

# 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:**

**6/23/2016**  
**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 17<sup>th</sup> 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	130	100
DrillPipe	Inner	5	4.276	19.5	n/a	0	128	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	
Light Duty Pickups	1		Acuna, Roger	

### 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
Job Completed	6/23/2016 11:14
Rig Down Iron	6/23/2016 11:45
Depart Location	6/23/2016 13:30

### General Job Information

Metrics	Value
Well Fluid Density	9.2 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	100 bbls
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	7 bbls
Well Topped Out	No
Top Out Volume	0 bbls

### Well Fluid Details

Metrics	Value
Plastic Viscosity	14
Yield Point	11
10 sec. SGS	4
10 min. SGS	14
Filtrate	10
Flow Line Temp.	82

### 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
Well Fluid Density Into Well	9.2 lb/gal
Well Fluid Density Out of Well	9.2 lb/gal

### 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	NA	6	1.5

## Circulation Details:

Plug 1: At 30 bbl cement away could no longer see if gaining returns.

Plug 2 had no losses and no issues.

## Job Execution Information

Job	Fluid	Product	Function	Density (lb/gal)	Yield (ft <sup>3</sup> /sk)	Water Rq. (gal/sk)	Water Rq. (gal/bbl)	Volume (sk)	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
1	4	ALTCem PL100-X1	Plug	15.80	1.16	4.99		125.00	25.00	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	Plug	ALTCem PL100-X1	ACG-10	Cement	100.00	%
1	4	Plug	ALTCem PL100-X1	ACL-10	Accelerator	2.00	%BWOW



## 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	1	Pump Spacer	6/20/2016	05:37	8.33	2	20	130		Fresh H2O Spacer
13	2	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 had 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	3	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			6/20/2016	08:00						Rig attempted to run 1" down annulus so we could pump cement to ensure the annulus was sufficiently 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.



