

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 31725

Name: Shelby Resources L.L.C./ Captiva Energy L.L.C.

Address 1: 2717 Canal Blvd

Address 2: Suite C

City: Hays State: KS Zip: 67601

Contact Person: Chris Gottschalk

Phone: ( 785 ) 623-7261

CONTRACTOR: License # 5142

Name: Sterling Drilling

Wellsite Geologist: Adam Kennedy

Purchaser: Plains Marketing L.P.

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.)

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.: \_\_\_\_\_

4/02/2008 4/17/2008 12/10/2008

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - 151-22291-0000

Spot Description: \_\_\_\_\_

SE NE SW SE Sec. 23 Twp. 26 S. R. 13  East  West

785 Feet from  North /  South Line of Section

1400 Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE  NW  SE  SW

County: Pratt

Lease Name: J.D. Chemical Well #: #1-23

Field Name: Wildcat

Producing Formation: L-KC

Elevation: Ground: 1931' Kelly Bushing: 1940

Total Depth: 4510' Plug Back Total Depth: 4412'

Amount of Surface Pipe Set and Cemented at: 871 Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan AH I NCR 12-23-09  
(Data must be collected from the Reserve Pit)

Chloride content: 9000 ppm Fluid volume: 800 bbls

Dewatering method used: Hauled off water

Location of fluid disposal if hauled offsite:

Operator Name: Timberline Oil & Gas

Lease Name: Becker SWD #1 License No.: 9232

Quarter NE Sec. 33 Twp. 26 S. R. 13  East  West

County: Pratt Docket No.: 15-151-21739

**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: Chris Gottschalk

Title: Production Manager Date: 11/25/09

Subscribed and sworn to before me this 25 day of Nov

20 09

Notary Public: Michelle R Haas

Date Commission Expires: 10/4/11

NOTARY PUBLIC, State of Kansas  
MICHELLE R. HAAS  
My Appt. Exp. 10/4/11

**KCC Office Use ONLY**

Letter of Confidentiality Received

If Denied, Yes  Date: \_\_\_\_\_

Wireline Log Received

Geologist Report Received

UIC Distribution

**RECEIVED**

**DEC 18 2009**

**KCC WICHITA**

Operator Name: Shelby Resources L.L.C./ Captiva Energy L.L.C. Lease Name: J.D. Chemical Well #: #1-23  
 Sec. 23 Twp. 26 S. R. 13  East  West County: Pratt

**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  Yes  No  
 (Attach Additional Sheets)

Samples Sent to Geological Survey  Yes  No

Cores Taken  Yes  No

Electric Log Run  Yes  No  
 (Submit Copy)

List All E. Logs Run:

**Dual Induction, Compensated Neutron Density, Micro, Sonic and Cement Bond Log**

<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input checked="" type="checkbox"/> Sample
Name	Top	Datum
Topeka	3229	-1289
Heebner	3571	-1631
Lansing	3757	-1817
Base KC	4079	-2139
Mississippian	4164	-2224
Simpson	4261	-2321
Arbuckle	4364	-2424

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
Conductor	15.1/4"	13.3/8"	48#	242'	Common	250	3% ccl, 2% gel
Surface	10.1/4"	8.5/8"	23#	871'	Common	500	3% ccl, 2% gel
Production	7.7/8"	5.1/2"	15.5#	4442'	AA2	175	10% salt

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	#Sacks Used	Type and Percent Additives
<input checked="" type="checkbox"/> Perforate <input checked="" type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone	4382'	Common	50	3% CCL, 2% GEL

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
32	4370-73', 4365-70'		
12	4282-85'	250 gal 15% INS- Set CIBP @ 4270'	
64	4228-85'	2500 gal 15% NEFE- Frac w/46,500# sand	
40	3986-92', 3952-60', 3917-23'		

TUBING RECORD: Size: <u>2.3/8"</u> Set At: <u>4225'</u> Packer At: _____ Liner Run: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Date of First, Resumed Production, SWD or Enhr. <u>2/03/09</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 <u>8</u> Bbls. Gas <u>28</u> Mcf Water <u>28</u> Bbls. Gas-Oil Ratio _____ Gravity _____

DISPOSITION OF GAS: <input checked="" type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease (If vented, Submit ACO-18.)	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input checked="" type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input checked="" type="checkbox"/> Commingled <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: <u>3917' to 4228'</u>
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Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

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**KCC WICHITA**

CAPTIVA ENERGY, LLC

### J.D. Chemicals #1-23

785' FSL & 1400' FEL

Sec.23 T26s & R13w

Pratt County, Kansas

9/1/2008

API #15-151-22291-0000

API# 15-151-22291-0000

Spud Date:

Completed: 6/6/2008

Field: Iuka-Carmi

GL: 1931'

KB: 1940'

**Conductor Casing:**

13.3/8"-48# set @ 242'

Cemented with 250 sx common

**Surface Casing :**

8-5/8" 23# set @ 871'

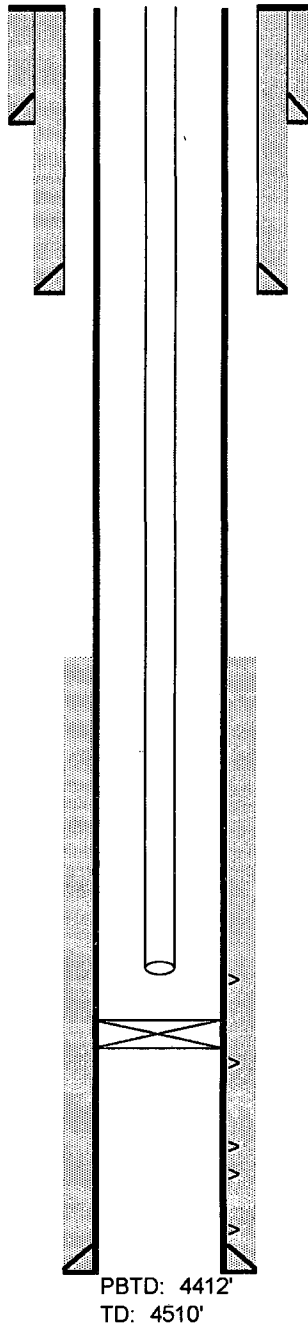
Cemented with 500 sx Common

**Production Casing:**

5-1/2", 15.5# set @ 4442'

Cemented with 175 sx AA2

CIBP @ 4270'



TOC: Surface

TOC: 3380' CBL

**L-KC Perfs:**

3917-23' (12) 12/04/08

3952-60' (16) 12/04/08

3986-92' (12) 12/04/08

**Viola Perfs:**

4228-60' (64) 7/21/08

Frac: 46500#-891 Bbls  
30 BPM @ 1900#

**Simpson Perfs:**

4282-85' (12) 7/10/08

**Arbuckle Perfs:**

4365-70' (20) 5/29/08

4370-73' (12) 6/02/08

4382' (2) Sqz holes-50 sx to 1800#

PBTD: 4412'

TD: 4510'

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DEC 18 2009  
KCC WICHITA

# ALLIED CEMENTING CO., INC.

30202

REMIT TO P.O. BOX 31  
RUSSELL, KANSAS 67665

SERVICE POINT:

*Ursat Bend*  
*4-5-08*

<i>4-4-08</i>	SEC. <i>23</i>	TWP. <i>26s</i>	RANGE <i>13w</i>	CALLED OUT <i>5:30am</i>	ON LOCATION <i>9:30am</i>	<i>7:30am</i>	<i>8:00am</i>
BASE # <i>D Chemical</i>		WELL # <i>1-23</i>	LOCATION <i>JUKA 2N 1 1/2 E N1S</i>			COUNTY <i>Pratt</i>	STATE <i>K.S.</i>
OLD OR <input checked="" type="radio"/> NEW (Circle one)							

CONTRACTOR *Sterling Rig #4*

TYPE OF JOB *Surface*

HOLE SIZE *12 1/4 T.D. 875 ft*

CASING SIZE *8 1/2* DEPTH *875 ft*

TUBING SIZE \_\_\_\_\_ DEPTH \_\_\_\_\_

DRILL PIPE \_\_\_\_\_ DEPTH \_\_\_\_\_

TOOL \_\_\_\_\_ DEPTH \_\_\_\_\_

PRES. MAX *300'* MINIMUM \_\_\_\_\_

MEAS. LINE \_\_\_\_\_ SHOE JOINT \_\_\_\_\_

CEMENT LEFT IN CSG. *40 ft*

PERFS. \_\_\_\_\_

DISPLACEMENT *52.9 bbl*

OWNER \_\_\_\_\_

CEMENT AMOUNT ORDERED *500 sk Common*

*36 cc 22 gal*

EQUIPMENT

PUMP TRUCK CEMENTER *Mike M.*

# *224* HELPER *Tyler W.*

BULK TRUCK # *357-170* DRIVER *Joe P.*

BULK TRUCK # \_\_\_\_\_ DRIVER \_\_\_\_\_

COMMON	<i>500 sk</i>	@	<i>12.15</i>	<i>6,075.00</i>
POZMIX		@		
GEL	<i>10 sk</i>	@	<i>18.26</i>	<i>182.50</i>
CHLORIDE	<i>15 sk</i>	@	<i>51.00</i>	<i>765.00</i>
ASC		@		
		@		
		@		
		@		
		@		
		@		
		@		
		@		
HANDLING	<i>525 sk</i>	@	<i>2.05</i>	<i>1,076.25</i>
MILEAGE	<i>525 x 44 x .09 =</i>			<i>2,079.00</i>
				TOTAL <i>10,177.75</i>

REMARKS:

*Rig still Drilling when got there*

*Come out of hole with collars*

*run surface pipe 8 1/2 = 875 ft*

*Circulate The Hole with Rig Mud Pump*

*Mix Cement then Release Plug Displace*

*Plug Down with water*

*Cement did circulate surface*

SERVICE

DEPTH OF JOB	<i>875 ft</i>		
PUMP TRUCK CHARGE			<i>893.00</i>
EXTRA FOOTAGE	<i>575 FT</i>	@	<i>.70</i> <i>402.50</i>
MILEAGE	<i>44</i>	@	<i>7.00</i> <i>308.00</i>
MANIFOLD		@	
<i>Head Rental</i>		@	<i>110.00</i> <i>110.00</i>

CHARGE TO: *Captive Energy*

STREET \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

RECEIVED

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TOTAL *1,713.50*

PLUG & FLOAT EQUIPMENT

KCC WICHITA

<i>1-8 1/2 Rubber Plug</i>	@	<i>115.00</i>	<i>115.00</i>
<i>1-8 1/2 Guide shoe</i>	@	<i>274.00</i>	<i>274.00</i>
<i>1-8 1/2 Barrel Plate</i>	@	<i>148.00</i>	<i>148.00</i>

*Thank You*

# ALLIED CEMENTING CO., LLC. 33211

MIT TO P.O. BOX 31  
RUSSELL, KANSAS 67665

SERVICE POINT:  
Great Bend

DATE <u>4-3-08</u>	SEC. <u>23</u>	TWP. <u>26S</u>	RANGE <u>13W</u>	CALLED OUT <u>4:00PM</u>	ON LOCATION <u>7:00PM</u>	JOB START <u>10:15pm</u>	JOB FINISH <u>11:15pm</u>
LEASE <u>chemical</u>		WELL # <u>1-23</u>	LOCATION <u>Fuka 2N TO 80RD</u>		COUNTY <u>Pratt</u>	STATE <u>KS</u>	
OLD OR <u>NEW</u> (Circle one)			<u>1 3/4 E N/10</u>				

CONTRACTOR Steyling Ris 4  
 TYPE OF JOB conductor  
 HOLE SIZE 17 1/2 T.D. 255'  
 CASING SIZE 13 3/8 DEPTH 251.83'  
 TUBING SIZE \_\_\_\_\_ DEPTH \_\_\_\_\_  
 DRILL PIPE 4 1/2 DEPTH \_\_\_\_\_  
 TOOL \_\_\_\_\_ DEPTH \_\_\_\_\_  
 PRES. MAX \_\_\_\_\_ MINIMUM \_\_\_\_\_  
 MEAS. LINE \_\_\_\_\_ SHOE JOINT 15'  
 CEMENT LEFT IN CSG. 15'  
 PERFS. \_\_\_\_\_  
 DISPLACEMENT FRESH WATER 36BBLS

OWNER Captive Energy  
 CEMENT  
 AMOUNT ORDERED 250sx common  
+ 3x.c.c + 2x.gel

EQUIPMENT  
 PUMP TRUCK CEMENTER Dwayne W  
 # 120 HELPER Wayne D  
 BULK TRUCK  
 # 341 DRIVER Carl S  
 BULK TRUCK  
 # \_\_\_\_\_ DRIVER \_\_\_\_\_

COMMON	<u>250sx</u>	@	<u>12.15</u>	<u>3,037.50</u>
POZMIX		@		
GEL	<u>5sx</u>	@	<u>18.25</u>	<u>91.25</u>
CHLORIDE	<u>8sx</u>	@	<u>51.00</u>	<u>408.00</u>
ASC		@		
		@		
		@		
		@		
		@		
		@		
		@		
		@		
HANDLING	<u>263sx</u>	@	<u>2.05</u>	<u>539.15</u>
MILEAGE	<u>263 x 44</u>	X	<u>1.09</u>	<u>1,041.48</u>
TOTAL				<u>5,117.38</u>

REMARKS:

rip on bottom break circulation  
pump 250sx common + 3x.c.c + 2x.gel  
gel went straight to disp  
and disp with 36bbls of fresh  
water shut in cement did  
circulate

SERVICE

DEPTH OF JOB	<u>251.83'</u>			
PUMP TRUCK CHARGE				<u>893.00</u>
EXTRA FOOTAGE		@		
MILEAGE	<u>44</u>	@	<u>7.00</u>	<u>308.00</u>
MANIFOLD	<u>Head Rent</u>	@	<u>111.00</u>	<u>111.00</u>
	<u>Head Rent</u>	@		
		@		

CHARGE TO: Captive Energy  
 STREET \_\_\_\_\_  
 CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

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 TOTAL 1,312.00

KCC WICHITA PLUG & FLOAT EQUIPMENT

<u>13' Head Rent</u>		@		
		@		
		@		

*Thank you*  
 To Allied Cementing Co., LLC.

# ALLIED CEMENTING CO., LLC. 31127

REMIT TO P.O. BOX 31  
RUSSELL, KANSAS 67665

SERVICE POINT:  
Medicine Lodge

DATE <u>4-17-09</u>	SEC. <u>23</u>	TWP. <u>26S</u>	RANGE <u>13W</u>	CALLED OUT <u>9:00 pm</u>	ON LOCATION <u>1:00 am</u>	JOB START <u>9:35 am</u>	JOB FINISH <u>10:30 am</u>
ID CHEMICAL LEASE		WELL # <u>1-23</u>	LOCATION <u>1/4 N, 2 N, 1/4 E, PLATT</u>			COUNTY <u>PLATT</u>	STATE <u>KS</u>
OLD OR <input checked="" type="radio"/> NEW (Circle one)			<u>N/W/TO</u>				

CONTRACTOR STEARNS & C  
 TYPE OF JOB PRODUCTION CASING  
 HOLE SIZE 7 7/8" T.D. 4,510'  
 CASING SIZE 5 1/2" DEPTH 4,441'  
 TUBING SIZE \_\_\_\_\_ DEPTH \_\_\_\_\_  
 DRILL PIPE 4 1/2" DEPTH \_\_\_\_\_  
 TOOL \_\_\_\_\_ DEPTH \_\_\_\_\_  
 PRES. MAX 1,400 MINIMUM 100  
 MEAS. LINE \_\_\_\_\_ SHOE JOINT 20.28'  
 CEMENT LEFT IN CSG. 20.28'  
 PERFS. \_\_\_\_\_  
 DISPLACEMENT 108 66L FRESH WATER

OWNER CAPTIVA ENERGY  
 CEMENT  
 AMOUNT ORDERED 200 SK CLASS A + 108 SK  
500 GAL ASF

**EQUIPMENT**

PUMP TRUCK CEMENTER BILL M.  
 # 360 HELPER GREG K.  
 BULK TRUCK  
 # 357 DRIVER TYLER W. (G.O.)  
 BULK TRUCK  
 # \_\_\_\_\_ DRIVER \_\_\_\_\_

COMMON	<u>200 A</u>	@ <u>14.20</u>	<u>2840.00</u>
POZMIX		@	
GEL		@	
CHLORIDE		@	
ASC		@	
	<u>Salt 22</u>	@ <u>10.80</u>	<u>237.60</u>
	<u>ASF 500 gal.</u>	@ <u>1.15</u>	<u>575.00</u>
		@	
		@	
		@	
		@	
HANDLING	<u>222</u>	@ <u>2.15</u>	<u>477.30</u>
MILEAGE	<u>44 x 222 x .09</u>		<u>879.12</u>
			<b>TOTAL</b> <u>5009.02</u>

**REMARKS:**

PIPE ON BOTTOM, BREAK CIRCULATION,  
STOP PUMPS, RELEASE PLUG, PUMP PLUG & PULSE HOLES  
WITH 25 SK CLASS A + 108 SK SALT, PUMP  
PRODUCTION. 175 SK CLASS A + 108 SK SALT,  
STOP PUMPS, RELEASE PLUG, MASK PUMP &  
LINES, START DISPLACEMENT, SEE  
LIFT, SLOW RATE, PUMP PLUG, FLOAT  
HELD, DISPLACED WITH 108 66L FRESH  
WATER.

