

KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION

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 # 30795  
Name: Black Dahlia Oil & Gas Company  
Address 1: 22120 N. Golf Club Dr.  
Address 2: \_\_\_\_\_  
City: Sun City West State: AZ Zip: 85375 +  
Contact Person: William c. Hafeman  
Phone: ( 623 ) 214-8811  
CONTRACTOR: License # 33350  
Name: Southwind Drilling  
Wellsite Geologist: Kurt Talbott  
Purchaser: NCRA

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 #: \_\_\_\_\_

11-03-12	11-10-12	12-14-12 (SWDW)
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 167-23832-0000  
Spot Description: \_\_\_\_\_  
SW SW SE NE Sec. 32 Twp. 15 S. R. 12  East  West  
2,465 Feet from  North /  South Line of Section  
1,245 Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:  
 NE     NW     SE     SW  
County: Russell  
Lease Name: Hafeman Well #: 4  
Field Name: Hall- Gurney

Producing Formation: SWDW Arbuckle  
Elevation: Ground: 1840 Kelly Bushing: 1848  
Total Depth: 3442 Plug Back Total Depth: \_\_\_\_\_  
Amount of Surface Pipe Set and Cemented at: 569 Feet  
Multiple Stage Cementing Collar Used?  Yes  No  
If yes, show depth set: \_\_\_\_\_ Feet  
If Alternate II completion, cement circulated from: 3365 (Float Shoe)  
feet depth to: 2500 w/ 130 sx cmt.

**Drilling Fluid Management Plan**  
(Data must be collected from the Reserve Pit)  
Chloride content: 32000 ppm Fluid volume: 600 bbls  
Dewatering method used: Evaporation and backfill  
Location of fluid disposal if hauled offsite: \_\_\_\_\_  
Operator Name: \_\_\_\_\_  
Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_  
Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West  
County: \_\_\_\_\_ Permit #: \_\_\_\_\_

**INSTRUCTIONS:** An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information of side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

**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.

Signature: W. C. Hafeman  
Title: President Date: 12-27-12

**KCC Office Use ONLY**

Letter of Confidentiality Received  
Date: \_\_\_\_\_  
 Confidential Release Date: \_\_\_\_\_  
 Wireline Log Received  
 Geologist Report Received  
 UIC Distribution  
**RECEIVED**  
Plg - 1/3/13 **JAN 02 2013**  
**KCC WICHITA**

Operator Name: **Black Dahlia Oil & Gas Company** Lease Name: **Hafeman** Well #: **4**  
 Sec. **32** Twp. **15** S. R. **12**  East  West County: **Russell**

**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 <i>(Attach Additional Sheets)</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	TOPEKA	2663	- 815
Electric Log Run	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	HEEBNER	2940	-1092
Electric Log Submitted Electronically <i>(If no, Submit Copy)</i>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	BROWN	3028	11180
List All E. Logs Run:		LANSING	3038	-1190
		BKC	3285	-1437
		ARBUCKLE	3330	-1482
		QUARTZITE	3418	-1570

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> 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 Casing	12.25"	8.625"	23#	569	common	250	3%cc, 2%gel
Long String (SWDW)	7.785"	5.5"	15.5#	3365	common	130	10%cc

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth
	Arbuckle Open Hole 3367 - 3432 (SWDW)	3000 gals 28% acid 3367 - 3432	
<b>RECEIVED</b> <b>JAN 02 2013</b> <b>KCC WICHITA</b>			

TUBING RECORD:	Size: <b>2.875" OD</b>	Set At: <b>3382.79</b>	Packer At: <b>3352</b>	Liner Run: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
----------------	------------------------	------------------------	------------------------	--

Date of First, Resumed Production, SWD or ENHR. <b>Awaiting Approval</b>	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input checked="" type="checkbox"/> Other (Explain) <b>Hydrostatic Feed (SWDW)</b>
Estimated Production Per 24 Hours	Oil Bbls. Gas Mcf Water Bbls. Gas-Oil Ratio Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input checked="" type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other (Specify) <b>See Above</b>	PRODUCTION INTERVAL: <b>SWDW</b>
---	--	-------------------------------------

