



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1213707  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

Form must be Typed  
Form must be Signed  
All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

- New Well       Re-Entry       Workover
- Oil       WSW       SWD       SIOW
- Gas       D&A       ENHR       SIGW
- OG       GSW       Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic       Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

- Deepening       Re-perf.       Conv. to ENHR       Conv. to SWD
- Plug Back       Conv. to GSW       Conv. to Producer
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - \_\_\_\_\_

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

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE       NW       SE       SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27       NAD83       WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ 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

(Data must be collected from the Reserve Pit)

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite:

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

1213707

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops 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.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Electric Log Run	<input type="checkbox"/> Yes <input type="checkbox"/> No			
List All E. Logs Run:				

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

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				

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

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

TUBING RECORD:      Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

Date of First, Resumed Production, SWD or ENHR. \_\_\_\_\_ Producing Method:  
 Flowing    Pumping    Gas Lift    Other *(Explain)* \_\_\_\_\_

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Baird Oil Company LLC
Well Name	David Worcester Unit 1-13
Doc ID	1213707

Tops

Name	Top	Datum
Anhydrite	1790	+375
Base Anhydrite	1821	+344
Topeka	3157	-992
Heebner	3366	-1201
Toronto	3389	-1224
Lansing	3406	-1241
Base Kansas City	3597	-1432
Arbuckle	3762	-1597
Total Depth	3793	-1628





Global Cementing LLC

18048 I-70 Road  
Russell, KS 67665

# Invoice

Date	Invoice #
5/12/2014	1325

<b>Bill To</b>
BAIRD OIL COMPANY LLC PO BOX 428 LOGAN,KS 67646

P.O. No.	Terms	Project
DAVID WORCES...	Net 30	

Quantity	Description	Rate	Amount
160	COMMON	15.50	2,480.00
6	CALCIUM	53.00	318.00
4	GEL	23.50	94.00
170	HANDLING	2.10	357.00
	BULK MILEAGE	455.60	455.60
1	TRI-PLEX PUMP CHARGE FOR SURFACE	1,050.00	1,050.00
67	PUMP TRUCK MILEAGE	6.50	435.50
67	PICKUP	2.50	167.50
	DEDUCT 15% FROM TOTAL IF PAID WITHIN 30 DAYS OF INVOICE GRAHAM CO	7.15%	0.00
	<p style="text-align: center;">R 5/20/2014 P 5/20/2014 David W 190402 5357.60 David Worcester Unit 1-13 - Pump charge, Cement &amp; other misc used to cement surface casing</p>		
		5/21/2014 CK#14469	

Thank you for your business.

Phone #	Fax #	E-mail
785-324-2658	785-445-3526	

**Total** \$5,357.60



# GLOBAL CEMENTING, L.L.C.

1325

REMIT TO 18048 170RD  
RUSSELL, KS 67665

SERVICE POINT Russell, KS

DATE <u>5-12-14</u>	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START <u>5:15pm</u>	JOB FINISH <u>5:45pm</u>
LEASE <u>David Worcester</u>	WELL #. <u>1-13</u>		LOCATION			COUNTY <u>Grohan</u>	STATE <u>KS</u>
OLD OR <input checked="" type="radio"/> NEW (CIRCLE ONE)							

CONTRACTOR WOW Drilling

TYPE OF JOB Surface

HOLE SIZE 12 1/4 T.D. 220

CASING SIZE 8 5/8 DEPTH 210

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. 20ft

PERFS

DISPLACEMENT 1234

EQUIPMENT

PUMP TRUCK CEMENTER Heath

# P1 HELPER Cody

BULK TRUCK DRIVER Brad

# B1

BULK TRUCK DRIVER

OWNER

CEMENT AMOUNT ORDERED 160sx com 3% gel

COMMON @

POZMIX @

GEL @

CHLORIDE @

ASC @

HANDLING @

MILEAGE @

TOTAL

REMARKS:

Ran 5 JTS of 8 5/8 casing and landing it

Est Circulation with mud pump

Hook up and mix 160sx and disp 1234661

to 420 - shut in @ 300psi

Cement did circulate

CHARGE TO: Baird Oil

STREET

CITY STATE ZIP

SERVICE

DEPTH OF JOB

PUMP TRUCK CHARGE

EXTRA FOOTAGE @

MILEAGE 67 @

MANIFOLD @

TOTAL

Global Cementing, L.L.C.,  
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) 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 and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Calvin Phamendiel

SIGNATURE Calvin Phamendiel

PLUG & FLOAT EQUIPMENT

@

@

@

@

@

TOTAL

SALES TAX (If Any)