**SERVICE**

DEPTH OF JOB	<u>4,441'</u>		
PUMP TRUCK CHARGE			<u>1885.00</u>
EXTRA FOOTAGE		@	
MILEAGE	<u>44</u>	@ <u>7.00</u>	<u>308.00</u>
MANIFOLD <u>HEAD LENT</u>		@ <u>113.00</u>	<u>113.00</u>
		@	
		@	

CHARGE TO: CAPTIVA ENERGY  
 STREET \_\_\_\_\_  
 CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

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 TOTAL 2306.00

**KCC WICHITA PLUG & FLOAT EQUIPMENT**

<u>5 1/2" PACKER SHOES</u>	<u>1</u>	@ <u>1491.00</u>	<u>1491.00</u>
<u>5 1/2" LATCH DOWN PLUG</u>	<u>1</u>	@ <u>462.00</u>	<u>462.00</u>
<u>5 1/2" CENTRALIZER</u>	<u>7</u>	@ <u>57.00</u>	<u>399.00</u>

# ALLIED CEMENTING CO., INC.

30546

REMIT TO P.O. BOX 31  
RUSSELL, KANSAS 67665

SERVICE POINT:

Great Bend

DATE <u>5-13-08</u>	SEC. <u>23</u>	TWP. <u>26</u>	RANGE <u>13</u>	CALLED OUT <u>7:00 AM</u>	ON LOCATION <u>10:30 AM</u>	JOB START <u>2:30 PM</u>	JOB FINISH <u>4:00 PM</u>
LEASE <u>JD Chmucha</u>		WELL # <u>1-23</u>	LOCATION <u>Tuba 2N, 1 1/2 E N/4</u>		COUNTY <u>Pratt</u>	STATE <u>Ks</u>	
OLD OR <u>(NEW)</u> (Circle one)							

CONTRACTOR Boyer Well Service

OWNER Same

TYPE OF JOB Squeeze

HOLE SIZE	T.D.
CASING SIZE <u>5 1/2"</u>	DEPTH
TUBING SIZE <u>2"</u>	DEPTH <u>4394'</u>
DRILL PIPE	DEPTH
TOOL	DEPTH
RES. MAX <u>1800#</u>	MINIMUM
WEAS. LINE	SHOE JOINT
CEMENT LEFT IN CSG.	
ERFS. <u>4382'</u>	
DISPLACEMENT <u>16.6 bbls - Tubing</u>	
EQUIPMENT	

CEMENT	
AMOUNT ORDERED <u>50 bbls Common</u>	
<u>10 bbls FL-10</u>	

UMP TRUCK	CEMENTER <u>Tom D</u>
<u>181</u>	HELPER <u>Tyler W</u>
ULK TRUCK	
<u>342</u>	DRIVER <u>Joe D</u>
ULK TRUCK	
	DRIVER

COMMON	<u>50 bbl</u>	@	<u>12.15</u>	<u>607.50</u>
POZMIX		@		
GEL		@		
CHLORIDE		@		
ASC		@		
FL-10	<u>10 bbls</u>	@	<u>11.65</u>	<u>116.50</u>
		@		
		@		
		@		
		@		
		@		
		@		
HANDLING	<u>50 bbl</u>	@	<u>2.05</u>	<u>102.50</u>
MILEAGE	<u>50 bbl 09</u>		<u>40 MI</u>	<u>274.00</u>
TOTAL				<u>1,100.50</u>

REMARKS:

operation @ 4382. Packer @ 4394'.  
 called 2 bbls of Acid. Pulled 4 ft &  
 set Packer @ 4264'. Pressured Tubing. Formation  
 did not Break Down. Loaded Annular.  
 loaded Packer. Ran 4 ft. Pumped 2 bbls  
 reported Acid. Formation broke down.  
 at injection rate @ 1 1/2 bbls/min @ 250 #  
 and 30 bbls Common W/FL-10 - 30 bbls Common  
 placed 17 1/2 bbls & squeezed to 1800#. Released & held.

SERVICE

DEPTH OF JOB <u>4394'</u>	
PUMP TRUCK CHARGE	<u>1835.00</u>
EXTRA FOOTAGE	@ <del>_____</del>
MILEAGE <u>40</u>	@ <u>7.00</u> <u>280.00</u>
MANIFOLD <u>✓</u>	@ <u>93.00</u> <u>93.00</u>
	@ _____
	@ _____

CHARGE TO: Shelby

REET \_\_\_\_\_

FY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

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TOTAL 2208.00

KCC WICHITA PLUG & FLOAT EQUIPMENT

loaded Packer & washed tubing clean.  
 set 5 ft. Set Packer. Pressured 500# & shut in  
 at 4264 to Squeeze  
 Allied Cementing Co., Inc.

Customer: Captiva Energy Lease No. \_\_\_\_\_ Date: 7-23-08  
 Lease: J.D. Chemical Well # 1-23  
 Field Order # 1431 Station Pratt Casing \_\_\_\_\_ Depth \_\_\_\_\_ County Pratt State KS  
 Type Job Profrac 2500 L6 frac DW Formation Viola Legal Description 23-26S-13W

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size <u>5 1/2</u>	Tubing Size _____	Shots/Ft <u>2</u>		Acid _____		RATE _____	PRESS _____	ISIP <u>1550</u>
Depth <u>4228</u>	Depth <u>4260</u>	From <u>4228</u>	To <u>4260</u>	Pre Pad _____		Max <u>30.6</u>	<u>1912</u>	5 Min. <u>1345</u>
Volume <u>101.6</u>	Volume _____	From _____	To _____	Pad <u>7000 gal Profrac</u>		Min <u>30.3</u>	<u>1764</u>	10 Min. <u>1224</u>
Max Press <u>1500</u>	Max Press _____	From _____	To _____	Frac <u>27,000</u>		Avg <u>30.5</u>	<u>1800</u>	15 Min. <u>1128</u>
Well Connection <u>5/2</u>	Annulus Vol. _____	From _____	To _____	gal Profrac 2500		HHP Used _____		Annulus Pressure _____
Plug Depth <u>1320</u>	Packer Depth _____	From _____	To _____	Flush <u>4494 gal Progel 250</u>		Gas Volume _____		Total Load <u>915 BB2S</u>

Customer Representative \_\_\_\_\_ Station Manager Dave Scott Treater J. Westerman

Service Units	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Names	<u>Bowers</u>	<u>Pailey</u>	<u>Rafeal</u>	<u>mitch</u>	<u>mike</u>	<u>Lear</u>	<u>Neil</u>	<u>JW</u>	<u>Scotty</u>								

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
					on loc 8:30 am
					Setup / Hold Safety meeting
					Prime up / PST test line
<u>1:38</u>	<u>3300</u>				
<u>2:39</u>				<u>30.6</u>	Start 7,000 gal / Pad
<u>2:44</u>	<u>782</u>		<u>101</u>	<u>4.7</u>	Hole loaded
<u>2:47</u>	<u>2030</u>		<u>146</u>	<u>30.4</u>	Est. Rate
<u>2:47</u>	<u>1911</u>		<u>117</u>	<u>30.5</u>	Start 4,000 gal / 1# 100 mesh
<u>2:51</u>	<u>1782</u>		<u>217</u>	<u>30.6</u>	Start 5,000 gal / 1# 20/40 Sand
<u>2:51</u>	<u>1780</u>		<u>269</u>	<u>30.6</u>	1# 100 mesh Sand on Bottom
<u>2:54</u>	<u>1875</u>		<u>369</u>	<u>30.5</u>	1# 20/40 Sand on Bottom
<u>2:55</u>	<u>1888</u>		<u>392</u>	<u>30.5</u>	Start 5,000 gal / 2# 20/40 Sand
<u>2:58</u>	<u>1807</u>		<u>494</u>	<u>30.6</u>	2# 20/40 Sand on Bottom
<u>2:59</u>	<u>1798</u>		<u>522</u>	<u>30.6</u>	Start 5,000 gal / 2 1/2# 12/20 Sand
<u>3:03</u>	<u>1774</u>		<u>124</u>	<u>30.4</u>	2 1/2# 12/20 Sand on Bottom
<u>3:03</u>	<u>1792</u>		<u>655</u>	<u>30.3</u>	Start 5,000 gal / 3# 12/20 Sand
<u>3:06</u>	<u>17164</u>		<u>757</u>	<u>30.4</u>	3# 12/20 Sand on Bottom
<u>3:08</u>	<u>1785</u>		<u>806</u>	<u>30.4</u>	Start Flush
<u>3:12</u>			<u>915</u>		Shutdown - Flush TD
<u>3:12</u>	<u>1550</u>				ISIP
	<u>1345</u>				5-min
	<u>1224</u>				10-min
	<u>1128</u>				15-min

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 JOB complete  
 Justin



Company	Captiva Energy, LLC	Lease Name	JD Chemical
Address	P.O. Box 1213'	Lease #	1-23
CSZ	Hays, KS 67601	Legal Desc	See Comments
Attn.	Adam Kennedy	Section	23
		Township	26S
		County	Pratt
		Drilling Cont	Sterling Drilling Co. Rig #4
Job Ticket		State	KS
Range			13W

Comments    Legal Description: 785' FSL & 1400' FEL

GENERAL INFORMATION

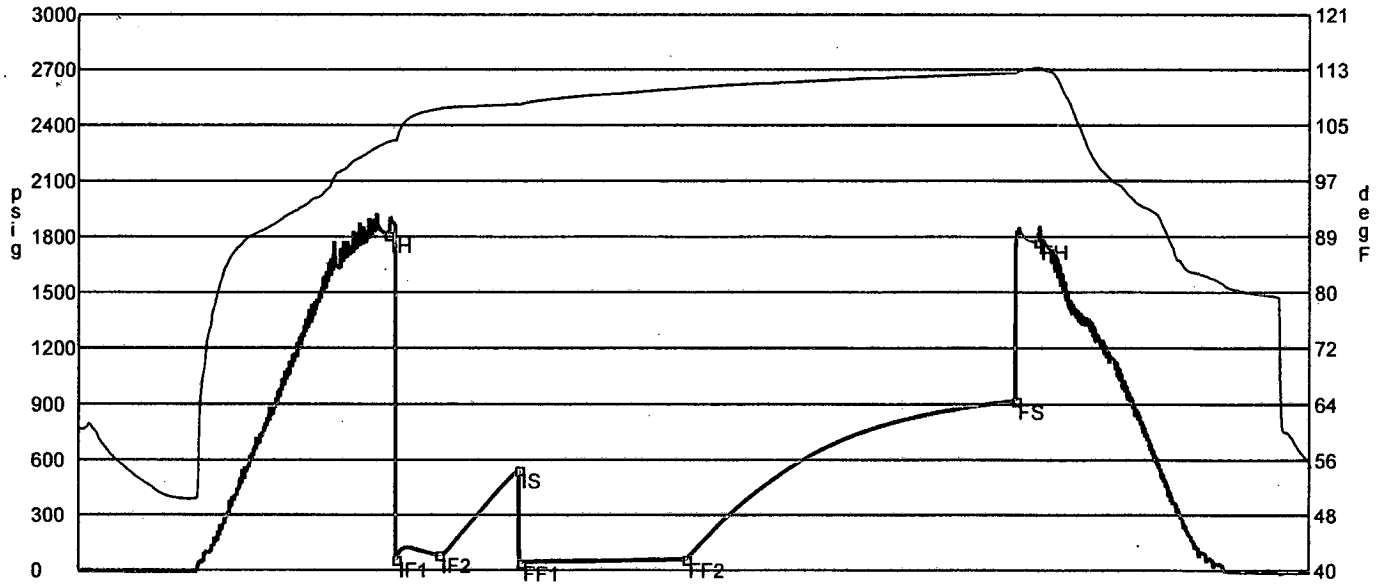
Test # 1	Test Date	4/9/2008	Chokes	3/4	Hole Size	7 7/8
Tester	Tim Venters		Top Recorder #	W1022		
Test Type	Conventional Bottom Hole		Mid Recorder #			
	Successful Test		Bott Recorder #	13565		
# of Packers	2.0	Packer Size	6 3/4	Mileage	20	Approved By
				Standby Time	0	
Mud Type	Gel Chem			Extra Equipmnt	Jars & Safety joint	
Mud Weight	9.1	Viscosity	47.0	Time on Site	7:45 AM	
Filtrate	9.6	Chlorides	8000	Tool Picked Up	9:50 AM	
				Tool Layed Dwn	4:40 PM	
Drill Collar Len	218.0			Elevation	1931.00	Kelley Bushings 1940.00
Wght Pipe Len	0					
Formation	Lansing "B"			Start Date/Time	4/9/2008 9:28 AM	
Interval Top	3785.0	Bottom	3806.0	End Date/Time	4/9/2008 4:53 PM	
Anchor Len Below	21.0	Between	0			
Total Depth	3806.0					
Blow Type	Very, very weak surface blow, during the initial flow period, that lasted about 1-2 minutes. Very strong blow throughout the final flow period, that hit the bottom of the bucket imidiately. It never did blow water out of the bucket. Time s: 15, 30, 60, 120.					

RECOVERY

Feet	Description	Gas	Oil	Water	Mud
1655	Gas in pipe	100% 1655ft	0% 0ft	0% 0ft	0% 0ft
40	Slight oil cut mud	0% 0ft	1% 0.4ft	0% 0ft	99% 39.6ft
60	Oil, slight gas cut mud	7% 4.2ft	13% 7.8ft	0% 0ft	80% 48ft

DST Fluids    0

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	Date	Time	Pressure	Temp	
IH	4/9/2008 11:18:00 AM	1.833333	1811.471	102.393	Initial Hydro-static
IF1	4/9/2008 11:20:45 AM	1.879167	59.467	102.498	Initial Flow (1)
IF2	4/9/2008 11:36:15 AM	2.1375	83.886	107.175	Initial Flow (2)
IS	4/9/2008 12:05:15 PM	2.620833	546.883	107.845	Initial Shut-In
FF1	4/9/2008 12:06:00 PM	2.633333	40.803	107.849	Final Flow (1)
FF2	4/9/2008 1:06:00 PM	3.633333	60.113	110.205	Final Flow (2)
FS	4/9/2008 3:05:45 PM	5.629167	920.345	112.441	Final Shut-In
FH	4/9/2008 3:14:00 PM	5.766667	1774.326	113.135	Final Hydro-static

**GAS FLOWS**

Min Into IFP   Min Into FFP   Gas Flows   Pressure   Choke

RECEIVED  
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Company	Captiva Energy, LLC	Lease Name	JD Chemical	
Address	P.O. Box 1213	Lease #	1-23	
CSZ	Hays, KS 67601	Legal Desc	See Comments	Job Ticket 2030
Attn.	Adam Kennedy	Section	23	Range 13W
		Township	26S	
		County	Pratt	State KS
		Drilling Cont	Sterling Drilling Co. Rig #4	

Comments    Legal Description: 785' FSL & 1400' FEL

GENERAL INFORMATION

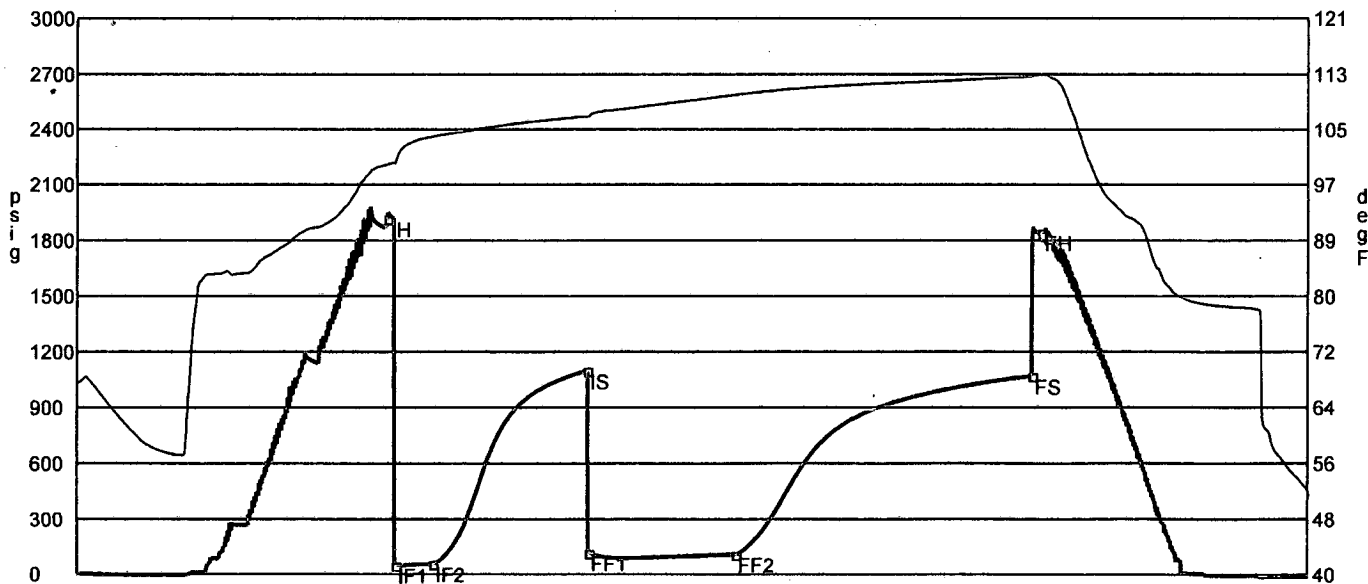
Test # 2	Test Date 4/11/2008	Chokes	3/4	Hole Size	7 7/8
Tester	Tim Venters	Top Recorder #	W1022		
Test Type	Conventional Bottom Hole	Mid Recorder #			
	Successful Test	Bott Recorder #	13565		
# of Packers	2.0	Packer Size	6 3/4	Mileage	20
				Standby Time	0
Mud Type	Gel Chem	Extra Equipmnt	Jars & Safety joint	Time on Site	1:15 PM
Mud Weight	9.0	Viscosity	40.0	Tool Picked Up	3:35 PM
Filtrate	11.2	Chlorides	9000	Tool Layed Dwn	11:10 PM
Drill Collar Len	218.0	Elevation	1931.00	Kelley Bushings	1940.00
Wght Pipe Len	0				
Formation	Lansing "H"- "I"	Start Date/Time	4/10/2008 3:05 PM		
Interval Top	3913.0	Bottom	3978.0	End Date/Time	4/10/2008 11:20 PM
Anchor Len Below	65.0	Between	0		
Total Depth	3978.0				
Blow Type	Weak blow at the start of the initial flow period, building to 9 inches in 5 minutes, where it held throughout the rest of the period. Weak blow at the start of the final flow period, building to 6 inches in 5 minutes, then depleting, ending the period at 1/2 inch. Times: 15, 62, 60, 120.				

