Confidentiality Requested: Yes No

KANSAS CORPORATION COMMISSION **OIL & GAS CONSERVATION DIVISION**

1313209

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 #	API No. 15				
Name:	Spot Description:				
Address 1:					
Address 2:	Feet from Dorth / South Line of Section				
City: State: Zip:+	Feet from East / West Line of Section				
Contact Person:	Footages Calculated from Nearest Outside Section Corner:				
Phone: ()					
CONTRACTOR: License #	GPS Location: Lat:, Long:				
Name:	(e.g. xx.xxxx) (e.gxxx.xxxxx)				
Wellsite Geologist:	Datum: NAD27 NAD83 WGS84				
Purchaser:	County:				
Designate Type of Completion:	Lease Name: Well #:				
New Well Re-Entry Workover	Field Name:				
	Producing Formation:				
	Elevation: Ground: Kelly Bushing:				
Gas D&A ENHR SIGW	Total Vertical Depth: Plug Back Total Depth:				
OG GSW Temp. Abd. CM (Coal Bed Methane)	Amount of Surface Pipe Set and Cemented at: Feet				
Cathodic Other (Core, Expl., etc.):	Multiple Stage Cementing Collar Used?				
If Workover/Re-entry: Old Well Info as follows:	If yes, show depth set: Feet				
Operator:	If Alternate II completion, cement circulated from:				
Well Name:	feet depth to:w/sx cmt.				
Original Comp. Date: Original Total Depth:					
Deepening Re-perf. Conv. to ENHR Conv. to SWD	Drilling Fluid Management Plan				
Plug Back Conv. to GSW Conv. to Producer	(Data must be collected from the Reserve Pit)				
	Chloride content: ppm Fluid volume: bbls				
Commingled Permit #:					
Dual Completion Permit #:	Dewatering method used:				
SWD Permit #:	Location of fluid disposal if hauled offsite:				
ENHR Permit #:	Operator Name:				
GSW Permit #:	Lease Name: License #:				
	Quarter Sec TwpS. R [] East [] West				
Spud Date or Date Reached TD Completion Date or Recompletion Date Recompletion Date Recompletion Date	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: Date:

	Page Two	1313209
Operator Name:	Lease Name:	Well #:
Sec TwpS. R East West	County:	
INCTRUCTIONS. Chow important tang of formations ponetrated	Dotail all coros Report all	final conject of drill stome tasts giving interval tasted, time tool

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 (Attach Additional Sheets)		Yes No		0	ion (Top), Depth and Datum		Sample
Samples Sent to Geolog	gical Survey	Yes No	Nam	e		Тор	Datum
Cores Taken Electric Log Run		☐ Yes ☐ No ☐ Yes ☐ No					
List All E. Logs Run:							
		CASING Report all strings set-c	RECORD Ne		ion, 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
		ADDITIONAL	CEMENTING / SQL	IEEZE RECORD			

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

Did you perform a hydraulic fracturing treatment on this well?	Yes
Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?	Yes
Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?	Yes

(If No, skip questions 2 and 3) (If No, skip question 3)

No

🗌 No

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					ement Squeeze Record d of Material Used)	Depth			
TUBING RECORD:	Si	ze:	Set At:		Packe	r At:	Liner F	Run:	No	
Date of First, Resumed	d Product	ion, SWD or ENH	٦.	Producing I		ping	Gas Lift	Other (Explain)		
Estimated Production Per 24 Hours		Oil Bb	ls.	Gas	Mcf	Wat	er	Bbls.	Gas-Oil Ratio	Gravity
DISPOSIT		345.			METHOD	OF COMPLE			PRODUCTION IN	
Vented Sol	d 🗌	Used on Lease		Open Hole	Perf.	Dually (Submit)	Comp.	Commingled (Submit ACO-4)		
(If vented, Su	ibmit ACC)-18.)		Other (Specify	/					

Form	ACO1 - Well Completion
Operator	DE & TZ LLC
Well Name	KNABE 23
Doc ID	1313209

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set		Setting Depth	Type Of Cement		Type and Percent Additives
Surface	9.875	7	17	23	Portland	4	NA
Production	5.625	2.875	7	942	50/50 Poz	118	See Ticket

