



# Short Cuts

## TANK CAPACITY

BBLs. (42 gal.) equals  $D^2 \times 14xh$   
 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 -  $RPM \times d$  over  $SPM \times R$   
 d -  $SPM \times R \times D$  over RPM  
 SPM -  $RPM \times D$  over  $R \times D$   
 R -  $RPM \times D$  over  $SPM \times D$

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

\* Need these to figure belt length

TO FIGURE AMPS:  $\frac{WATTS}{VOLTS} = AMPS$   
 746 WATTS equal 1 HP

# Log Book

Well No. 10W

Farm Zumwallen

KS Crawford  
 (State) (County)

36 28 21  
 (Section) (Township) (Range)

For Town Oil Co  
 (Well Owner)

**Town Oil  
 Company, Inc.**  
 16205 W. 287th St.  
 Paola, KS 66071  
 913-294-2125

0510 202 6450

620 020

Zumwiler Farm: Crawford County

KS State; Well No. 66

Elevation \_\_\_\_\_

Commenced Spudding 9-25 2017

Finished Drilling 10-31 2017

Driller's Name Scott Kirkland

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

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

Tool Dresser's Name Derrick Holstein

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

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

Contractor's Name Town Oil Co.

36 28 21

(Section) (Township) (Range)

Distance from \_\_\_\_\_ line, \_\_\_\_\_ ft.

Distance from \_\_\_\_\_ line, \_\_\_\_\_ ft.

CASING AND TUBING MEASUREMENTS

Feet	In.	Feet	In.	Feet	In.
31	2				
28	1				
31	2				
31	2				
30	9				
31	2				
31	1				
31	2				
31	2				
31	2				
31	5				
31	2				
31	1				
31	3				
31	1				
464	70				

CASING AND TUBING RECORD

10" Set \_\_\_\_\_ 10" Pulled \_\_\_\_\_  
 8" Set \_\_\_\_\_ 8" Pulled \_\_\_\_\_  
 6 1/2" Set 20' 3 sets 6 1/2" Pulled \_\_\_\_\_  
 4" Set \_\_\_\_\_ 4" Pulled \_\_\_\_\_  
 2" Set 464.70 2" Pulled \_\_\_\_\_  
 2 7/8 grad upset

Thickness of Strata	Formation	Total Depth	Remarks
14	Soil & Clay	14	
2	gravel	16	
8	sandy or lime	24	
22	shale	46	
7	limey sand	53	Heather
49	shale	102	
1	lime	103	
8	shale	111	
27	lime	138	
3	shale & slate	141	
1	lime	142	
24	shale	166	
61	sandy shale	227	w lime streaks
5	lime	232	sandy
8	shale & slate	240	
8	lime	248	
157	shale	405	
21	sand	426	Broken or bleed & odor
44	shale	470	T.D.



RESSURE PUMPING LLC  
 J Box 884, Chanute, KS 66720  
 620-431-9210 or 800-467-8676

9355  
 9249

TICKET NUMBER 53882

LOCATION Ottawa KS

FOREMAN Fred Maden

FIELD TICKET & TREATMENT REPORT  
 CEMENT

Invoice #811635

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
10/31/17	7823	Zumwalten # 285 W-C NW 36		21	29	CR
CUSTOMER <u>Town Oil Co.</u>			TRUCK #	DRIVER	TRUCK #	DRIVER
MAILING ADDRESS <u>16205 W 287<sup>th</sup> St.</u>			712	Fred Maden		
CITY <u>Paola</u>			495	Nan Bee		
STATE <u>KS</u>			804	Mike Maden		
ZIP CODE <u>66071</u>						

JOB TYPE Log string HOLE SIZE 5 1/8 HOLE DEPTH 470 CASING SIZE & WEIGHT 2 3/8  
 CASING DEPTH 465 DRILL PIPE \_\_\_\_\_ TUBING \_\_\_\_\_ OTHER \_\_\_\_\_  
 SLURRY WEIGHT \_\_\_\_\_ SLURRY VOL \_\_\_\_\_ WATER gal/sk \_\_\_\_\_ CEMENT LEFT in CASING 2 1/2" Plug  
 DISPLACEMENT 2.7 BBL DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE 4 BPM

REMARKS: Hold safety meeting. Establish circulation - Mix Pump 100\*  
Gel Flush. Mix & Pump 76 SKs for bleed 1A Cement  
2 3/8 Gel. Cement to surface. Flush pump + 1 day clean.  
Displace 2 3/8" Rubber plug to casing TB. Pressure to 300\*  
PSI. Monitor pressure for 30 min MIT. Hold pressure.  
Release pressure to set float valve. Shut in casing.

Customer Supplied Water.

Fred Maden

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE0450	1	PUMP CHARGE	495	1500 <del>00</del>
CE0002	70 mi	MILEAGE	495	500 <del>50</del>
CE0711	1/2 Minimum	Ton Miles Delivery	804	380 <del>00</del>
		<u>Sub Total</u>		<u>2380<del>50</del></u>
		<u>less 47%</u>		<u>1095.34</u>
151 CC5870	76 SKs	Por Bleed 1A Cement	1026 <del>00</del>	
CC5965	228*	Bentonite Gel	604 <del>00</del>	
CP6176	1	2 3/8" Rubber Plug	45 <del>00</del>	
		<u>Sub Total</u>		<u>1139<del>40</del></u>
		<u>less 47%</u>		<u>-535.52</u>
				<u>603<del>88</del></u>
			7.5%	SALES TAX <u>45<del>29</del></u>
				ESTIMATED TOTAL <u>1884<del>89</del></u>

Ravin 3737

AUTHORIZATION \_\_\_\_\_ TITLE \_\_\_\_\_ DATE (355525)

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form