RECOVERY

Feet	Description	Gas	Oil	Water	Mud
60	Very slight (trace) oil cut mud	0% 0ft	trace	0% 0ft	100% 60ft
60	Oil, water, slight gas cut mud	7% 4.2ft	17% 10.2ft	12% 7.2ft	64% 38.4ft
60	Gas, oil, heavy water cut mud	10% 6ft	10% 6ft	37% 22.2ft	43% 25.8ft

DST Fluids    44000

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	Date	Time	Pressure	Temp	
IH	4/10/2008 5:07:45 PM	2.045833	1917.724	99.694	Initial Hydro-static
IF1	4/10/2008 5:11:00 PM	2.1	49.507	99.923	Initial Flow (1)
IF2	4/10/2008 5:26:00 PM	2.35	56.837	103.769	Initial Flow (2)
IS	4/10/2008 6:28:15 PM	3.3875	1098.754	106.731	Initial Shut-In
FF1	4/10/2008 6:28:45 PM	3.395833	118.222	106.623	Final Flow (1)
FF2	4/10/2008 7:28:15 PM	4.3875	109.882	109.93	Final Flow (2)
FS	4/10/2008 9:28:00 PM	6.383333	1070.289	112.634	Final Shut-In
FH	4/10/2008 9:32:00 PM	6.45	1843.062	112.877	Final Hydro-static

GAS FLOWS

Min Into IFP   Min Into FFP   Gas Flows   Pressure   Choke

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Company	<b>Captiva Energy, LLC</b>	Lease Name	<b>JD Chemical</b>
Address	<b>P.O. Box 1213</b>	Lease #	<b>1-23</b>
CSZ	<b>Hays, KS 67601</b>	Legal Desc	<b>See Comments</b>
Attn.	<b>Adam Kennedy</b>	Section	<b>23</b>
		Township	<b>26S</b>
		County	<b>Pratt</b>
		Drilling Cont	<b>Sterling Drilling Co. Rig #4</b>
Comments	<b>Legal Description: 785' FSL &amp; 1400' FEL</b>		

Job Ticket **2030**  
Range **13W**

State **KS**

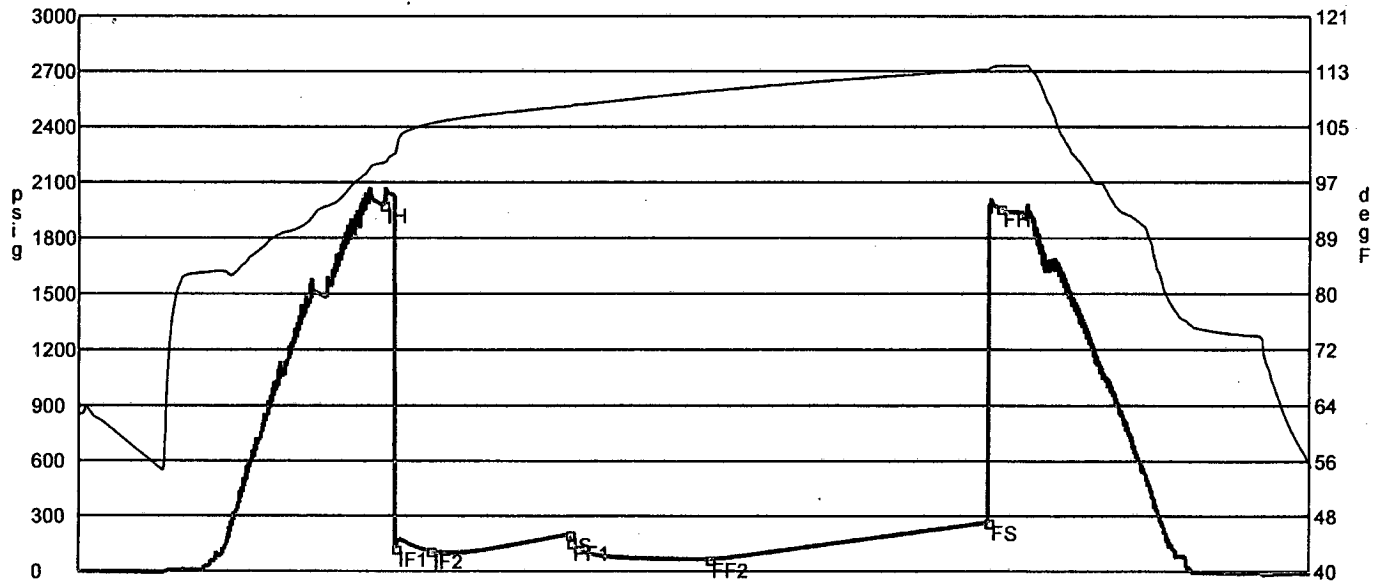
**GENERAL INFORMATION**

Test # <b>3</b>	Test Date <b>4/12/2008</b>	Chokes <b>3/4</b>	Hole Size <b>7 7/8</b>
Tester <b>Tim Venters</b>		Top Recorder # <b>W1022</b>	
Test Type <b>Conventional Bottom Hole Successful Test</b>		Mid Recorder #	
# of Packers <b>2.0</b>	Packer Size <b>6 3/4</b>	Bott Recorder # <b>13565</b>	
Mud Type <b>Gel Chem</b>		Mileage <b>20</b>	Approved By
Mud Weight <b>9.0</b>	Viscosity <b>48.0</b>	Standby Time <b>0</b>	
Filtrate <b>9.2</b>	Chlorides <b>9500</b>	Extra Equipmnt <b>Jars &amp; Safety joint</b>	
Drill Collar Len <b>218.0</b>		Time on Site <b>8:10 PM</b>	
Wght Pipe Len <b>0</b>		Tool Picked Up <b>9:16 PM</b>	
Formation <b>Mississippian</b>		Tool Layed Dwn <b>6:00 AM</b>	
Interval Top <b>4115.0</b>	Bottom <b>4195.0</b>	Elevation <b>1931.00</b>	Kelley Bushings <b>1940.00</b>
Anchor Len Below <b>80.0</b>	Between <b>0</b>	Start Date/Time <b>4/11/2008 9:16 PM</b>	
Total Depth <b>4195.0</b>		End Date/Time <b>4/12/2008 6:10 AM</b>	
Blow Type <b>Fairly strong blow throughout the initial flow period, reaching the bottom of the bucket in 15 minutes. Fairly strong blow at the start of the final flow period, building to 9 inches in 5 minutes, where it started to deplete, ending the period with a weak surface blow. Times: 15, 60, 60, 123.</b>			

**RECOVERY**

Feet	Description	Gas	Oil	Water	Mud
115	Gas in pipe	100% 115ft	0% 0ft	0% 0ft	0% 0ft
65	Mud	0% 0ft	0% 0ft	0% 0ft	100% 65ft
DST Fluids	<b>0</b>				

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	Date	Time	Pressure	Temp	
IH	4/11/2008 11:26:30 PM	2.175	1978.537	99.61	Initial Hydro-static
IF1	4/11/2008 11:31:45 PM	2.2625	123.721	101	Initial Flow (1)
IF2	4/11/2008 11:47:00 PM	2.516667	110.949	105.317	Initial Flow (2)
IS	4/12/2008 12:47:30 AM	3.525	200.525	107.849	Initial Shut-In
FF1	4/12/2008 12:48:00 AM	3.533333	156.21	107.867	Final Flow (1)
FF2	4/12/2008 1:48:30 AM	4.541667	65.562	110.018	Final Flow (2)
FS	4/12/2008 3:50:15 AM	6.570833	266.25	113.215	Final Shut-In
FH	4/12/2008 3:55:15 AM	6.654167	1961.306	113.739	Final Hydro-static

GAS FLOWS

Min Into IFP   Min Into FFP   Gas Flows   Pressure   Choke

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 KCC WICHITA

Company **Captiva Energy, LLC**  
 Address **P.O. Box 1213**  
 CSZ **Hays, KS 67601**  
 Attn. **Adam Kennedy**

Lease Name **JD Chemical**  
 Lease # **1-23**  
 Legal Desc **See Comments** Job Ticket **2030**  
 Section **23** Range **13W**  
 Township **26S**  
 County **Pratt** State **KS**  
 Drilling Cont **Sterling Drilling Co. Rig #4**

Comments **Legal Description: 785' FSL & 1400' FEL**

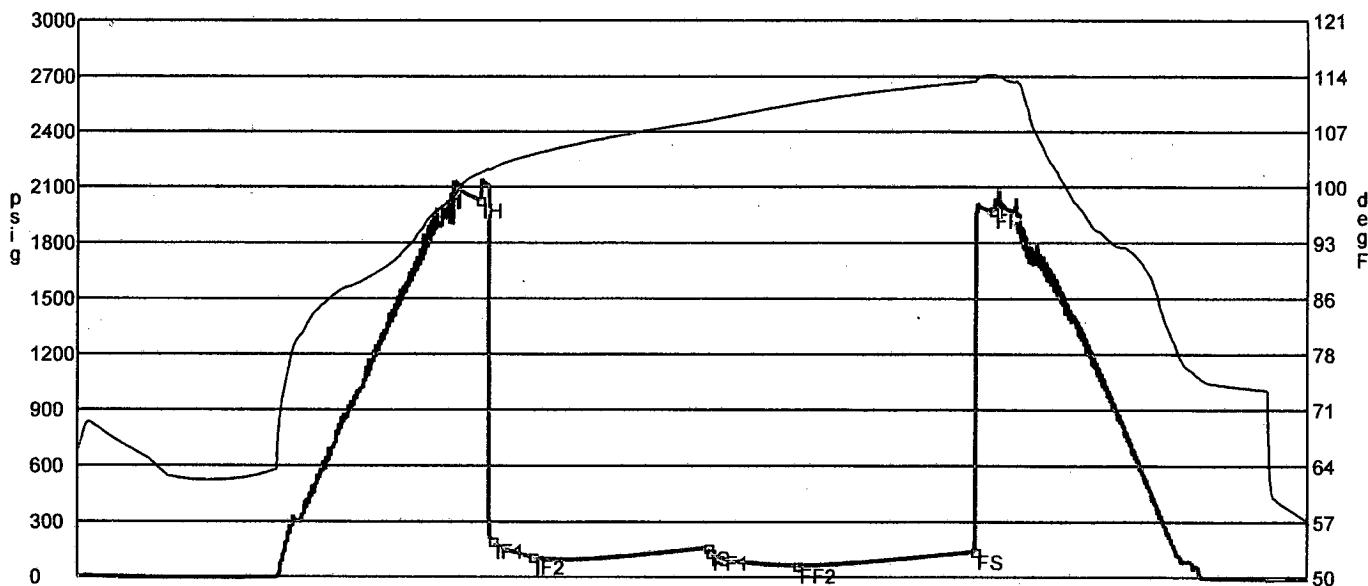
**GENERAL INFORMATION**

Test # <b>4</b>	Test Date <b>4/12/2008</b>	Chokes <b>3/4</b>	Hole Size <b>7 7/8</b>
Tester <b>Tim Venters</b>		Top Recorder # <b>W1022</b>	
Test Type <b>Conventional Bottom Hole Successful Test</b>		Mid Recorder #	
# of Packers <b>2.0</b>	Packer Size <b>6 3/4</b>	Bott Recorder # <b>13565</b>	
Mud Type <b>Gel Chem</b>		Mileage <b>20</b>	Approved By
Mud Weight <b>8.9</b>	Viscosity <b>56.0</b>	Standby Time <b>0</b>	
Filtrate <b>9.2</b>	Chlorides <b>9500</b>	Extra Equipmnt <b>Jars &amp; Safety joint</b>	
Drill Collar Len <b>218.0</b>		Time on Site <b>2:30 PM</b>	
Wght Pipe Len <b>0</b>		Tool Picked Up <b>4:25 PM</b>	
Formation <b>Viola</b>		Tool Layed Dwn <b>10:45 PM</b>	
Interval Top <b>4220.0</b>	Bottom <b>4242.0</b>	Elevation <b>1931.00</b>	Kelley Bushings <b>1940.00</b>
Anchor Len Below <b>22.0</b>	Between <b>0</b>	Start Date/Time <b>4/12/2008 3:53 PM</b>	
Total Depth <b>4242.0</b>		End Date/Time <b>4/12/2008 10:51 PM</b>	
Blow Type <b>Weak surface blow at the start of the initial flow period, building to 2 1/2 inches. Fairly strong blow at the start of the final flow period, building to 4 inches in 3 minutes, where it started to deplete, ending with a very weak surface blow. Times: 15, 60, 30, 60.</b>			

**RECOVERY**

Feet	Description	Gas	Oil	Water	Mud
225	Gas in pipe	100% 225ft	0% 0ft	0% 0ft	0% 0ft
20	Mud	0% 0ft	0% 0ft	0% 0ft	100% 20ft
DST Fluids		0			

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	Date	Time	Pressure	Temp	
IH	4/12/2008 6:07:45 PM	2.245833	2030.09	101.443	Initial Hydro-static
IF1	4/12/2008 6:12:15 PM	2.320833	198.676	102.123	Initial Flow (1)
IF2	4/12/2008 6:26:00 PM	2.55	112.008	103.874	Initial Flow (2)
IS	4/12/2008 7:26:00 PM	3.55	162.045	108.241	Initial Shut-In
FF1	4/12/2008 7:26:45 PM	3.5625	135.735	108.275	Final Flow (1)
FF2	4/12/2008 7:56:30 PM	4.058333	64.3	110.5	Final Flow (2)
FS	4/12/2008 8:57:15 PM	5.070833	141.737	113.345	Final Shut-In
FH	4/12/2008 9:03:15 PM	5.170833	1976.688	114.074	Final Hydro-static

**GAS FLOWS**

Min Into IFP   Min Into FFP   Gas Flows   Pressure   Choke

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 DEC 18 2009  
 KCC WICHITA



Company	Captiva Energy, LLC	Lease Name	JD Chemical
Address	P.O. Box 1213	Lease #	1-23
CSZ	Hays, KS 67601	Legal Desc	See Comments
Attn.	Adam Kennedy	Section	23
		Township	26S
		County	Pratt
		Drilling Cont	Sterling Drilling Co. Rig #4
Job Ticket	2030	State	KS
Range	13W		

