

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

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COGCC Operator Guidance

RULE #308.A.B(2)A.ii

CLIENT: PDC - Petroleum Development Corp

Cementer's  
FIELD TICKET #

300138-D



## Requested Operator Guidance:

1) Well Name & Number	Lease	Sanford	Well No.	09N
2) Well API Number	05-123-49924			
3) Job Date	2/15/21	Time on	21:30	24 hr time
4) Job Type	New Well Surface			
5) Cementing Company	Cementer's Well Service, Inc	Contact	Nate Kvamme - 303-324-4296	
6) Ambient conditions	clear / rain / snow / other	-3	temp deg F	
7) Slurry Description				
a) Purpose	Surface - 9 5/8" CSG, 12 1/4" hole			
b) Cement Class	Type I / II			
c) Cement Yield	1.61	cuft / sk		
d) Cement Density	13.9	PPG		
e) Number of sks	550	sks (94# equiv)		
f) Cement Volume (dry)	550	cuft (ft^3)		
g) Mix Fluid Type				
Water / Cement	8.5	Gal / sk		
h) Slurry mixed	157.7	BBLs slurry		
i) Additives used	1.50%	CaCl2	3.00%	Bentonite
Total Water Used				
j) Displacement Fluid Vol	136.4	BBLs H2O		
k) Method of Placement				
l) Set Depth	1,807	feet (ft)		
m) Stage tool depth	n/a			
n) Float Collar Depth	1,765	feet (ft)		
o) Designed Top of Cement	n/a	to surface		
p) Centralizer depths	1785, 1744, 1661, 1537, 1371, 1207, 1042, 874, 708, 542, 375, 209, 42 feet (ft)			
8) Charts - (pressure, density, pump rate)				
Landed Plug @	900	psi	Final Lift Pressure @	550 psi
Cement Density (as weighed during job) @	13.9	PPG		
9) Job notes				
a) Plug down	<input checked="" type="radio"/> Y / <input type="radio"/> N	Time	23:30	24 hr time
b) Floats held	<input checked="" type="radio"/> Y / <input type="radio"/> N			
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	17.0	BBLs to surface	
e) If no returns, top off	BBLs			
f) Top off detail				



## Centralizer Depths

Well Name: SANFORD 09N

Surface, Set Depth: 1,807.2ftKB

API 05123499240000		Surface Legal Location NENW 29-5N-66W		Field Name Watteneberg		State CO		Well Configuration Type Horizontal	
Ground Elevation (ft) 4,905.00	Original KB Elevation (ft) 4,918.00	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	42.10	Yes		LT&C	1,763.3	43.95
6		Casing Joints	9 5/8	36.00	J-55	Yes	41.40	Yes		LT&C	1,596.2	210.99
10		Casing Joints	9 5/8	36.00	J-55	Yes	41.41	Yes		LT&C	1,429.9	377.26
14		Casing Joints	9 5/8	36.00	J-55	Yes	42.11	Yes		LT&C	1,262.9	544.28
18		Casing Joints	9 5/8	36.00	J-55	Yes	41.39	Yes		LT&C	1,096.6	710.57
22		Casing Joints	9 5/8	36.00	J-55	Yes	41.40	Yes		LT&C	931.1	876.15
26		Casing Joints	9 5/8	36.00	J-55	Yes	42.10	Yes		LT&C	763.3	1,043.92
30		Casing Joints	9 5/8	36.00	J-55	Yes	41.38	Yes		LT&C	597.7	1,209.48
34		Casing Joints	9 5/8	36.00	J-55	Yes	40.93	Yes		LT&C	433.6	1,373.61
38		Casing Joints	9 5/8	36.00	J-55	Yes	41.40	Yes		LT&C	268.0	1,539.20
41		Casing Joints	9 5/8	36.00	J-55	Yes	41.40	Yes		LT&C	143.8	1,663.39
43		Casing Joints	9 5/8	36.00	J-55	Yes	41.41	Yes		LT&C	61.0	1,746.20