Confidentiality Requested:
☐ Yes ☑ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1313203

Form ACO-1
August 2013
Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 35170
Name: DE & TZ LLC
Address 1: PO BOX 128
Address 2:
City: WELLSVILLE State: KS Zip: 66092 + __ __ __ __
Contact Person: Phil Frick
Phone: (785) 883-4057
CONTRACTOR: License # 33715
Name: Town Oilfield Service
Wellsite Geologist: None
Purchaser:

Designate Type of Completion:

☑ New Well ☐ Re-Entry ☐ Workover

☑ Oil ☐ WSW ☐ SWD ☐ SIOW
☐ Gas ☐ D&A ☐ ENHR ☐ SIGW
☐ OG ☐ GSW ☐ Temp. Abd.
☐ CM *(Coal Bed Methane)*
☐ Cathodic ☐ Other *(Core, Expl., etc.)*:

If Workover/Re-entry: Old Well Info as follows:

Operator:
Well Name:
Original Comp. Date: Original Total Depth:

☐ Deepening ☐ Re-perf. ☐ Conv. to ENHR ☐ Conv. to SWD
☐ Plug Back ☐ Conv. to GSW ☐ Conv. to Producer

☐ Commingled Permit #:
☐ Dual Completion Permit #:
☐ SWD Permit #:
☐ ENHR Permit #:
☐ GSW Permit #:

07/19/2016	07/20/2016	07/20/2016
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-091-24429-00-00
Spot Description:
SW NW NE NE Sec. 31 Twp. 14 S. R. 22 ☑ East ☐ West
4895 Feet from ☐ North / ☑ South Line of Section
1065 Feet from ☑ East / ☐ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☑ SE ☐ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Johnson
Lease Name: KNABE Well #: 14A
Field Name:
Producing Formation: Bartlesville
Elevation: Ground: 1037 Kelly Bushing: 1037
Total Vertical Depth: 980 Plug Back Total Depth: 929
Amount of Surface Pipe Set and Cemented at: 20 Feet
Multiple Stage Cementing Collar Used? ☐ Yes ☑ No
If yes, show depth set: Feet
If Alternate II completion, cement circulated from: 961
feet depth to: 0 w/ 116 sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)

Chloride content: 0 ppm Fluid volume: 20 bbls
Dewatering method used: Evaporated

Location of fluid disposal if hauled offsite:

Operator Name:
Lease Name: License #:
Quarter Sec. Twp. S. R. ☐ East ☐ West
County: Permit #:

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

☐ **Confidentiality Requested**
Date:
☐ **Confidential Release Date:**
☑ **Wireline Log Received**
☐ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☐ I ☑ II ☐ III **Approved by:** Karen Ritter **Date:** 08/01/2016

[redacted] 1313203

Operator Name: DE & TZ LLC Lease Name: KNABE Well #: 14A

Sec. 31 Twp. 14 S. R. 22 ☑ East ☐ West County: Johnson

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken ☐ Yes ☑ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☐ Yes ☑ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:

Gamma Ray/Neutron/CCL

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Bartlesville	869	+168

CASING RECORD ☑ New ☐ Used
Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	9.875	7	17	20	Portland	3	NA
Production	5.625	2.875	7	961	50/50 Poz	116	See Ticket

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate ___ Protect Casing ___ Plug Back TD ___ Plug Off Zone	-			
	-			

Did you perform a hydraulic fracturing treatment on this well? ☑ Yes ☐ No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☐ Yes ☑ No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? ☐ Yes ☐ No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record *(Amount and Kind of Material Used)*	Depth
3	869-890 - 62 Perfs - 2" DML RTG		

TUBING RECORD: Size: Set At: Packer At: Liner Run: ☐ Yes ☐ No

Date of First, Resumed Production, SWD or ENHR. 07/29/2016

Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)* _____

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	2				

DISPOSITION OF GAS:
☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)* _____

PRODUCTION INTERVAL:
_____
_____

Form	ACO1 - Well Completion
Operator	DE & TZ LLC
Well Name	KNABE 14A
Doc ID	1313203

