

KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION

Form ACO-1  
October 2008  
Form Must Be Typed

**ORIGINAL**

**WELL COMPLETION FORM**  
**WELL HISTORY - DESCRIPTION OF WELL & LEASE**

OPERATOR: License # 34055  
Name: H & M Petroleum Corporation  
Address 1: 13570 Meadowgrass Drive  
Address 2: Suite 101  
City: Colorado Springs State: CO Zip: 80921 + \_\_\_\_\_  
Contact Person: David Allen  
Phone: ( 719 ) 590-6060  
CONTRACTOR: License # 33575  
Name: WW Drilling, LLC  
Wellsite Geologist: Richard J. Hall  
Purchaser: Coffeyville Resources  
Designate Type of Completion:  
 New Well     Re-Entry     Workover  
 Oil     SWD     SIOW  
 Gas     ENHR     SIGW  
 CM (Coal Bed Methane)     Temp. Abd.  
 Dry     Other \_\_\_\_\_  
*(Core, WSW, Expl., Cathodic, etc.)*

API No. 15 - 065-23577-00-00  
Spot Description: \_\_\_\_\_  
S2 NE NW Sec. 16 Twp. 7 S. R. 24  East  West  
990 Feet from  North /  South Line of Section  
1980 Feet from  East /  West Line of Section  
Footages Calculated from Nearest Outside Section Corner:  
 NE  NW  SE  SW  
County: Graham  
Lease Name: Bessie May Well #: 1  
Field Name: Wildcat  
Producing Formation: Lansing Kansas City  
Elevation: Ground: 2512' Kelly Bushing: 2517'  
Total Depth: 4050' Plug Back Total Depth: 3996'  
Amount of Surface Pipe Set and Cemented at: 7 jts set at 305' Feet  
Multiple Stage Cementing Collar Used?  Yes  No  
If yes, show depth set: 2171' Feet  
If Alternate II completion, cement circulated from: 2171'  
feet depth to: Surface w/ 420 sx cmt.

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  
 Plug Back: \_\_\_\_\_ Plug Back Total Depth \_\_\_\_\_  
 Commingled    Docket No.: \_\_\_\_\_  
 Dual Completion    Docket No.: \_\_\_\_\_  
 Other (SWD or Enhr.?)    Docket No.: \_\_\_\_\_  
11/03/2009    11/09/2009    11/10/2009  
Spud Date or    Date Reached TD    Completion Date or  
Recompletion Date       Recompletion Date

**Drilling Fluid Management Plan** AIT II NR 3-29-10  
*(Data must be collected from the Reserve Pit)*  
Chloride content: 1,000 ppm Fluid volume: 200 bbls  
Dewatering method used: Evaporation  
Location of fluid disposal if hauled offsite: \_\_\_\_\_  
Operator Name: \_\_\_\_\_  
Lease Name: \_\_\_\_\_ License No.: \_\_\_\_\_  
Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West  
County: \_\_\_\_\_ Docket No.: \_\_\_\_\_

**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.

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: [Signature]  
Title: Office Manager Date: 03/18/2010

Subscribed and sworn to before me this 19th day of March,  
20 10.

Notary Public: [Signature]  
Date Commission Expires: 01/29/2013

**JESSICA A. LOHF**  
NOTARY PUBLIC  
STATE OF COLORADO  
My Commission Expires 01/29/2013

**KCC Office Use ONLY**  
 Letter of Confidentiality Received  
If Denied, Yes  Date: 3/25/10-Dlg  
 Wireline Log Received  
 Geologist Report Received  
 UIC Distribution  
**RECEIVED**  
KANSAS CORPORATION COMMISSION  
MAR 23 2010

Operator Name: H & M Petroleum Corporation Lease Name: Bessie May Well #: 1  
 Sec. 16 Twp. 7 S. R. 24  East  West County: Graham

**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 copy of all Electric Wireline 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 type="checkbox"/> Yes <input checked="" 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 <i>(Submit Copy)</i>  List All E. Logs Run: <b>DI, Micro, Sonic, Neutron/Density Porosity</b>	<input checked="" type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:70%;">Name</td> <td style="width:15%;">Top</td> <td style="width:15%;">Datum</td> </tr> <tr> <td>Anhydrite</td> <td>2217</td> <td>+300</td> </tr> <tr> <td>Topeka</td> <td>3558</td> <td>-1043</td> </tr> <tr> <td>Heebner Shale</td> <td>3761</td> <td>-1244</td> </tr> <tr> <td>Lansing A</td> <td>3801</td> <td>-1284</td> </tr> <tr> <td>Lansing F</td> <td>3870</td> <td>-1353</td> </tr> <tr> <td>Muncie Creek Shale</td> <td>3905</td> <td>-1388</td> </tr> <tr> <td>Lansing I/Base Kansas City</td> <td>3938/3999</td> <td>-1421/-1482</td> </tr> </table>	Name	Top	Datum	Anhydrite	2217	+300	Topeka	3558	-1043	Heebner Shale	3761	-1244	Lansing A	3801	-1284	Lansing F	3870	-1353	Muncie Creek Shale	3905	-1388	Lansing I/Base Kansas City	3938/3999	-1421/-1482
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Lansing F	3870	-1353																							
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Lansing I/Base Kansas City	3938/3999	-1421/-1482																							