Comments    Legal Description: 785' FSL & 1400' FEL

GENERAL INFORMATION

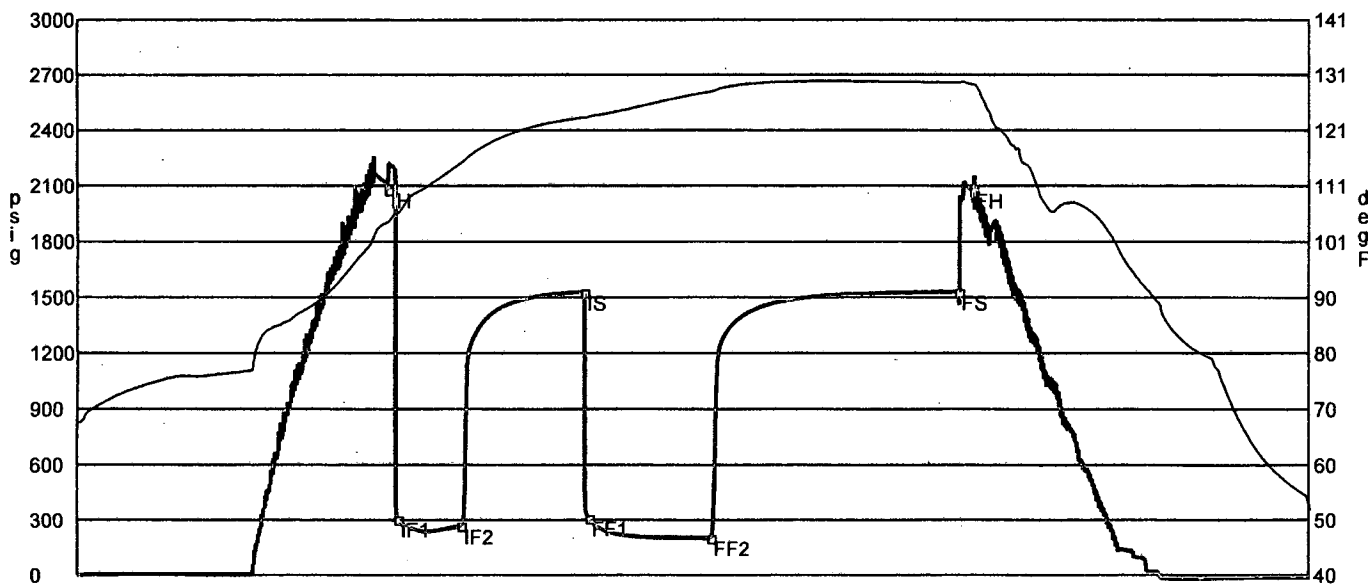
Test # 5	Test Date 4/15/2008	Chokes	3/4	Hole Size	7 7/8
Tester	Tim Venters	Top Recorder #	W1022		
Test Type	Conventional Bottom Hole	Mid Recorder #			
	Successful Test	Bott Recorder #	13565		
# of Packers	2.0	Packer Size	6 3/4	Mileage	20
				Approved By	
Mud Type	Gel Chem	Standby Time	0	Extra Equipmnt	Jars & Safety joint
Mud Weight	9.2	Viscosity	54.0	Time on Site	4:00 PM
Filtrate	12.0	Chlorides	11000	Tool Picked Up	6:05 PM
				Tool Layed Dwn	2:25 AM
Drill Collar Len	218.0	Elevation	1931.00	Kelley Bushings	1940.00
Wght Pipe Len	0				
Formation	Arbuckle	Start Date/Time	4/14/2008 5:13 PM		
Interval Top	4376.0	Bottom	4387.0	End Date/Time	4/15/2008 3:00 AM
Anchor Len Below	11.0	Between	0		
Total Depth	4387.0				
Blow Type	Weak surface blow at the start of the initial flow period, building to 5 inches. Weak surface blow back during the initial shut-in period that lasted about 13 minutes. Weak surface blow at the start of the final flow period, but building reaching the bottom of the bucket in 47 1/2 minutes. Weak surface blow back during the final shut-in period, that built to 1 1/2 inches in 10 minutes. The blow ended about 35 minutes. Times 30, 60, 60, 120. Oil Gravity: 39.				

RECOVERY

Feet	Description	Gas	Oil	Water	Mud
485	Gas in pipe	100% 485ft	0% 0ft	0% 0ft	0% 0ft
25	Clean oil	0% 0ft	100% 25ft	0% 0ft	0% 0ft
120	Slight oil, very heavy mud cut water	0% 0ft	1% 1.2ft	59% 70.8ft	40% 48ft
180	Very slight (trace) oil, slight mud cut water	0% 0ft	trace	94% 169.2ft	6% 10.8ft

DST Fluids    44000

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	Date	Time	Pressure	Temp	
IH	4/14/2008 7:39:00 PM	2.433333	2079.301	104.086	Initial Hydro-static
IF1	4/14/2008 7:43:45 PM	2.5125	306.186	105.767	Initial Flow (1)
IF2	4/14/2008 8:13:45 PM	3.0125	268.876	114.839	Initial Flow (2)
IS	4/14/2008 9:12:45 PM	3.995833	1529.796	123.148	Initial Shut-In
FF1	4/14/2008 9:15:00 PM	4.033333	312.304	123.293	Final Flow (1)
FF2	4/14/2008 10:13:15 PM	5.004167	203.012	127.851	Final Flow (2)
FS	4/15/2008 12:12:00 AM	6.983333	1532.012	129.503	Final Shut-In
FH	4/15/2008 12:18:45 AM	7.095833	2078.111	129.212	Final Hydro-static

**GAS FLOWS**

Min Into IFP   Min Into FFP   Gas Flows   Pressure   Choke

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Company	<b>Captiva Energy, LLC</b>	Lease Name	<b>JD Chemical</b>
Address	<b>P.O. Box 1213</b>	Lease #	<b>1-23</b>
CSZ	<b>Hays, KS 67601</b>	Legal Desc	<b>See Comments</b>
Attn.	<b>Adam Kennedy</b>	Section	<b>23</b>
		Township	<b>26S</b>
		County	<b>Pratt</b>
		Drilling Cont	<b>Sterling Drilling Co. Rig #4</b>
Comments	<b>Legal Description: 785' FSL &amp; 1400' FEL</b>		
		Job Ticket	<b>2030</b>
		Range	<b>13W</b>
		State	<b>KS</b>

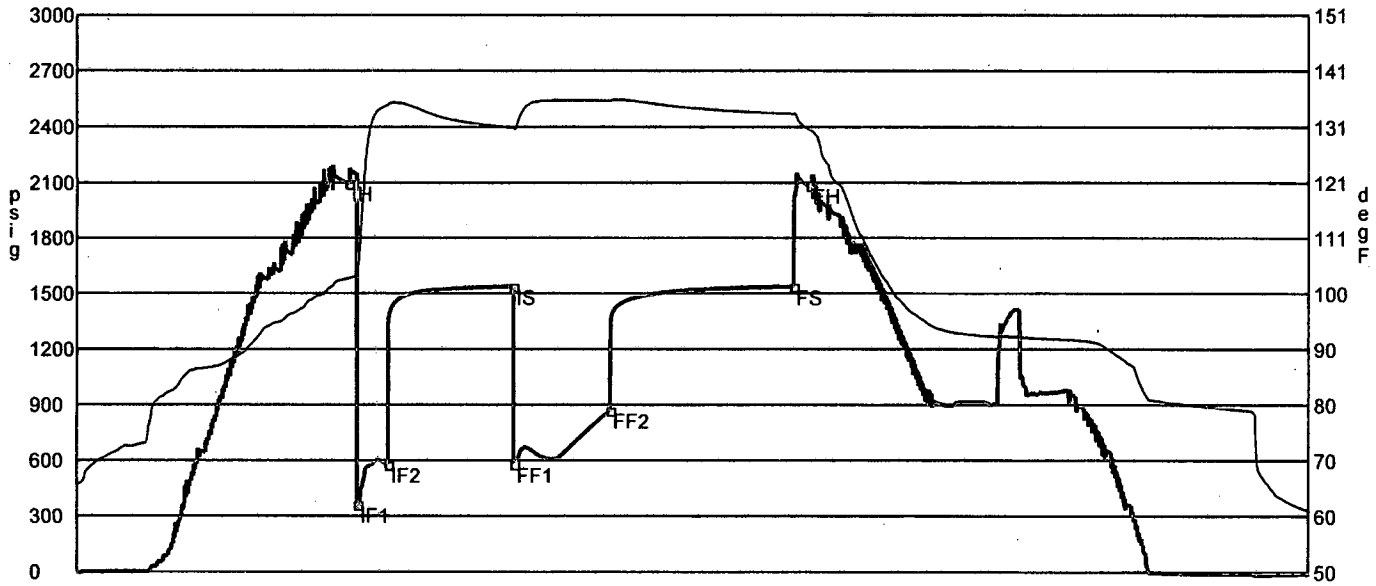
**GENERAL INFORMATION**

Test # <b>6</b>	Test Date <b>4/15/2008</b>	Chokes <b>3/4</b>	Hole Size <b>7 7/8</b>
Tester <b>Tim Venters</b>		Top Recorder # <b>W1022</b>	
Test Type <b>Conventional Bottom Hole</b>		Mid Recorder #	
<b>Successful Test</b>		Bott Recorder # <b>13565</b>	
# of Packers <b>2.0</b>	Packer Size <b>6 3/4</b>	Mileage <b>20</b>	Approved By
Mud Type <b>Gel Chem</b>		Standby Time <b>0</b>	
Mud Weight <b>8.9</b>	Viscosity <b>52.0</b>	Extra Equipmnt <b>Jars, Safety joint, Cir. pin</b>	
Filtrate <b>12.0</b>	Chlorides <b>18000</b>	Time on Site <b>11:00 AM</b>	
Drill Collar Len <b>218.0</b>		Tool Picked Up <b>1:00 PM</b>	
Wght Pipe Len <b>0</b>		Tool Layed Dwn <b>10:20 PM</b>	
Formation <b>Arbuckle</b>		Elevation <b>1931.00</b>	Kelley Bushings <b>1940.00</b>
Interval Top <b>4395.0</b>	Bottom <b>4410.0</b>	Start Date/Time <b>4/15/2008 12:33 PM</b>	
Anchor Len Below <b>15.0</b>	Between <b>0</b>	End Date/Time <b>4/15/2008 10:37 PM</b>	
Total Depth <b>4410.0</b>			
Blow Type <b>Strong blow throughout the initial flow period, reaching the bottom of the bucket in 4 minutes. Weak surface blow back throughout the initial shut-in period. Fairly strong blow at the start of the final flow period, building to 12 inches in 5 minutes. It held there till the 20 minute mark, where it started to deplete; ending at 5 inches. Weak surface blow back throughout the final shut-in period. Times: 15, 62, 47, 90.</b>			

**RECOVERY**

Feet	Description	Gas	Oil	Water	Mud
110	Gas in pipe	100% 110ft	0% 0ft	0% 0ft	0% 0ft
500	Very slight oil, very heavy water cut mud	0% 0ft	1% 5ft	43% 215ft	56% 280ft
1155	Very slight oil cut water	0% 0ft	1% 11.6ft	99% 1143.4ft	0% 0ft
245	Mud cut water	0% 0ft	0% 0ft	83% 203.4ft	17% 41.6ft
DST Fluids	<b>36000</b>				

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	Date	Time	Pressure	Temp	
IH	4/15/2008 2:44:15 PM	2.1875	2098.33	103.264	Initial Hydro-static
IF1	4/15/2008 2:48:30 PM	2.258333	363.443	103.823	Initial Flow (1)
IF2	4/15/2008 3:03:30 PM	2.508333	579.248	134.814	Initial Flow (2)
IS	4/15/2008 4:05:00 PM	3.533333	1537.703	130.676	Initial Shut-In
FF1	4/15/2008 4:05:30 PM	3.541667	580.448	130.512	Final Flow (1)
FF2	4/15/2008 4:52:45 PM	4.329167	871.009	135.585	Final Flow (2)
FS	4/15/2008 6:23:00 PM	5.833333	1537.045	133.203	Final Shut-In
FH	4/15/2008 6:31:00 PM	5.966667	2086.434	130.406	Final Hydro-static

GAS FLOWS

Min Into IFP   Min Into FFP   Gas Flows   Pressure   Choke

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# MAX-HENRY

## OPERATING, LLC

Scale 1:240 (5"=100') Imperial

Well Name: J.D. Chemical #1-23  
Location: Sec. 23 - 26S - 13W Pratt Co., KS  
Licence Number: Region: Iuka-Carmi  
Spud Date: 4.02.08 Drilling Completed: 4.17.08  
Surface Coordinates: 785' FSL & 1400' FEL

### Bottom Hole Coordinates:

Ground Elevation (ft): 1931 K.B. Elevation (ft): 1940  
Logged Interval (ft): 1900 To: 4510 Total Depth (ft): 4508  
Formation: Arbuckle  
Type of Drilling Fluid: Chemical Gel/Polymer Fresh Water Based

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 [www.WellSight.com](http://www.WellSight.com)

### OPERATOR

Company: Captiva Energy, LLC  
Address: 1658 Cole Blvd Suite #205  
Lakewood, CO 80401

### GEOLOGIST

Name: Adam T. Kennedy  
Company: Max-Henry Operating, LLC  
Address: 133 N Glendale  
Wichita, KS. 67206

### REMARKS

After review of the open hole logs, DST results and geological log, it was agreed upon and decided by all parties to run 5 1/2" production casing on the J.D. Chemical #1-23 to further evaluate several zones for commercial oil and gas production.

The samples will be delivered, processed, and available for review at the KGS sample library, located in Wichita, KS. Note the RTD was 4510', the LTD was 4508'. ROP and DST's were shifted 2' shallow to compensate.

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# Captiva Energy, LLC

## DAILY DRILLING REPORT

Company: Captiva Energy, LLC  
1658 Cole Blvd #205  
Lakewood, CO 80401

Well: J.D. Chemical #1-23  
Location: 785' FSL & 1400' FEL  
Sec. 23 - 26S - 13W  
Pratt Co., KS

Jim Waechter Cell: (785) 623-1525

Operations Manager: Brian Karlin (785) 623-3290

Wellsite Geologist: Adam T. Kennedy  
Cell: 316.650.9677  
Office: 316.558.5202  
Home: 316.440.3802

Elevation: 1931' GL & 1940' KB  
Field: Iuka-Carmi Northwest  
API#: 15-151-22291-0000  
Surface Casing:

Drilling Contractor: Sterling Drilling, Co. Rig #4 620-388-4192 Tool Pusher: Lanny Saloga 620-388-4193

DATE	7:00 AM DEPTH	Last 24 Hour Operations
4.08.08	3200'	Geologist Adam T. Kennedy on location @ 13:00 hrs 3300'. Currently drilling Topeka section into Heebner, Toronto, and Douglas tonight.
4.09.08	3805'	Drilling and connections Topeka through Lansing 'B'. CFS in Toronto, Douglas, LKC B. Short trip at Brown Lime. DMC: \$1,798.79 CMC: \$6,037.64
4.10.08	3900'	Set up DST #1, LKC B. Conduct test, test completed. Rig down for draw-works repairs. TIH CTCH drilling and connections LKC B to G. DMC: \$725.02 CMC: \$7,284.26
4.11.08	4025'	Drilling and connections LKC G through I. Set up DST #2, conduct test, test completed. Replace faulty gas detector unit. TIH CTCH drilling LKC I through J.
4.12.08	4195'	Drilling and connections BKC through Upper Miss. Set up DST #3, conduct test, test completed. Currently TIH and CTCH to resume drilling. DMC: \$1,887.88 CMC: \$10,368.77
4.13.08	4277'	Drilling and connections Upper miss through Upper Viola, Set up DST #4, conduct test, test completed. TIH CTCH resume drilling Viola through Simpson DMC: \$1,123.72 CMC: \$11,492.49
4.14.08	4387'	Drilling and connections Viola through Arbuckle. Set up DST #5, rig down, drilling line broken, down for repairs. DMC: \$195.02 CMC: \$11,887.51
4.15.08	4387'	Repairs completed on rig, set up DST #5, conduct test, TOH CTCH, resume drilling upper Arbuckle. DMC: \$1,463.88 CMC: \$13,151.39
4.16.08	4485'	Drilling and connections upper Arbuckle, set up DST #6, conduct test, test completed. TOH CTCH, resume drilling, ratholing ahead for logs. DMC: \$939.13 CMC: \$14,090.52
4.17.08	4510'	Drilling and connections rest of Arbuckle to RTD. RTD reached @ 0830 hrs 4.16.08. Logging completed @ 1600 hrs 4.17.08. Geologist off location @ 1700 hrs 4.17.08.

