

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 #	300433-D
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Requested Operator Guidance:

Well Name & Number	Lease	Rio	Well No.	16N
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Well API Number	05-123-10525
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Job Date	2/24/23	Time on	14:30	2/24/23	24 hr time
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Job Type	New Well Surface
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Cementing Company	Cementer's Well Service, Inc	Contact	Nate Kvamme - 303-324-4296
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Ambient conditions	clear	34	temp deg F
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Slurry Description	
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a) Purpose	Surface - 9 5/8" 36# CSG, 13 1/2" hole
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b) Cement Class	Type I / II
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c) Cement Yield	1.61	cuft / sk
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d) Cement Density	13.9	PPG
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e) Number of sks	1,050	sks (94# equiv)
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f) Mix Fluid Type	
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Water / Cement	8.5	Gal / sk
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g) Slurry mixed	301.0	BBLs slurry
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h) Additives used	1.50% CaCl2	3.00% Bentonite
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Total Water Used	426.9	BBLs H2O
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i) Displacement Fluid Vol	184.4	BBLs H2O
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j) Method of Placement	
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k) Set Depth	2,425	feet (ft)
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l) Stage tool depth	n/a
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m) Float Collar Depth	2,385	feet (ft)
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n) Designed Top of Cement	n/a	to surface
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o) Centralizer depths	-	feet (ft)
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Charts - (pressure, density, pump rate)

Landed Plug @	1,583	psi	Final Lift Pressure @	500	psi
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Cement Density (as weighed during job) @	13.9	PPG
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Job notes

a) Plug down	<input checked="" type="radio"/> Y / <input type="radio"/> N	Time	17:29	24 hr time
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b) Floats held	<input checked="" type="radio"/> Y / <input type="radio"/> N		2/24/23
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c) Full Returns	<input checked="" type="radio"/> Y / <input type="radio"/> N	Lost Circulation	<input checked="" type="radio"/> Y / <input type="radio"/> N
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d) Cement to surface	<input checked="" type="radio"/> Y / <input type="radio"/> N	20.0	BBLs to surface
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e) If no returns, top off	n/a	BBLs
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f) Top off detail	
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g) Additional Detail	0
	0

Cementer's Well Service, Inc.