# QUALITY OILWELL CEMENTING, INC.

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 6086

Date	11-4-12	Sec.	32	Twp.	15	Range	12	County	Russell	State	KS	On Location		Finish	6:30 AM
Lease								Well No.		Owner					
Hafeman								4		To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.					
Contractor										Type Job					
Southwest 6										Subface					
Hole Size				T.D.				Charg. To							
12 1/4				570				Black Dahlia							
Csg.				Depth				Str.							
8 5/8				569											
Tbg. Size				Depth				City State							
Tool				Depth				The above was done to satisfaction and supervision of owner agent or contractor.							
Cement Left In Csg.				Shoe Joint				Cement Amount Ordered							
20ft				20ft				250 3% CC 2% gel							
Meas Line				Displace											
				35. BBL											
<b>EQUIPMENT</b>								Common							
								250							
Pumptrk				No.				Cementer				Helper			
9								Matt							
Bulktrk				No.				Driver				Gel.			
1								Cody				5			
Bulktrk				No.				Driver				Calcium			
pu								Doug				89			
<b>JOB SERVICES &amp; REMARKS</b>								Hulls							
Remarks:								Salt							
Rat Hole								Flowseal							
Mouse Hole								Kol-Seal							
Centralizers								Mud CLR 48							
Baskets								CFL-117 or CD110 CAF 38							
D/V or Port Collar								Sand							
								Handling							
								264							
Cement did circulate								Mileage							
								<b>FLOAT EQUIPMENT</b>							
								Guide Shoe							
								Centralizer							
								Baskets							
								AFU Inserts							
								Float Shoe							
								Latch Down							
								8 1/2 wooden prog WICHITA							
								Pumptrk Charge							
								Long Surface							
								Mileage							
								16							
								Tax							
								Discount							
								Total Charge							
Signature															
W. J. P. H.															

RECEIVED  
JAN 02 2013

# QUALITY OILWELL CEMENTING, INC.

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 6186

Date	11-10-12	Sec.	32	Twp.	15	Range	12	County	Russell	State	KS	On Location	Finish
------	----------	------	----	------	----	-------	----	--------	---------	-------	----	-------------	--------

Lease Hafeman Well No. 4 Location 281 + Michealis Rd, E to 195th Rd

Contractor <u>Southwind #6</u>	Owner <u>KAS w/Into</u>
--------------------------------	-------------------------

Type Job Production To Quality Oilwell Cementing, Inc.  
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Hole Size <u>7 7/8"</u>	T.D. <u>3430'</u>	Charge To <u>Black Dahlia</u>
-------------------------	-------------------	-------------------------------

Csg. <u>5 1/2" New</u>	Depth <u>3365'</u>	Street
------------------------	--------------------	--------

Tbg. Size	Depth	City State
-----------	-------	------------

Tool Depth The above was done to satisfaction and supervision of owner agent or contractor.

Cement Left in Csg. <u>24.81'</u>	Shoe Joint <u>24.81'</u>	Cement Amount Ordered <u>150 Common 10% Salt</u>
-----------------------------------	--------------------------	--

Meas Line	Displace <u>8 1/2 BUS</u>	500 gal mud Clear 48
-----------	---------------------------	----------------------

**EQUIPMENT**

Pumptrk <u>16</u>	No.	Cementar <u>Trawis</u>	Helper	Common <u>150</u>
Bulktrk <u>10</u>	No.	Driver <u>Lonnie W</u>	Driver	Poz. Mix
Bulktrk <u>pu</u>	No.	Driver <u>Rick</u>	Driver	Gel.
JOB SERVICES & REMARKS				Hulls

Remarks: pipe on bottom, break Circulation salt 13

Rat Hole <u>pump 200 gal Mud Clear 48</u>	Flowseal
---	----------

Mouse Hole <u>plug Rathole w/ 305x</u>	Kol-Seal
--	----------

Centralizers <u>Hook to 5 1/2" Casing + mix</u>	Mud CLR 48 <u>500 gal</u>
---	---------------------------

Baskets <u>120 5x Cement shut down</u>	CFL-117 or CD110 CAF 38
--	-------------------------

D/V or Port Collar <u>wash pump + lines</u>	Sand
---	------

Released plug + Displaced <u>w/ 8 1/2 BUS of water.</u>	Handling <u>163</u>
---	---------------------

Released + held	Mileage
-----------------	---------

**FLOAT EQUIPMENT**

Lift pressure <u>600 #</u>	Guide Shoe
----------------------------	------------

Land plug to <u>1500 #</u>	Centralizer <u>6 turbo's</u>
----------------------------	------------------------------

	Baskets
--	---------

	AFU Inserts
--	-------------

	Float Shoe <u>1</u>
--	---------------------

	Latch Down <u>1</u>
--	---------------------

RECEIVED  
JAN 02 2013  
KCC WICHITA

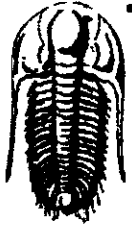
	Pumptrk Charge <u>prod Long String</u>
--	--

	Mileage <u>16</u>
--	-------------------

	Tax
--	-----

	Discount
--	----------

Signature <u>[Signature]</u>	Total Charge
------------------------------	--------------