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# Captiva Energy, LLC

## WELL COMPARISON SHEET

DRILLING WELL					COMPARISON WELL				COMPARISON WELL				COMPARISON WELL			
Captiva Energy - J.D. Chemical #1-23					McKnab Oil - Bruns #1				H L Moore - Gobin #2				Amerada Hess - Grace Hoener #1			
785' FSL & 1400' FEL					SE NE NE - Sec. 26 - 26S - 13W				SE SE S - Sec. 23 - 26S - 13W				NE NW NW - Sec. 26 - 26S - 13W			
Sec. 23 - 26S - 13W					Simp Sd. Producer		Structural Relationship		Arbuckle Producer		Structural Relationship		Simp Sd. Producer		Structural Relationship	
1940 KB					1945 KB		1948 KB		1944 KB		1944 KB		1944 KB		1944 KB	
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log
Heobner	3574	-1834	3572	-1632	3560	-1815	-19	-17	3574	-1826	-8	-6	3568	-1674	-10	-8
Toronto	3590	-1650	3587	-1647	3575	-1630	-20	-17	3589	-1641	-9	-6	3585	-1641	-9	-6
Douglas Shale	3607	-1667	3608	-1668	3605	-1660	-7	-8	3608	-1660	-7	-8	3603	-1659	-8	-8
U. Douglas	3639	-1699	3636	-1696	3624	-1679	-20	-17	3637	-1689	-10	-7	3632	-1688	-11	-8
L. Douglas	3684	-1744	3684	-1744	3661	-1716	-28	-28	3684	-1736	-8	-8	3678	-1734	-10	-10
Brown Lime	3740	-1800	3737	-1797	3723	-1776	-22	-19	3743	-1795	-5	-2	3734	-1790	-10	-7
Lansing	3760	-1820	3757	-1817	3748	-1803	-17	-14	3766	-1818	-2	1	3758	-1814	-6	-3
Lansing 'B'	3787	-1847	3787	-1847	3772	-1827	-20	-20	3790	-1842	-5	-5	3781	-1837	-10	-10
Lansing 'H'	3818	-1878	3816	-1876	3901	-1956	-22	-20	3820	-1972	-6	-4	3908	-1964	-14	-12
Stark	4036	-2096	4032	-2092	4018	-2073	-23	-19	4035	-2087	-9	-5	4028	-2084	-12	-8
BKC	4081	-2141	4079	-2139	4066	-2121	-20	-18	4083	-2135	-6	-4	4079	-2135	-6	-4
Marmaton	4094	-2154	4098	-2148	4075	-2130	-24	-18	4094	-2146	-8	-2	4098	-2154	0	6
B/Penn Cgfm	4151	-2211	4150	-2210	4132	-2187	-24	-23	4150	-2202	-8	-8	4147	-2203	-8	-7
Miss	4188	-2228	4185	-2225	4141	-2198	-32	-29	4190	-2242	14	17	4178	-2234	6	9
Kinderhook	4224	-2284	4220	-2280	4197	-2252	-32	-28	4213	-2265	-19	-15	4203	-2259	-25	-21
Viola	4228	-2289	4227	-2287	4208	-2263	-26	-24	4221	-2273	-16	-14	4217	-2273	-16	-14
Simpson	4263	-2323	4261	-2321	4254	-2309	-14	-12	4261	-2313	-10	-8	4259	-2315	-8	-6
Simpson Sd			4281	-2341	4260	-2321		-20	4273	-2325		-16	4263	-2319		-22
Arbuckle	4374	-2434	4364	-2424	4358	-2413	-21	-11	4359	-2411	-23	-13	4360	-2416	-18	-8
RTD	4510	-2570	4508	-2568	4404	-2459	-111	-109	4378	-2430	-140	-138	4378	-2434	-136	-134

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Company Captiva Energy, LLC  
 Address P.O. Box 1213  
 CSZ Hays, KS 67601  
 Attn. Adam Kennedy

Lease Name JD Chemical  
 Lease # 1-23  
 Legal Desc See Comments Job Ticket 2030  
 Section 23 Range 13W  
 Township 26S  
 County Pratt State KS  
 Drilling Cont Sterling Drilling Co. Rig #4

Comments Legal Description: 785' FSL & 1400' FEL

GENERAL INFORMATION

Test # 1 Test Date 4/9/2008  
 Tester Tim Venters  
 Test Type Conventional Bottom Hole  
 Successful Test

Chokes 3/4 Hole Size 7 7/8  
 Top Recorder # W1022  
 Mid Recorder #  
 Bot Recorder # 13565

# of Packers 2.0 Packer Size 6 3/4  
 Mud Type Gel Chem  
 Mud Weight 9.1 Viscosity 47.0  
 Filtrate 9.6 Chlorides 8000

Mileage 20 Approved By  
 Standby Time 0  
 Extra Equipmnt Jars & Safety joint  
 Time on Site 7:45 AM  
 Tool Picked Up 9:50 AM  
 Tool Layed Dwn 4:40 PM

Drill Collar Len 218.0  
 Wght Pipe Len 0

Elevation 1931.00 Kelley Bushings 1940.00

Formation Lansing "B"  
 Interval Top 3785.0 Bottom 3806.0  
 Anchor Len Below 21.0 Between 0  
 Total Depth 3806.0

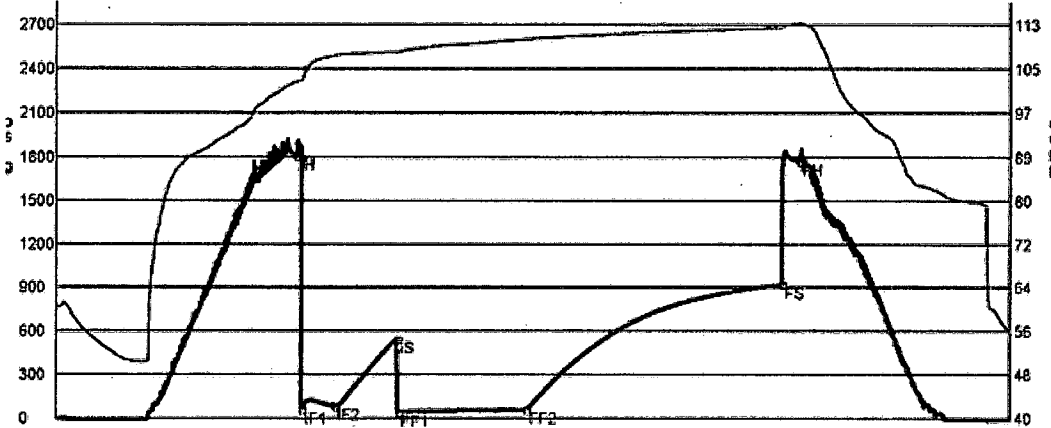
Start Date/Time 4/9/2008 9:28 AM  
 End Date/Time 4/9/2008 4:53 PM

Blow Type Very, very weak surface blow, during the initial flow period, that lasted about 1-2 minutes. Very strong blow throughout the final flow period, that hit the bottom of the bucket imdiately. It never did blow water out of the bucket. Time s: 15, 30, 60, 120.

RECOVERY

Feet	Description	Gas	Oil	Water	Mud
1655	Gas in pipe	100% 1655ft	0% 0ft	0% 0ft	0% 0ft
40	Slight oil cut mud	0% 0ft	1% 0.4ft	0% 0ft	99% 39.6ft
60	Oil, slight gas cut mud	7% 4.2ft	13% 7.8ft	0% 0ft	80% 48ft

DST Fluids 0



	Date	Time	Pressure	Temp	
IH	4/9/2008 11:18:00 AM	1.833333	1811.471	102.393	Initial Hydro-static
IF1	4/9/2008 11:20:45 AM	1.879167	59.467	102.498	Initial Flow (1)
IF2	4/9/2008 11:36:15 AM	2.1375	83.886	107.175	Initial Flow (2)
IS	4/9/2008 12:05:15 PM	2.620833	546.883	107.845	Initial Shut-in
FF1	4/9/2008 12:06:00 PM	2.633333	40.803	107.849	Final Flow (1)
FF2	4/9/2008 1:06:00 PM	3.633333	60.113	110.206	Final Flow (2)
FS	4/9/2008 3:05:45 PM	5.629167	920.345	112.441	Final Shut-in
FH	4/9/2008 3:14:00 PM	5.766667	1774.326	113.135	Final Hydro-static

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Company Captiva Energy, LLC  
 Address P.O. Box 1213  
 CSZ Hays, KS 67601  
 Attn. Adam Kennedy

Lease Name JD Chemical  
 Lease # 1-23  
 Legal Desc See Comments Job Ticket 2030  
 Section 23 Range 13W  
 Township 26S  
 County Pratt State KS  
 Drilling Cont Sterling Drilling Co. Rig #4

Comments Legal Description: 785' FSL & 1400' FEL

GENERAL INFORMATION

Test # 2 Test Date 4/11/2008  
 Tester Tim Venters  
 Test Type Conventional Bottom Hole

Chokes 3/4 Hole Size 7 7/8  
 Top Recorder # W1022  
 Mid Recorder #  
 Bott Recorder # 13565

# of Packers 2.0 Packer Size 6 3/4

Mileage 20 Approved By

Mud Type Gel Chem  
 Mud Weight 9.0 Viscosity 40.0  
 Filtrate 11.2 Chlorides 9000

Standby Time 0  
 Extra Equipmt Jars & Safety joint  
 Time on Site 1:15 PM  
 Tool Picked Up 3:35 PM  
 Tool Layed Dwn 11:10 PM

Drill Collar Len 218.0  
 Wght Pipe Len 0

Elevation 1831.00 Kelley Bushings 1940.00

Formation Lansing "H"- "I"  
 Interval Top 3913.0 Bottom 3978.0  
 Anchor Len Below 65.0 Between 0  
 Total Depth 3978.0

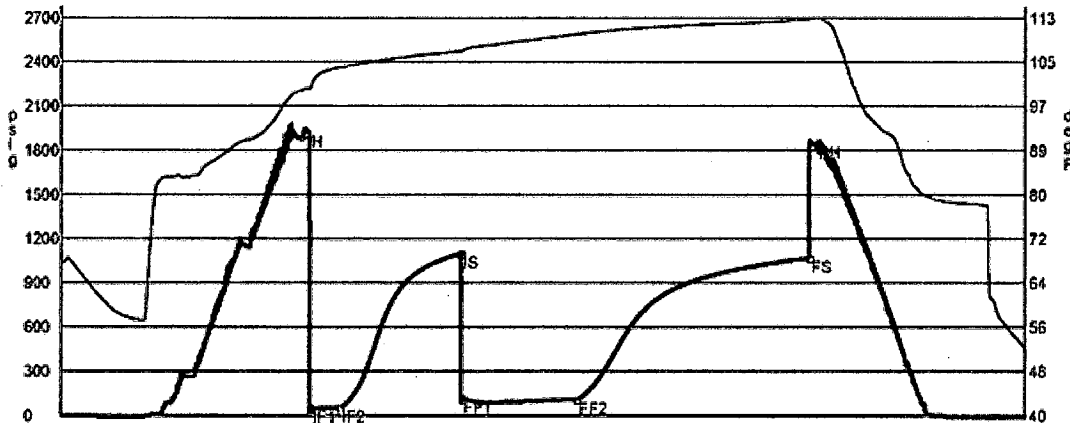
Start Date/Time 4/10/2008 3:05 PM  
 End Date/Time 4/10/2008 11:20 PM

Blow Type Weak blow at the start of the initial flow period, building to 9 inches in 5 minutes, where it held throughout the rest of the period. Weak blow at the start of the final flow period, building to 6 inches in 5 minutes, then depleting, ending the period at 1/2 inch. Times: 15, 62, 60, 120.

RECOVERY

Feet	Description	Gas	Oil	Water	Mud
60	Very slight (trace) oil cut mud	0% 0ft	trace	0% 0ft	100% 60ft
60	Oil, water, slight gas cut mud	7% 4.2ft	17% 10.2ft	12% 7.2ft	64% 38.4ft
60	Gas, oil, heavy water cut mud	10% 6ft	10% 6ft	37% 22.2ft	43% 25.8ft

DST Fluids 44000



Date	Time	Pressure	Temp	
4/10/2008 5:07:45 PM	2.045833	1917.724	99.694	Initial Hydro-static
4/10/2008 5:11:00 PM	2.1	49.507	99.923	Initial Flow (1)
4/10/2008 5:26:00 PM	2.35	56.837	103.769	Initial Flow (2)
4/10/2008 6:28:15 PM	3.3875	1098.754	106.731	Initial Shut-in
4/10/2008 6:28:45 PM	3.395833	118.222	106.623	Final Flow (1)
4/10/2008 7:28:15 PM	4.3875	109.882	109.93	Final Flow (2)
4/10/2008 9:28:00 PM	6.383333	1070.289	112.634	Final Shut-in
4/10/2008 9:32:00 PM	6.45	1843.062	112.877	Final Hydro-static

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Company	Captiva Energy, LLC	Lease Name	JD Chemical
Address	P.O. Box 1213	Lease #	1-23
CSZ	Hays, KS 67601	Legal Desc	See Comments
Attn.	Adam Kennedy	Section	23
		Township	26S
		County	Pratt
		Drilling Cont	Sterling Drilling Co. Rig #4
		Job Ticket	2030
		Range	13W
		State	KS

Comments    Legal Description: 785' FSL & 1400' FEL

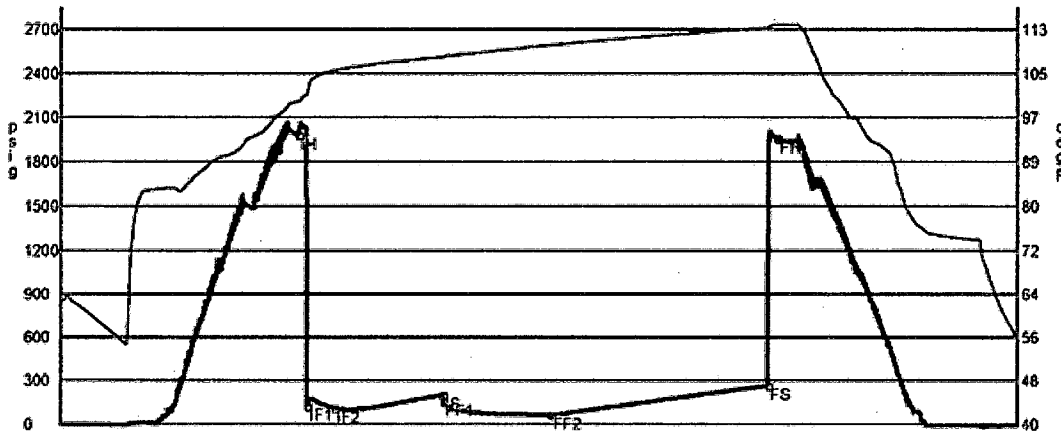
GENERAL INFORMATION

Test # 3	Test Date 4/12/2008	Chokes 3/4	Well Size 7 7/8
Tester Tim Venters		Top Recorder # W1022	
Test Type Conventional Bottom Hole		Mid Recorder #	
Successful Test		Bott Recorder # 13565	
# of Packers 2.0	Packer Size 6 3/4	Mileage 20	Approved By
Mud Type Gel Chem		Standby Time 0	
Mud Weight 9.0	Viscosity 48.0	Extra Equipmnt Jars & Safety Joint	
Filtrate 9.2	Chlorides 9500	Time on Site 8:10 PM	
Drill Collar Len 218.0		Tool Picked Up 9:16 PM	
Wght Pipe Len 0		Tool Layed Dwn 8:00 AM	
Formation Mississippian		Elevation 1931.00	Kelley Bushings 1940.00
Interval Top 4115.0	Bottom 4195.0	Start Date/Time 4/11/2008 9:16 PM	
Anchor Len Below 80.0	Between 0	End Date/Time 4/12/2008 6:10 AM	
Total Depth 4195.0			
Blow Type	Fairly strong blow throughout the initial flow period, reaching the bottom of the bucket in 15 minutes. Fairly strong blow at the start of the final flow period, building to 9 inches in 5 minutes, where it started to deplete, ending the period with a weak surface blow. Times: 15, 60, 123.		