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 1/4"	8 5/8"	24#	305'	Common	240	5% Gel/7% CC
Production	7 7/8"	5 1/2"	15.5#	4050'	EA-2	150	7% Salt

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
4	3871'-3872'	Shot	3872'

TUBING RECORD: Size: <u>2 7/8"</u> Set At: <u>3996'</u> Packer At: <u>3956'</u>		Liner Run: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Date of First, Resumed Production, SWD or Enhr. <u>02/05/2010</u>		Producing Method: <input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain)	
Estimated Production Per 24 Hours	Oil Bbls. <u>13</u>	Gas Mcf <u>0</u>	Water Bbls. <u>40</u> Gas-Oil Ratio <u>32.1</u>

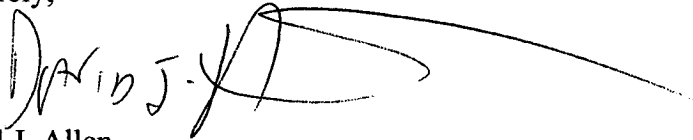
DISPOSITION OF GAS: <input checked="" type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input checked="" type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: <u>3801</u> <u>3870</u>
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 KANSAS CORPORATION COMMISSION  
 (If vented, Submit ACO-18.)  
**MAR 23 2010**  
 CONSERVATION DIVISION  
 WICHITA, KS

03/18/2010

I would like to request the maximum confidentiality of 2 years before releasing information on side two of the Bessie May #1 Well Completion Form. Thank you.

Sincerely,



David J. Allen  
Office Manager

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KANSAS CORPORATION COMMISSION

MAR 23 2010

CONSERVATION DIVISION  
WICHITA, KS

13570 Meadowgrass Dr  
Suite 101  
Colorado Springs, CO 80921  
Bus: 719-590-6060  
Fax: 719-590-6061  
800-220-5936

REMIT TO  
RR-1 BOX 90 D  
HOXIE KS 67740

SCHIPPERS OIL FIELD SERVICE L.L.C.

400

DATE <u>11/3/07</u> SEC. <u>16</u>	RANGE/TWP. <u>7/24</u>	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
LEASE <u>Basic May</u>			WELL # <u>1</u>		
				COUNTY <u>CH</u>	STATE <u>KS</u>

CONTRACTOR <u>WW 10</u>	OWNER <u>H/M</u>			
TYPE OF JOB				
HOLE SIZE <u>12 1/4</u>	T.D. <u>306</u>	CEMENT <u>240</u>		
CASING SIZE <u>8 7/8</u>	DEPTH <u>305</u>	AMOUNT ORDERED		
TUBING SIZE	DEPTH			
DRILL PIPE <u>4 1/2</u>	DEPTH			
TOOL	DEPTH			
PRES. MAX	MINIMUM	COMMON <u>240</u>	@ <u>14 1/2</u>	<u>3480</u>
DISPLACEMENT <u>17.561</u>	SHOE JOINT	POZMIX	@	
CEMENT LEFT IN CSG.		GEL <u>5</u>	@ <u>26 1/2</u>	<u>130</u>
PERFS		CHLORIDE <u>7</u>	@ <u>52 1/2</u>	<u>367</u>
		ASC	@	
EQUIPMENT			@	
			@	
PUMP TRUCK			@	
# <u>301</u>			@	
BULK TRUCK			@	
# <u>301</u>			@	
BULK TRUCK			@	
#			@	
			@	
		HANDLING <u>252</u>	@ <u>1 1/2</u>	<u>491</u>
		MILEAGE <u>36</u>	@ <u>22 1/2</u>	<u>810</u>
			TOTAL	

REMARKS	SERVICE <u>Surface</u>		
<u>Plug Down 10:00 PM</u>	DEPT OF JOB	@	
	PUMP TRUCK CHARGE	@	<u>950</u>
	EXTRA FOOTAGE	@	
<u>Circ Cement to Pit</u>	MILEAGE <u>36</u>	@ <u>6 1/2</u>	<u>231</u>
	MANIFOLD	@	<u>100</u>
		@	
		TOTAL	

CHARGE TO: <u>H/M</u>	
STREET	STATE
CITY	ZIP

To: Schippers Oil Field Service LLC

You are hereby requested to rent cementing equipment and furnish staff to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read & understand the "TERMS AND CONDITIONS" on the reverse side.

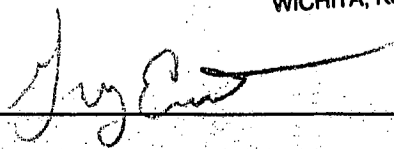
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CONSERVATION DIVISION  
WICHITA, KS

PLUG & FLOAT EQUIPMENT	
<u>8 7/8</u>	@ <u>69</u>
	@
	@
	@
	@
	TOTAL
TAX	
TOTAL CHARGE	
DISCOUNT (IF PAID IN 20 DAYS)	

SIGNATURE



PRINTED NAME

Greg Frantz

JOB LOG

SWIFT Services, Inc.