Lease Owner: DE TZ

Johnson County, KS Well:Knabe 23 Town Oilfield Service, Inc. Commenced Spudding: (913) 294-2125 7/21/16

WELL LOG

Thickness of Strata	Formation	Total Depth
0-16	Soil-Clay	16
48	Shale	64
5	Lime	69
2	Shale	71
15	Lime	86
7	Shale	93
9	Lime	102
8	Shale	110
19	Lime	129
3	Shale	132
17	Sandy Shale	149
29	Lime	178
15	Shale	193
8	Lime	201
9	Shale	210
29	Lime	239
15	Shale	254
10	Lime	264
20	Shale	284
6	Lime	290
4	Shale	294
7	Lime	301
43	Shale	344
25	Lime	369
9	Shale	378
21	Lime	399
4	Shale	403
4	Lime	407
5	Shale	412
6	Lime	418
28	Shale	446
18	Sandy Shale	464
126	Shale	590
5	Lime	595
3	Shale	598
11	Lime	599
9	Shale	608
7	Lime	615
4	Sand	619
12	Shale	631

Johnson County, KS Well:Knabe 23 Lease Owner: DE TZ

3	Lime	634
7	Shale	641
2	Lime	643
6	Shale	649
4	Lime	653
23	Shale	676
1	Lime	677
76	Shale	753
7	Sand	760
5	Sandy Shale	765
17	Shale	782
4	Lime	786
27	Shale	813
7		820
	Sand	
55	Shale	875
1	Lime	876
1 2	Shale	877
	Sand	879
3	Sand	882
9	Sand	891
2	Sand	893
3	Sandy Shale	896
64	Shale	980-TD
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Short Cuts

TANK CAPACITY BBLS. (42 gal.) equals D²x.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 WATTS = AMPS TO FIGURE AMPS: VOLTS 746 WATTS equal 1 HP

Log Book
Well No. 23
Farm Knabe
KS Johnson (State) (County)
3/ 14 22 (Section) (Township) (Range)
For_DE&TZ_LLC

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

11 Knabe Farm: Ö _ County <u>KS</u> State; Well No. 3 100 Elevation. **Commenced Spuding** 20 **Finished Drilling** 20. Driller's Name **Driller's Name Driller's Name** Tool Dresser's Name Tool Dresser's Name **Tool Dresser's Name Contractor's Name** (Township) (Range) (Section) 10 line, 🔄 Distance from ft. line, ft. Distance from Sacks Ч Shis to borchole CASHIG AND TUBING RECORD

10'' Set	10" Pulled
8" Set	
7 8%" Set	6¼" Pulled
4" Set	4" Pulled
2" Set	2" Pulled

CASING AND TUBING MEASUREMENTS

Feet	In.	Feet	In.	Feet	In.
878	25	Sea	Ŧ	nigel	~
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Thickness of Strata	Formation	Total Depth	Remarks
0-16	Soil - clay	14	
48	Shale	64	1
5	Lime	69	
2	Shale	7/]
15	Lime	86	
	Shale	93	-
9	Lime	102	
8	Shale	110	
19	Lime	129	
3	Shall	132	
	Sandy Shall	149	
29	Lime	178	
15	Shall	193	
	Lime	201	
9	Shale	210	
29	Lime	239	No. 1
	She C	254	
10	Lime	264	
20	Shalt	284	
<u> </u>	Lime	290	
<u> </u>	Shalt	294	
7	Lime	301'	-
- 43	Shale	344	
25	Lime	369	
<u> </u>	Shale	378	
21	Lime shell	399	
	-2-	403	