RECOVERY

Feet	Description	Gas	Oil	Water	Mud
115	Gas in pipe	100% 115ft	0% 0ft	0% 0ft	0% 0ft
65	Mud	0% 0ft	0% 0ft	0% 0ft	100% 65ft

DST Fluids 0



	Date	Time	Pressure	Temp	
IH	4/11/2008 11:26:30 PM	2.175	1978.537	99.61	Initial Hydro-static
IF1	4/11/2008 11:31:45 PM	2.2625	123.721	101	Initial Flow (1)
IF2	4/11/2008 11:47:00 PM	2.516667	110.949	105.317	Initial Flow (2)
IS	4/12/2008 12:47:30 AM	3.525	200.525	107.849	Initial Shut-In
FF1	4/12/2008 12:48:00 AM	3.533333	156.21	107.867	Final Flow (1)
FF2	4/12/2008 1:48:30 AM	4.541667	65.562	110.018	Final Flow (2)
FS	4/12/2008 3:50:15 AM	6.570833	266.25	113.215	Final Shut-In
FH	4/12/2008 3:55:15 AM	6.654167	1961.306	113.739	Final Hydro-static

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Company **Captiva Energy, LLC**  
 Address **P.O. Box 1213**  
 CSZ **Hays, KS 67601**  
 Attn. **Adam Kennedy**

Lease Name **JD Chemical**  
 Lease # **1-23**  
 Legal Desc **See Comments** Job Ticket **2030**  
 Section **23** Range **13W**  
 Township **26S**  
 County **Pratt** State **KS**  
 Drilling Cont **Sterling Drilling Co. Rig #4**

Comments **Legal Description: 785' FSL & 1400' FEL**

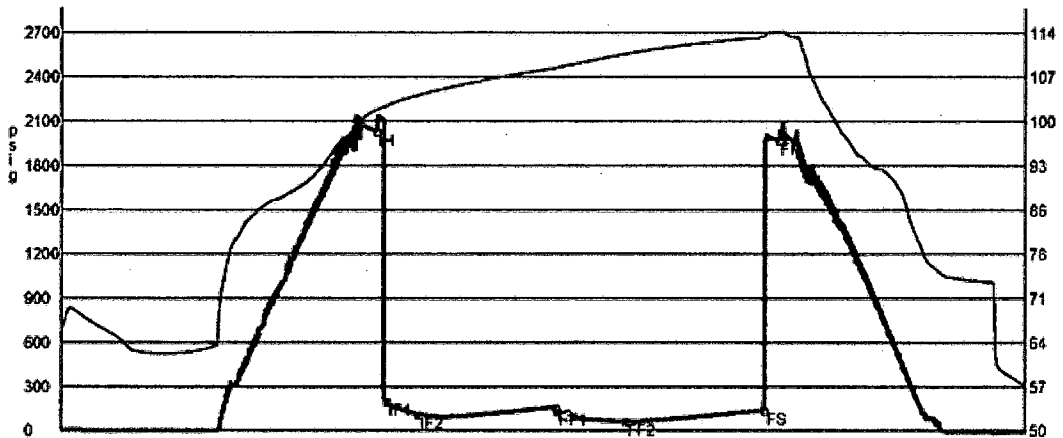
**GENERAL INFORMATION**

Test # **4** Test Date **4/12/2008** Chokes **3/4** Hole Size **7 7/8**  
 Tester **Tim Venters** Top Recorder # **W1022**  
 Test Type **Conventional Bottom Hole** Mid Recorder #  
 Successful Test **Successful Test** Bott Recorder # **13565**  
 # of Packers **2.0** Packer Size **6 3/4** Mileage **20** Approved By  
 Mud Type **Gel Chem** Standby Time **0**  
 Mud Weight **8.9** Viscosity **56.0** Extra Equipmnt **Jars & Safety joint**  
 Filtrate **9.2** Chlorides **9500** Time on Site **2:30 PM**  
 Tool Picked Up **4:25 PM**  
 Tool Layed Dwn **10:45 PM**  
 Drill Collar Len **218.0** Elevation **1931.00** Kelley Bushings **1940.00**  
 Wght Pipe Len **0**  
 Formation **Viola** Start Date/Time **4/12/2008 3:53 PM**  
 Interval Top **4220.0** Bottom **4242.0** End Date/Time **4/12/2008 10:51 PM**  
 Anchor Len Below **22.0** Between **0**  
 Total Depth **4242.0**  
 Blow Type **Weak surface blow at the start of the initial flow period, building to 2 1/2 inc hes. Fairly strong blow at the start of the final flow period, building to 4 in ches in 3 minutes, where it started to deplete, ending with a very weak surface blow. Times: 15, 60, 30, 60.**

**RECOVERY**

Feet	Description	Gas	Oil	Water	Mud
225	Gas in pipe	100% <sup>225ft</sup>	0% <sup>0ft</sup>	0% <sup>0ft</sup>	0% <sup>0ft</sup>
20	Mud	0% <sup>0ft</sup>	0% <sup>0ft</sup>	0% <sup>0ft</sup>	100% <sup>20ft</sup>

DST Fluids **0**



	Date	Time	Pressure	Temp		
IH	4/12/2008	6:07:45 PM	2.245833	2030.09	101.443	Initial Hydro-static
IF1	4/12/2008	6:12:15 PM	2.320833	198.676	102.123	Initial Flow (1)
IF2	4/12/2008	6:26:00 PM	2.55	112.008	103.874	Initial Flow (2)
IS	4/12/2008	7:26:00 PM	3.55	162.045	108.241	Initial Shut-In
FF1	4/12/2008	7:26:45 PM	3.5625	135.735	108.275	Final Flow (1)
FF2	4/12/2008	7:56:30 PM	4.058333	64.3	110.5	Final Flow (2)
FS	4/12/2008	8:57:15 PM	5.070833	141.737	113.345	Final Shut-In
FH	4/12/2008	9:03:15 PM	5.170833	1976.688	114.074	Final Hydro-static

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Company **Captiva Energy, LLC**  
 Address **P.O. Box 1213**  
 CSZ **Hays, KS 67601**  
 Attn. **Adam Kennedy**

Lease Name **JD Chemical**  
 Lease # **1-23**  
 Legal Desc **See Comments** Job Ticket **2030**  
 Section **23** Range **13W**  
 Township **26S**  
 County **Pratt** State **KS**  
 Drilling Cont **Sterling Drilling Co. Rig #4**

Comments **Legal Description: 785' FSL & 1400' FEL**

**GENERAL INFORMATION**

Test # **6** Test Date **4/15/2008**  
 Tester **Tim Venters**  
 Test Type **Conventional Bottom Hole Successful Test**  
 # of Packers **2.0** Packer Size **6 3/4**

Chokes **3/4** Hole Size **7 7/8**  
 Top Recorder # **W1022**  
 Mid Recorder #  
 Botl Recorder # **13565**

Mud Type **Gel Chem**  
 Mud Weight **9.2** Viscosity **54.0**  
 Filtrate **12.0** Chlorides **11000**

Mileage **20** Approved By  
 Standby Time **0**  
 Extra Equipmnt **Jars & Safety joint**  
 Time on Site **4:00 PM**  
 Tool Picked Up **6:05 PM**  
 Tool Layed Dwn **2:25 AM**

Drill Collar Len **218.0**  
 Wght Pipe Len **0**

Elevation **1831.00** Kelley Bushings **1940.00**

Formation **Arbuckle**  
 Interval Top **4376.0** Bottom **4387.0**  
 Anchor Len Below **11.0** Between **0**  
 Total Depth **4387.0**

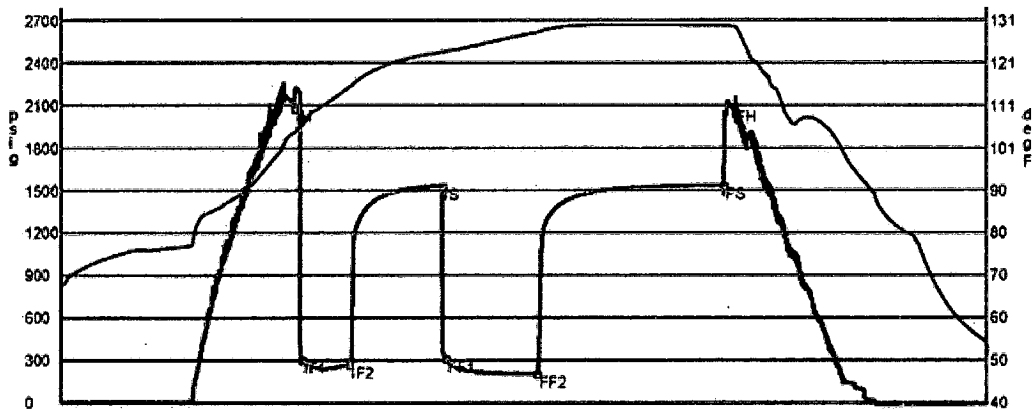
Start Date/Time **4/14/2008 5:13 PM**  
 End Date/Time **4/15/2008 3:00 AM**

Blow Type **Weak surface blow at the start of the initial flow period, building to 5 inches. Weak surface blow back during the initial shut-in period that lasted about 13 minutes. Weak surface blow at the start of the final flow period, but building reaching the bottom of the bucket in 47 1/2 minutes. Weak surface blow back during the final shut-in period, that built to 1 1/2 inches in 10 minutes. The blow ended about 35 minutes. Times 30, 60, 60, 120. Oil Gravity: 39.**

**RECOVERY**

Feet	Description	Gas	Oil	Water	Mud
485	Gas in pipe	100% 485ft	0% 0ft	0% 0ft	0% 0ft
25	Clean oil	0% 0ft	100% 25ft	0% 0ft	0% 0ft
120	Slight oil, very heavy mud cut water	0% 0ft	1% 1.2ft	59% 70.8ft	40% 48ft
180	Very slight (trace) oil, slight mud cut water	0% 0ft	trace	94% 169.2ft	6% 10.8ft

DST Fluids **44000**



Date	Time	Pressure	Temp	
4/14/2008 7:39:00 PM	2.433333	2079.301	104.096	Initial Hydro-static
4/14/2008 7:43:45 PM	2.5125	306.186	105.767	Initial Flow (1)
4/14/2008 8:13:45 PM	3.0125	268.876	114.839	Initial Flow (2)
4/14/2008 9:12:45 PM	3.995833	1529.796	123.148	Initial Shut-In
4/14/2008 9:15:00 PM	4.033333	312.304	123.293	Final Flow (1)
4/14/2008 10:13:15 PM	5.004167	203.012	127.851	Final Flow (2)
4/15/2008 12:12:00 AM	6.983333	1532.012	129.503	Final Shut-In
4/15/2008 12:18:45 AM	7.095833	2078.111	129.212	Final Hydro-static

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Company Captiva Energy, LLC  
 Address P.O. Box 1213  
 CSZ Hays, KS 67601  
 Attn. Adam Kennedy

Lease Name JD Chemical  
 Lease # 1-23  
 Legal Desc See Comments Job Ticket 2030  
 Section 23 Range 13W  
 Township 26S  
 County Pratt State KS  
 Drilling Cont Sterling Drilling Co. Rig #4

Comments Legal Description: 785' FSL & 1400' FEL

**GENERAL INFORMATION**

Test # 0 Test Date 4/15/2008  
 Tester Tim Venters  
 Test Type Conventional Bottom Hole  
 Successful Test

Chokes 3/4 Hole Size 7 7/8  
 Top Recorder # W1022  
 Mid Recorder #  
 Botl Recorder # 13565

# of Packers 2.0 Packer Size 6 3/4

Mileage 20 Approved By  
 Standby Time 0  
 Extra Equipmnt Jars, Safety Joint, Cir. pin  
 Time on Site 11:00 AM  
 Tool Picked Up 1:00 PM  
 Tool Layed Dwn 10:20 PM

Mud Type Gel Chem  
 Mud Weight 8.9 Viscosity 52.0  
 Filtrate 12.0 Chlorides 18000

Elevation 1931.00 Kelley Bushings 1940.00

Drill Collar Len 218.0  
 Wght Pipe Len 0

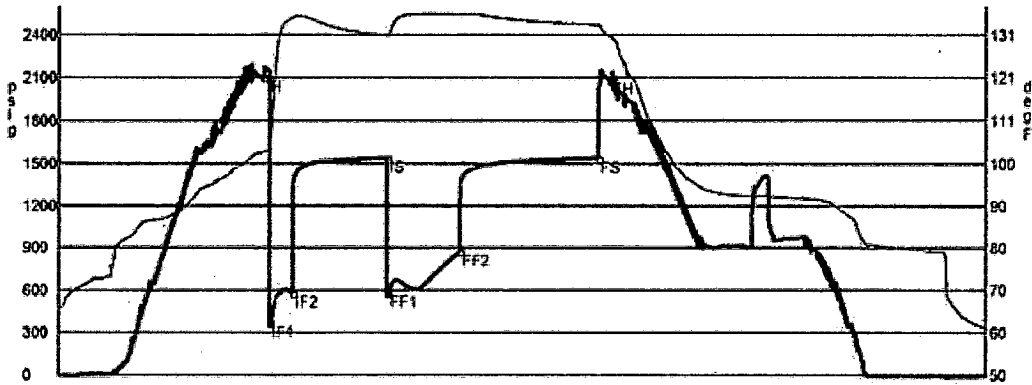
Start Date/Time 4/15/2008 12:33 PM  
 End Date/Time 4/15/2008 10:37 PM

Formation Arbuckle  
 Interval Top 4395.0 Bottom 4410.0  
 Anchor Len Below 15.0 Between 0  
 Total Depth 4410.0

Blow Type Strong blow throughout the initial flow period, reaching the bottom of the bucket in 4 minutes. Weak surface blow back throughout the initial shut-in period. Fairly strong blow at the start of the final flow period, building to 12 inches in 5 minutes. It held there till the 20 minute mark, where it started to deplete; ending at 5 inches. Weak surface blow back throughout the final shut-in period. Times: 15, 62, 47, 90.

**RECOVERY**

Feet	Description	Gas	Oil	Water	Mud
110	Gas in pipe	100% 110ft	0% 0ft	0% 0ft	0% 0ft
500	Very slight oil, very heavy water cut mud	0% 0ft	1% 5ft	43% 215ft	56% 280ft
1155	Very slight oil cut water	0% 0ft	1% 11.6ft	99% 1143.4ft	0% 0ft
245	Mud cut water	0% 0ft	0% 0ft	83% 203.4ft	17% 41.6ft



	Date	Time	Pressure	Temp	
IH	4/15/2008	2:44:15 PM	2,187.5	103.264	Initial Hydro-static
IF1	4/15/2008	2:48:30 PM	2,258.333	103.823	Initial Flow (1)
IF2	4/15/2008	3:03:30 PM	2,508.333	134.814	Initial Flow (2)
IS	4/15/2008	4:05:00 PM	3,533.333	130.676	Initial Shut-In
FF1	4/15/2008	4:05:30 PM	3,541.667	130.512	Final Flow (1)
FF2	4/15/2008	4:52:45 PM	4,329.167	135.585	Final Flow (2)
FS	4/15/2008	6:23:00 PM	5,833.333	133.203	Final Shut-In
FH	4/15/2008	6:31:00 PM	5,956.667	208.434	Final Hydro-static

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**ROCK TYPES**

**LITHOLOGY**

- Anhy
- Bent
- Brec
- Cht
- Clyst
- Coal
- Congl
- Dol
- Gyp
- Igne
- Lmst
- Meta
- Mrlst
- Salt
- Shale
- Shcol
- Shgy
- Sltst
- Ss
- Till
- Sltstn
- Shale
- Sandylms
- Lms
- Gry sh
- Dtd
- Dol
- Carb sh
- pipesymbol

- unknown lith
- Red shale

**FOSSIL**

- Oomoldic
- Fuss
- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite
- Ostra
- Pellec
- Pellet
- Pisolite
- Strom

**MINERAL**

- Silty

- Sand
- Dol
- Chlorite
- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Brecfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil

- S
- X

**STRINGER**

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**TEXTURE**

- BS
- C
- CX
- E
- FX

- Sulphur
- Tuff

- Red shale
- Sh
- Sandylms
- Lms
- Grysit
- Grysh
- Dol
- Clystn
- Carbsh
- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg

