

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 #	300350-D
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Requested Operator Guidance:

Well Name & Number	Lease	Stugart	Well No.	20N
Well API Number	05-123-51260			
Job Date	7/22/22	Time on	1:45	24 hr time
Job Type	New Well Surface			
Cementing Company	Cementer's Well Service, Inc	Contact	Nate Kvamme - 303-324-4296	
Ambient conditions	clear	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	762	sks (94# equiv)		
f) Mix Fluid Type				
Water / Cement	8.5	Gal / sk		
g) Slurry mixed	218.4	BBLs slurry		
h) Additives used	1.5%	CaCl2	3.0%	Bentonite
Total Water Used	312.7	BBLs H2O		
i) Displacement Fluid Vol	128.5	BBLs H2O		
j) Method of Placement				
k) Set Depth	1,705	feet (ft)		
l) Stage tool depth	n/a			
m) Float Collar Depth	1,662	feet (ft)		
n) Designed Top of Cement	n/a	to surface		
o) Centralizer depths	0	feet (ft)		

Charts - (pressure, density, pump rate)

Landed Plug @ 1590 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	5:00	24 hr time
b) Floats held	<div><div></div>Y</div> / N		7/22/22	
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	27.0	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	7/22/22	API #	05-123-51260	Well No.	20N
County	Weld	State	CO	Lease	Stugart

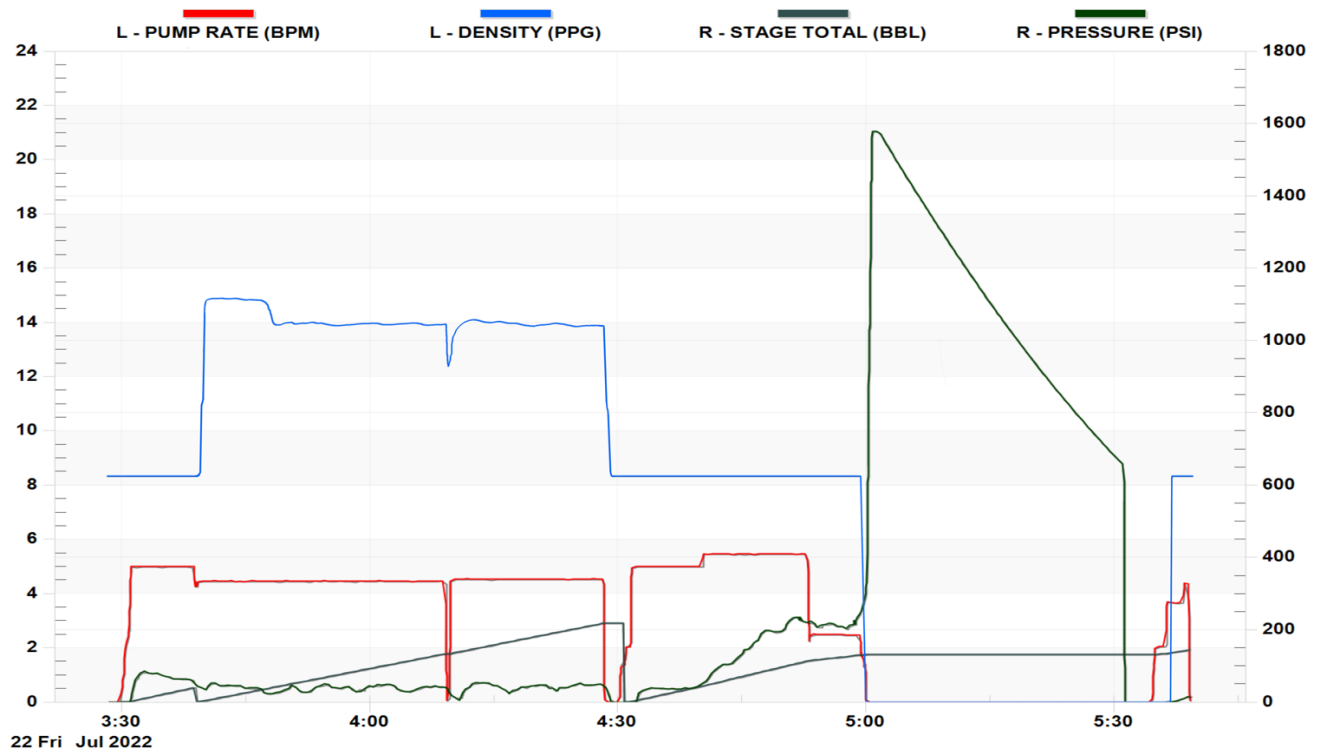
Client PDC Energy

Contact / email

JOB DETAILS

TIME ON	1:45	24 hr	Depth	1,715	ft.	Pressure Test @	1,590	psi
START TIME	3:28	7/22/22	Bottom of Surface	1,705	ft.	10 min	1,146	psi
END TIME	5:39	7/22/22	Plug Landed @	1,662	ft.	20 min	891	psi
			Plug Landed @	5:00	24 hr	30 min	662	psi

SUMMARY GRAPH



Cementer's Well Service, Inc.