DATE 7-10-09 PAGE NO. 1  
TICKET NO. 16766

CUSTOMER *H & M Petroleum* WELL NO. *#1* LEASE *Bessie May* JOB TYPE *2-stage*

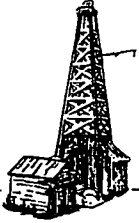
CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	1730							on location w/ FE
								RTD 4050'
								5 1/2" x 15.5" x 4040' x 21'
								Cent. 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 46
								Bucket 47, 75
								D.V. Tool 47 @ 2171'
	1845							start FE
	2030							Break Circ.
	2135	4	0				200	Start Pre-flushes <sup>500 gal Mud flush</sup> 20 bbl KCL flush
	2145	5	32/0				250	Start Cement 150 sks EA-2
	2155		36					End Cement
								Wash P/L
								Drop L D Plug
	2200	6	0				200	Start Displacement wtr
	2206	6	48				200	" Mud
	2210	5	69				250	catch cement
	2218		95.5				700/1300	Land Plug
								Release Pressure / Float
	2220							Drop Opening Plug
	2230						1100	Open D.V. Tool
	2240							Hook up to rig to circ 1 hr
	2330	2.5	7					Plug R.H. 30 sks SMD
	2335	4	0				930	Start KCL flush 20 bbl
	2340	6	20/0				200	Start Cement 270 sks SMD
	0005		150					End Cement
								Drop Closing Plug
	0010	0.5	0				200	Start Displacement
		4	11				250	catch Cement
		4						Circ Cement before plug dropped
			51.5				500/1500	Land Plug
								Close D.V. Tool
								Release Press. / DV Closed

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MAR 23 2010

circ 100 sks to pit

Thank you  
Nik. F. F. share share



WHITEHALL EXPLORATION

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**WELLSITE GEOLOGICAL CONSULTING**

**GEOLOGICAL ANALYSIS & WELL REPORT**

**H & M Petroleum Corporation**

**BESSIE MAY No. 1**

990' FNL & 1,980' FWL  
C-S/2-NE-NW

Section 16-Township 7 South-Range 22 West  
Graham County, Kansas

November 20, 2009

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MAR 23 2010

CONSERVATION DIVISION  
WICHITA, KS

## GENERAL INFORMATION

Elevation: G.L. 2,512' K.B. 2,517'  
All measurements are from K.B.

Field: Wildcat

Drilling Contractor/Rig No.: WW Drilling/Rig 10

Total Depth: RTD: 4,050' LTD: 4,050'

Surface Casing: 8 5/8" @ 304'

Production Casing: 5 1/2" @ 4,040'

Drill Time Kept: 3,500'-4,050' RTD

Samples Examined: 3,540'-4,050' RTD

Geological Supervision: 3,500'-4,050' RTD

Wellsite Geologist: Richard J. Hall  
Certified Petroleum Geologist No. 5820

Drill Stem Tests: 1) Lansing "C" Zone - Open hole test  
2) Lansing "D"- "G" Zone's - Open hole test  
3) Misrun - Kansas City "H"- "I" Zone's -  
Open hole test  
3) Kansas City "H"- "J" Zone's - Open hole test

Mud Company/Mud Type/Engineer: Morgan Mud/Chemical/Dave Lines

Electric Logging Company: Log-Tech

Log Suite: -Dual Induction -Micro Log  
-Neutron/Density Porosity -Sonic

Samples: Examined & discarded except for dry cut kept over  
show zone's

Total Depth Formation: Base/Kansas City

Well Status: Production casing set to test the LKC Group

## DAILY DRILLING CHRONOLOGY

<u>2009</u> <u>Date</u>	<u>7:00 A.M.</u> <u>Depth</u>	<u>24 Hour</u> <u>Footage</u>	<u>7:00 A.M. Operation; 24 Hour Activity</u>
11/03/09	0	0	MIRU; mix spud mud, drill rathole, spud @ 4:15 P.M., drill to 306', jet cellar/circ., drop dev. survey, TOO H, rig up and run 7 jts of 8 5/8" surf. csg. set @ 305', cement surf. csg., WOC 8', drill ahead @ 6:00 A.M.-11/4/09.
11/04/09	450'	450'	Drilling ahead; jet/add premix, drilling, 15" rig repair-pump, drilling, jet, drilling, jet, add premix, drilling, jet, drilling, jet, drilling.
11/05/09	2,416'	1,966'	Drilling ahead; 2' rig repair - change head on pump @ 2,459', drilling, jet, displace mud @ 2,783' (650 bbls), drilling, TOO H for plugged bit @ 3,163'.
11/06/089	3,163'	747'	Trip in hole w/bit; drilling.
11/07/09	3,770'	607'	Drilling ahead; CFS @ 3,821', jet/add premix, drilling, CFS @ 3,840', short trip 25 stands (1.5'), circ. 1', drop dev. survey, TOO H strapping pipe, pick up test tool, TIH, run DST No. 1, TOO H, lay down test tool, run collars in hole-break circ, TIH, break circ., drilling, CFS @ 3,762', drilling.
11/08/09	3,920'	150'	CFS @ 3,920'; TOO H, pick up test tool, TIH, run DST No. 2, TOO H, lay down test tool, TIH w/bit, drilling, CFS @ 3,950', TOO H, pick up test tool, TIH, DST No. 3-misrun-packer failure, TOO H, lay down test tool, TIH w/bit, 30" circ., drilling.
11/09/09	3,960'	40'	Drilling ahead; CFS @ 3,966', TOO H, pick up test tool, work on draw works motor, TIH, run DST No. 4, TOO H, lay down test tool, TIH w/bit, 30" circ., drilling, reach 4,050' RTD @ 12:38 A.M.-11/10/09, circ. 1', drop dev. survey, TOO H w/bit, rig up Log-Tech @ 3:30 A.M. 11/10/09, logging.
11/10/09	4,050'	90'	Logging (2 <sup>nd</sup> run); rig down loggers @ 8:30 A.M., WOO, TIH w/bit, circ., TOO H laying down drill pipe, rig up and run 5 1/2" prod. csg.-set @ 4,040', cement prod. casing - plug down @ 12:45 A.M. 11/11/09, by Swift Cementing, rig released 11/11/09.