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Black Dahlia Oil & Gas Co  
22120 N. Golf Club Dr  
Sun City West, AZ 85375  
ATTN: Bill Hafeman

**32-15s-12w Russell,KS**

**Hafeman #4**

Job Ticket: 48591

DST#: 1

Test Start: 2012.11.08 @ 15:51:03

### GENERAL INFORMATION:

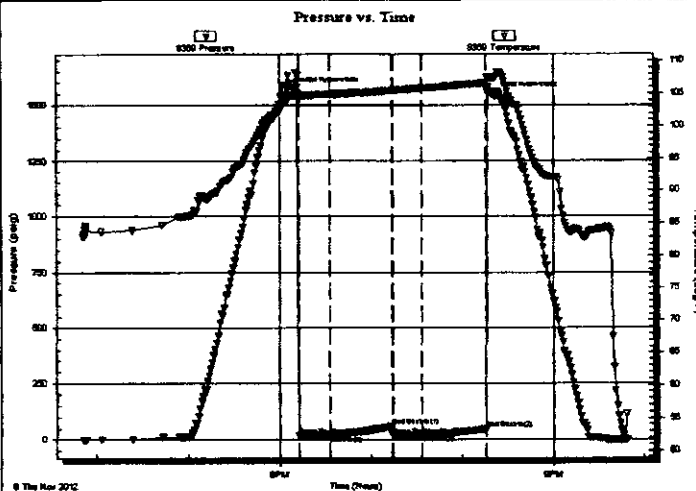
Formation: **Conglo Sd**  
Deviated: **No Whipstock:** ft (KB)  
Time Tool Opened: 18:12:28  
Time Test Ended: 21:48:57  
Test Type: **Conventional Bottom Hole (Initial)**  
Tester: **Ray Schwager**  
Unit No: **42**  
Interval: **3280.00 ft (KB) To 3326.00 ft (KB) (TVD)**  
Total Depth: **3326.00 ft (KB) (TVD)**  
Hole Diameter: **7.88 inches** Hole Condition: **Fair**  
Reference Elevations: **1849.00 ft (KB)**  
**1841.00 ft (CF)**  
KB to GR/CF: **8.00 ft**

### Serial #: 8369

Inside

Press@RunDepth: 24.25 psig @ 3291.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2012.11.08 End Date: 2012.11.08 Last Calib.: 2012.11.08  
Start Time: 15:51:03 End Time: 21:48:57 Time On Btm: 2012.11.08 @ 18:09:28  
Time Off Btm: 2012.11.08 @ 20:20:57

TEST COMMENT: 20-IFP-w k bl thru-out 1/2" bl  
40-ISIP-no bl  
20-FFP-no bl, flushed tool got surge  
40-FSIP-no bl



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1565.03	104.74	Initial Hydro-static
3	18.86	104.37	Open To Flow (1)
23	20.29	104.89	Shut-In(1)
64	60.66	105.49	End Shut-In(1)
65	20.24	105.48	Open To Flow (2)
84	24.25	105.82	Shut-In(2)
126	47.25	106.59	End Shut-In(2)
132	1540.45	107.41	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud w/show of oil	0.07

### Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

RECEIVED

JAN 02 2013

KCC WICHITA

**JAMES C. MUSGROVE**

Petroleum Geologist  
212 Main Street  
P.O. Box 215  
Clafin, KS 67525

Office (620) 588-4250

Res. Clafin (620) 587-3444

Black Dahlia Oil Company  
Hafeman #4  
SW-SW-SE-SE (2645' FWL & 1245' FEL)  
Section 32-15s-12w  
Russell County, Kansas  
Page 1

**5 1/2" Disposal Casing Set**

**Contractor:** Southwind Drilling Co. (Rig #6)  
**Commenced:** November 3, 2012  
**Completed:** November 9, 2012  
**Elevation:** 1848' K.B; 1846' D.F; 1840' G.L.  
**Casing program:** Surface; 8 5/8" @ 569'  
Production; 5 1/2" @ 3365'  
**Sample:** Samples saved and examined 2600' to the Rotary Total Depth.  
**Drilling time:** One (1) foot drilling time recorded and kept 2600 ft. to the Rotary Total Depth.  
**Measurements:** All depths measured from the Kelly Bushing.  
**Drill Stem Tests:** There was one (1) Drill Stem Test ran by Trilobite Testing Co.  
**Electric Log:** By Pioneer Energy Services.

