

Cement Post Job Report

SandRidge Energy, Inc
123 Robert S. Kerr Avenue
Oklahoma City, OK 73102

Castle #0780 2-17H20
05-057-06546
S:17 T:7N R:80W
Jackson, CO

Prepared For:

Mr. Eric Beemer
ebeemer@sdrge.com
(405) 471-2245

Job Completion Data:

6/20/2016
CallSheet #: 166
Proposal #: 12365

Submitted by:

Zen Keith
(307) 757-7178
zenkeith@altcem.com





Dear Mr. Beemer,

Thank you for the opportunity to provide cementing services on this well. ALTCem strives to achieve complete customer satisfaction. If you have any questions regarding the services or data provided, please contact ALTCem at any time.

Sincerely,

Zen Keith

Field Office

**1716 East Allison Rd., Cheyenne Wy., 82007
Phone: (307) 638-5585**

Sales Office

**475 17th St. Suite 460 Denver Co., 80202
Phone: (303) 296-1158**



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Job Details & Summary

Geometry

Type	Function	OD (in)	ID (in)	Weight (lb/ft)	Thread	Top (ft)	Bottom (ft)	Excess (%)
Open Hole	Outer	n/a	12.25	n/a	n/a	0	150	100
DrillPipe	Inner	5	4.276	19.5	n/a	0	150	0

Equipment / People

Unit Type	Unit	Power Unit	Employee #1	Employee #2
Cement Pump	103	203	Montoya, Hector	
Cement Chemical	402	204	Andrews, Anthony	Fuentes, Orlando
Bulk Trailer	503	205	Moore, Mike	

Timing

Event	Date/Time
Call Out	6/19/2016 22:00
Depart Facility	6/20/2016 00:00
On Location	6/20/2016 03:00
Rig Up Iron	6/20/2016 03:35
Job Started	6/20/2016 05:30

General Job Information

Metrics	Value
Well Fluid Density	9.2 lb/gal
Well Fluid Type	WBM
Rig Circulation Time	2 hours
Calculated Displacement	1.5 bbls
Actual Displacement	1.5 bbls
Total Spacer to Surface	20 bbls
Total CMT to Surface	2 bbls

Job Details

Metrics	Value
Flare Prior to Job	No
Flare Prior to Job	0 units
Flare During Job	No
Flare During Job	0 units
Flare at End of Job	No
Flare at End of Job	0 units
Well Full Prior to Job	Yes

Job Details (cont.)

Metrics	Value
BHCT	80 °F
BHST	83 °F

Circulation

Lost Circulation Experienced	Losses into Spacer	Losses into Cement	Losses into Displacement
Yes		30	

At 30 bbl cement away could no longer see if gaining returns



Job Execution Information

Job	Fluid	Product	Function	Density (lb/gal)	Yield (ft ³ /sk)	Water Rq. (gal/sk)	Water Rq. (gal/bbl)	Volume (sks)	Volume (bbl)	Top (ft)
1	1	Water	Flush	8.33			42.00		20.00	0
1	2	ALTCem PL 100-X1	Plug	15.80	1.16	4.99		175.00	36.00	0
1	3	Water	DisplacementFinal	8.33			42.00		1.50	0

Job Fluid Details

Job	Fluid	Type	Fluid	Product	Function	Conc.	Uom
1	2	Plug	ALTCem PL 100-X1	ACG-10	Cement	100.00	%
1	2	Plug	ALTCem PL 100-X1	ACL-10	Accelerator	2.00	%BWOB
1	4	Topout	ALTCem PL100-X1	ACG-10	Cement	100.00	%
1	4	Topout	ALTCem PL100-X1	ACL-10	Accelerator	2.00	%BWOB



Job Logs

Line	#	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Annular Pressure (psi)	Comment
1		Callout	6/19/2016	22:00						
2		Pre Convoy Meeting	6/19/2016	23:50						
3		Crew Leave Yard	6/20/2016	00:00						
4		Arrive At Loc	6/20/2016	03:00						
5		Assessment Of Loc	6/20/2016	03:10						
6		Spot Equipment	6/20/2016	03:20						
7		Pre Rig Up Meeting	6/20/2016	03:30						
8		Rig Up Equipment	6/20/2016	03:35						
9		Pre Job Meeting	6/20/2016	05:00						
10		Start Job	6/20/2016	05:30						TDP: 174' (set at 150' from floor, giving us approx 128' of DP in hole) OH: 12 1/4" MW: 9.2 Top of lost Drill Pipe: 215'
11		Test Lines	6/20/2016	05:32						2000 PSI test
12		Pump Spacer	6/20/2016	05:37	8.33	2	20	130		Fresh H2O Spacer
13		Pump Cement	6/20/2016	05:45	15.8	0.5	36	170		175 Sks @ 15.8 PPG 1.16 YLD 4.99 Gal/sk H2O w/ CaCL. While Pumping cement we haad to slow our rate due to drill pipe beginning to lift. @ 26 bbl away we saw traces of cement to surface, we showed 300 psi. at 30 bbl away we could no longer see if we were gaining returns and pressure had broke back to 150PSI.
14		Pump Displacement	6/20/2016	06:31	8.33	1	1.5	150		Fresh H2O displacement
15		Shutdown	6/20/2016	06:33						
16		Open Release	6/20/2016	06:34						Upon opening release to check for balance/ flow, we gained approx 2 bbls cmt back to pump truck.
17		Turn Over To Rig	6/20/2016	06:38						Turned over to rig to Pull drill pipe, drill pipe was stuck. Rig Pulled 200k over and started to pull, pulled about 20' and pipe would not move.
18		Circulate	6/20/2016	07:37						After talking to customer, it was decided to have the rig try to pump down drill pipe to see if pipe was clear and if they could circulate to free the pipe. Rig pumped +/- 60 BBL downhole @ 101 SPM with 170 PSI, No returns. It is to be assumed that the open hole bridged off and that a known water flow zone (at approx 110') was taking fluid.
19		Wait On Customer	6/20/2016	08:00						Rig attempted to run 1" down annulus so we could pump cement to ensure the annulus was sufficently covered. The attempt was unsuccessful as they were only able to get 1" down about 12'. When the 1" was pulled back out it was plugged with sand, dirt and gravel.
20		Wait On Customer	6/21/2016	15:30						Rig is running dummy plug to 120', Pressure up to 500psi and Bond Log.

Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	°F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	0 mg/L	0-3000 mg/L
Total Alkalinity	120	0-1000
Total Hardness	250 mg/L	0-500 mg/L
Carbonates	8 mg/L	0-100 mg/L
Sulfates	200 mg/L	0-1500 mg/L
Potassium	250 mg/L	0-3000 mg/L
Iron	1 mg/L	0-300 mg/L

Pump Diagrams

