

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	Cementor's FIELD TICKET #	300330-D
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Requested Operator Guidance:

Well Name & Number	Lease	Bernhardt	Well No.	09N
Well API Number	05-123-51143			
Job Date	7/3/22	Time on	20:28	24 hr time
Job Type	New Well Surface			
Cementing Company	Cementer's Well Service, Inc	Contact	Nate Kvamme - 303-324-4296	
Ambient conditions	clear	70	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	664	sks (94# equiv)		
f) Mix Fluid Type				
Water / Cement	8.5	Gal / sk		
g) Slurry mixed	190.1	BBLs slurry		
h) Additives used	1.5%	CaCl2	3.0%	Bentonite
Total Water Used	289.5	BBLs H2O		
i) Displacement Fluid Vol	125.1	BBLs H2O		
j) Method of Placement				
k) Set Depth	1,661	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 @ 1680 psi Final Lift Pressure @ 400 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	22:38	24 hr time
b) Floats held	<input checked="" type="radio"/> Y <input type="radio"/> N		7/3/22	
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	35.0	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	7/3/22	API #	05-123-51143	Well No.	09N
County	Weld	State	CO	Lease	Bernhardt

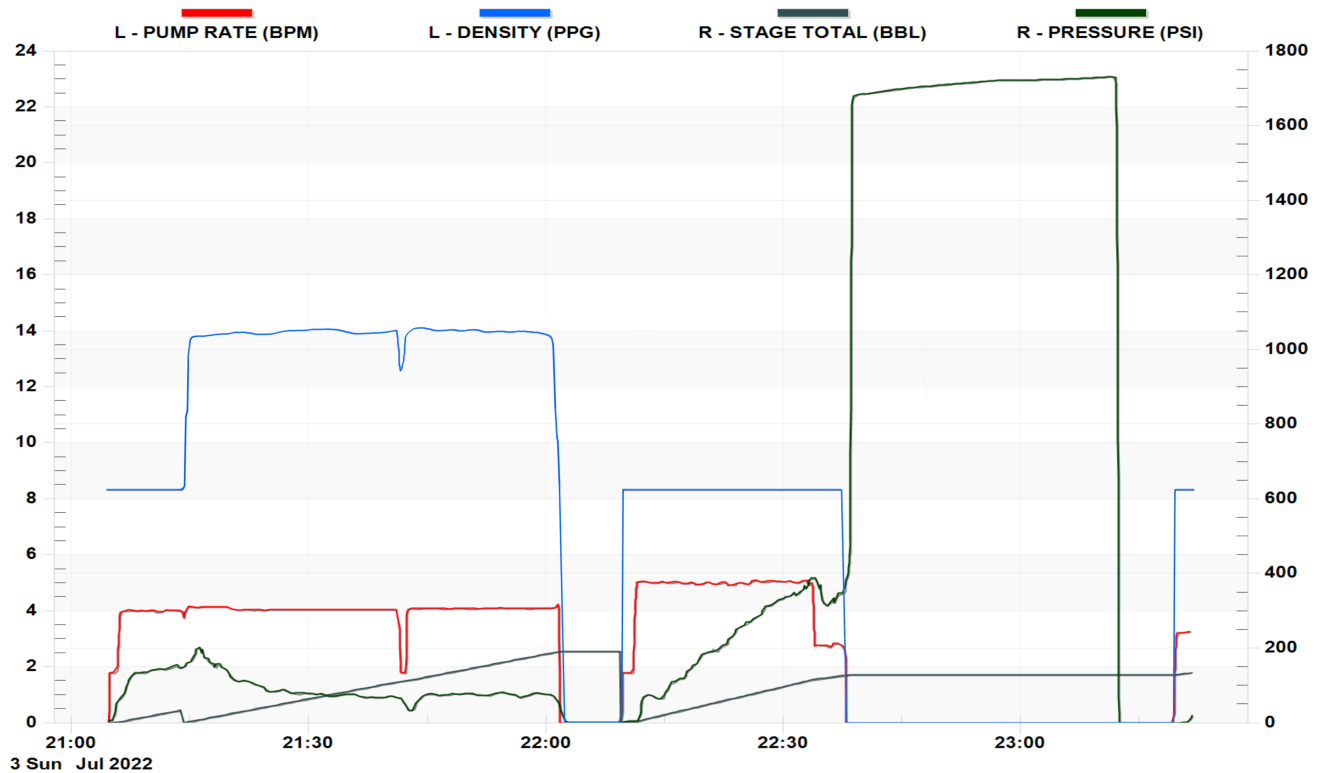
Client PDC Energy

Contact / email

JOB DETAILS

TIME ON	20:28	24 hr	Depth	1,672	ft.	Pressure Test @	1,680	psi
START TIME	21:04	7/3/22	Bottom of Surface	1,661	ft.	10 min	1,708	psi
END TIME	23:21	7/3/22	Plug Landed @	1,619	ft.	20 min	1,723	psi
			Plug Landed @	22:38	24 hr	30 min	1,728	psi

SUMMARY GRAPH





Centralizer Depths

Well Name: Bernhardt 09N Surface, Set Depth: 1,661.2ftKB

API 05123511430000		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	42.18	Yes		LT&C	1,617.2	44.03
3		Casing Joints	9 5/8	36.00	J-55	Yes	41.46	Yes		LT&C	1,575.7	85.49
4		Casing Joints	9 5/8	36.00	J-55	Yes	42.16	Yes		LT&C	1,533.6	127.65
8		Casing Joints	9 5/8	36.00	J-55	Yes	42.16	Yes		LT&C	1,364.9	296.33
12		Casing Joints	9 5/8	36.00	J-55	Yes	42.18	Yes		LT&C	1,196.7	464.53
16		Casing Joints	9 5/8	36.00	J-55	Yes	42.10	Yes		LT&C	1,028.2	633.04
20		Casing Joints	9 5/8	36.00	J-55	Yes	42.18	Yes		LT&C	860.0	801.17
24		Casing Joints	9 5/8	36.00	J-55	Yes	42.20	Yes		LT&C	695.1	966.10
28		Casing Joints	9 5/8	36.00	J-55	Yes	42.16	Yes		LT&C	526.5	1,134.71
32		Casing Joints	9 5/8	36.00	J-55	Yes	42.18	Yes		LT&C	357.8	1,303.36
36		Casing Joints	9 5/8	36.00	J-55	Yes	42.14	Yes		LT&C	189.2	1,471.99
39		Casing Joints	9 5/8	36.00	J-55	Yes	42.19	Yes		LT&C	62.7	1,598.49