KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1137000

Form ACO-1
June 2009
Form Must Be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 34339
Name: D & Z Exploration, Inc.
Address 1: 900 N ELM ST.
Address 2: PO BOX 159
City: ST ELMO State: IL Zip: 62458 + __ __ __ __
Contact Person: Nina Belden
Phone: (618) 829-3274
CONTRACTOR: License # 33715
Name: Town Oilfield Service
Wellsite Geologist: none
Purchaser:

Designate Type of Completion:

- [x] New Well
- [ ] Re-Entry
- [ ] Workover

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

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
- [ ] Conv. to GSW
- [ ] Plug Back: Plug Back Total Depth
- [ ] Commingled Permit #:
- [ ] Dual Completion Permit #:
- [ ] SWD Permit #:
- [ ] ENHR Permit #:
- [ ] GSW Permit #:

12/26/2012	12/28/2012	12/28/2012
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-091-24027-00-00
Spot Description:
SE - SE - NE - NE Sec. 21 Twp. 14 S. R. 22 [x] East [ ] West
4180 Feet from [ ] North / [x] South Line of Section
220 Feet from [x] East / [ ] West Line of Section
Footages Calculated from Nearest Outside Section Corner:
[ ] NE [ ] NW [x] SE [ ] SW
County: Johnson
Lease Name: Steed Well #: #13
Field Name:
Producing Formation: Bartlesville
Elevation: Ground: 1034 Kelly Bushing: 0
Total Depth: 980 Plug Back Total Depth: 940
Amount of Surface Pipe Set and Cemented at: 20 Feet
Multiple Stage Cementing Collar Used? [ ] Yes [x] No
If yes, show depth set: Feet
If Alternate II completion, cement circulated from: 20
feet depth to: 0 w/ 10 sx cmt.

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

Chloride content: 0 ppm Fluid volume: 0 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

- [ ] **Letter of Confidentiality Received**
  Date:
- [ ] **Confidential Release Date:**
- [ ] **Wireline Log Received**
- [ ] **Geologist Report Received**
- [ ] **UIC Distribution**

ALT [ ] I [x] II [ ] III **Approved by:** Deanna Garrison **Date:** 05/02/2013

Side Two

[redacted]

1137000

Operator Name: D & Z Exploration, Inc. Lease Name: Steed Well #: #13

Sec. 21 Twp. 14 S. R. 22 ☑ East ☐ West County: Johnson

INSTRUCTIONS: Show important tops and base 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. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

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
Electric Log Submitted Electronically ☐ Yes ☐ No
(If no, Submit Copy)

List All E. Logs Run:

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

Name	Top	Datum
Bartlesville	880	

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	9.825	7	20	20	portland	10	none
Production	5.625	2.825	6.2	940	50/50 poz	128	none

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:
☐ Perforate
☐ Protect Casing
☐ Plug Back TD
☐ Plug Off Zone

Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
-			
-			

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

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

Date of First, Resumed Production, SWD or ENHR. Producing Method: ☐ Flowing ☐ Pumping ☐ Gas Lift ☐ Other *(Explain)*

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

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:

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

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. Box 884
Chanute, KS 66720
620/431-9210 • 1-800/467-8676
Fax 620/431-0012

INVOICE Invoice # 255671

Invoice Date: 12/31/2012 Terms: 0/0/30,n/30 Page 1

D & Z EXPLORATION
901 N. ELM ST.
P.O. BOX 159
ST. ELMO IL 62458
(618)829-3274

STEED #13
39012
21-14-22
12-28-2012
KS

Part Number	Description	Qty	Unit Price	Total
1124	50/50 POZ CEMENT MIX	133.00	10.9500	1456.35
1118B	PREMIUM GEL / BENTONITE	323.00	.2100	67.83
1111	SODIUM CHLORIDE (GRANULA	279.00	.3700	103.23
1110A	KOL SEAL (50# BAG)	665.00	.4600	305.90
4402	2 1/2" RUBBER PLUG	1.00	28.0000	28.00