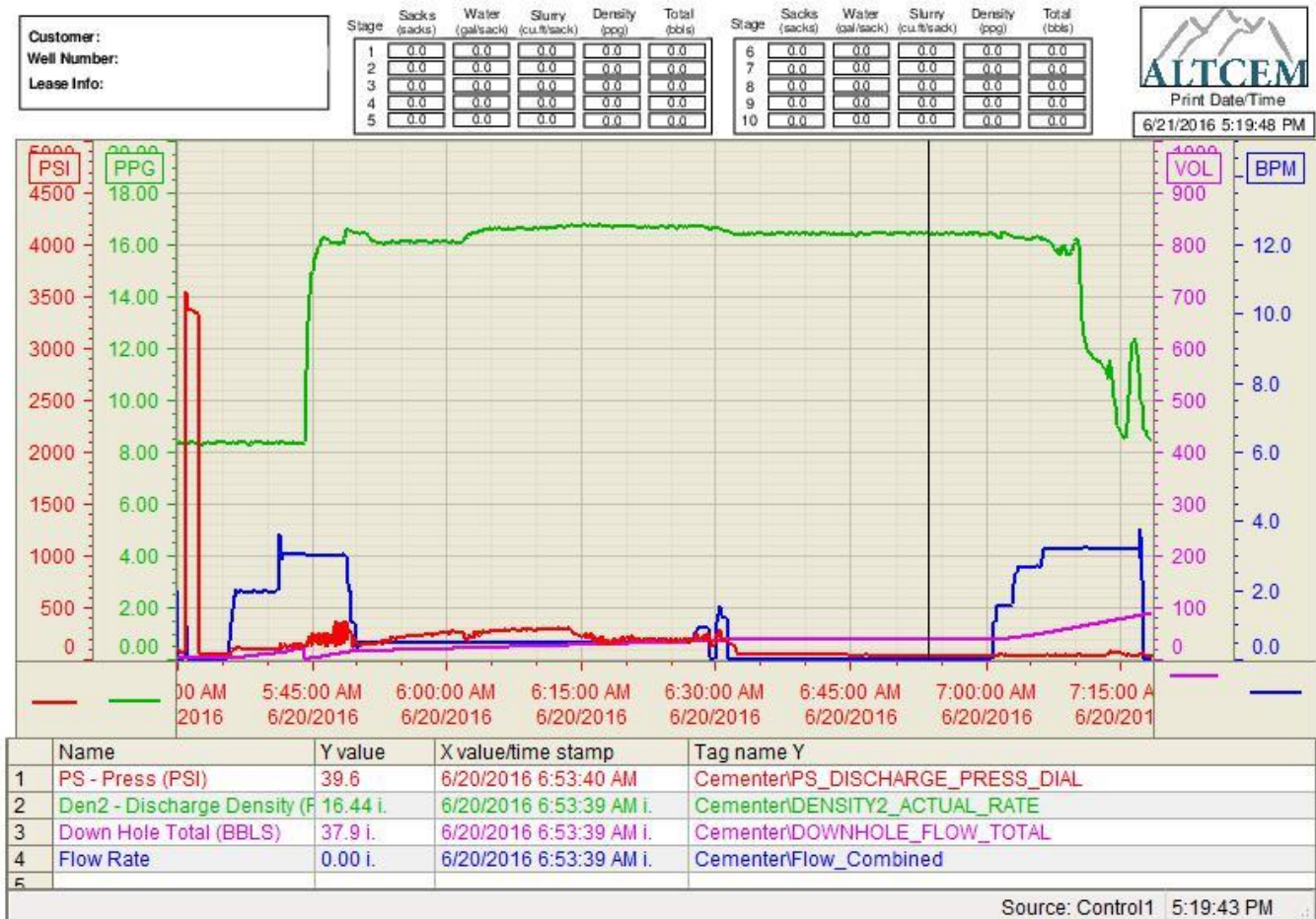
21		Run Wire Line	6/21/2016	17:30					Attempted to RIH w/wireline to 120', run was unsuccessful could only get to 70' POOH. Rig circulated a couple minutes to clear pipe for another run.
22		Run Wire Line	6/21/2016	18:30					Second RIH w/wireline to 120', Run un-successful could only get to 40' this time. POOH. Made phone calls to there office to see what to do.
23		Wait On Customer	6/21/2016	22:00					Released Wireline, waiting for washpipe to arrive to location.
24		Wait On Customer	6/22/2016	14:00					The wrong wash tools arrived to location
25		Wait On Customer	6/22/2016	17:00					The right wash tools arrived to location, The rig is getting ready to wash around the DP
26		Wash Down Start	6/22/2016	18:00					Rig is washing down 9.625" Wash Pipe to 130'
27		Wash Down Finish	6/23/2016	06:30					Rig finished washing down pipe to 130', Average 10.4ft an hour
28		POOH	6/23/2016	07:00					POOH with wash pipe
29		Out of Hole	6/23/2016	08:15					Wash pipe is out of the hole, POOH drill pipe
30		Safety Meeting	6/23/2016	08:45					Pre job safety meeting
31		RIH	6/23/2016	09:30					Rig ran in hole 1 stand and a single down to 128', 5" DP 19.5ppf, 12" OH
32		Start Job	6/23/2016	09:40					Start job
33	4	Fill lines	6/23/2016	09:44	8.33	2	2	40	Fill lines 2 bbls fresh water
34		Test Lines	6/23/2016	09:46	8.33			1600	Test lines to 1600psi, Test good
35	5	Pump Cement	6/23/2016	09:59	15.8	2	25	68	Pump 25bbls Cement (125sks 15.8ppg 1.16 cuft/ft 4.99gps) 2% CaCl BWOW. @ 19bbls pumped we had cmt to surface.
36		Shutdown	6/23/2016	10:12					Shutdown to POOH DP, DP pulled dry
37	6	Pump Cement	6/23/2016	10:30	15.8	2	82	95	Pump 82bbls Cement (400sks 15.8ppg 1.16 cuft/ft 4.99gps) 2% CaCl BWOW to fill the cellar where it was washed out @ company mans request
38		Shutdown	6/23/2016	11:13					Shutdown
39		End Job	6/23/2016	11:14					End job, Job went good, company man was happy with the job and the crew.
40		Safety Meeting	6/23/2016	11:30					Pre rig down safety meeting
41		Rig Down	6/23/2016	11:45					Rig down iron
42		Depart Location	6/23/2016	13:30					Depart location
43			6/23/2016	00:00					
44			6/23/2016	00:00					

## Water Analysis

Metrics	Value	Recommended
Water Source	Rig Tank	
Temperature	60° °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	0 mg/L	0-3000 mg/L
Total Alkalinity	180	0-1000
Total Hardness	250 mg/L	0-500 mg/L
Carbonates	8 mg/L	0-100 mg/L
Sulfates	Below 200 mg/L	0-1500 mg/L
Potassium	250 mg/L	0-3000 mg/L
Iron	0 mg/L	0-300 mg/L

## Pump Diagrams

### Plug 1





Plug 2