## DEVIATION SURVEYS

<u>Depth</u>	<u>Deviation (Degrees)</u>
306'	0.75
3,840'	1.00
4,050'	1.00

## REFERENCE WELLS

Reference Well "A": F & M Oil Co. Inc.  
Goddard "E" No. 1  
NW-SW-NW  
Section 16-T7S-R24W  
Graham County, KS  
KB: 2,481'  
LTD: 3,980'  
Date Drilled: January 1984  
TD Formation: Base/Kansas City  
Status: Dry & Abandoned

Reference Well "B": American Energies Corp.  
White No. 1  
SE-SW-NE  
Section 16-T7S-R24W  
Graham County, KS  
KB: 3,502'  
LTD: 4,260'  
Date Drilled: March 1982  
TD Formation: Mississippian  
Status: Dry & Abandoned

Reference Well "C": F & M Oil Co. Inc.  
Goddard No. 1  
SE-NW-NW  
Section 21-T7S-R24W  
Graham County, KS  
KB: 2,468'  
LTD: 3,955'  
Date Drilled: December 1975  
TD Formation: Base/Kansas City  
Status: Dry & Abandoned

## FORMATION TOPS

	Bessie May No. 1			Goddard "E" No. 1	White No. 1	Goddard No.1			
FORMATION	SAMPLE	ELECTRIC LOG		REFERENCE	REFERENCE	REFERENCE	DIFFERENCE TO		
	TOPS	TOPS	DATUM	WELL "A"	WELL "B"	WELL "C"	WELL "A"	WELL "B"	WELL "C"
PERMIAN									
Anhydrite	2215	2217	+300	+290	+294	+322	+10	+6	-22
PENNSYLVANIAN									
Topeka	3558	3558	-1043	-1036	NA	-1032	-7	NA	-11
Heebner Shale	3764	3761	-1244	-1240	-1247	-1237	-4	+3	-7
Lansing "A"	3802	3801	-1284	-1280	-1288	-1279	-4	+4	-5
Lansing "F"	3870	3870	-1353	NA	-1352	NDE	NA	-1	NA
Muncie Creek Shale	3904	3905	-1388	NA	-1390	NDE	NA	+2	NA
Lansing "I"	3936	3938	-1421	NA	-1425	NDE	NA	+4	NA
Base/Kansas City	4000	3999	-1482	-1478	-1482	NDE	-4	FLAT	NA

NA = Not Available

NDE = Not Deep Enough

## ZONES OF INTEREST

<u>Formation</u>	<u>Log Depth</u>	<u>Lithologic &amp; Show Descriptions, Remarks</u>
Lansing "F"	3,870'-3,879'	<p>Limestone, buff with off-white-light gray, fine-very fine crystalline, firm-hard, good fine-medium friable grainstone development, moderately chalky, scattered fossil fragments, some pieces moderately-very oolitic with good inter-oolitic matrix porosity, fair-good inter-crystalline porosity, VERY GOOD SHOW: fair odor, medium-good bright yellow fluorescence, uneven-near saturated brown oil stain, medium-good dark brown free oil droplets on break, intermediate slow streaming cut, excellent milky cut and bright yellow residual dried halo cut.</p> <p>This formation was included on DST No. 2 with the Lansing "D" through "G" Zone's, and recovered 385 feet of fluid consisting of: 55 feet of clean oil, 60 feet of oil cut mud (20% oil, 80% mud), 150 feet of oil cut muddy water (10% oil, 20% mud, 70% water) and 120 feet of muddy water (20% mud, 80% water), with shut in pressures of 1,204-1,216 p.s.i.</p> <p>Log-Tech logs show this reservoir has a very clean very gamma ray, very good SP development, 8-15% density porosity, 9-24% neutron porosity, 9-13% sonic porosity, 5 feet of excellent microlog development, and has a maximum 13 ohms deep resistivity.</p>
Kansas City "I"	3,938'-3,946'	<p>Limestone, off white-buff, fine in part-very fine crystalline, hard-dense, some fossil fragments, moderately chalky, some nodular oolites, moderate vug development, intermediate inter-crystalline porosity, GOOD SHOW: fair dull yellowish fluorescence, scattered-uneven brown-black oil stain throughout, good show free brown oil droplets on break, fair streaming cut, good dried yellow residual halo cut.</p> <p>The Kansas City "I" zone was included on DST No. 4 with the Kansas City "J" Zone and recovered 5 feet of clean oil and 60 feet of heavy oil cut mud (30% oil, 70% mud) with shut in pressures of 848-1,173 p.s.i.</p>

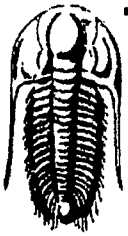
Log-Tech logs show the Kansas City "I" zone has a clean gamma ray with a 2 foot thick "hot"/shaley signature in the middle of the formation with fair SP development, maximum 7-9.5% neutron porosity, maximum 6.5% density porosity, maximum 8-12% sonic porosity, none to poor microlog development over the bottom 2.5 feet, and has a maximum 14-18 ohms deep resistivity.