	Description	Hours	Unit Price	Total
370	80 BBL VACUUM TRUCK (CEMENT)	2.00	90.00	180.00
548	MIN. BULK DELIVERY	1.00	350.00	350.00
666	CEMENT PUMP	1.00	1030.00	1030.00
666	EQUIPMENT MILEAGE (ONE WAY)	30.00	4.00	120.00
666	CASING FOOTAGE	940.00	.00	.00

Parts:	1961.31	Freight:	.00	Tax:	147.59 AR	3788.90
Labor:	.00	Misc:	.00	Total:	3788.90	
Sublt:	.00	Supplies:	.00	Change:	.00	

Signed _____ Date _____

CONSOLIDATED
Oil Well Services, LLC

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

TICKET NUMBER 39012
LOCATION Ottawa, KS
FOREMAN Casey Kennedy

FIELD TICKET & TREATMENT REPORT
CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
12/28/12	3392	Steed # 13	NE 21	14	22	JO

CUSTOMER: D+Z Exploration
MAILING ADDRESS: 901 N. Elm St.
CITY: St Elmo | STATE: IL | ZIP CODE: 62458

TRUCK #	DRIVER	TRUCK #	DRIVER
481	CasKen	✓ Safety Meeting	
666	KeiCar	✓	
548	Mik Haa	✓	
370	JasRic	✓	

JOB TYPE longstring HOLE SIZE 5 5/8" HOLE DEPTH 979' CASING SIZE & WEIGHT 2 7/8" EUE
CASING DEPTH 940' DRILL PIPE ______ TUBING ______ OTHER ______
SLURRY WEIGHT ______ SLURRY VOL ______ WATER gal/sk ______ CEMENT LEFT in CASING ______
DISPLACEMENT 5.44 bbls DISPLACEMENT PSI ______ MIX PSI ______ RATE 4.5 bpm

REMARKS: held safety meeting, established circulation, mixed + pumped 100# Premium Gel followed by 10 bbls fresh water, mixed + pumped 133 sks 50/50 Pozmix cement w/ 2% gel, 5% salt, + 5# Kol Seal per sk, cement to surface, flushed pump clean, pumped 2½" rubber plug to casing TD w/ 5.44 bbls fresh water, pressured to 800 PSI, released pressure, shut in casing.

ACCOUNT CODE	QUANITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401	1	PUMP CHARGE		1030.00
5406	30 mi	MILEAGE		120.00
5402	940'	casing footage		—
5407	minimum	ton mileage		350.00
5502C	2 hrs	80 Vac		180.00
1124	133 sks	50/50 Pozmix cement		1456.35
1118B	323 #	Premium Gel		67.83
1111	279 #	Salt		103.23
1110A	665 #	Kol Seal		305.90
4402	1	2½" rubber plug		28.00
		7.525%	SALES TAX	147.59
		255671	ESTIMATED TOTAL	3788.90

completed

Ravin 3737

AUTHORIZTION No Co. Rep. on location 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.

Johnson County, KS
Well: Steed 13
Lease Owner: D Z Exploration

Town Oilfield Service, Inc.
(913) 837-8400

Commenced Spudding:
12/26/2012

WELL LOG

Thickness of Strata	Formation	Total Depth
3	Soil-Clay	3
16	Sandstone	19
45	Shale	64
4	Lime	68
5	Shale	73
15	Lime	88
8	Shale	96
9	Lime	105
8	Shale	113
16	Lime	129
22	Shale	151
16	Lime	167
5	Shale	172
52	Lime	224
27	Shale	251
8	Lime	259
20	Shale	279
6	Lime	285
6	Shale	291
10	Lime	301
33	Shale	334
2	Lime	336
10	Shale	346
26	Lime	372
6	Shale	378
25	Lime	403
3	Shale	406
4	Lime	410
4	Shale	414
8	Lime	422
5	Shale	427
7	Sand	434
9	Sandy Shale	443
97	Shale	540
12	Sand	552
65	Shale	617
3	Lime	620
10	Shale	630
4	Lime	634
7	Shale	641