TOTAL CHARGES

DISCOUNT IF PAID IN 30 DAYS



Global Cementing LLC

18048 I-70 Road  
Russell, KS 67665

# Invoice

Date	Invoice #
5/17/2014	1336

<b>Bill To</b>
BAIRD OIL COMPANY LLC PO BOX 428 LOGAN,KS 67646

P.O. No.	Terms	Project
DAVID WORCES...	Net 30	

Quantity	Description	Rate	Amount
153	COMMON	15.50	2,371.50
102	POZ	8.50	867.00
9	GEL	23.50	211.50
64	FLO-SEAL	2.00	128.00
264	HANDLING	2.10	554.40
	BULK MILEAGE	696.96	696.96
1	TRI-PLEX PUMP CHARGE FOR PLUG	1,200.00	1,200.00
66	PUMP TRUCK MILEAGE	6.50	429.00
66	PICKUP	2.50	165.00
	8 5/8 WOOD PLUG	57.50	57.50
	DEDUCT 15% FROM TOTAL IF PAID WITHIN 30 DAYS OF INVOICE GRAHAM CO	7.15%	0.00

*R 5/29/2014*  
*P 5/30/2014*  
*David W 190402 6680.86*  
*David Worcester unit 1-13 - Pump charge,*  
*Cement & other misc. used to plug well*

Thank you for your business.

Phone #	Fax #	E-mail
785-324-2658	785-445-3526	

**Total** \$6,680.86



# GLOBAL CEMENTING, L.L.C.

1336

REMIT TO 18048 170RD  
RUSSELL, KS 67665

SERVICE POINT:

DATE <u>5-17-14</u>	SEC. <u>13</u>	TWP. <u>7S</u>	RANGE <u>22W</u>	CALLED OUT	ON LOCATION <u>12:00 a.m.</u>	JOB START <u>1:30</u>	JOB FINISH <u>5:30</u>
LEASE <u>David Worcester</u>	WELL #. <u>1-13</u>	LOCATION			COUNTY <u>Graham</u>	STATE <u>KS</u>	
OLD OR <input checked="" type="radio"/> NEW (CIRCLE ONE)							

CONTRACTOR WA #12

TYPE OF JOB Rotary Plug

HOLE SIZE 7 7/8 T.D. \_\_\_\_\_

CASING SIZE \_\_\_\_\_ DEPTH \_\_\_\_\_

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

DRILL PIPE 4 1/2 DEPTH 3795'

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

PRES. MAX \_\_\_\_\_ MINIMUM \_\_\_\_\_

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

CEMENT LEFT IN CSG. \_\_\_\_\_

PERFS \_\_\_\_\_

DISPLACEMENT \_\_\_\_\_

EQUIPMENT \_\_\_\_\_

PUMP TRUCK # 1 CEMENTER \_\_\_\_\_ HELPER \_\_\_\_\_

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

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

OWNER Baird Oil

CEMENT AMOUNT ORDERED 255 64/40 4% Gel

14 1/2 sks Flo-seal

COMMON 153 @ \_\_\_\_\_

POZMIX 102 @ \_\_\_\_\_

GEL 9 @ \_\_\_\_\_

CHLORIDE @ \_\_\_\_\_

ASC @ \_\_\_\_\_

Flo-Seal 64 lbs. @ 6 \_\_\_\_\_

HANDLING @ \_\_\_\_\_

MILEAGE @ \_\_\_\_\_

TOTAL \_\_\_\_\_

REMARKS:

50 sks @ 3740'

25 sks @ 1807'

100 sks @ 1807'

40 sks @ 269'

10 sks @ 40'

30 sks - Rot hole

255 sks

SERVICE

DEPTH OF JOB \_\_\_\_\_

PUMP TRUCK CHARGE \_\_\_\_\_

EXTRA FOOTAGE @ \_\_\_\_\_

MILEAGE 66 @ \_\_\_\_\_

MANIFOLD @ \_\_\_\_\_

TOTAL \_\_\_\_\_

CHARGE TO: Baird Oil Company

STREET \_\_\_\_\_

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

PLUG & FLOAT EQUIPMENT

8 3/8 Plug @ \_\_\_\_\_

@ \_\_\_\_\_

@ \_\_\_\_\_

@ \_\_\_\_\_

@ \_\_\_\_\_

TOTAL \_\_\_\_\_

Global Cementing, L.L.C.,  
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) 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 and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Calvin P. ...

SIGNATURE Calvin P. ...

SALES TAX (If Any) \_\_\_\_\_

TOTAL CHARGES \_\_\_\_\_

DISCOUNT \_\_\_\_\_ IF PAID IN 30 DAYS



## DRILL STEM TEST REPORT

Prepared For: **Baird Oil Comapny LLC**

PO Box 428  
Logan KS 67646

ATTN: Rich Bell

**13-07s-22w Graham,KS**

**David Worcester Unit #1-13**

Start Date: 2014.05.16 @ 16:44:20

End Date: 2014.05.16 @ 22:29:40

Job Ticket #: 58935                      DST #: 1

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.05.20 @ 11:56:27

Baird Oil Comapny LLC

David Worcester Unit #1-13

13-07s-22w Graham,KS

DST # 1

LKC F&G

2014.05.16



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Baird Oil Company LLC

**David Worcester Unit #1-13**

PO Box 428  
Logan KS 67646

**13-07s-22w Graham,KS**

ATTN: Rich Bell

Job Ticket: 58935

**DST#: 1**

Test Start: 2014.05.16 @ 16:44:20

## GENERAL INFORMATION:

Formation: **LKC F&G**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:18:40