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PDC Energy

Surface Casing Pressure Test (retest post original cement job)

COMPANY DETAILS

Date	7/23/22	API #	05-123-51260	Well No.	20N
County	Weld	State	CO	Lease	Stugart

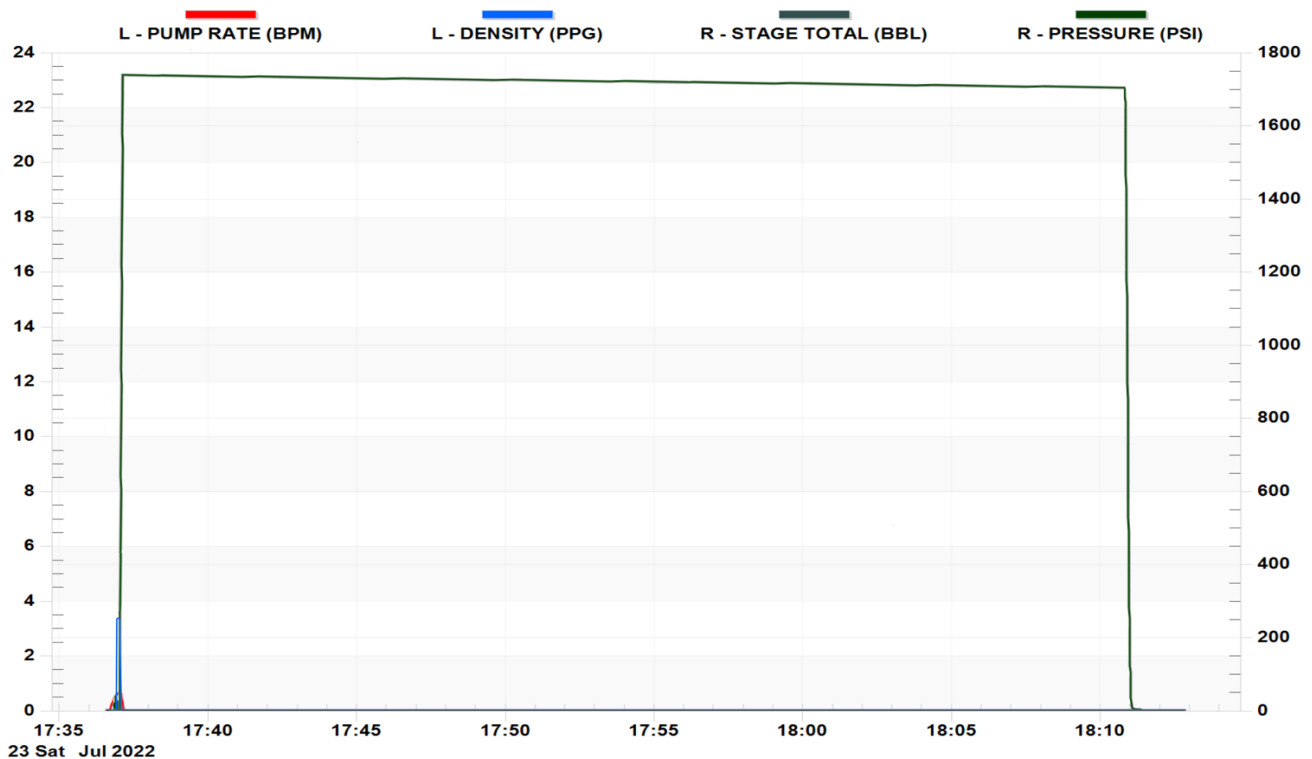
Client PDC Energy

Contact / email

JOB DETAILS

TIME ON	17:00	24 hr	Depth	1,715	ft.	Pressure Test @	1,740	psi
START TIME	17:36	7/23/22	Bottom of Surface	1,705	ft.	10 min	1,731	psi
END TIME	18:13	7/23/22	Plug Landed @	1,662	ft.	20 min	1,718	psi
			Plug Landed @	n/a	24 hr	30 min	1,706	psi

SUMMARY GRAPH





Centralizer Depths

Well Name: STUGART 20N

Surface, Set Depth: 1,704.7ftKB

API 05123512600000		Surface Legal Location SENW 20-5N-66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal	
Ground Elevation (ft) 4,885.00	Original KB Elevation (ft) 4,898.00	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	42.17	Yes		LT&C	1,660.7	44.02
3		Casing joints	9 5/8	36.00	J-55	Yes	42.18	Yes		LT&C	1,618.5	86.20
4		Casing joints	9 5/8	36.00	J-55	Yes	42.19	Yes		LT&C	1,576.3	128.39
8		Casing joints	9 5/8	36.00	J-55	Yes	42.18	Yes		LT&C	1,407.6	297.10
12		Casing joints	9 5/8	36.00	J-55	Yes	42.14	Yes		LT&C	1,239.0	465.70
16		Casing joints	9 5/8	36.00	J-55	Yes	42.18	Yes		LT&C	1,070.3	634.43
20		Casing joints	9 5/8	36.00	J-55	Yes	42.19	Yes		LT&C	901.6	803.18
24		Casing joints	9 5/8	36.00	J-55	Yes	41.76	Yes		LT&C	733.6	971.14
28		Casing joints	9 5/8	36.00	J-55	Yes	41.91	Yes		LT&C	565.1	1,139.64
32		Casing joints	9 5/8	36.00	J-55	Yes	42.16	Yes		LT&C	395.7	1,309.00
36		Casing joints	9 5/8	36.00	J-55	Yes	42.18	Yes		LT&C	228.0	1,476.70