<u>Formation</u>	<u>Log Depth</u>	<u>Sub-Sea Datum</u>
Topeka	2661	-813
Heebner	2940	-1092
Toronto	2958	-1110
Douglas	2971	-1123
Brown Lime	3028	-1180
Lansing	3037	-1189
Base Kansas City	3285	-1437
Arbuckle	3329	-1481
Quartzite	3416	-1568
Rotary Total Depth	3430	-1582
Log Total Depth	3432	-1584

(All tops and zones corrected to Electric Log measurements).

**SAMPLE ANALYSIS, SHOWS OF OIL, TESTING DATA, ETC.**

RECEIVED  
JAN 02 2013  
KCC WICHITA

**TOPEKA SECTION**

2661-2670' Limestone; gray, tan, finely crystalline, oolitic, poorly developed porosity, no shows.

- 2710-2717' Limestone; tan, cream, fine and medium crystalline, oolitic, fossiliferous, poor intercrystalline and pinpoint type porosity, spotty brown stain, no free oil and no odor.
- 2748-2770' Limestone; tan, buff, gray, finely crystalline, oolitic, fossiliferous, poor visible porosity.
- 2854-2890' Limestone; cream, tan, finely crystalline, poorly developed porosity, no shows.
- 2890-2900' Limestone; cream, tan, buff, finely crystalline, finely oolitic, poor visible porosity, no shows.
- 2920-2932' Limestone; cream, tan, fine and medium crystalline, poorly developed intercrystalline type porosity, chalky, trace questionable brown stain, no show of free oil and no odor.

**TORONTO SECTION**

- 2958-2970' Limestone; white, cream, finely crystalline, chalky, poor visible porosity, no shows.

**LASNING SECTION**

- 3037-3048' Limestone; white, cream, tan, finely crystalline, oolitic, oomoldic, chalky, no shows.
- 3067-3076' Limestone; cream, tan, finely crystalline, oolitic, sub oomoldic, poorly developed porosity, no shows.
- 3086-3100' Limestone; tan, buff, finely crystalline, fair fossiliferous, poorly developed porosity, no shows.
- 3108-3120' Limestone; gray, tan, finely crystalline, oolitic, few oomoldic, scattered oomoldic porosity, no shows.
- 3124-3140' Limestone; cream, white, finely crystalline, oolitic, oomoldic, good oomoldic porosity (barren).
- 3170-3176' Limestone; cream, tan, finely crystalline, oolitic, poorly developed porosity.
- 3190-3200' Limestone; cream, white, finely crystalline, oolitic, chalky, poor visible porosity, no shows.
- 3206-3220' Limestone; white, cream, oomoldic, oolitic, scattered oomoldic porosity, no shows.
- 3250-3262' Limestone; cream, tan, finely crystalline, slightly oolitic, fair to good porosity, golden brown stain, no show of free oil and good odor in fresh samples.
- 3274-3280' Limestone; cream, tan, finely crystalline, oolitic/fossiliferous, poor visible porosity, trace white/peach chert.

**CONGLOMERATE SECTION**

RECEIVED  
JAN 12 2013  
KCC WICHITA

3312-3321' Sand; gray, clear, fine grained, poorly developed porosity, brown stain and saturation, show of free oil and no odor.

**Drill Stem Test #1** **3280-3326'**

**Times: 20-40-20-40**

**Blow: Weak**

**Recovery: 5' mud with oil spots**

**Pressures:** ISIP 60 psi  
FSIP 47 psi  
IFP 18-20 psi  
FFP 20-24 psi  
HSH 1565-1540 psi

**ARBUCKLE SECTION**

- 3329-3340' Dolomite; white, gray, fine to medium crystalline, fair to good intercrystalline porosity, few oomoldic, dark brown stain, trace of free and fair odor in fresh samples.
- 3340-3350' Dolomite; white, light gray, pink, fine and medium crystalline, poor to fair intercrystalline porosity, brown spotty stain, trace of free oil and odor in fresh samples.
- 3350-3370' Dolomite; white, cream, light gray, finely crystalline, poorly developed porosity, no shows.
- 3370-3390' Dolomite; white, pink, fine and medium crystalline, sandy, poorly intercrystalline porosity, no shows.
- 3390-3416' Dolomite; as above, highly sandy, trace loose unconsolidated quartz grains.

**QUARTZITE SECTION**

- 3416-3432' Quartz; clear, glassy, few pinkish tint, trace micaceous and loose quartz grains, no shows.

**Rotary Total Depth 3430 (-1582)**  
**Log Total Depth 3432 (-1584)**

**Recommendations:**

Per operators recommendation, 5 1/2" Disposal Casing was set and cemented in the Hafeman #4.

Respectfully submitted;

*Kurt Talbott*

Kurt Talbott,  
Petroleum Geologist

RECEIVED  
JAN 02 2013  
KCC WICHITA