**TEXTURE**

- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln

- GS
- L
- MX
- MS
- PS
- WS

- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

**OIL SHOW**

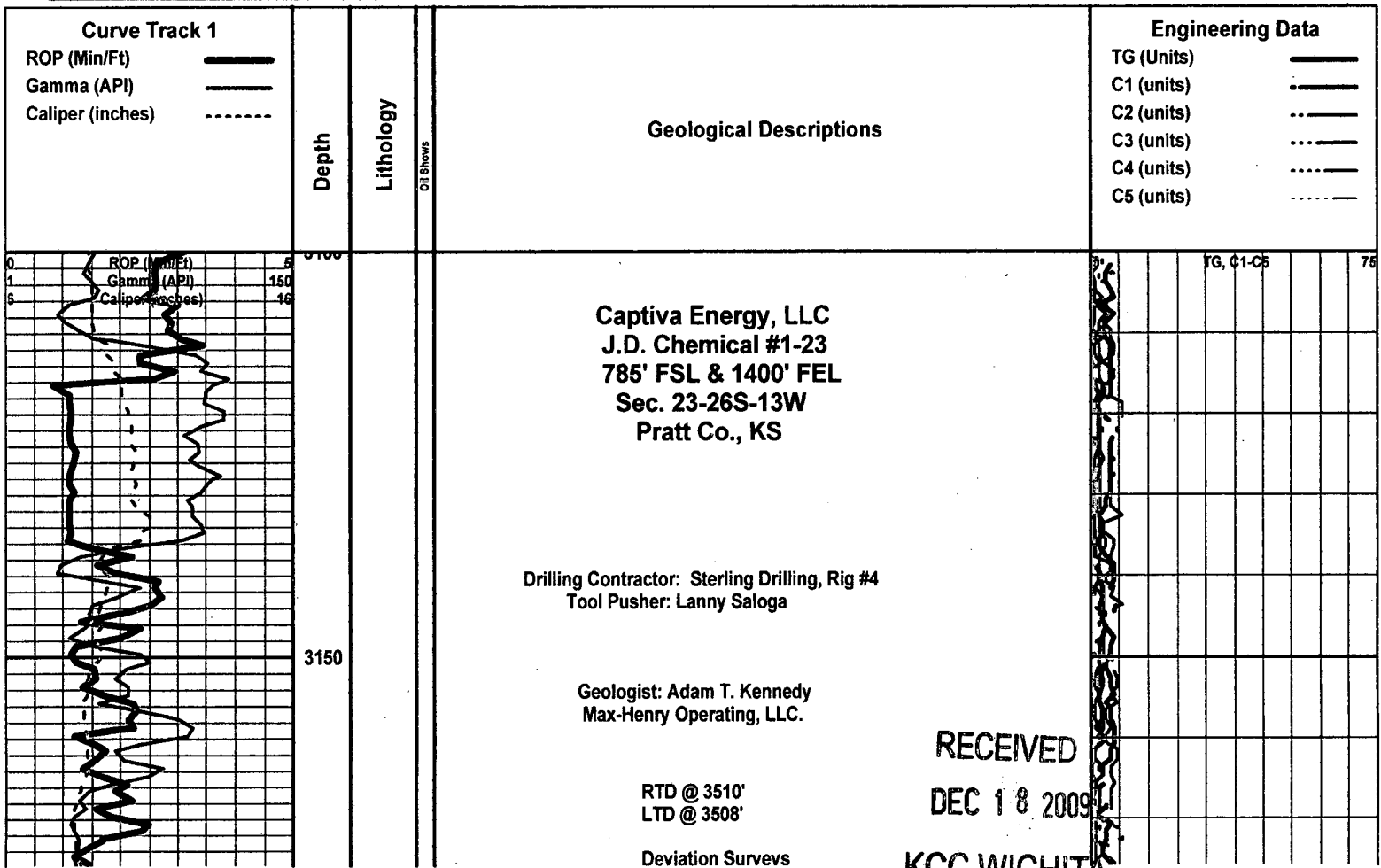
- Gas show
- Good
- Fair
- Poor
- Dead

**INTERVAL**

- Dst
- Core
- Dst
- Straddle test t

**EVENT**

- Rft
- Sidewall
- Dst
- Open hole
- Perforations

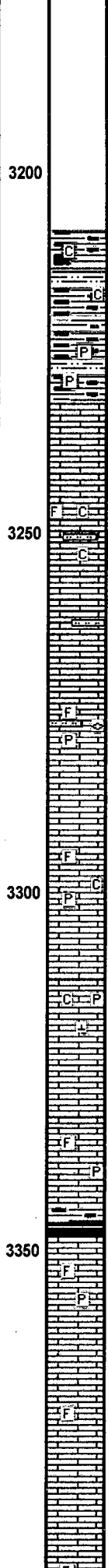
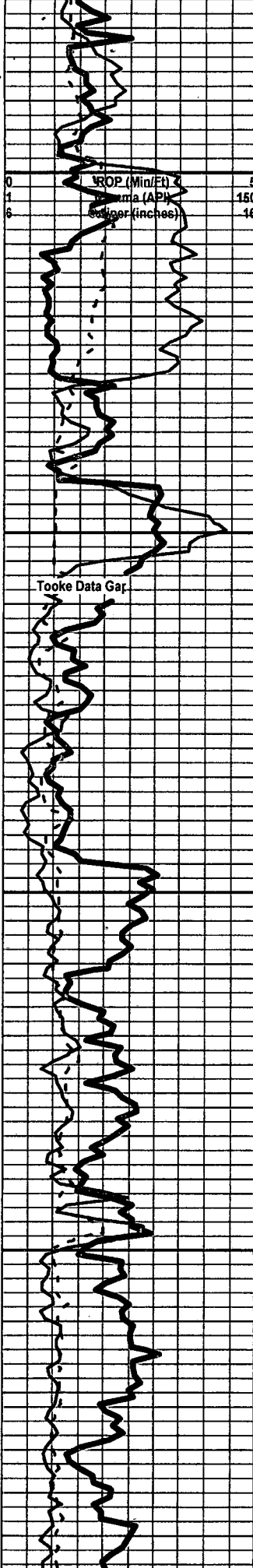


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3805' 1 deg  
 4195' 1 deg  
 4510' 1 deg



**Severy Shale 3208 (-1268)**

Shales: gray brick red slight green, blocky micaceous, scattered silty shales and limestones, chalky most samples wash gray red.

Shales: gray red, increase in siltstones abundant micas, large pyrite inclusions. Decrease in chalky residue and sample wash.

**Topeka 3229 (-1289)**

Limestone: white cream gray, lithographic - micro xln, soft samples, fossiliferous (broken fossil hash) 5% samples dead black stain with small gas bubbles when broken, very slight scattered pinpoint porosity, overall porosity very poor. Very weak fl no odor. With: scattered chalk, large sandy siltstones, abundant micas, pyrite.

Limestone: white cream gray, lithographic to micro xln, more dense, fossiliferous (broken hash with large fusulinids), 5% samples dead black stain, over porosity very poor, no visible shows. With: increase chalky residue, scattered sandy siltstones gray micaceous pyrite,

Geologist, Adam T. Kennedy on location @ 13:00 hrs

Limestone: white cream gray, lithographic to fine xln, dense, fossiliferous (mostly hash), stain gone heavy cementation in porosity voids, overall porosity very poor, no visible shows. Still carrying abundant micaceous siltstones, chalky residue, pyrite.

Limestone: cream light brown gray, lithographic to micro xln, more dense, fossiliferous (hash), 10% samples dead black stain, abundant cementation in porosity voids, no visible porosity or shows. Scattered large calcite crystal inclusions, with shales siltstones as above.

Limestone: cream brown gray, lithographic to micro xln, dense, fossiliferous (hash), 5% samples dead black stain, overall porosity very poor. With shales siltstones as above.

**King Hill 3345 (-1405)**

Limestone: cream brown gray, lithographic cpvt xln, dense, fossiliferous hash with fusulinids, 5% samples dead black stain, still very poor porosity, no visible shows. Shales siltstones as above, decrease in chalk.

Limestones as above, slight increase in porosity (vuggy with interxln), decrease in chalk and shales

TG, C1-C5 76

Lighter test

Tooke Data Gas

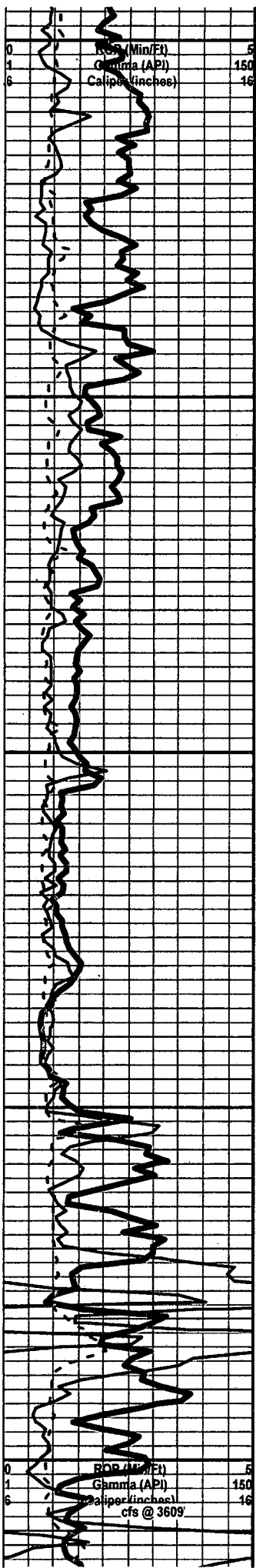
Mud-Co Mud Ck @ 3372'  
 1200 hrs 4.08.08  
 Vis 48 Wt 8.9  
 PV 11 YP 23  
 WL 9.6  
 Cake 1/32  
 PH 10.5  
 CHL 8,000 ppm  
 Cal 80  
 Sol 3.8  
 LCM: 0 #/bbi  
 DMC: \$ 1,798.79  
 CMC: \$ 6,037.64

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Limestone: white cream brown gray, micro-fine xln, fossiliferous (broken hash), softer samples break



easily along crystal planes, increase in vuggy interxn porosity, no visible shows noted. With sand and gray black specked micaceous siltstones.

FG, C1-C5 75

Limestones as above. No visible porosity or shows.

Limestone: cream light gray, micro-fine xln, fossiliferous (fusulinids to broken hash), soft samples increase in vuggy interxn porosity, no visible shows noted. With gray micaceous sandy siltstones increase in chalky residue and soft chert.

Limestone: cream light brown to greenish-gray, micro-fine xln, decrease in fossils, scattered poor visible porosity, no shows. With siltstones as above, pyrite, chalk chert.

Limestone: white cream, lithographic - fine xln, decrease in fossils, samples more dense, decrease porosity, no visible shows. Increase in chert as above.

Limestone: white cream, micro-fine xln, scattered few fossils, increase in vuggy inter xln porosity, samples dead brown/black stain, few bleed gas bubbles. No other shows noted. Continued increase in chert. With siltstones pyrite.

Limestone: white cream, micro-fine xln, scattered poor inter xln porosity, no visible shows noted. Chert pyrite siltstones as above.

Limestone as above, slight increase in fossils, decrease in chert.

Limestone: white cream brown, very few fossils, scattered poor inter xln porosity, most samples so friable, increase in chert chalky residue. Decrease in shales and siltstones.

Limestone: white cream, micro-fine xln, barren of fossils, very poor interxn porosity, very soft chert samples. Decrease in shales siltstones.

Limestone: white cream gray, micro-fine xln, barren of fossils, similar porosity, decrease in chalk.

Limestones as above, continued decrease in chert and chalk, no shows or porosity worth noting.

**Heebner 3571 (-1631)**

Shale: black carbonaceous blocky dense

Heebner kick, adjusted AV

**Toronto 3587 (-1647)**

Limestone: brown gray, lithographic - micro xln, hard dense samples, fossiliferous (broken hash), very poor porosity, no visible shows

Limestone: brown gray tan, lithographic - micro xln, less dense, fossiliferous, sharp increase in chert white, very poor porosity, no shows noted.

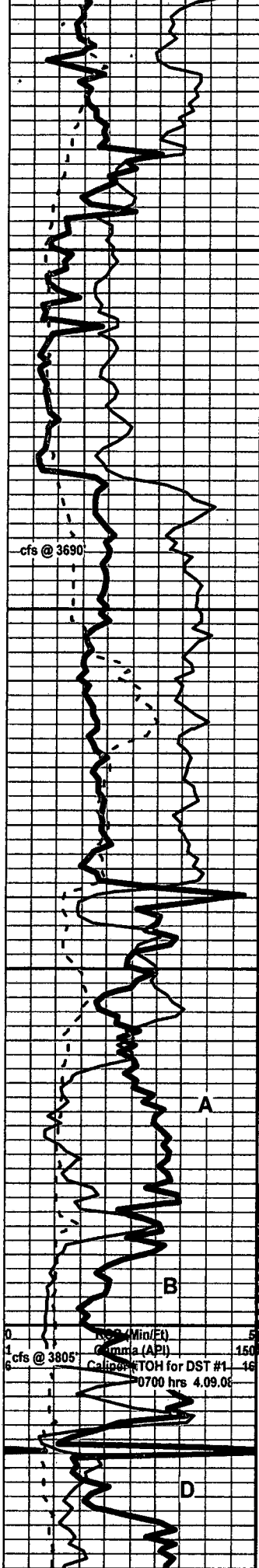
FG, C1-C5 75

**Douglas Shale 3609 (-1669)**

Shales: green red mostly gray, blocky silty some dense

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Shales as above, still carrying abundant limestone from above.

Shales: light to dark gray, with siltstones gray micaceous. Sandstone stringers quartz, dense hard, dirty micaceous, some bleed gas bubbles, porosity poor, no other shows noted.

12u kick

**Upper Douglas 3637 (-1697)**

Sandstone: light gray to green, micro-fine grained, dense to friable, micaceous, grains sub-angular sub-rounded, poorly sorted, overall intergranular porosity poor, poor fl, no visible shows noted. Carrying shale from above.

3650

Sandstone: light gray, micro-fine grained, dense some friable, scattered micas, grains sub-round slightly sub-angular, moderately sorted, overall porosity poor, 10% samples bleed gas bubbles and very clear scum of oil on water in tray. Very poor fl no odor, shales siltstones from above.

10u kick

**Lower Douglas 3681 (-1741)**

Shales: green gray blocky dense to waxy micaceous silty, similar to upper douglas shale. Samples chalky wash gray slightly.

3700

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Shales as above.

Shales as above.

**Brown Lime 3737 (-1797)**

Short trip @ 3742'

Limestone: white tan brown, crypto-micro xln, dense hard, fossiliferous, poor overall porosity, no visible shows, shales as above.

3750

Shales: green gray, soft waxy, samples wash reddish gray, chalky.

**Lansing 3757 (-1817)**

Limestone: cream to light brown, micro - fine xln, heavily fossiliferous, scattered rexln, some slight pinpoint inter-fossiliferous vuggy poro, but overall poro poor. Slight odor, weak fl. Samples slight chalky.

Mud-Co Mud Ck @ 3806'  
0700 hrs 4.09.08  
Vis 47 Wt 9.1  
PV 10 YP 27  
WL 9.6  
Cake 1/32  
PH 10.6  
CHL 8,000 ppm  
Cal 80  
Sol 5.2  
LCM: 0 #/bbl  
DMC: \$ 621.6  
CMC: \$ 6,559.24

**Lansing B 3787 (-1847)**

Limestone: cream to brown, lithographic to micro xln, fossiliferous, slight rexln, 5% samples good vuggy interxln porosity with very clear/light oil and bleeding gas under lamp, good odor and fl. Decrease in chalk and shale.

Gas kick 50u

Limestone: white cream brown, lithographic to micro xln, fossiliferous, scattered good rexln, <5% samples good vuggy interxln porosity with slight show free clear oil and gas bubbles, with light br stain, good odor and fl. Continued decrease in chalk and shale.

Resume drilling 0300 hrs 4.10.01

Deviation Survey @ 3805' 1deg  
Strap .93' short to board

Poor sample quality, shale stuff, pulverized samples

Limestone: white cream light brown, lithographic - fine xln, scattered fossils, samples vary from sucrosic to very crystalline, 5% good vuggy interxln porosity with excellent rexln and stain in the vugs. Very faint odor, bright fl in vugs. Some samples chalky wash gray.

gas kick 25u

3805  
1 cfs @ 3805'  
Caliper TOH for DST #1 - 16  
0700 hrs 4.09.08

D  
S  
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1

KCC WICHITA

Mud-Co Mud Ck @ 3882'  
0700 hrs 4.10.08  
Vis 40 Wt 9.0  
PV 8 YP 12  
WL 11.2  
Cake 1/32  
PH 10.6  
CHL 9,000 ppm  
Cal 80  
Sol 4.5  
LCM: 0 #/bbl  
DMC: \$ 725.02  
CMC: \$ 7,284.28

Footage correction

20u kick

Data gap while rig was down

questionable kicks, did not recycle

Note: replaced Gas Detector Unit during DST #2. Old gas kicks will not be a valid comparison to new gas kicks.

Scale Change

FG, C1-C5

200

40u kick

FG, C1-C5

20u kick

shale kick

Mud-Co Mud Ck @ 4054'  
0805 hrs 4.14.08

3850

3900

3950

4000

4050

Limestone: white tan brown, lithographic - micro xln, fossiliferous (broken hash), scattered poor pinpoint vuggy porosity, samples dense compact, no visible shows. Chalk decreasing, scattered blocky shales.

Limestone: white cream brown, micro-fine xln, fossiliferous, 5% samples good vuggy interxn porosity with rexln and stain in vugs, weak odor, scattered poor fl.

Limestone: white tan brown, lithographic to micro xln, abundant fossils, slight decrease in porosity very few samples light brown stain, bleed gas bubbles, no free oil, no odor, weak fl.

Limestone: white cream brown, lithographic micro xln, decrease in fossils, porosity. Scattered poor pinpoint porosity, no visible shows noted. Slightly chalky.

Limestone: cream brown, cryptoxin lithographic, abundant fossils (broken hash) some ooc, dense compact, scattered poor pinpoint porosity, no shows, still chalky in parts.

Limestone: white cream brown, lithographic - micro xln, fossiliferous some ooc, overall porosity very poor, 5% samples dead black stain, slight fl, chalky.

Lansing H 3916 (-1976)

Limestone: white cream tan, micro-fine xln, fossiliferous oomoldic, excellent vuggy oom/ooc interxn porosity with good stain and 2ndary rexln in porosity, samples bleed gas and light free oil when broken, fair odor and good fl. Slightly chalky.

Limestone: white cream, micro-fine xln, fossiliferous oomoldic bioclastic, excellent large vugs with oom porosity, rexln with brown stain in porosity, bleeds light oil and gas when broken, weak odor with good fl. Decrease in chalk.

Limestone: white cream tan - micro-fine xln, slight decrease in fossils, slight decrease in porosity as shows from above. Still good oom vuggy porosity with less rexln. 5% rocks bleed slight oil gas.

Limestone: white cream brown, micro-fine xln, fossiliferous bioclastic oomoldic, excellent large vug oomoldic porosity with slight scattered rexln in vugs, good staining along with light brown oil and gas bubbles.

Limestone: white cream light gray, micro-fine xln, fossiliferous oom/ooc, excellent porosity as above decrease in rexln, some samples sucrosic in texture with bleeding oil and gas under lamp, faint odor faint fl.

Resume drilling 0400 hrs 4.11.08

Limestone: cream to dark gray, crypto-micro xln, decrease in fossils, dense compact, very poor porosity, no visible shows or odor.

Limestone: white cream tan, crypto-micro xln, 5% samples fair interxn pinpoint porosity and dark brown stain, no free oil or gas noted, very pale fl, slight odor. Slightly chalky, decrease in fossils.

Limestone: white light brown light gray, lithographic to micro xln, increase in fossils (well preserved fusilinids gastropods), overall porosity very poor dense compact, <5% dark brown stain along crystal planes, faint odor, no fl. Some samples slight cherty chalky.

