

Johnson County, KS
Well: Knabe 16A
Lease Owner:DE TZ

Town Oilfield Service, Inc.
(913) 294-2125

Commenced Spudding:
7/20/16

WELL LOG

Thickness of Strata	Formation	Total Depth
0-17	Soil-Clay	17
13	Sand	30
56	Shale	86
5	Lime	91
2	Shale	93
15	Lime	108
7	Shale	115
8	Lime	123
7	Shale	130
19	Lime	149
11	Shale	160
9	Sand	169
27	Lime	196
44	Shale	240
27	Lime	267
13	Shale	280
9	Lime	289
20	Shale	309
7	Lime	316
4	Shale	320
6	Lime	326
41	Shale	367
26	Lime	393
11	Shale	403
20	Lime	423
4	Shale	427
3	Lime	430
4	Shale	434
8	Lime	442
29	Shale	471
16	Sand & Sandy Shale	487
127	Shale	614
4	Lime	618
4	Shale	622
3	Lime	625
7	Shale	632
7	Lime	639
1	Shale	640
3	Sand	643
11	Shale	654

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 $BPH \times PSI \times .0004$

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. 16A

Farm Knabe

KS
(State)

Johnson
(County)

31
(Section)

14
(Township)

22
(Range)

For DE & T2 LLC
(Well Owner)

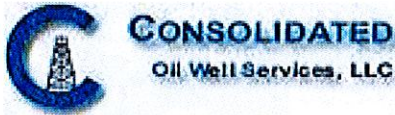
Town Oilfield Services, Inc.

1207 N. 1st East
Louisburg, KS 66053
913-710-5400

Thickness of Strata	Formation	Total Depth	Remarks
0-17	soil-clay	17	
13	sand	30	water
56	shale	86	
5	lime	91	
2	shale	93	
15	lime	108	
7	shale	115	
8	lime	123	
7	shale	130	
19	lime	149	
11	shale	160	red bed
9	sand	169	no oil
27	lime	196	water
44	shale	240	
27	lime	267	
13	shale	280	
9	lime	289	
20	shale	309	
7	lime	316	
4 11	shale	320	
6	lime	326	
41	shale	367	water
26	lime	393	
11	shale	403	
20	lime	423	
4	shale	427	
3	lime	430	

430

Thickness of Strata	Formation	Total Depth	Remarks
4	Shale	434	
8	Lime	442	Hertha
29	Shale	471	
16	sand & sandy shale	487	
127	Shale	614	
4	Lime	618	
4	Shale	622	
3	Lime	625	
7	Shale	632	
7	Lime	639	
1	Shale	640	
3	sand	643	slight show
11	Shale	654	
4	Lime	658	
15	Shale	673	
2	Lime	675	
29	Shale	704	red bed
2	Lime	706	
70	Shale	776	
8	sand	784	brown - odor - no show
10	sandy shale	794	
11	Shale	805	
3	Lime	808	
27	Shale	835	
8	sand	843	no oil
54	Shale	897	
6	sand	903	broken oil - good show



REMIT TO
 Consolidated Oil Well Services, LLC
 Dept:970
 P.O.Box 4346
 Houston, TX 77210-4346

MAIN OFFICE

P.O.Box884
 Chanute, KS 66720
 620/431-9210, 1-800/467-8676
 Fax 620/431-0012

Invoice

Invoice#

808127

Invoice Date: 07/25/16

Terms: Net 30

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D.E. EXPLORATION

P.O. BOX 128
 WELLSVILLE KS 66092
 USA
 7858834057

KNABE #16A

Part No	Description	Quantity	Unit Price	Discount(%)	Total
CE0450	Cement Pump Charge 0 - 1500'	1.000	1,500.0000	62.000	570.00
CE0002	Equipment Mileage Charge - Heavy Equipment	25.000	7.1500	62.000	67.93
CE0711	Minimum Cement Delivery Charge	1.000	660.0000	62.000	250.80
WE0853	80 BBL Vacuum Truck (Cement Services)	1.000	100.0000	62.000	38.00
CC5840	Poz-Blend I A (50:50)	114.000	13.5000	62.000	584.82
CC5965	Bentonite	292.000	0.3000	62.000	33.29
CC5326	Sodium Chloride, Salt	230.000	1.0000	62.000	87.40
CC6077	Kolseal	570.000	0.5000	62.000	108.30
CP8176	2 7/8" Top Rubber Plug	1.000	45.0000	62.000	17.10

Subtotal 4,625.35

Discounted Amount 2,867.72

SubTotal After Discount 1,757.63

Amount Due 4,794.26 If paid after 08/24/16

Tax: 64.19

Total: 1,821.83



CONSOLIDATED
Oil Well Services, LLC

6241
6046

TICKET NUMBER 50155
LOCATION Ottawa KS
FOREMAN Fred Maden

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

FIELD TICKET & TREATMENT REPORT
CEMENT Invoice # 208127

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
7-21-16	2355	Knabe # 16 A	NE 31	14	22	JD
CUSTOMER			TRUCK #	DRIVER	TRUCK #	DRIVER
DE+T2 LLC % DE Exploration			712	Fred Maden		
MAILING ADDRESS			368	Arl Macb		
P.O. Box 128			675	Kel Seal		
CITY	STATE	ZIP CODE	503	Milkhae		
Wellsville	KS	66092				

JOB TYPE log string HOLE SIZE 5 7/8 HOLE DEPTH 950 CASING SIZE & WEIGHT 2 7/8 SUE
CASING DEPTH 957 DRILL PIPE Baffle in TUBING @ 25' OTHER _____
SLURRY WEIGHT _____ SLURRY VOL _____ WATER gal/sk _____ CEMENT LEFT in CASING 32' + Plug
DISPLACEMENT 5.38 DISPLACEMENT PSI _____ MIX PSI _____ RATE 4 BPM

REMARKS: Hold Safety meeting. Establish pump rate. Mix + Pump
100# Gel Flush. Mix + Pump 114 sks Por Blend IA Cement
270 gal 5% salt 5# Kel Seal/sk. Cement to surface.
Flush pump + lines clean. Displace 2 1/2" Plug to Baffle
in casing. Pressure to 800# psi. Release pressure to set
float valve. Shut in casing.

TOS Drilling (was)

Fred Maden

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE0450	1	PUMP CHARGE	368 1500 ⁰⁰	
CE0002	25mi	MILEAGE	368 178 ⁷⁵	
CE0711	Minimum	Ten Miles Delivery	503 660 ⁰⁰	
WE0853	1hr	SO BBU Vac Truck	675 100 ⁰⁰	
		Sub Total	2436 ⁷⁵	
		less 62%	1512 ⁰³	926 ⁷²
9250 CC5840	114 sks	Por Blend IA Cement	1539 ⁰⁰	
CC5965	292#	Bentonite Gel	87 ⁶⁰	
CC5326	230#	Salt	230 ⁰⁰	
CC6077	570#	Kel Seal	285 ⁰⁰	
CP 8186	1	2 1/2" Rubber Plug Sub Total	45 ⁰⁰	
		Sub Total 1622⁰⁰	2156 ⁶⁰	
		less 62%	-1355 ⁶⁷	830 ⁹¹
		7.725%	SALES TAX	64 ¹⁹
			ESTIMATED TOTAL	1821 ⁸³
				(4794 ²⁶)

RevIn 3737

AUTHORIZATION Burton [Signature]

TITLE _____ DATE _____

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