



KANSAS CORPORATION COMMISSION 1094545  
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 # 6655  
Name: Crawford, Garry F. dba Crawford Production Company  
Address 1: PO BOX 727  
Address 2: \_\_\_\_\_  
City: EL DORADO State: KS Zip: 67042 + 0727  
Contact Person: garry crawford  
Phone: ( 316 ) 321-3942  
CONTRACTOR: License # 33575  
Name: WW Drilling, LLC  
Wellsite Geologist: larry friend  
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>11/01/2011</u>	<u>11/01/2011</u>	<u>08/12/2012</u>
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-137-20589-00-00  
Spot Description: \_\_\_\_\_  
SW NW NE SE Sec. 5 Twp. 3 S. R. 23  East  West  
2297 Feet from  North /  South Line of Section  
995 Feet from  East /  West Line of Section  
Footages Calculated from Nearest Outside Section Corner:  
 NE     NW     SE     SW  
County: Norton  
Lease Name: Miller Well #: 1-5  
Field Name: \_\_\_\_\_  
Producing Formation: reagan sand  
Elevation: Ground: 2345 Kelly Bushing: 5  
Total Depth: 3620 Plug Back Total Depth: \_\_\_\_\_  
Amount of Surface Pipe Set and Cemented at: 220 Feet  
Multiple Stage Cementing Collar Used?  Yes  No  
If yes, show depth set: 1931 Feet  
If Alternate II completion, cement circulated from: \_\_\_\_\_  
feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: 2000 ppm Fluid volume: 600 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 Garbar Date: 10/01/2012



1094545

Operator Name: Crawford, Garry F. dba Crawford Production Company Lease Name: Miller Well #: 1-5  
 Sec. 5 Twp. 3 S. R. 23  East  West County: Norton

**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 <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Electric Log Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i>  List All E. Logs Run:  gamma-ray cement bond log	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">Name</td> <td style="width:20%;">Top</td> <td style="width:20%;">Datum</td> </tr> <tr> <td>gamma ray</td> <td>3620</td> <td>3663</td> </tr> </table>	Name	Top	Datum	gamma ray	3620	3663
Name	Top	Datum					
gamma ray	3620	3663					

CASING RECORD <input checked="" 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	12.25	8.58	20	220	class A	165	465 cal chol
production	7.78	4.5	14	3620	class A	150	500 cal

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

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
----------------	-------	---------	------------	---

Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain) _____			
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 type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5) (Submit ACO-4)</i> <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
---	--	--





**TRIOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Crawford Oil & Gas Co. LLC

5/3s/23w/Norton-KS

PO Box 1366  
El Dorado, KS 67042

Miller #1-5

Job Ticket: 43732

DST#: 2

ATTN: Larry Frank

Test Start: 2011.11.06 @ 02:04:00

### GENERAL INFORMATION:

Formation: **Megan Sand**

DeviceID: No Whipstock: ft (KB)

Time Test Opened: 03:56:30

Time Test Ended: 09:01:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Meek

Unit No: 43

Interval: 3577.86 ft (KB) To 3833.00 ft (KB) (TVD)

Total Depth: 3623.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2348.00 ft (KB)

2341.00 ft (CP)

KS to GRCF: 5.00 ft

Serial #: 6789

Inside

Press@RunDepth: 91.45 psig @ 3576.00 ft (KB)

Start Date: 2011.11.06

End Date:

2011.11.06

Capacity: 8000.00 psig

Last Cells: 2011.11.06

Start Time: 02:04:00

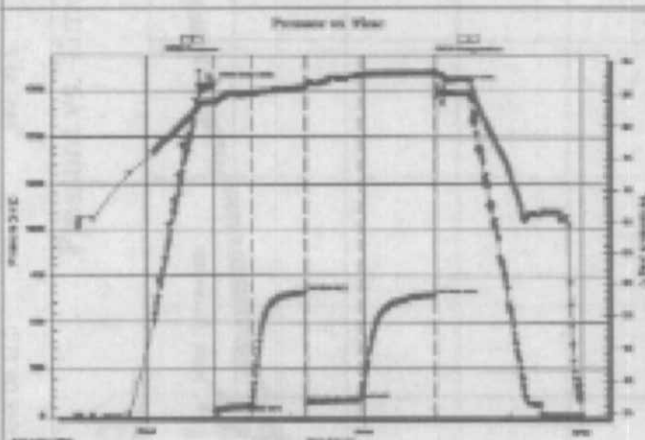
End Time:

09:01:30

Time On Stem: 2011.11.06 @ 03:56:30

Time Off Stem: 2011.11.06 @ 06:59:30

TEST COMMENT: F- 1/4" Blow built to 6"  
 IS- No Return  
 FF- Surface blow started at 3 min. Built to 6"  
 FS- No Return



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1776.32	83.00	Initial Hydro-static
1	21.07	83.50	Open To Flow (1)
31	61.94	85.07	Shut-In (1)
76	656.36	85.92	End Shut-In (1)
77	71.04	86.21	Open To Flow (2)
120	91.45	87.62	Shut-In (2)
182	640.53	88.36	End Shut-In (2)
184	1782.37	88.06	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (gal)
60.00	OCM 10s 40W 50M	0.30
60.00	OCM 40s 60M	0.30
35.00	NCO 70s 30M	0.48
15.00	Free oil 100s	0.21

### Gas Rates

	Cells (min)	Pressure (psig)	Gas Rate (Mscf)