

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 #	300324-D
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Requested Operator Guidance:

Well Name & Number	Lease	Bernhardt	Well No.	03N
Well API Number	05-123-51133			
Job Date	6/29/22	Time on	17:00	24 hr time
Job Type	New Well Surface			
Cementing Company	Cementer's Well Service, Inc	Contact	Nate Kvamme - 303-324-4296	
Ambient conditions	clear / rain	78	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	794	sks (94# equiv)		
f) Mix Fluid Type				
Water / Cement	8.5	Gal / sk		
g) Slurry mixed	227.5	BBLs slurry		
h) Additives used	1.5%	CaCl2	3.0%	Bentonite
Total Water Used	317.6	BBLs H2O		
i) Displacement Fluid Vol	126.9	BBLs H2O		
j) Method of Placement				
k) Set Depth	1,684	feet (ft)		
l) Stage tool depth	n/a			
m) Float Collar Depth	1,642	feet (ft)		
n) Designed Top of Cement	n/a	to surface		
o) Centralizer depths	0	feet (ft)		

Charts - (pressure, density, pump rate)

Landed Plug @ 1665 psi Final Lift Pressure @ 350 psi

Cement Density (as weighed during job) @ 13.9 PPG

Job notes

a) Plug down	<input checked="" type="radio"/> Y <input type="radio"/> N	Time	19:33	24 hr time
b) Floats held	<input checked="" type="radio"/> Y <input type="radio"/> N		6/29/22	
c) Full Returns	<input checked="" type="radio"/> Y <input type="radio"/> N	Lost Circulation	<input checked="" type="radio"/> Y <input type="radio"/> N	
d) Cement to surface	<input checked="" type="radio"/> Y <input type="radio"/> N	37.0	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 #	05-123-51133	Well No.	03N
County	Weld	State	CO	Lease	Bernhardt

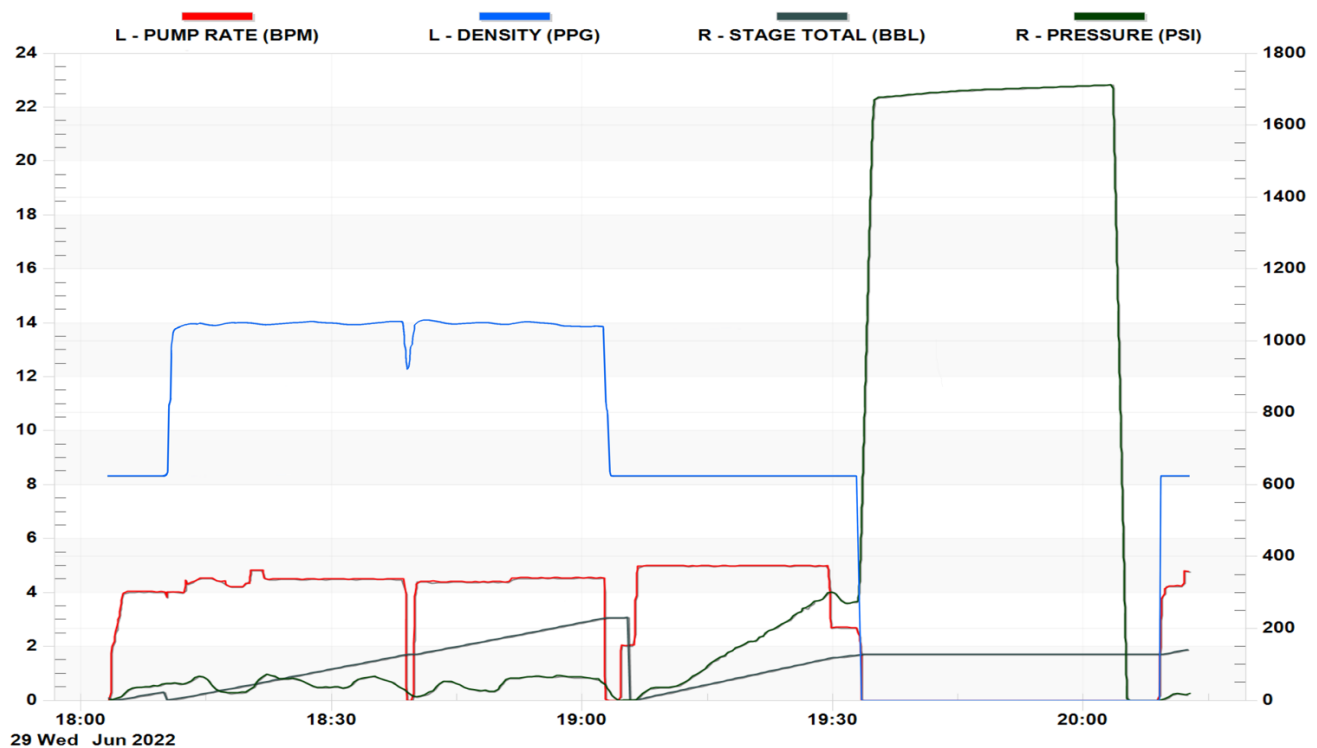
Client PDC Energy

Contact / email

JOB DETAILS

TIME ON	17:00	24 hr	Depth	1,694	ft.	Pressure Test @	1,665	psi
START TIME	18:02	6/29/22	Bottom of Surface	1,684	ft.	10 min	1,691	psi
END TIME	20:24	6/29/22	Plug Landed @	1,642	ft.	20 min	1,702	psi
			Plug Landed @	19:33	24 hr	30 min	1,712	psi

SUMMARY GRAPH





Centralizer Depths

Well Name: Bernhardt 03N Surface, Set Depth: 1,684.1ftKB

API 05123511330000		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 Jwlry	Connections	Top (ftKB)	Cum Len (ft)
2		Casing Joints	9 5/8	36.00	J-55	Yes	41.47	Yes		LT&C	1,640.8	43.32
3		Casing Joints	9 5/8	36.00	J-55	Yes	41.49	Yes		LT&C	1,599.3	84.81
4		Casing Joints	9 5/8	36.00	J-55	Yes	41.48	Yes		LT&C	1,557.8	126.29
8		Casing Joints	9 5/8	36.00	J-55	Yes	41.47	Yes		LT&C	1,392.0	292.15
12		Casing Joints	9 5/8	36.00	J-55	Yes	41.46	Yes		LT&C	1,226.0	458.08
16		Casing Joints	9 5/8	36.00	J-55	Yes	41.46	Yes		LT&C	1,059.9	624.16
20		Casing Joints	9 5/8	36.00	J-55	Yes	41.49	Yes		LT&C	894.0	790.09
24		Casing Joints	9 5/8	36.00	J-55	Yes	41.51	Yes		LT&C	727.2	956.89
28		Casing Joints	9 5/8	36.00	J-55	Yes	41.13	Yes		LT&C	560.9	1,123.19
32		Casing Joints	9 5/8	36.00	J-55	Yes	41.10	Yes		LT&C	395.4	1,288.69
36		Casing Joints	9 5/8	36.00	J-55	Yes	41.50	Yes		LT&C	228.8	1,455.34
40		Casing Joints	9 5/8	36.00	J-55	Yes	41.19	Yes		LT&C	61.7	1,622.41
42		Pup Joint	9 5/8	36.00	J-55	Yes	6.00	Yes		LT&C	14.5	1,669.60