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	9.875	7	17	20	Portland	3	NA
Production	5.625	2.875	7	961	50/50 Poz	116	See Ticket

Johnson County, KS
Well: Knabe 14A
Lease Owner:AltaVista

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

Commenced Spudding:
7/19/16

WELL LOG

Thickness of Strata	Formation	Total Depth
0-27	Soil-Clay	27
34	Shale	61
21	Lime	82
8	Shale	90
8	Lime	98
8	Shale	106
21	Lime	127
19	Sandy Shale	146
27	Lime	173
17	Shale	190
7	Lime	197
11	Shale	208
29	Lime	237
14	Shale	251
9	Lime	260
18	Shale	278
8	Lime	286
4	Shale	290
7	Lime	297
44	Shale	341
25	Lime	366
10	Shale	376
21	Lime	397
4	Shale	401
3	Lime	404
4	Shale	408
7	Lime	415
30	Shale	445
11	Sandy Shale	456
129	Shale	585
6	Lime	591
2	Shale	593
2	Lime	595
7	Shale	602
5	Lime	607
3	Shale	610
4	Sand	614
10	Shale	624
3	Lime	627
16	Shale	643

Johnson County, KS
Well: Knabe 14A
Lease Owner:AltaVista

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

Commenced Spudding:
7/19/16

2	Lime	645
23	Shale	668
2	Lime	670
73	Shale	743
7	Sand	750
6	Sandy Shale	756
15	Shale	771
4	Lime	775
27	Shale	802
6	Sand	808
52	Shale	860
1	Lime	861
3	Shale	864
5	Sand	869
20	Sand	889
3	Sandy Shale	892
88	Shale	980-TD

Short Cuts

TANK CAPACITY

BBLS. (42 gal.) equals D^2x.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 - RPMxd over SPMxR
d - SPMxRxD over RPM
SPM - RPMXD over RxD
R - RPMXD over SPMxD

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

* Need these to figure belt length

TO FIGURE AMPS: $\frac{\text{WATTS}}{\text{VOLTS}}$ = AMPS

746 WATTS equal 1 HP

Log Book

Well No. 14A

Farm Knabe

KS (State) Johnson (County)

31 (Section) 14 (Township) 22 (Range)

For DE & TZ LLC (Well Owner)

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

Knabe Farm: Johnson County

KS State; Well No. 14A

Elevation 1037

Commenced Spuding 7-19 20 16

Finished Drilling 7-20 20 16

Driller's Name Wesley Dollard

Driller's Name

Driller's Name

Tool Dresser's Name Ryan Ward

Tool Dresser's Name

Tool Dresser's Name

Contractor's Name TOS

31 14 22

(Section) (Township) (Range)

Distance from S line, 4895 ft.

Distance from E line, 1065 ft.

3 sacks

10 hrs

5 5/8 borehole

2 7/8 casing

CASING AND TUBING RECORD

10" Set		10" Pulled	
7" Set	20	8" Pulled	
6¼" Set		6¼" Pulled	
4" Set		4" Pulled	
2" Set		2" Pulled	

CASING AND TUBING MEASUREMENTS

Feet	In.	Feet	In.	Feet	In.
865.	55	seat nipple			
929.	15	Bull plug			
960.	85	Float			
980	TD			2	7/8

Thickness of Strata	Formation	Total Depth	Remarks
0-27	soil - clay	27	
34	Shale	61	
21	Lime	82	
8	Shale	90	
8	Lime	98	
8	Shale	106	
21	Lime	127	
19	sandy shale	146	
27	Lime	173	
17	Shale	190	
7	Lime	197	
11	Shale	208	
29	Lime	237	
14	Shale	251	
9	Lime	260	
18	Shale	278	
8	Lime	286	
4	Shale	290	
7	Lime	297	
44	Shale	341	
25	Lime	366	
10	Shale	376	
21	Lime	397	
4	Shale	401	
3	Lime	404	
4	Shale	408	
7	Lime	415	Hertha