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			403	
	Thickness of Strata	Formation	Total Depth	Remarks
	Y	Lim-e	407	
	5	Shal-e	412	
	6	Lime	418	Heitha
	28	Shal-C	446	
	18	sandy shelf	464	T
	126	shall	590	
	5	Lim-e	595	
	3	Shale	598	
	/	Lime	599	
	9	Shale	608	
		Lime	615	
	<u> </u>	Sand	619	good oil show
	12	Shale	631	0
•	_3	Lime	634	
		Shal C	641	
	2	Lime	643	
	Q	Shale	649	
	- 4	Line	655	A
	23	Shall	676	redbed
		Cime	61	
	-14	Shalt	753	
		Sand	760	broken-good oil show
		sandy shile	765	
:	<u> </u>	Shale	791	
•		Lime Shale	100 K12	
,		Sand	786 813 820	Lakan start start
		-4-		broken- slight Slow
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	Thickness of Strata	Formation	Total Depth	Remarks
· · ·	55	Shall	875	
	<u> </u>	Lime	876	· · · · · · · · · · · · · · · · · · ·
		Shall	877	
	-2	Sand	879	10 61]
	3	Sand	882	odor- no show
	- 9	Sand	891	
	$-\frac{1}{2}$	cand	893	
	3	Sindy shale	896	broken - good Show
		- Indig Start	960	
		Shalt		<u> </u>
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CONSOLIDATED Oil Well Services, LLC	Consolidated O De P.O.I	MIT TO II Well Services,LLC ept:970 Box 4346 X 77210-4346		620/431-921	MAIN OFFICE P.O.Box884 Chanute,KS 66720 0,1-800/467-8676 Fax 620/431-0012
Invoice			Invoice#	808	152
Invoice Date: 07/26/16		Terms: Net 30		Page	1
D.E. EXPLORATION P.O. BOX 128 WELLSVILLE KS 66092 USA 7858834057		KNA	BE #23		
Part No Description		Quantity	Unit Price	======================================	Total
CE0450 Cement Pump Cha	arge 0 - 1500'	1.000	1,500.0000	62.000	570.00
CE0002 Equipment Mileag Equipment	e Charge - Heavy	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 T Services)	ruck (Cement	1.000	100.0000	62.000	38.00
CC5840 Poz-Blend I A (50:	50)	118.000	13.5000	62.000	605.34
CC5965 Bentonite		298.000	0.3000	62.000	33.97
CC5326 Sodium Chloride, S	Salt	238.000	1.0000	62.000	90.44
CC6077 Kolseal		590.000	0.5000	62.000	112.10
CP8176 2 7/8" Top Rubber	Plug	1.000	45.0000	62.000	17.10
				Subtotal	4,699.15
			Discountee	d Amount	2,913.47
			SubTotal After	Discount	1,785.68
			Amount D	ue 4,873.77 lf p	aid after 08/25/16
				Tax:	66.35
				Total:	1,852.03

BARTLESVILLE, OK 918/338-0808

EL DORADO,KS 316/322-7022

EUREKA, KS 620/583-7554

PONCA CITY, OK 580/762-2303

OAKLEY, KS 785/672-8822

OTTAWA, KS 785/242-4044

THAYER, KS 620/839-5269 GILLETTE, WY 307/686-4914 CUSHING, OK 918/225-2650

-	CONSOLIDATED
	Oil Well Services, LLC
AND I	

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ATAIC

50156 TICKET NUMBER_ LOCATION Offame KS FOREMAN Fred Mader

DEDORT

DATE	CUSTOMER #	WELL	NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNT
-22.16	2355	Kuabe	* 23	NE 31	14	22	70
STOMER							history of
DE+T	ZLLC %	DEEX	plorestor.	TRUCK #	DRIVER	TRUCK #	DRIVE
ALLING ADDRE				7:2	Fremed		
	Box 128	STATE	ZIP CODE	368	ArIMOD		
Y	ч.	KS	10 22 22 20 20 20 20 20 20 20 20 20 20 20	369	mikHoa		
Wellse			66092	503	A their Date	7	FOF
B TYPE_La		HOLE SIZE	575 HOLE DI		CASING SIZE & V		204
SING DÉPTH				@ 910'	CEMENT LEFT in	OTHER 27	+ Plus
JRRY WEIGH	-	SLURRY VOL	WATER	50 O		CASING 32	
10.00	Sijabbe	DISPLACEMENT			_ RATE 4BPN		1.1
MARKS: Ho		ty meeting			· Mix + Per		Leal .
Flush.		Inp 118	-				-ar
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Displo		Rubber		Battle n		55 one to	
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ACCOUNT CODE 604500 600020 50711 F08530	QUANITY	or UNITS	PUMP CHARGE MILEAGE Ton Miles D 80 BBL V	ac Toliek Sub	PRODUCT 368 368 503 369 7042 253 62%	UNIT PRICE /50000 /2025 660 243875 15722 15722	
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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