

# 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: Great Western Operating	Cementor's FIELD TICKET #	334033-D
---------------------------------	------------------------------	----------

## Requested Operator Guidance:

Well Name & Number	Lease	County Line 3107	Well No.	12H
--------------------	-------	------------------	----------	-----

Well API Number	05-123-51174
-----------------	--------------

Job Date	8/26/21	Time on	11:30	24 hr time
----------	---------	---------	-------	------------

Job Type	New Well Surface
----------	------------------

Cementing Company	Cementor's Well Service, Inc	Contact	Nate Kvamme - 303-324-4296
-------------------	------------------------------	---------	----------------------------

Ambient conditions	clear / rain / snow / other	82	temp deg F
--------------------	-----------------------------	----	------------

Slurry Description	
--------------------	--

a) Purpose	Surface - 9 5/8" 40# CSG, 13 1/2" hole
------------	--

b) Cement Class	Type I / II
-----------------	-------------

c) Cement Yield	1.61	cuft / sk
-----------------	------	-----------

d) Cement Density	13.9	PPG
-------------------	------	-----

e) Number of sks	810	sks (94# equiv)
------------------	-----	-----------------

f) Mix Fluid Type	
-------------------	--

Water / Cement	8.5	Gal / sk
----------------	-----	----------

g) Slurry mixed	232.2	BBLs slurry
-----------------	-------	-------------

h) Additives used	1.50% CaCl2	3.00% Bentonite
-------------------	-------------	-----------------

Total Water Used	316.5	BBLs H2O
------------------	-------	----------

i) Displacement Fluid Vol	132.6	BBLs H2O
---------------------------	-------	----------

j) Method of Placement	
------------------------	--

k) Set Depth	1,761	feet (ft)
--------------	-------	-----------

l) Stage tool depth	n/a
---------------------	-----

m) Float Collar Depth	1,715	feet (ft)
-----------------------	-------	-----------

n) Designed Top of Cement	n/a	to surface	feet (ft)
---------------------------	-----	------------	-----------

o) Centralizer depths	0
-----------------------	---

## Charts - (pressure, density, pump rate)

Landed Plug @	1600	psi	Final Lift Pressure @	425	psi
---------------	------	-----	-----------------------	-----	-----

Cement Density (as weighed during job) @	13.9	PPG
--	------	-----

## Job notes

a) Plug down	Y / N	Time	14:14	24 hr time
--------------	-------	------	-------	------------

b) Floats held	Y / N	8/26/21
----------------	-------	---------

c) Full Returns	Y / N	Lost Circulation	Y / N
-----------------	-------	------------------	-------

d) Cement to surface	Y / N	20.0	BBLs to surface
----------------------	-------	------	-----------------

