
Sales Person: VOLNER, THOMAS		Srvc Supervisor: CAUDILL, BRIAN	MBU ID Emp #: 433515

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	11/28/2011 01:00							REQUESTED ON LOCATION AT 07:00.
Pre-Convoy Safety Meeting	11/28/2011 03:00							
Crew Leave Yard	11/28/2011 03:10							
Arrive At Loc	11/28/2011 06:15							
Assessment Of Location Safety Meeting	11/28/2011 06:20							
Wait on Customer or Customer Sub-Contractor Equip	11/28/2011 07:00							WAITING FOR CASING TO BE RUN AND WELL TO BE CIRCULATED.
Rig-Up Equipment	11/28/2011 09:00							
Pre-Job Safety Meeting	11/28/2011 10:15							PUMP RATE PER COMPANY MAN REQUEST.
Rig-Up Completed	11/28/2011 10:30							
Start Job	11/28/2011 10:34	1	2	3	3		300.0	FILL LINES.
Pressure Test	11/28/2011 10:38	2						PRESSURE TEST HES IRON TO 8450 PSI. NO LEAKS.
Pump Spacer	11/28/2011 10:39	3	2	20	23		240.0	PUMP MUD FLUSH III.
Pump Lead Cement	11/28/2011 10:47	4	7	208	208		868.0	PUMP 445 SKS OF EXTENDACEM RS1 AT 11.5 LB/GAL, 2.63 CF/SK, AND 15.50 GAL/SK.
Pump Tail Cement	11/28/2011 11:20	5	7	366	574		500.0	PUMP 1630 SKS OF ECONOCEM RS13 AT 14.2 LB/GAL, 1.26 CF/SK, AND 5.52 GAL/SK.
Shutdown	11/28/2011 12:20	6-7						WASH PUMPS AND LINES.

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Drop Plug	11/28/2011 12:20	6-7						WITNESSED BY COMPANYMAN.
Pump Displacement	11/28/2011 12:28	8	6	120	120		1250.0	PUMP CLAYSURF EZ.
Slow Rate	11/28/2011 12:50	9	2	16	136		2520.0	PUMP CLAYSURF EZ.
Bump Plug	11/28/2011 12:56	10	2				2750.0	BROUGHT FINAL CIRCULATING PRESSURE TO 3450 PSI.
Check Floats	11/28/2011 13:01	11						FLOATS HELD WITH 2 BBLS BACK TO THE PUMP TRUCK.
Other	11/28/2011 13:02							FULL RETURNES THROUGHOUT THE JOB WITH 23 BBLS OF SPACER AND 227 BBLS OF CEMENT TO SURFACE. WE HAD CEMENT TO SURFACE BEFORE WE SWITCHED TO THE LAST 2 PODS OF TAIL CEMENT.
Pre-Rig Down Safety Meeting	11/28/2011 13:08							
Rig-Down Equipment	11/28/2011 13:20							
Pre-Convoy Safety Meeting	11/28/2011 14:20							
Crew Leave Location	11/28/2011 14:30							THANKS FROM HES CREW.

HALLIBURTON

Cementing

Water Analysis Report

COMPANY: WEXPRO **Date Recorded** 11/28/2011
SUBMITTED BY: BRIAN CAUDILL **SO#** 9070690
LEASE: BW MUSSER **Job Type** PRODUCTION
WELL #: 39 **Camp Location** POWDER WASH

CEMENT MIX WATER REQUIREMENTS

Item	Recorded Test Value	Units	Max. Acceptable Limit	Potential Problems in Exceeding Limit
pH	6	----	6.0 - 8.0	Chemicals in the water can cause severe retardation
Chlorides	0	ppm	3000 ppm	Can shorten thickening time of cement
Sulfates	<200	ppm	1500 ppm	Will greatly decrease the strength of cement
Total Hardness	7	ppm	500 mg/L	High concentrations will accelerate the set of the cement
Calcium	10	ppm	500 ppm	High concentrations will accelerate the set of the cement
Total Alkalinity	80	ppm	1000 ppm	Cement is greatly retarded to the point where it may not set up at all (typically occurs @ pH ≥ 8.3)
Potassium	0	ppm	5000 ppm	High concentrations will shorten the pump time of cement (indicates the presence of chlorides, therefore if Potassium levels are measured as high, so should the chlorides)
Iron	0.3	ppm	300 ppm	High concentrations will accelerate the set of the cement
Temperature	81	°F	50-80 °F	High temps will accelerate; Low temps may risk freezing in cold weather