Johnson County, KS
Well: Steed 13
Lease Owner: D Z Exploration

Town Oilfield Service, Inc.
(913) 837-8400

Commenced Spudding:
12/26/2012

8	Lime	649
3	Shale	652
2	Lime	654
35	Shale	689
13	Sand	702
16	Sandy Shale	718
42	Shale	760
6	Broken Sand	766
12	Sandy Shale	778
22	Shale	800
7	Sand	807
5	Sandy Shale	812
23	Shale	835
4	Sand	839
4	Sandy Shale	843
22	Shale	865
2	Sand	867
13	Shale	880
2	Sandy Lime	882
12	Core	894
38	Shale	932
10	Sand	942
37	Shale	979-TD

Core		
		882
1	Sandy Lime	883
1	Sand	884
3	Sand	887
3	Sand	890
1	Sand	891
3	Shale	894

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. 13

Farm Steed

KS (State) Johnson (County)

21 (Section) 14 (Township) 22 (Range)

For D+2 Exploration (Well Owner)

Town Oilfield Services, Inc.

1207 N. 1st East

Louisburg, KS 66053

913-710-5400

Steed Farm: Johnson County

KS State; Well No. 13

Elevation 1034

Commenced Spuding 12-26, 2012

Finished Drilling 12-28, 2012

Driller's Name Chad Weaver

Driller's Name

Driller's Name

Tool Dresser's Name Brandon Stone

Tool Dresser's Name cole Holcom

Tool Dresser's Name

Contractor's Name TOS

21	14	22
(Section)	(Township)	(Range)

Distance from S line, 4180 ft.

Distance from E line, 220 ft.

0838-0855 - 17hrs

cored

2 sacks

CASING AND TUBING RECORD

10" Set		10" Pulled	
7 8" Set	25	8" Pulled	
6¼" Set		6¼" Pulled	
4" Set		4" Pulled	
2 7/8 Set	940 ft / 876 70 seat nipple	2" Pulled	

CASING AND TUBING MEASUREMENTS

Feet	In.	Feet	In.	Feet	In.

Thickness of Strata	Formation	Total Depth	Remarks
2	soil /clay	2	
16	sandstone	19	
45	shale	64	
4	Lime	68	
5	shale	73	
15	Lime	88	
8	shale	96	
9	Lime	105	
8	shale	113	
16	Lime	129	
22	shale	151	
16	Lime	167	
5	shale	172	
52	Lime	224	
27	shale	251	
8	Lime	259	
20	shale	279	
6	Lime	285	
6	shale	291	
10	Lime	301	
33	shale	334	
2	Lime	336	
10	shale	346	
26	Lime	372	
6	shale	378	
25	Lime	403	
3	shale	406	

Thickness of Strata	Formation	Total Depth 406	Remarks
4	Lime	410	
4	shale	414	
8	Lime	422	Hertha
5	shale	427	
7	sand	434	grey, no oil
9	sand & shale	443	
97	shale	540	
12	sand	552	grey, no oil
65	shale	617	
3	Lime	620	
10	shale	630	
4	Lime	634	
7	shale	641	
8	Lime	649	
3	shale	652	
2	Lime	654	
35	shale	689	red bed "659 - 665"
13	sand	702	no oil
16	sand & shale	718	
42	shale	760	
6	Broken sand	766	no oil
12	sand & shale	778	no oil
22	shale	800	
7	sand	807	grey, no oil
5	sand & shale	812	
23	shale	835	
4	sand	839	

839

Thickness of Strata	Formation	Total Depth	Remarks
4	sandy shale	893	843
22	shale	865	
2	sand	867	
13	shale	880	
2	sandy lime	882	odor, oil, dk bleed, 80% solid
12	core	894	
38	shale	932	
10	sand	942	grey, no oil
37	shale	979	TD

core 882

Thickness of Strata	Formation	Total Depth	Remarks
1	sandy Lime	883	50% - 60%
1	sand	884	80%
3	sand	887	solid
3	sand	890	Laminated 40% - 50%
1	sand	890	Laminated no oil
3	shale	894	no oil