Kansas City "K" 3,973'-3,982'

Limestone, light gray-buff, fine-predominately very fine crystalline with some micro crystalline, semi-friable to dense, very oolitic, moderately-very well calcite cemented inter-oolitic shoal matrix, good vug porosity in part, intermediate-poor inter-crystalline porosity, VERY GOOD SHOW: fair dull fluorescence, uneven-mostly even dark brown oil stain, bleeding oil droplets, very good show free oil on break, good fast milky cut, dull to bright yellow residual dried halo cut.

This formation was not drill stem tested.

Log-Tech logs show this formation has a mostly clean gamma ray, very good SP development, 4-24.5% neutron porosity, maximum 11% density porosity, maximum 15% sonic porosity, 5 total feet of microlog development in the 9-foot thick formation, and has 5-18 ohms deep resistivity.



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

H&M  
13570 Meadow grass Dr  
Suite 101  
Colorado Springs, Co 80921  
ATTN: Rick Hall

**Bessie May #1**  
**16-7s-24w/Graham**  
Job Ticket: 36636      **DST#: 1**  
Test Start: 2009.11.07 @ 17:51:38

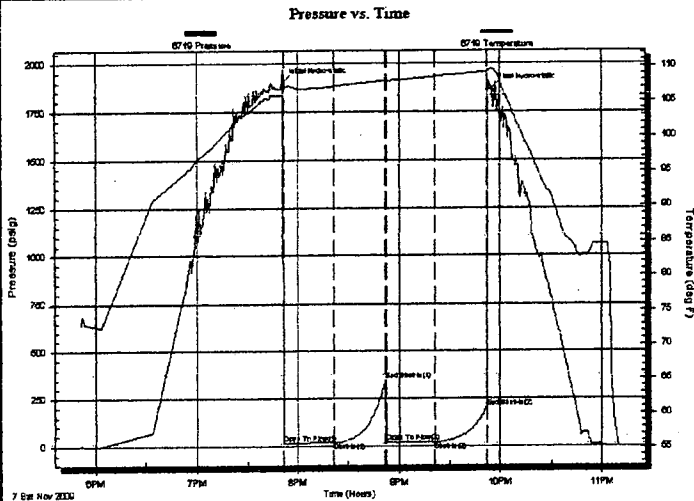
## GENERAL INFORMATION:

Formation: **LKC "C"**  
Deviated: No Whipstock      ft (KB)  
Time Tool Opened: 19:51:23  
Time Test Ended: 23:10:53  
Interval: **3823.00 ft (KB) To 3840.00 ft (KB) (TVD)**  
Total Depth: **3840.00 ft (KB) (TVD)**  
Hole Diameter: **7.88 inches** Hole Condition: Good  
Reference Elevations: **2517.00 ft (KB)**  
**2512.00 ft (CF)**  
KB to GR/CF: **5.00 ft**

**Serial #: 6719**      **Inside**  
Press@RunDepth: **18.26 psig @ 3824.00 ft (KB)**      Capacity: **8000.00 psig**  
Start Date: **2009.11.07**      End Date: **2009.11.07**      Last Calib.: **2009.11.08**  
Start Time: **17:51:38**      End Time: **23:10:53**      Time On Btm: **2009.11.07 @ 19:51:08**  
Time Off Btm: **2009.11.07 @ 21:54:38**

**TEST COMMENT:** FFP-Weak surface blow throughout  
ISI-no blow back  
FFP-Weak surface blow died in 7 min  
FSI-no blow back

## PRESSURE SUMMARY



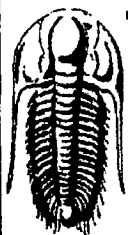
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1902.49	106.84	Initial Hydro-static
1	14.85	106.49	Open To Flow (1)
31	17.23	107.11	Shut-In(1)
61	348.12	107.94	End Shut-In(1)
61	17.88	107.85	Open To Flow(2)
90	18.26	108.50	Shut-In(2)
121	201.85	109.21	End Shut-In(2)
124	1866.10	109.56	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud	0.02

## Gas Rates

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



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TESTING, INC.**

# DRILL STEM TEST REPORT

H&M  
13570 Meadowgrass Dr  
Suite 101  
Colorado Springs, Co 80921  
ATTN: Rick Hall

**Bessie May #1**  
**16-7s-24w/Graham**  
Job Ticket: 36637      **DST#: 2**  
Test Start: 2009.11.08 @ 09:30:57

## GENERAL INFORMATION:

Formation: **LKC "D-G"**  
Deviated: No Whipstock      ft (KB)  
Time Tool Opened: 11:39:42  
Time Test Ended: 16:41:42

Test Type: Conventional Bottom Hole  
Tester: Tyson Flax  
Unit No: 44

Interval: **3840.00 ft (KB) To 3920.00 ft (KB) (TVD)**  
Total Depth: 3920.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2517.00 ft (KB)  
2512.00 ft (CF)  
KB to GR/CF: 5.00 ft

