

Cement Verification Report - Cementer's Well Service, Inc.

P.O. BOX 336220 • GREELEY, CO 80633 • (970) 353-7299 • FAX (970) 353-7712



COGCC Operator Guidance RULE #308.A.B(2)A.ii

CLIENT: PDC Energy	Cementer's FIELD TICKET #	300323-D
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Requested Operator Guidance:

Well Name & Number	Lease	Bernhardt		Well No.	02N
Well API Number	05-123-51136				
Job Date	6/29/22	Time on	0:45	24 hr time	
Job Type	New Well Surface				
Cementing Company	Cementer's Well Service, Inc	Contact	Nate Kvamme - 303-324-4296		
Ambient conditions	clear	72	temp deg F		
Slurry Description					
a) Purpose	Surface - 9 5/8" 36# CSG, 13 1/2" hole				
b) Cement Class	ASTM C150 Type II				
c) Cement Yield	1.61	cuft / sk			
d) Cement Density	13.9	PPG			
e) Number of sks	816	sks (94# equiv)			
f) Mix Fluid Type					
Water / Cement	8.5	Gal / sk			
g) Slurry mixed	233.7	BBLs slurry			
h) Additives used	1.5%	CaCl2	3.0%	Bentonite	
Total Water Used	320.3	BBLs H2O			
i) Displacement Fluid Vol	125.1	BBLs H2O			
j) Method of Placement					
k) Set Depth	1,662	feet (ft)			
l) Stage tool depth	n/a				
m) Float Collar Depth	1,619	feet (ft)			
n) Designed Top of Cement	n/a	to surface			
o) Centralizer depths	0	feet (ft)			

Charts - (pressure, density, pump rate)

Landed Plug @ 1654 psi Final Lift Pressure @ 300 psi

Cement Density (as weighed during job) @ 13.9 PPG

Job notes

a) Plug down	<div><div></div>Y</div> N	Time	3:00	24 hr time
b) Floats held	<div><div></div>Y</div> / N		6/29/22	
c) Full Returns	<div><div></div>Y</div> / N	Lost Circulation	<div><div></div>Y</div> <div><div></div>N</div>	
d) Cement to surface	<div><div></div>Y</div> / N	45.0	BBLs to surface	
e) If no returns, top off	n/a	BBLs		
f) Top off detail				
g) Additional Detail				

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PDC Energy

Surface Cement Job Graph & Casing Pressure Test

COMPANY DETAILS

Date	6/29/22	API #	05-123-51136	Well No.	02N
County	Weld	State	CO	Lease	Bernhardt

