

KANSAS CORPORATION COMMISSION 1092175
OIL & GAS CONSERVATION DIVISION
WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

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

OPERATOR: License # 4567
Name: D. E. Exploration, Inc.
Address 1: PO BOX 128
Address 2: _____
City: WELLSVILLE State: KS Zip: 66092 + 0128
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
☐ Conv. to GSW

☐ Plug Back: _____ Plug Back Total Depth _____
☐ Commingled Permit #: _____
☐ Dual Completion Permit #: _____
☐ SWD Permit #: _____
☐ ENHR Permit #: _____
☐ GSW Permit #: _____

<u>05/23/2012</u>	<u>05/24/2012</u>	<u>05/24/2012</u>
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-121-29043-00-00

Spot Description: _____
NE NW SW NE Sec. 4 Twp. 19 S. R. 24 ☒ East ☐ West
3793 Feet from ☐ North / ☒ South Line of Section
2098 Feet from ☒ East / ☐ West Line of Section

Footages Calculated from Nearest Outside Section Corner:

☐ NE ☐ NW ☒ SE ☐ SW

County: Miami
Lease Name: Garberg Well #: AI-4
Field Name: BLACK

Producing Formation: SQUIRREL
Elevation: Ground: 817 Kelly Bushing: 817
Total Depth: 440 Plug Back Total Depth: 382
Amount of Surface Pipe Set and Cemented at: 23 Feet
Multiple Stage Cementing Collar Used? ☐ Yes ☒ No
If yes, show depth set: _____ Feet
If Alternate II completion, cement circulated from: 411
feet depth to: 0 w/ 60 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

☐ Letter of Confidentiality Received
Date: _____
☐ Confidential Release Date: _____
☒ Wireline Log Received
☐ Geologist Report Received
☒ UIC Distribution
ALT ☐ I ☒ II ☐ III Approved by: Deanna Gertica Date: 08/30/2012

1092175

Operator Name: D. E. Exploration, Inc. Lease Name: Garberg Well #: AI-4
 Sec. 4 Twp. 19 S. R. 24 ☒ East ☐ West County: Miami

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:

GAMMA RAY/NEUTRON/CCL

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

Name Top Datum
 SQUIRREL 350 +467

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	20	23	PORTLAND	3	NA
PRODUCTION	5.625	2.875	6	411	50/50 POZ	60	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	-			

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	350-360 - 31 PERFS - 2" DML RTG		

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: _____

Miami County, KS
 Well: Garberg AI-4
 Lease Owner: DE Exploration

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

Commenced Spudding:
 5/23/2012

WELL LOG

Thickness of Strata	Formation	Total Depth
0-19	Soil-Clay	1
135	Shale	154
5		159
2	Sandy Shale	161
11	Shale	172
2	Sandy Lime	174
1	Sand	175
2	Sand	177
3	Sand	180
2	Sand	182
2	Sand	184
2	Sand	186
5	Lime	191
6	Shale	197
4	Lime	201
11	Shale	212
7	Lime	219
16	Shale	235
4	Lime	239
5	Shale	244
7	Sand	251
5	Shale	256
17	Lime	273
9	Shale	282
3	Lime	285
15	Shale	300
5	Lime	305
41	Shale	346
4	Sandy Shale	350
6	Sand	356
2	Sand	358
3	Sand	361
2	Sand	363
5	Sandy Shale	368
33	Shale	401
1	Lime	402
5	Shale	407
23	Sand	430
10	Shale	440-TD

Short Cuts

TANK CAPACITY

BBLs. (42 gal.) equals $D^2 \times .14 \times h$

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 - SPMxRx D over RPM

SPM - RPMxD over Rx D

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

746 WATTS equal 1 HP

Log Book

Well No. AI-4

Farm Garberg

KS Miami
(State) (County)

4 19 24
(Section) (Township) (Range)

For D. E. Exploration
(Well Owner)

Town Oilfield Services, Inc.

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

Garberg Farm: Aligami County

K5 State: Well No. AI-4

Elevation 817

Commenced Spuding May 23 2012

Finished Drilling May 24 2012

Driller's Name Wesley Dollard

Driller's Name _____

Driller's Name _____

Tool Dresser's Name Brandon Sten

Tool Dresser's Name Colt Stone

Tool Dresser's Name _____

Contractor's Name TOS

4 19 24

(Section)	(Township)	(Range)
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Distance from S line, 3795 ft.

Distance from E line, 2095 ft.