## Serial #: 6669

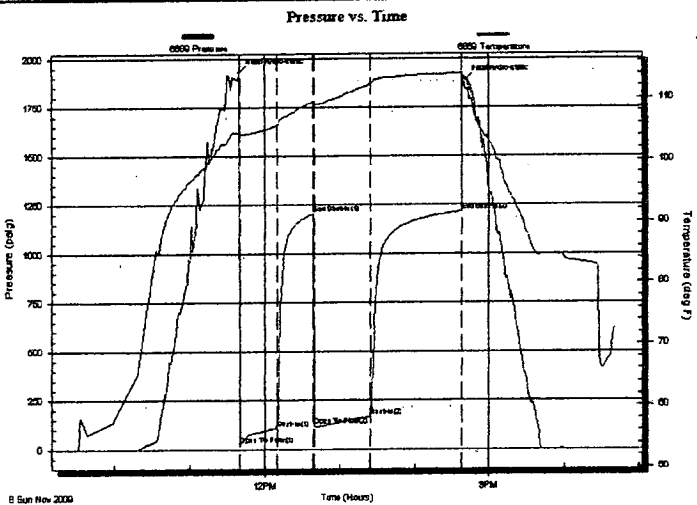
## Inside

Press@RunDepth: 166.84 psig @ 3844.00 ft (KB)  
Start Date: 2009.11.08      End Date: 2009.11.08  
Start Time: 09:30:57      End Time: 16:41:42

Capacity: 8000.00 psig  
Last Calib.: 2009.11.08  
Time On Btrm: 2009.11.08 @ 11:39:27  
Time Off Btrm: 2009.11.08 @ 14:41:12

**TEST COMMENT:** IFP-BOB in 22 min  
ISI-Weak surface blow back died in 20 min  
FFP-BOB in 28 min  
FSI-Weak surface blow back died in

## PRESSURE SUMMARY



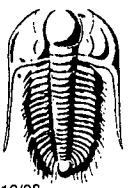
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1928.03	104.52	Initial Hydro-static
1	24.04	104.19	Open To Flow (1)
30	106.19	105.57	Shut-In (1)
60	1204.32	109.39	End Shut-In (1)
60	117.54	109.00	Open To Flow (2)
105	166.84	112.27	Shut-In (2)
179	1215.84	113.89	End Shut-In (2)
182	1888.13	111.38	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	MW 80%W,20%M	0.59
150.00	OCMW 10%O,70%W,20%M	2.09
60.00	OCM 20%O,80%M	0.85
55.00	OO	0.78

## Gas Rates

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



# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 36638

Well Name & No. Bessie May #1 Test No. 3 Date 11-8-09  
 Company H+M Elevation 2517 KB 2512 GL  
 Address \_\_\_\_\_  
 Co. Rep / Geo. Rick Hall Rig WW#10  
 Location: Sec. 16 Twp. 7<sup>s</sup> Rge. 24<sup>w</sup> Co. Graham State KS

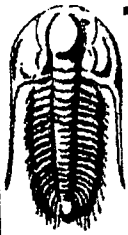
Interval Tested 3918-3950 Zone Tested LKC "H-I"  
 Anchor Length 32 Drill Pipe Run \_\_\_\_\_ Mud Wt. 9.2  
 Top Packer Depth 3913 Drill Collars Run 124 Vis 50  
 Bottom Packer Depth 3918 Wt. Pipe Run \_\_\_\_\_ WL 6.8  
 Total Depth 3950 Chlorides 800 ppm System LCM \_\_\_\_\_  
 Blow Description IFP - Packer failure  
ISI -  
FFP -  
FSI -

Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total \_\_\_\_\_ BHT \_\_\_\_\_ Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ ° F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic \_\_\_\_\_  Test \_\_\_\_\_ T-On Location 23:30  
 (B) First Initial Flow \_\_\_\_\_  Jars \_\_\_\_\_ T-Started 23:55  
 (C) First Final Flow \_\_\_\_\_  Safety Joint \_\_\_\_\_ T-Open \_\_\_\_\_  
 (D) Initial Shut-In \_\_\_\_\_  Circ Sub \_\_\_\_\_ T-Pulled \_\_\_\_\_  
 (E) Second Initial Flow \_\_\_\_\_  Hourly Standby \_\_\_\_\_ T-Out 3:38  
 (F) Second Final Flow \_\_\_\_\_  Mileage \_\_\_\_\_ Comments \_\_\_\_\_  
 (G) Final Shut-In \_\_\_\_\_  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic \_\_\_\_\_  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Day Standby \_\_\_\_\_ Sub Total \_\_\_\_\_  
 Accessibility \_\_\_\_\_ Total \_\_\_\_\_  
 Sub Total \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative [Signature]  
 TriLOBITE TESTING Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test. tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

H&M  
 13570 Meadow grass Dr  
 Suite 101  
 Colorado Springs, Co 80921  
 ATTN: Rick Hall