415

Thickness of Strata	Formation	Total Depth	Remarks
30	Shale	445	
11	Sandy shale	456	
129	Shale	585	
6	Lime	591	
2	Shale	593	
2	Lime	595	
7	Shale	602	
5	Lime	607	
3	Shale	610	
4	Sand	614	odor- slight show
10	Shale	624	
3	Lime	627	
16	Shale	643	
2	Lime	645	
23	Shale	668	redbed
2	Lime	670	
73	Shale	743	
7	Sand	750	odor- slight show
6	Sandy shale	756	
15	Shale	771	
4	Lime	775	
27	Shale	802	
6	Sand	808	broken- slight show
52	Shale	860	
1	Lime	861	
3	Shale	864	
5	Sand	869	

869

Thickness of Strata	Formation	Total Depth	Remarks
20	sand	889	mostly solid - great saturat
3	sandy shale	892	
88	shale	980	TD

CONSOLIDATED
Oil Well Services, LLC

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# 808123

Invoice Date: 07/22/16

Terms: Net 30

Page 1

D.E. EXPLORATION

P.O. BOX 128
WELLSVILLE KS 66092
USA

7858834057

KNABE #14-A

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)	116.000	13.5000	62.000	595.08
CC5965	Bentonite	295.000	0.3000	62.000	33.63
CC5326	Sodium Chloride, Salt	234.000	1.0000	62.000	88.92
CC6077	Kolseal	580.000	0.5000	62.000	110.20
CP8176	2 7/8" Top Rubber Plug	1.000	45.0000	62.000	17.10

Subtotal	4,662.25
Discounted Amount	2,890.60
SubTotal After Discount	1,771.65

Amount Due 4,834.02 If paid after 08/21/16

Tax:	65.27
Total:	1,836.93

CONSOLIDATED
Oil Well Services, LLC

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

6235 / 6140

TICKET NUMBER 50154
LOCATION Ottawa KS
FOREMAN Fred Mader

FIELD TICKET & TREATMENT REPORT
CEMENT

Invoice # 808123

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
7-20-16	2355	Knabe #14-A	NE 31	14	22	JO

CUSTOMER: DE x TZ LLC % DE Exploration
MAILING ADDRESS: P.O. Box 128
CITY: Wellsville | STATE: KS | ZIP CODE: 66092

TRUCK #	DRIVER	TRUCK #	DRIVER
712	Fre Mad		
368	Avl Mcd		
675	Kri Dek		
503	Nik Nad		

JOB TYPE Longstring | HOLE SIZE 5 7/8 | HOLE DEPTH 980 | CASING SIZE & WEIGHT 2 7/8 EUE
CASING DEPTH 960 | DRILL PIPE Baffle in | TUBING @ 930' | OTHER
SLURRY WEIGHT | SLURRY VOL | WATER gal/sk | CEMENT LEFT in CASING 30' x Plug
DISPLACEMENT 5.4 BBL | DISPLACEMENT PSI | MIX PSI | RATE 4 BPM

REMARKS: Hold Safety meeting Establish pump rate. Mix x Pump 100# Gel Flush. Mix x Pump @ 116 SKS Por Blend I A Cement 2% Gel 5# Kol Seal 5% Salt. Cement to Surface. Flush pump x lines clean. Displace 2½" Rubber plug to baffle in casing. Pressure to 700# PSI. Release pressure to set float value. Shut in Casing.

TOS Drilling. (wes). Fred Mader

ACCOUNT CODE	QUANITY 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	Ton Miles Delivery	503	660.00	
WE0853	1hr	80 BBL Vac Truck.	675	100.00	
		Sub Total		2438.75	
		less 62%		-1512.03	926.72
CC5840	116 SKS	Por Blend I A Cement		1566.00	
CC5765	295#	Bentonite Gel		88.50	
CC5326	234#	Salt		234.00	
CC6077	580#	Kol Seal		290.00	
CP8176	1	2½" Rubber Plug		45.00	
		Sub Total		2223.50	
		less 62%		-1378.57	844.93
			7,725%	SALES TAX	65.27
				ESTIMATED TOTAL	1836.92 (1834.92)

927

Ravin 3737

AUTHORIZTION Bryan Kelly 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.