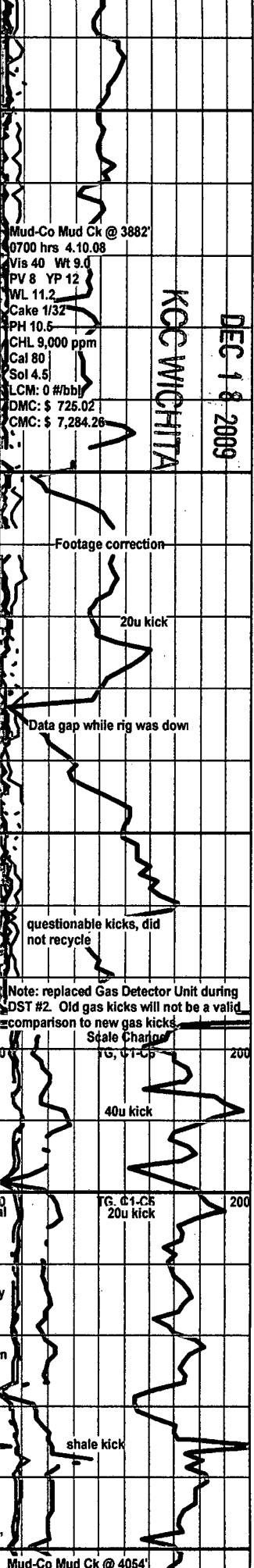
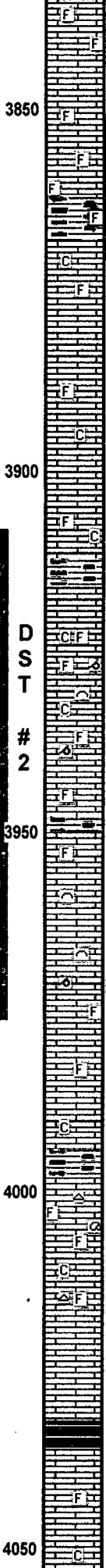
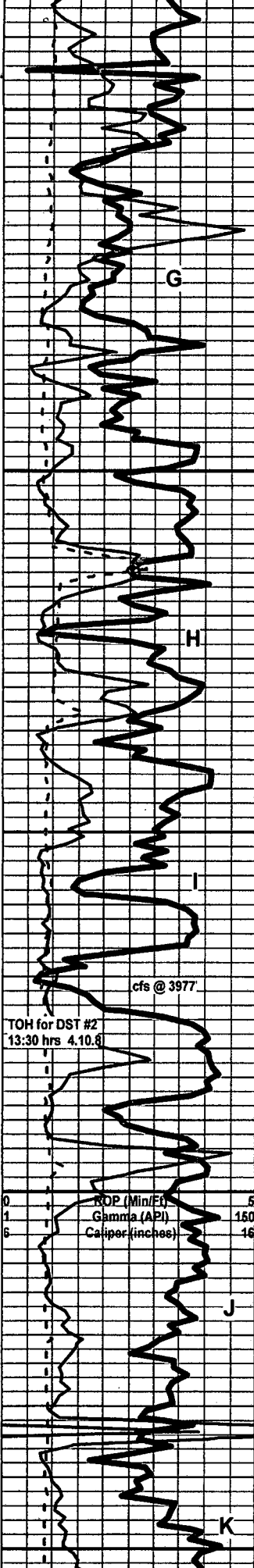
Limestone: white tan light gray, crystalline micro xln, less fossils, porosity still poor, <5% rocks brown stain with very slight free oil when broken, faint odor and poor fl, Increase in chert and chalky residue.

Limestone: white tan brown, micro xln, decrease in fossils, slight increase in porosity interxn pinpoint but overall porosity still poor, <5% rocks stain light brown have slight light oil when broken and bleed small gas bubbles, faint odor and fl. Decrease in chert and chalk.

Stark Shale 4032 (-2092)

Shale: black blocky hard carbonaceous

Limestone: white brown gray, micro-fine xln, scattered fossils, overall porosity poor, 20% samples pinpoint small vuggy porosity with slight show free clear oil, moderate odor, poor fl. Carrying chert, gray shales, slight chalky material.

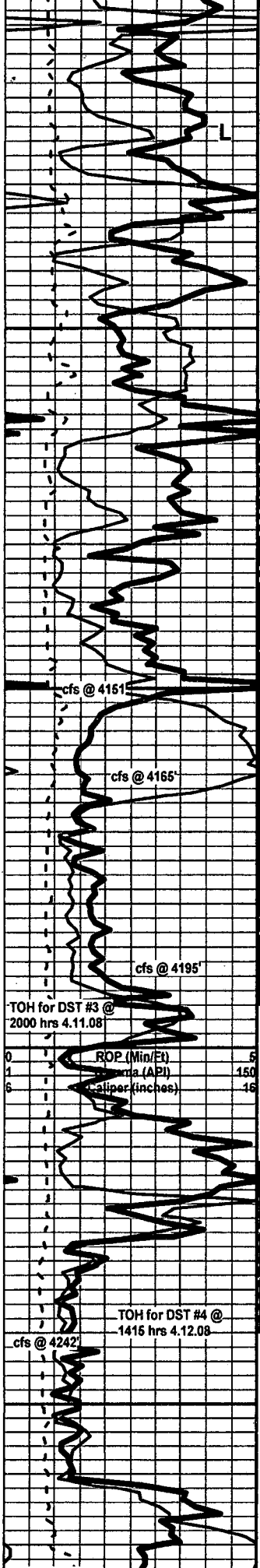


TOH for DST #2  
13:30 hrs 4.10.8

ROP (Min/Ft) 5  
Gamma (API) 150  
Caliper (inches) 16

cfs @ 3977

ROP (Min/Ft) 5  
Gamma (API) 150  
Caliper (inches) 16



Limestone: cream tan light gray, lithographic to micro xln, fossiliferous bioclastic, dense hard samples, 5% samples poor pinpoint porosity bleed slight clear oil and gas bubbles when broken. Carrying chert slight chalk pyrite.

**BKC 4079 (-2139)**

Shales: black blocky carbonaceous, gray dark gray soft waxy slightly micaceous, trace dirty gray silty shales.

Limestone: white cream to gray, lithographic cryptxln micro, decrease in fossils, overall porosity very poor, no visible shows, very faint odor. Decrease in chert chalk.

Limestone: white cream brown, crystalline cryptxln, dense compact, scattered fossiliferous hash, overall porosity very poor, couple samples pinpoint porosity with black stain, faint odor, few samples good fl. Scattered soft chert chalk wash gray with pyrite.

Limestone as above with additional dense crystalline chert-like limestone green clear pinkish, influx of chert pink green yellow some weathered.

Limestone as above with increasing chert pink green blue weathered, 50% chert deadk black stain, slight fl, very poor porosity, no shows or odor.

Chert: white brown pink blue, slightly weathered, very few samples display porosity, slight pinpoint with small gas bubbles and very slight free oil, some samples stain dark black around edges, with limestone as above

Limestone: as above with mixture of cherts dolomite stringers, shows and porosity as above, slight increase in gas bubbles, slight oil show in tiny porosity vugs.

**Basal Penn Conglomerate 4151 (-2211)**

Congl? : influx of shales gray black waxy, cherts clear yellow pink, good vuggy / pinpoint porosity 50% chert stained on edges in vugs bleeds slight oil, limestone and dolo as above some sucrosic with slight free oil and gas under lamp, fair odor, scattered poor to fair fl.

**Mississippian 4164 (-2224)**

Chert: white green brown black, weathered tripolitic, several samples excellent vuggy porosity with good show free light brown oil and gas bubbles in vugs almost "charcoal" like, several samples stained 25-50%. Faint sweet odor poor-fair!

Circ sample: Chert as above with increasing % of black tripolitic stained, continued good show free gas and porosity.

**Resume Drilling @ 1000 hrs 4.12.0**

Chert: white blue green, weathered to tripolitic, scattered samples stained on edges, some stained 100% with slight show free oil, with shales gray brick red blocky. Limestone micro xln clean no fossils dense compact becoming dolomitic, no visible shows, overall porosity poor.

Limestone: tan brown, lithographic-micro xln, dense compact, some fossiliferous, some dolomitic slightly sucrosic, with abundant chert, chert inclusions, bony white cream light pink, some have good vuggy porosity slightly tripolitic with stains in vugs and edges, no free oil or gas noted. With shales gray brick red blocky hard slightly micaceous.

**Viola 4226 (-2286)**

Chert: white gray opaque to black, 10% samples tripolitic with good vuggy porosity with dark black stain accompanied by good show free oil and gas bubbles, good odor with bright fl in porosity, also with chert stained along fractures and dolomitic chert sucrosic tan, micro xln with scattered vuggy porosity bleeds oil gas.

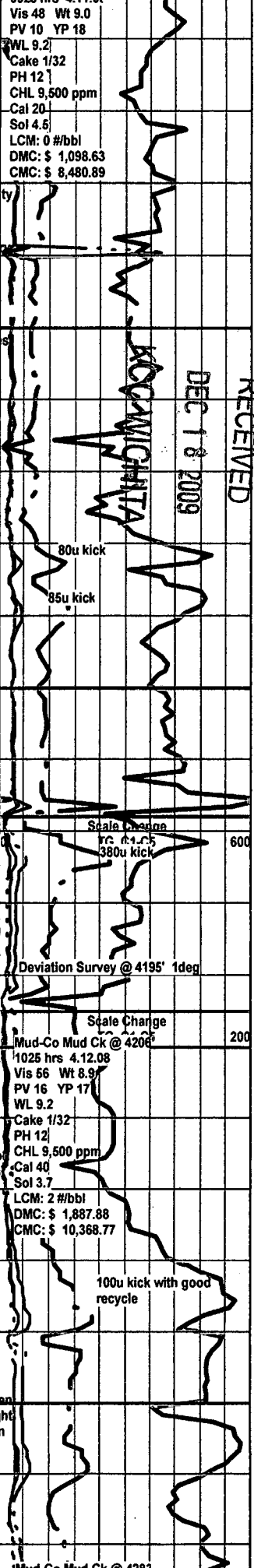
**Resume drilling 0400 hrs 4.13.08**

Chert: bony white cream opaque clean, sharp decrease in tripolitic texture, majority of samples barren with slight black stain on edges, no fossils. Some chert dolomitic, few samples heavily dolomitic light brown micro-fine xln with slight show free oil gas under lamp, moderate overall odor with bright fl on barren chert.

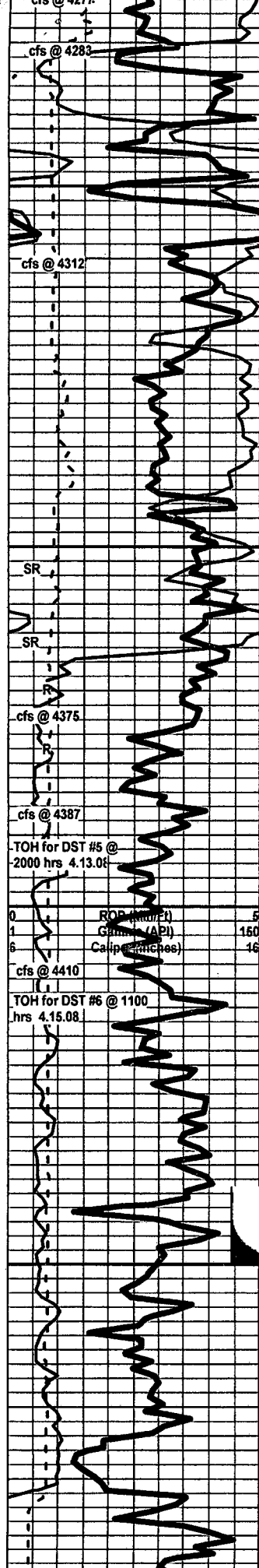
**Simpson Shale 4261 (-2321)**

Shales: green gray dark gray, varying blocky hard to soft and waxy, some slightly silty.

Shales: as above with abundant white opaque chert, some chert dolomitic with dolomitic shale fragments, some samples slightly granular, no shows free oil or gas, faint odor, good fl with chert. Scattered lime conglomerate sand grains, very poorly sorted, angular to rounded, inclusions



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Shales as above, with decreasing chert and increasing dolomitic material in chert, shale and limestone fragments. Scattered sand clusters, light brown to light green, quartz, poorly sorted, mostly sub-angular to sub-rounded, <1% grains slight stain dark brown, overall porosity very poor, matrix mostly dolomitic, slight scum oil in tray, faint odor, poor to fair fl, mainly in chert.

Shales as above with increasing sandstone stringers, light green clear, brown, sand stained with very poor intergranular vuggy porosity, some bleed slight brown oil. With scattered dolomitic chert fragments.

Shales as above, decrease in chert, increase in sandstone stringers gray green quartz stained brown to black, some bleed oil, overall porosity still very poor, with dolomite stringers light brown to dark brown argillaceous, micro xln, poor rhombic development, slight show free oil when broken.

Shales as above, increase in sandstone clusters, most very dense poor porosity with slight stain and slight free oil, scattered silty shales, increase in dolomitic sandstone stringers, brown stain, slight show free oil.

Same as above, increase in sandstone stringers, still dirty slight stained with oil, overall porosity still very poor.

Same, increasing shale, dolomite fragments, decrease in show and porosity.

**Arbuckle 4364 (-2424)**

Dolo: white cream light brown, micro to very fine xln, dense compact clean, trace slight brown stain overall porosity very poor, slight odor and i

Dolo: white cream light brown, micro-fine xln few coarse, slightly fossiliferous, most poor-fair developed rhombs <10% samples sucrosic, poor to fair interxln vuggy porosity with scattered rexin good show free oil and gas under lamp, good odor and fl in porosity

Resume drilling @ 0700 hrs 4.15.08

Dolomite: white cream light brown, fine-coarse xln, increase in fossils oom, heavily recrystallized along crystal planes in porosity, overall porosity poor to fair inxln very few vugs, some samples friable slightly sucrosic, poor to fair show very clear free oil under high power when broken, accompanied by gas bubbles, very little staining, very faint odor, good bright yellow fl in 50% samples.

Resume drilling @ 0300 hrs 4.16.05

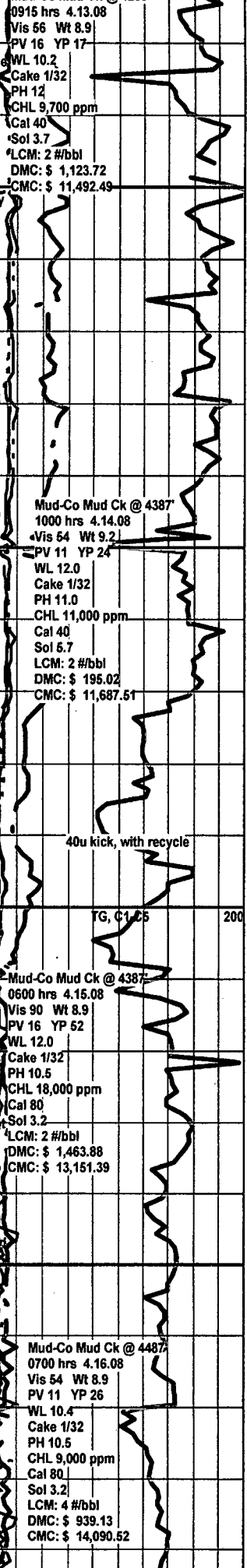
Dolomite: white cream, fine-med xln, decrease in fossiliferous material, sub-rhombic to slightly sucrosic, decrease in rexin but still abundant along crystal planes, porosity very poor heavily re-cemented, <5% samples have small vugs and slight inxln porosity, yellow fl, <1% samples slight light brown stain, slight show free oil and gas when under heat for 5 mins, very faint odor.

Dolomite as above but cleaner, more barren, porosity decreasing, most samples large crystals but not in porosity, samples becoming more dense less friable, no shows, no odor, slight fl.

Dolomite, very white cream light tan, fine-coarse xln, barren no fossils, sub-rhombic, heavily rexin re-cemented, some crystal faces blurred / hard to make out even under high power. Slight porosity with vugs and along fracture planes, no staining, <1% samples slight sheen clear oil under lamp, no odor, slight fl.

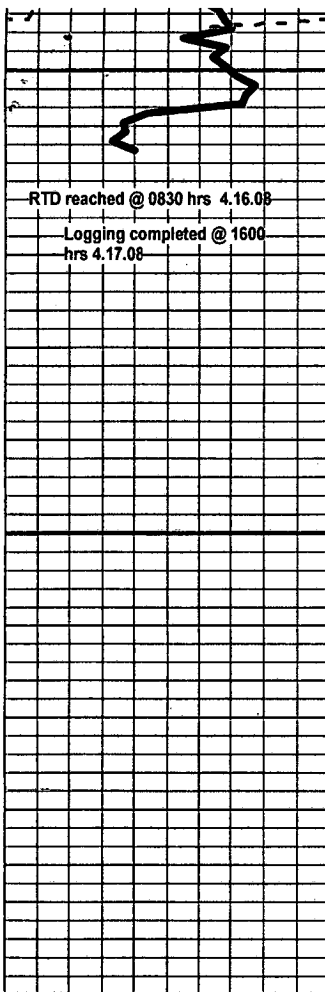
Dolomite: white cream light brown, micro-fine xln, very few fossils, sub-rhombic slight sucrosic, still abundant rexin with heavy cementation in porosity, samples more dense, less friable, no shows or odor.

Dolomite as above, increase in porosity, large vugs with good interxln porosity no shows no odor.



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KCC WICHITA



4500  
 4550  
 4600



Dolomite as above, slightly darker, finer grained, less porosity, no odor no shows.

LTD 4508 (-2568)  
 RTD 4510 (-2570)


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