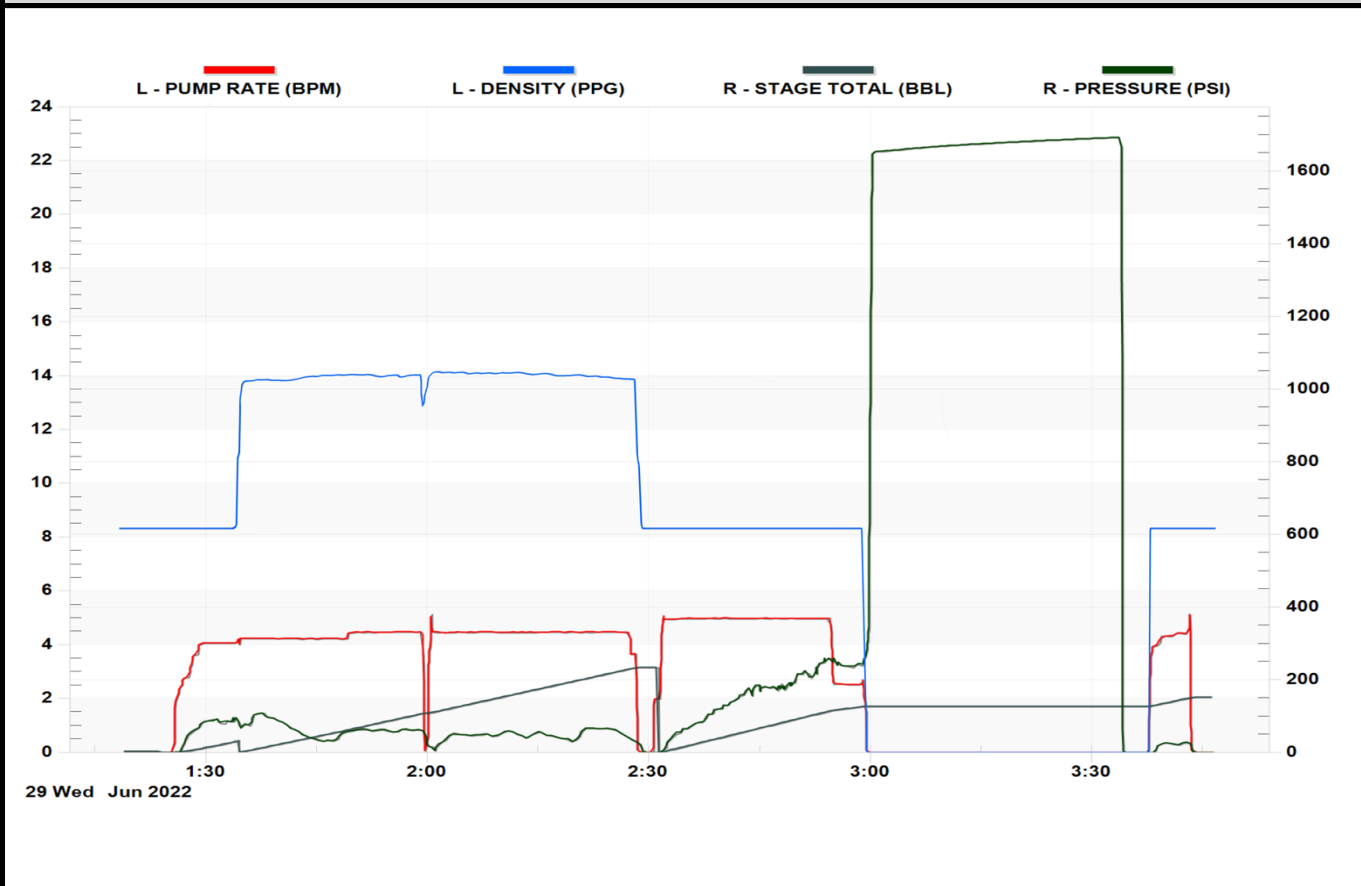
Client PDC Energy

Contact / email

JOB DETAILS

TIME ON	0:45	24 hr	Depth	1,662	ft.	Pressure Test @	1,654	psi
START TIME	1:18	6/29/22	Bottom of Surface	1,662	ft.	10 min	1,669	psi
END TIME	3:46	6/29/22	Plug Landed @	1,619	ft.	20 min	1,681	psi
			Plug Landed @	3:00	24 hr	30 min	1,692	psi

SUMMARY GRAPH





Centralizer Depths

Well Name: Bernhardt 02N

Surface, Set Depth: 1,661.5ftKB

API 05123511360000		Surface Legal Location NWNW 18 4N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal					
Ground Elevation (ft) 4,736.00		Original KB Elevation (ft) 4,749.00		KB-Ground Distance (ft) 13.00		Spud Date		Rig Release Date		On Production Date		Abandon Date	

Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jw/ry	Connections	Top (ftKB)	Cum Len (ft)
2		Casing Joints	9 5/8	36.00	J-55	Yes	41.48	Yes		LT&C	1,618.2	43.33
3		Casing Joints	9 5/8	36.00	J-55	Yes	41.48	Yes		LT&C	1,576.7	84.81
4		Casing Joints	9 5/8	36.00	J-55	Yes	41.49	Yes		LT&C	1,535.2	126.30
8		Casing Joints	9 5/8	36.00	J-55	Yes	42.19	Yes		LT&C	1,367.9	293.64
12		Casing Joints	9 5/8	36.00	J-55	Yes	41.48	Yes		LT&C	1,200.6	460.90
16		Casing Joints	9 5/8	36.00	J-55	Yes	42.19	Yes		LT&C	1,032.3	629.23
20		Casing Joints	9 5/8	36.00	J-55	Yes	42.16	Yes		LT&C	863.6	797.95
24		Casing Joints	9 5/8	36.00	J-55	Yes	42.15	Yes		LT&C	694.9	966.60
28		Casing Joints	9 5/8	36.00	J-55	Yes	42.18	Yes		LT&C	526.2	1,135.28
32		Casing Joints	9 5/8	36.00	J-55	Yes	42.18	Yes		LT&C	357.5	1,303.97
36		Casing Joints	9 5/8	36.00	J-55	Yes	42.18	Yes		LT&C	188.8	1,472.66
40		Casing Joints	9 5/8	36.00	J-55	Yes	42.17	Yes		LT&C	20.5	1,640.98