**Bessie May #1**  
**16-7s-24w/Graham**  
 Job Ticket: 36639      **DST#: 4**  
 Test Start: 2009.11.09 @ 11:01:16

## GENERAL INFORMATION:

Formation: **LKC "H-J"**  
 Deviated: No Whipstock      ft (KB)  
 Time Tool Opened: 12:54:01  
 Time Test Ended: 17:39:16  
 Interval: **3888.00 ft (KB) To 3966.00 ft (KB) (TVD)**  
 Total Depth: 3966.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole  
 Tester: Tyson Flax  
 Unit No: 44  
 Reference Elevations: 2517.00 ft (KB)  
 2512.00 ft (CF)  
 KB to GR/CF: 5.00 ft

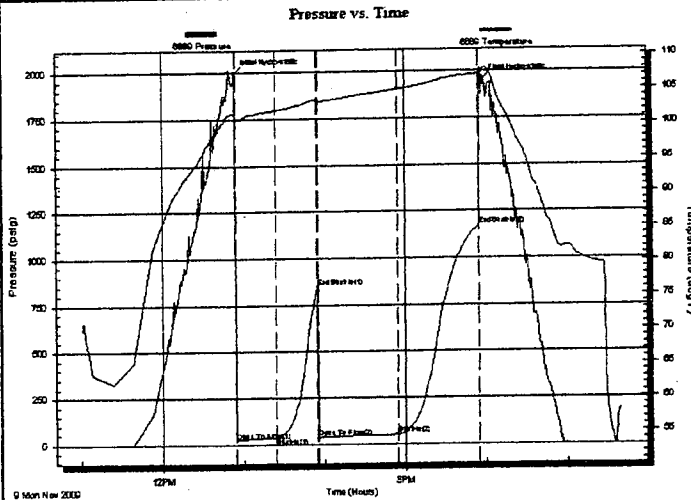
## Serial #: 6669

Inside

Press@RunDepth: 48.83 psig @ 3892.00 ft (KB)  
 Start Date: 2009.11.09      End Date: 2009.11.09  
 Start Time: 11:01:16      End Time: 17:39:16

Capacity: 8000.00 psig  
 Last Calib.: 2009.11.09  
 Time On Btrr: 2009.11.09 @ 12:53:31  
 Time Off Btrr: 2009.11.09 @ 15:58:16

**TEST COMMENT:** FFP-Weak surface blow built to 2"  
 ISI-no blow back  
 FFP-Weak blow built to 3.5"  
 FSI-no blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1995.98	101.60	Initial Hydro-static
1	22.03	100.91	Open To Flow (1)
30	33.83	102.05	Shut-in(1)
61	848.43	103.70	End Shut-in(1)
62	36.93	103.38	Open To Flow (2)
121	48.83	105.03	Shut-in(2)
181	1173.45	107.17	End Shut-in(2)
185	1955.99	107.94	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	HOCM 30%O,70%M	0.30
5.00	CO	0.02

## Gas Rates

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



## **SUMMARY**

The Bessie May No. 1 location was based on results of a 3-D seismic data interpretation of the Bessie May Prospect which indicated a prominent north-south structurally high trend located in the W/2 of Section 16-T7S-R24W, consisting of two structural closures each separated by a moderate structural saddle. The Bessie May prospect is located in an area of very prolific oil production from the multiple pay zone Pennsylvanian aged Lansing/Kansas City Group in northwest Graham County, Kansas.

Based on a pipe strap on Drill Stem Test No. 1 and confirmed through Log-Tech wireline logs at total depth, the interpreted favorable structural position of the Lansing/Kansas City Group on the 3-D seismic proved to be inaccurate as the primary objective Lansing/Kansas City Group was encountered structurally flat to moderately low relative to the Reference Well's. The Heebner Shale and Top/Lansing were encountered from +4 feet high to -4 feet low, compared to Reference Well's A and B.

The Bessie May No. 1 well is located approximately 9 miles west and 5.75 miles north of Hill City, Kansas in northwest Graham County, Kansas.

The primary objectives in the Bessie May No. 1 included the Lansing "C" and "F" Zone's and the Kansas City "J" and "K" Zone's. Secondary objectives included the Lansing "A", "D", and "E" Zone's and the Kansas City "H", "I" and "L" Zone's.

Four (4) open hole drill stem test's were run in the Bessie May No. 1. DST No. 1 isolated the Lansing "C" Zone, DST No. 2 covered the Lansing "D-G" Zone's, DST No. 3 covered the Kansas City "H"- "I" Zone's and resulted in a misrun due to a packer failure, and DST No. 4 covered the Kansas City "H"- "J" Zone's.

The Bessie May No. 1 well was spudded on November 3, 2009, and production casing was set on November 11, 2009. No significant drilling problems were encountered during the drilling of this well.

The well was under 24-hour geological supervision from 3,500 feet to 4,050 feet RTD. Wet and dry drilling samples were caught by the drilling crews from 3,540 feet to 4,050 feet RTD at 10-foot intervals. All lithologic descriptions were lagged to true depth by the consulting wellsite geologist.