3 sacks

6 hrs

CASING AND TUBING RECORD

10" Set _____ 10" Pulled _____

8" Set _____ 8" Pulled _____

7 8 1/2" Set 23 6 1/4" Pulled

4" Set _____ 4" Pulled _____

2" Set _____ 2" Pulled _____

CASING AND TUBING MEASUREMENTS

[illegible]

Thickness of Strata	Formation	Total Depth	Remarks
0-14	Soil-clay	14	water
135	Shale	154	
5	sand & lime	159	
2	sandy shale	161	
11	Shale	172	
2	sandy lime	174	
1	sand	175	5% O.I.
2	sand	177	no O.I.
3	sand	180	5% O.I.
2	sand	182	no O.I.
2	sand	184	10% O.I.
2	sand	186	no O.I.
5	Lime	191	
6	shale	197	
4	Lime	201	
11	shale	212	
7	Lime	219	
16	shale	235	
4	Lime	239	
5	shale	244	
7	sand	251	no O.I.
5	shale	256	
17	Lime	273	
9	shale	282	
3	Lime	285	
15	shale	300	
5	Lime	305	

305

[illegible]

-4-

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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 # 250125

Invoice Date: 05/29/2012 Terms: 0/0/30,n/30

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D.E. EXPLORATION
DOUG EVANS
P.O. BOX 128
WELLSVILLE KS 66092
(785) 883-4057

GARBERG AI-4
39802
4-19-24
05-24-2012
KS

Part Number	Description	Qty	Unit Price	Total
1124	50/50 POZ CEMENT MIX	60.00	10.9500	657.00
1118B	PREMIUM GEL / BENTONITE	201.00	.2100	42.21
1111	SODIUM CHLORIDE (GRANULA	116.00	.3700	42.92
1110A	KOL SEAL (50# BAG)	300.00	.4600	138.00
4402	2 1/2" RUBBER PLUG	1.00	28.0000	28.00
1401	HE 100 POLYMER	.50	47.2500	23.63

	Description	Hours	Unit Price	Total
368	CEMENT PUMP	1.00	1030.00	1030.00
368	EQUIPMENT MILEAGE (ONE WAY)	40.00	4.00	160.00
368	CASING FOOTAGE	411.00	.00	.00
370	80 BBL VACUUM TRUCK (CEMENT)	2.00	90.00	180.00
558	MIN. BULK DELIVERY	1.00	350.00	350.00

Parts:	931.76	Freight:	.00	Tax:	70.34	AR	2722.10
Labor:	.00	Misc:	.00	Total:	2722.10		
Sublt:	.00	Supplies:	.00	Change:	.00		

Signed _____

Date _____

BARTLESVILLE, OK
918/338-0808

EL DORADO, KS
316/322-7022

EUREKA, KS
620/583-7664

PONCA CITY, OK
580/762-2303

OAKLEY, KS
785/672-2227

OTTAWA, KS
785/242-4044

THAYER, KS
620/839-5269

GILLETTE, WY
307/686-4914



CONSOLIDATED
Oil Well Services, LLC

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

FIELD TICKET & TREATMENT REPORT

CEMENT

TICKET NUMBER 39802
LOCATION Oxhaw
FOREMAN Alan Mader

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
5-24-12	2353	Garberg # AT-4	NW 4	19	29	M1
CUSTOMER DE Exploration			TRUCK # DRIVER TRUCK # DRIVER			
MAILING ADDRESS P.O. Box 128			516 Al Mader Safety Meat			
CITY Wellsville			368 Al Mader ASM			
STATE KS			370 Ryan R5			
ZIP CODE 66092			388 Mike Hag MH			
JOB TYPE long string	HOLE SIZE 5 5/8	HOLE DEPTH 940	CASING SIZE & WEIGHT 2 7/8			
CASING DEPTH 411	DRILL PIPE	TUBING	OTHER haffle 381			
SLURRY WEIGHT	SLURRY VOL	WATER gal/sk	CEMENT LEFT IN CASING yes			
DISPLACEMENT 2 1/4	DISPLACEMENT PSI 800	MIX PSI 200	RATE 4 bpm			
REMARKS: Held crew meet. Established rate. Mixed & pumped 1/2 gal polymer circulated to condition hole. Mixed & pumped 100# gel followed by 60 SK 50/150 cement plus 3# hole seal. 290 gal per sack. Circulated cement. Flushed pump. Pumped plug to haffle. Well held 800 PSI. Set float. Closed valve.						

TDS Wes

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401	1	PUMP CHARGE		10.30.00
5406	470	MILEAGE		160.00
5402	411'	Casing footage		
5407	min	ton miles		350.00
5502C	2	80 sac		180.00
1124	60	50/150 cement		657.00
1118B	201 #	gel		42.21
1111	116 #	silt		42.92
1110A	300 #	hole seal		138.00
4402	1	2 1/2 plug		28.00
1401	1/2 gal	polymer		23.63
SALES TAX				70.34
ESTIMATED TOTAL				2722.10

Form 3737

NO company rep.

250125

AUTHORIZATION

Jim Oskid

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