



**CEMENT TREATMENT REPORT**

<b>Customer:</b> TDR Construction	<b>Well:</b> North Moldenhauer #21	<b>Ticket:</b> ICT2598
<b>City, State:</b> Louisburg, KS	<b>County:</b> FR, KS	<b>Date:</b> 10/16/2019
<b>Field Rep:</b> Lance Town	<b>S-T-R:</b> SW 29-15-21	<b>Service:</b> longstring

Downhole Information	
Hole Size:	5 5/8 in
Hole Depth:	840 ft
Casing Size:	2 7/8 in
Casing Depth:	833 ft
Tubing / Liner:	in
Depth:	ft
Tool / Packer:	baffle
Depth:	802 ft
Displacement:	4.6 bbls

Calculated Slurry	
Weight:	# / sx
Water / Sx:	gal / sx
Yield:	ft <sup>3</sup> / sx
Bbls / Ft.:	
Depth:	ft
Annular Volume:	0 bbls
Excess:	
Total Slurry:	0.0 bbls
Total Sacks:	#DIV/0! sx

Product	% / #	#
Class A	50%	4982
Poz	50%	3922
Gel	2%	178
CaCl		
Gypsum		
Metso		
Kol Seal		
Flo Seal		
Salt (bww)		
Total		9,082

TIME	RATE	PSI	BBLs	REMARKS
4.0				established circulation
4.0				mixed and pumped 200# Bentonite followed by 5 bbls fresh water
4.0				mixed and pumped 106 sks 50/50 Pozmix cement w/ 2% Bentonite per sk
4.0				cement to surface, flushed pump clean
1.0				pumped 2 1/2" rubber plug to baffle w/ 4.64 bbls fresh water
				pressured to 800 PSI, released pressure to set float vavle
4.0				washed up equipment

	CREW	UNIT	SUMMARY		
	Average Rate	Average Pressure	Total Fluid		
Cementer:	Casey Kennedy	89	3.5 bpm	#DIV/0! psi	- bbls
Pump Operator:	Harold Bechtle	239			
Bulk #1:	Alan Mader	248			
Bulk #2:	Keith Detwiler	123			

Franklin County, KS  
 Well: Moldenhauer #21A  
 Lease Owner: TDR

TDR Construction, INC. Commenced Spudding: 10/15/19  
 (913) 710-5400

WELL LOG

Thickness of Strata	Formation	Total Depth
0-27	soil-clay	27
59	shale	86
8	lime	94
2	shale	96
15	lime	111
8	shale	119
10	lime	129
4	shale	133
21	lime	154 shells
39	shale	193
18	lime	211
80	shale	291
41	lime	332
19	shale	351
1	lime	352
20	shale	372
2	lime	374
15	shale	389
9	lime	398
2	shale	400
13	lime	413
8	shale	421
23	lime	444
4	shale	448
4	lime	452
3	shale	455
7	lime	462 Hertha
117	shale	579
11	sand	590 gas odor-slight oil show
34	shale	624
6	sand	630 no oil
6	shale	636
8	lime	644
21	shale	665
9	lime	674
10	shale	684
4	lime	688
14	shale	702
7	lime	709
17	shale	726
1	lime	727

Franklin County, KS  
Well: Moldenhauer #21A  
Lease Owner: TDR

TDR Construction, INC. Commenced Spudding: 10/15/19  
(913) 710-5400

Thickness of Strata	Formation	Total Depth
7	shale	734
2	sand	736 broken-good oil show
11	sand	747 solid-good saturation
5	sand	752 broken-good oil show
88	shale	840 TD

# Short Cuts

## TANK CAPACITY

BLS. (42 gal.) equals  $D^2 \times 1.4 \times h$

D equals diameter in feet.

h equals height in feet.

## BARRELS PER DAY

Multiply gals. per minute x 34.2

HP equals BPH x PSI x .0004

BPH - barrels per hour

PSI - pounds square inch

## TO FIGURE PUMP DRIVES

\* D - Diameter of Pump Sheave

\* d - Diameter of Engine Sheave

SPM - Strokes per minute

RPM - Engine Speed

R - Gear Box Ratio

\*C - Shaft Center Distance

D - RPMxd over SPMxR

d - SPMxRxd over RPM

SPM - RPMXD over RXD

R - RPMXD over SPMXD

$$\text{BELT LENGTH} = 2C + 1.57(D + d) + \frac{(D-d)^2}{4C}$$

\* Need these to figure belt length

WATTS = AMPS

VOLTS

746 WATTS equal 1 HP

# Log Book

Well No. 21A

Farm North Moldenhaut

KS Franklin  
(State) (County)

29 15 21  
(Section) (Township) (Range)

For IDR construction  
(Well Owner)

**Town Oilfield  
Services, Inc.**  
1207 N. 1st East  
Louisburg, KS 66053  
913-710-5400

North

Nebraska Farm: Franklin County

KS State: Well No. 21

Elevation 1022

Commenced Spudding 10-15 20 19

Finished Drilling 10-16 20 19

Driller's Name Wesley Delaney

Driller's Name \_\_\_\_\_

Driller's Name Drake Williams

Tool Dresser's Name \_\_\_\_\_

Tool Dresser's Name \_\_\_\_\_

Contractor's Name FDR 29 15 21

(Section) \_\_\_\_\_ (Township) \_\_\_\_\_ (Range) \_\_\_\_\_

Distance from S line, 407 ft.

Distance from E line, 4688 ft.

4 sacks

9 hrs

5 5/8 borehole

2 1/8 casing

CASING AND TUBING RECORD

CASING AND TUBING MEASUREMENTS

Feet	In.	Feet	In.	Feet	In.
802-	BARREL				
833-	Floort			2 1/8	
840-	TDS				

10" Set \_\_\_\_\_ 10" Pulled \_\_\_\_\_

8" Set \_\_\_\_\_ 8" Pulled \_\_\_\_\_

6 1/2" Set 21 6 1/2" Pulled \_\_\_\_\_

4" Set \_\_\_\_\_ 4" Pulled \_\_\_\_\_

2" Set \_\_\_\_\_ 2" Pulled \_\_\_\_\_

Thickness of Strata	Formation	Total Depth	Remarks
0-27	soil - clay	27	
27-59	shale	86	
59-82	lime	94	
82-92	shale	96	
92-115	lime	111	
115-119	shale	119	
119-129	lime	129	
129-133	shale	133	
133-154	lime	154	
154-193	shale	193	shells
193-211	lime	211	
211-291	shale	291	
291-332	lime	332	
332-351	shale	351	
351-372	lime	372	
372-389	shale	389	
389-400	lime	400	
400-413	shale	413	
413-421	lime	421	
421-444	shale	444	
444-452	lime	452	
452-455	shale	455	
455-462	lime	462	
			Hertling

Thickness of Strata	Formation	Total Depth	Remarks
117	Shale	579	
11	Sand	590	
34	Shale	624	gas odor - slight oil show
6	Sand	630	no oil
6	Shale	636	
8	Lime	644	
21	Shale	665	
9	Lime	674	
10	Shale	684	
4	Lime	688	
14	Shale	702	
7	Lime	709	
17	Shale	726	
1	Lime	727	
7	Shale	734	
2	Sand	736	broken - good oil show
11	Sand	747	solid - good saturation
5	Sand	752	broken - good oil show
88	Shale	840	TD

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