e) If no returns, top off	n/a	BBLs
---------------------------	-----	------

f) Top off detail	-
-------------------	---

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

P.O. BOX 336220 • GREELEY, CO 80633 • (970) 353-7299 • FAX (970) 353-7712

DATE: 8/26/21



## Verdad Resources

Lease: County Line 3107

Well: 12H

API# 05-123-51174

Date & Time On	8/26/21	11:30								
Item	Event	Date	Time (24 hr)	Density (PPG)	Pump Rate (BPM)	Incremental (Line Item) Volume (BBLs)	Cumulative Volume (BBLs)	Pressure (PSI)	Comment	
Pre-job	1 Call Out	8/25/21	7:30						Verdad Resources call out w/ 4 hr notice	
	2 Leave Yard	8/25/21	10:45						Cementor's leaves yard to travel to location	
On Location: Pre-job	3 Arrive On Location	8/25/21	11:30						Arrive on location	
	4 Spot Trucks	8/25/21	11:35						Spot trucks on location	
	5 Rig Up	8/25/21	11:37						Rig up water & Cementor's Bulk Truck, prep pump and mixing operation	
	6 Safety Meeting	8/25/21	11:42						Pre-job safety meeting with IKON12 rig crew, Verdad company man & Cementor's crew	
	7 Rig Up	8/25/21	11:47						Rig up cement head w/plug	
	8 Fill Lines	8/25/21	11:49	8.34	2.00				Fill lines with up to 5 bbls of fresh water	
Initial Job Start	9 Pressure Test	8/25/21	0:00	8.34	-			-	Pressure test pumps and lines	
	10 Pump Spacer	8/25/21	18:58	8.34	4.00	20	20	-	Pump dye fresh water @	20 BBLs
Cementing	11 Pump Cement	8/25/21	19:03	13.90	4.00	232.21	252.21	45	Pump Cement @	810 SKS
									Type I/II cement with 1.5% CaCl2 & 3.0% Bentonite @ 1.61 cuft/sk & 13.9 PPG	232.21 BBLs slurry
Displacement	12 Drop Plug	8/25/21	20:04			n/a			Shut down cementing operation & release top plug	
	13 Initial Displacement	8/25/21	20:06	8.34	2.00	4.00	256.21	-	Send plug with 4.0 BBLs H2O @ 2.0 BPM	
	14 Plug Drop Verification	8/25/21	20:10			n/a			Visual verification plug released from head	
	15 Displacement	8/25/21	20:12	8.34	5.00	98.57	350.78	80-450	Continued Displacement with total fresh water @	132.6 BBLs H2O
	16 Spacer To Surface	8/25/21	14:04	8.34	5.00	102.57	354.78	385	Identified Spacer, looking for Cement / green water	
	17 Cement To Surface	8/25/21	14:07	8.34	5.00	112.57	364.78	390	Identify Cement to surface w/	20 BBLs back
	18 Drop Rate	8/25/21	14:12	8.34	2.50	122.57	374.78	400	Drop rate to 2.5 BPM for last 10 BBLs of Displacement to land plug	
Casing Test	19 Land Plug	8/25/21	14:14	8.34	2.50	132.57	384.78	1,600	Land Plug @	1,600 PSI
									with final lift pressure @	425 PSI
	20	8/25/21	14:14	n/a	0	0	0	1,600	Start 30 min casing test w/ pressure @	1,600 PSI
	21	8/25/21	14:24	n/a	0	0	0	1,603	10 min into casing test, pressure @	1,603 PSI
	22	8/25/21	14:34	n/a	0	0	0	1,605	20 min into casing test, pressure @	1,605 PSI
Post Job & Testing	23	8/25/21	14:44	n/a	0	0	0	1,606	30 min into casing test, pressure @	1,606 PSI
	24 Check Floats	8/25/21	14:45	n/a	0	0	0	1.00	BBLs back (.25-1BBL expected)	
	25 End Job	8/25/21	14:47						Bleed off pressure, job complete	
	26 Safety Meeting	8/25/21	14:49						Pre-rig down safety meeting, wash up equipment	
	27 Rig Down	8/25/21	14:52						Rig down Cementor's Equipment, leave location	

# Cementer's Well Service, Inc.

P.O. BOX 336220 • GREELEY, CO 80633 • (970) 353-7299 • FAX (970) 353-7712



Verdad Resources

## Surface Cement Job Graph

### COMPANY DETAILS

Date	8/26/21	API #	05-123-51174	Well No.	12H
County	Weld	State	CO	Lease	County Line 3107

Client Verdad Resources

Contact / email

### JOB DETAILS

TIME ON	11:30	24 hr	Depth	1,775	ft.	Pressure Test @	1,600	psi
START TIME	18:40	8/26/21	Bottom of Surface	1,761	ft.	10 min	1,603	psi
END TIME	21:15	8/26/21	Plug Landed @	1,715	ft.	20 min	1,605	psi
			Plug Landed @	14:14	24 hr	30 min	1,606	psi

### SUMMARY GRAPH

