

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 #	300280-D
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Requested Operator Guidance:

Well Name & Number	Lease	Bross Federal	Well No.	08N
Well API Number	05-123-51073			
Job Date	5/9/22	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	54	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	946	sks (94# equiv)		
f) Mix Fluid Type				
Water / Cement	8.5	Gal / sk		
g) Slurry mixed	270.0	BBLs slurry		
h) Additives used	1.5%	CaCl2	3.0%	Bentonite
Total Water Used	356.3	BBLs H2O		
i) Displacement Fluid Vol	125.6	BBLs H2O		
j) Method of Placement				
k) Set Depth	1,667	feet (ft)		
l) Stage tool depth	n/a			
m) Float Collar Depth	1,625	feet (ft)		
n) Designed Top of Cement	n/a	to surface		
o) Centralizer depths	0	feet (ft)		

Charts - (pressure, density, pump rate)

Landed Plug @ 1656 psi Final Lift Pressure @ 300 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	19:00	24 hr time
b) Floats held	<input checked="" type="radio"/> Y / <input type="radio"/> N		5/9/22	
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	12.0	BBLs to surface	
e) If no returns, top off	n/a	BBLs		
f) Top off detail				
g) Additional Detail	0			
	0			

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PDC Energy

Surface Casing Pressure Test - Cement Job Graph

COMPANY DETAILS

Date	5/9/22	API #	05-123-51073	Well No.	08N
County	Weld	State	CO	Lease	Bross Federal

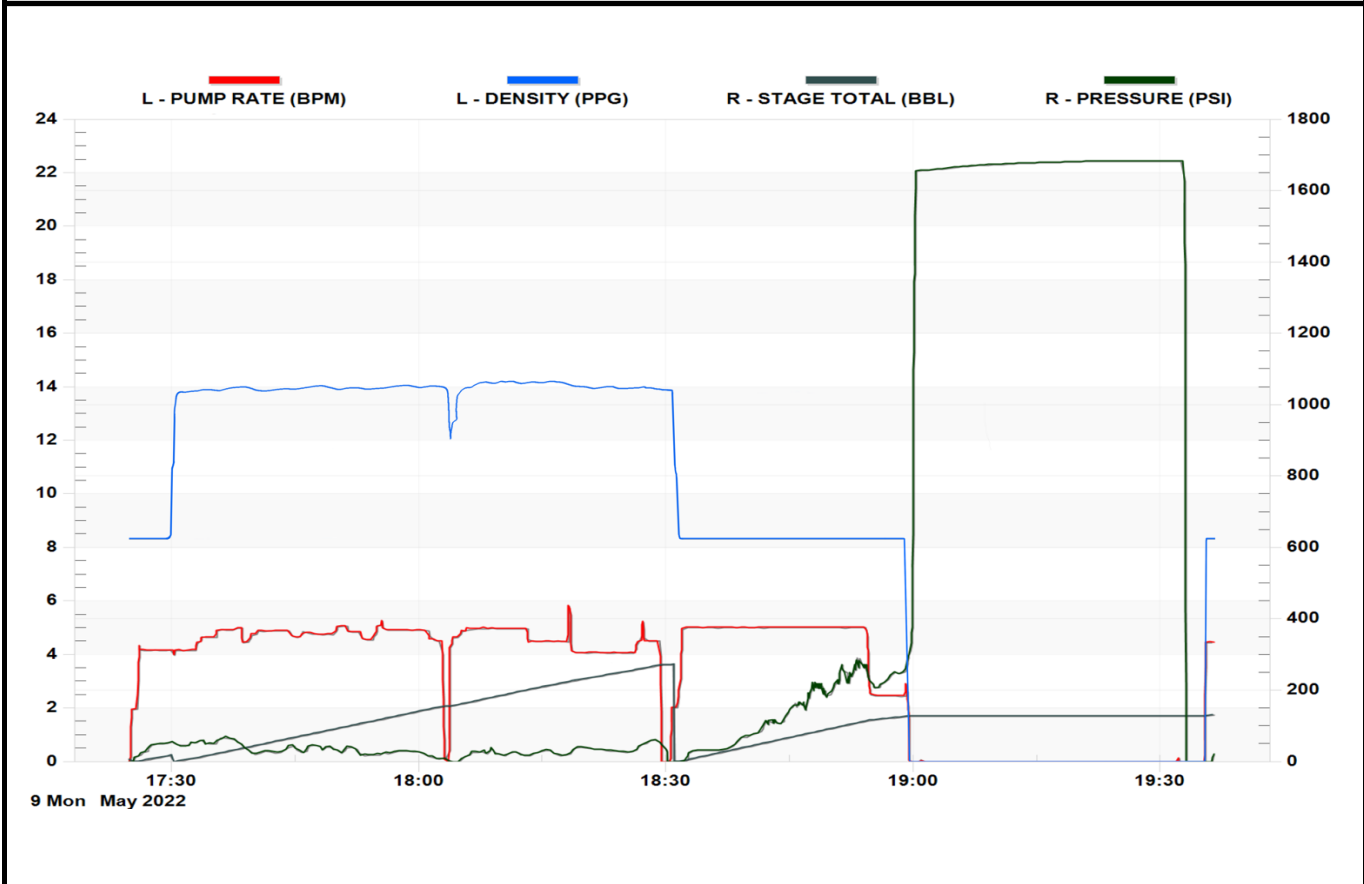
Client PDC Energy

Contact / email _____

JOB DETAILS

TIME ON	17:00	24 hr	Depth	1,667	ft.	Pressure Test @	1,656	psi
START TIME	17:24	5/9/22	Bottom of Surface	1,667	ft.	10 min	1,675	psi
END TIME	19:36	5/9/22	Plug Landed @	1,625	ft.	20 min	1,683	psi
			Plug Landed @	19:00	24 hr	30 min	1,683	psi

SUMMARY GRAPH





Centralizer Depths

Well Name: **Bross Federal 08N**

Surface, Set Depth: **1,667.4ftKB**

API 05123510730000		Surface Legal Location SENW 33 5N 65W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,664.00	Original KB Elevation (ft) 4,677.00	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	42.20	Yes		LT&C	1,623.4	44.05
3		Casing Joints	9 5/8	36.00	J-55	Yes	42.18	Yes		LT&C	1,581.2	86.23
4		Casing Joints	9 5/8	36.00	J-55	Yes	42.15	Yes		LT&C	1,539.0	128.38
8		Casing Joints	9 5/8	36.00	J-55	Yes	42.17	Yes		LT&C	1,370.4	297.02
12		Casing Joints	9 5/8	36.00	J-55	Yes	42.19	Yes		LT&C	1,201.7	465.74
16		Casing Joints	9 5/8	36.00	J-55	Yes	42.17	Yes		LT&C	1,032.9	634.47
20		Casing Joints	9 5/8	36.00	J-55	Yes	42.18	Yes		LT&C	864.2	803.20
24		Casing Joints	9 5/8	36.00	J-55	Yes	42.18	Yes		LT&C	695.5	971.91
28		Casing Joints	9 5/8	36.00	J-55	Yes	42.18	Yes		LT&C	526.7	1,140.67
32		Casing Joints	9 5/8	36.00	J-55	Yes	42.22	Yes		LT&C	358.0	1,309.45
36		Casing Joints	9 5/8	36.00	J-55	Yes	42.18	Yes		LT&C	189.3	1,478.13
39		Casing Joints	9 5/8	36.00	J-55	Yes	42.18	Yes		LT&C	62.7	1,604.68