### **Hydrocarbon Shows**

Numerous significant oil sample shows were observed and recorded in the samples during the drilling of the Bessie May No. 1 in the primary and secondary objective Lansing/Kansas City Group:

- Lansing "C" Zone:                      Very Good Show:                      fair dull yellow fluorescence, very good uneven-mostly even brown-black oil stain, good-very good show free oil droplets, very good flash immediate streaming yellow/white cut grading to excellent white-yellow milky cut, very good bright yellow dried residual halo cut (isolated on DST No. 1)
- Lansing "D" Zone:                      Fair Show:                              fair moderately bright fluorescence, spotty dark brown oil stain, (no show free oil), good yellow/white streaming cut grading to good milky cut, very good bright yellow dried residual cut (included on DST No. 2)
- Lansing "F" Zone:                      Very Good Show:                      fair odor, medium-good bright yellow fluorescence, uneven-near saturated brown oil stain, medium-good show free dark brown oil droplets, intermediate slow streaming cut, excellent milky live cut, excellent bright yellow residual dried halo cut (covered on DST No. 2)
- Kansas City "H" Zone:                  Fair Show:                              scattered medium brown oil stain, fair show free brown show free oil, very slow cut grading to good milky cut, medium streaming cut, good yellow residual dried halo cut (included on DST No.4)
- Kansas City "I" Zone:                  Good Show:                              very spotty dark brown-black oil stain, predominately no show free oil to rare show free oil on break, slow pale live milky cut, good yellow dried cut (not drill stem tested)
- Kansas City "J" Zone:                  Very Good Show:                      fair dull yellowish fluorescence, scattered - uneven brown - black oil stain, good show free brown oil droplets, fair streaming live cut, good yellow residual dried halo cut (covered on DST No. 4)

-Kansas City "K" Zone:      Very Good Show:      fair dull yellowish fluorescence, uneven-mostly even dark brown oil stain, bleeding oil droplets, very good show free brown oil droplets, good fast milky cut, good dull-bright yellow residual dried halo cut (covered on DST No. 4)

There were no observed sample hydrocarbon shows recorded in the Topeka or Toronto Formation's, the Lansing "A" or "E" Zone's, or the Kansas City "L" Zone.

Complete lithologic descriptions and hydrocarbon sample shows can be found in the detailed "Zones of Interest" portion of this geologic report. Complete Drill Stem Test fluid recovery results and pressures can be found in this report under "Drill Stem Tests".

### **Structural Position**

The Bessie May No. 1 well runs predominately structurally low in relation to Reference Well "A", predominately structurally high in relation to Reference Well "B", and structurally low in relation to Reference Well "C".

Compared to Reference Well "A"/F& M Oil Goddard "E" No. 1 (NW-SW-NW-Section 16-T7S-R24W), the Bessie May No. 1 runs: +10 feet high at the Stone Corral Anhydrite, -4 feet low at the Heebner Shale, -4 feet low at the Top/Lansing "A", and -4 feet low at the Base/Kansas City.

Compared to Reference Well "B"/American Energies Corp. White No. 1 (SE-SW-NE-Section 16-T7S-R24W), the Bessie May No. 1 runs: +6 feet high at the Stone Corral Anhydrite, +3 feet high at the Heebner Shale, +4 feet high at the Top/Lansing "A", -1 foot low at the Lansing "F" Zone, +4 feet high at the Kansas City "I" Zone, and flat at the Base/Kansas City.

Compared to Reference Well "C"/F& M Oil Goddard No. 1 (SE-NW-NW-Section 21-T7S-R24W), the Bessie May No. 1 runs: -22 feet low at the Stone Corral Anhydrite, -7 feet low at the Heebner Shale, and -5 feet low at the Top/Lansing "A". (This well reached total depth in the upper Lansing.)

A complete structural comparison of the Formation Tops in this well, in relation to the Reference Wells, can be found in the detailed "Formation Tops" table in this geologic report.

### **Conclusion**

The Bessie May No.1 test well location was determined through a 3-D seismic survey which indicated this well would be located on a structurally closure located in the NW/4-Section 16-T7S-R24W, relative to surrounding well control and Reference Well's "A" and "B".

Structurally, the 3-D seismic interpretation proved incorrect as the Bessie May No. 1 runs moderately lower structurally in the Lansing/Kansas City Group relative to Reference Well's "A" and moderately structurally higher relative to Reference Well "B".

However, numerous oil sample shows (oil staining and/or free oil shows) were observed and recorded by the wellsite geologist in the Lansing "C", "D" and "F" Zone's and the Kansas City "H", "I", "J", and "K" Zone's. All of these show zone's were covered on a drill stem test except for the Kansas City "K" Zone.

Four drill stem tests were run in the Bessie May No. 1, with DST No. 1 (Lansing "C" Zone) testing tight and recovering mud, DST No. 2 (Lansing "D"- "G" Zone's) recovering oil, oil cut mud and water, and DST No. 4 (Kansas City "H"- "J" Zone's) recovering oil and heavy oil cut mud. DST No. 3 (Kansas City "H"- "I" Zone's) resulted in a misrun.

Therefore, based on the fluid recovery results of DST No. 2 (oil, oil cut mud and water, and water, with excellent shut in pressures of 1,204-1,215 p.s.i.) and DST No. 4 (oil and heavy oil cut mud, with very good shut in pressures of 848-1,173 p.s.i.), the very good free oil sample shows and the well developed porosity and permeability (microlog) present in the Lansing "F" Zone and Kansas City "K" Zone based on Log-Tech logs, 5 1/2" production casing was set in the Bessie May No. 1 in order to production test the Lansing "F" and Kansas City "I" and "K" Zones's.

Respectfully Submitted,



Richard J. Hall

Certified Petroleum Geologist No. 5820

Whitehall Exploration