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PDC Energy

Surface Casing Pressure Test - Cement Job Graph

COMPANY DETAILS

Date	2/24/23	API #	05-123-10525	Well No.	16N
County	Adams	State	CO	Lease	Rio

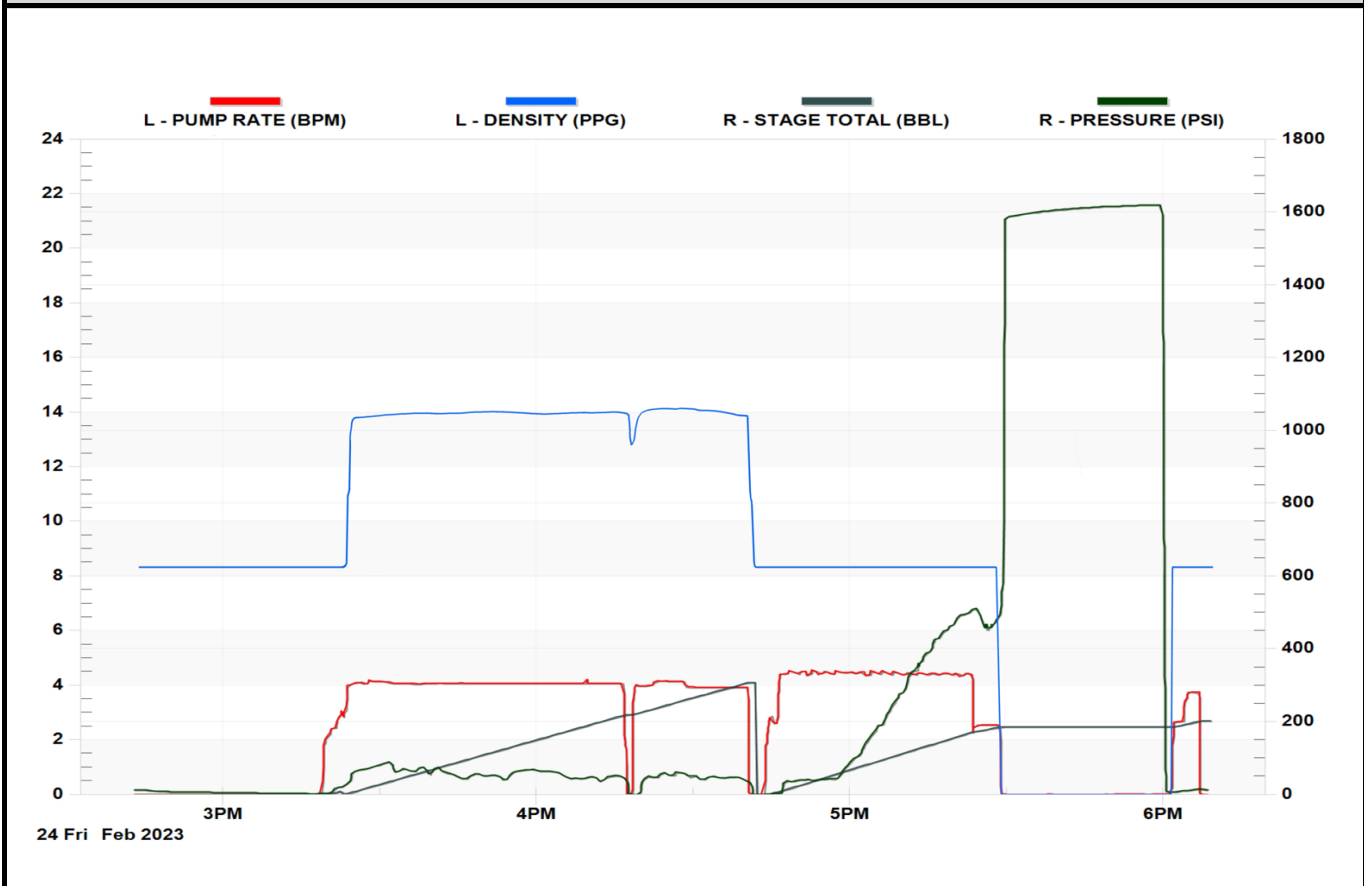
Client PDC Energy

Contact / email

JOB DETAILS

TIME ON	14:30	2/24/23	Depth	2,435	ft.	Pressure Test @	1,583	psi
START TIME	15:16	2/24/23	Bottom of Surface	2,425	ft.	10 min	1,604	psi
END TIME	18:09	2/24/23	Plug Landed @	2,385	ft.	20 min	1,615	psi
			Plug Landed @	17:29	24 hr	30 min	1,619	psi

SUMMARY GRAPH





Centralizer Depths

Well Name: RIO 16N

Surface, Set Depth: 2,437.9ftKB

API 05001105250000		Surface Legal Location NWNW 6 1S 67W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal				
Ground Elevation (ft) 5,067.00		Original KB Elevation (ft) 5,092.00		KB-Ground Distance (ft) 25.00		Spud Date 6/23/2023 02:30		Rig Release Date 6/26/2023 18:00		On Production Date		Abandon Date

Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwry	Connections	Top (ftKB)	Cum Len (ft)
2	1	Casing joints	9 5/8	36.00	J-55	Yes	40.47	Yes		LT&C	2,396.0	41.90
4	2	Casing joints	9 5/8	36.00	J-55	Yes	39.70	Yes		LT&C	2,355.0	82.92
5	3	Casing joints	9 5/8	36.00	J-55	Yes	41.52	Yes		LT&C	2,313.5	124.44
9	7	Casing joints	9 5/8	36.00	J-55	Yes	40.52	Yes		LT&C	2,151.6	286.35
13	11	Casing joints	9 5/8	36.00	J-55	Yes	41.03	Yes		LT&C	1,987.0	450.91
17	15	Casing joints	9 5/8	36.00	J-55	Yes	41.23	Yes		LT&C	1,825.3	612.63
21	19	Casing joints	9 5/8	36.00	J-55	Yes	40.94	Yes		LT&C	1,665.3	772.61
25	23	Casing joints	9 5/8	36.00	J-55	Yes	40.84	Yes		LT&C	1,504.8	933.14
29	27	Casing joints	9 5/8	36.00	J-55	Yes	40.84	Yes		LT&C	1,340.3	1,097.62
33	31	Casing joints	9 5/8	36.00	J-55	Yes	40.92	Yes		LT&C	1,176.3	1,261.58
37	35	Casing joints	9 5/8	36.00	J-55	Yes	41.12	Yes		LT&C	1,012.7	1,425.16
41	39	Casing joints	9 5/8	36.00	J-55	Yes	41.08	Yes		LT&C	848.4	1,589.51
45	43	Casing joints	9 5/8	36.00	J-55	Yes	41.06	Yes		LT&C	684.1	1,753.84
49	47	Casing joints	9 5/8	36.00	J-55	Yes	40.87	Yes		LT&C	521.3	1,916.56
53	51	Casing joints	9 5/8	36.00	J-55	Yes	41.21	Yes		LT&C	356.9	2,081.01
57	55	Casing joints	9 5/8	36.00	J-55	Yes	40.80	Yes		LT&C	194.6	2,243.31
60	58	Casing joints	9 5/8	36.00	J-55	Yes	39.32	Yes		LT&C	73.7	2,364.24