Time Test Ended: 22:29:40

Test Type: Conventional Straddle (Initial)

Tester: Tate Lang

Unit No: 49

**Interval: 3460.00 ft (KB) To 3504.00 ft (KB) (TVD)**

Reference Elevations: 2165.00 ft (KB)

Total Depth: 3795.00 ft (KB) (TVD)

2157.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

**Serial #: 8898 Outside**

Press@RunDepth: 70.53 psig @ 3463.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.16

End Date:

2014.05.16

Last Calib.:

2014.05.16

Start Time: 16:44:21

End Time:

22:29:40

Time On Btm:

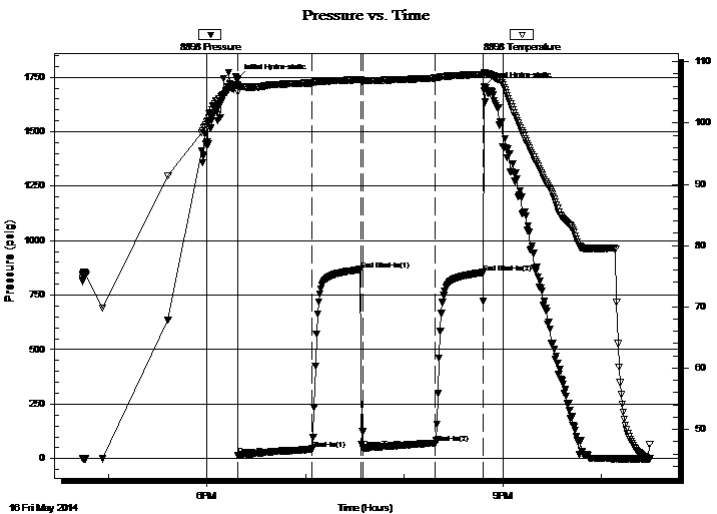
2014.05.16 @ 18:18:30

Time Off Btm:

2014.05.16 @ 20:48:30

**TEST COMMENT:** Weak surface blow built to 2 3/4"  
Dead no blow back  
Weak surface blow built to 1/4 in  
Dead no blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1742.42	106.21	Initial Hydro-static
1	14.85	105.06	Open To Flow (1)
46	43.05	106.55	Shut-In(1)
75	867.45	107.09	End Shut-In(1)
77	48.32	106.89	Open To Flow (2)
121	70.53	107.33	Shut-In(2)
150	853.94	107.94	End Shut-In(2)
150	1707.25	108.16	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	WCM 10%W 90%M	0.61

## Gas Rates

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



**TRILOBITE TESTING, INC**

**DRILL STEM TEST REPORT**

Baird Oil Company LLC

**David Worcester Unit #1-13**

PO Box 428  
Logan KS 67646

**13-07s-22w Graham,KS**

ATTN: Rich Bell

Job Ticket: 58935      **DST#: 1**

Test Start: 2014.05.16 @ 16:44:20

**GENERAL INFORMATION:**

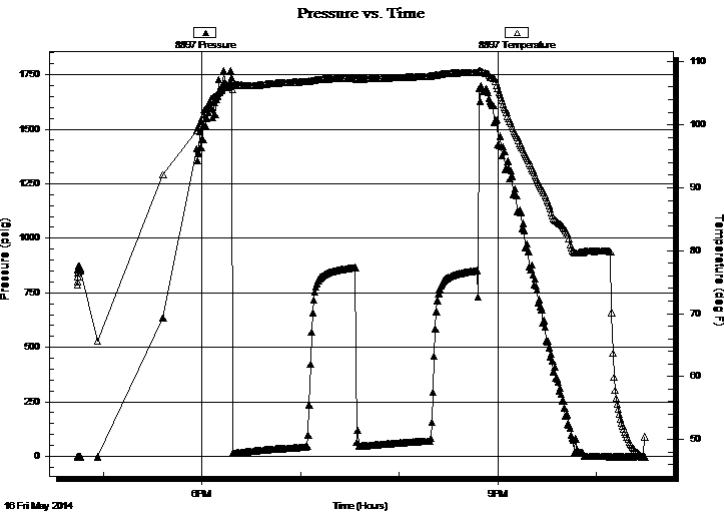
Formation: **LKC F&G**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 18:18:40  
 Time Test Ended: 22:29:40  
**Interval: 3460.00 ft (KB) To 3504.00 ft (KB) (TVD)**  
 Total Depth: 3795.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Straddle (Initial)  
 Tester: Tate Lang  
 Unit No: 49  
 Reference Elevations: 2165.00 ft (KB)  
 2157.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8897**

**Inside**

Press@RunDepth: psig @ 3463.00 ft (KB)  
 Start Date: 2014.05.16 End Date: 2014.05.16 Capacity: 8000.00 psig  
 Start Time: 16:44:13 End Time: 22:29:32 Last Calib.: 2014.05.16  
 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** Weak surface blow built to 2 3/4"  
 Dead no blow back  
 Weak surface blow built to 1/4 in  
 Dead no blow back



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

**Recovery**

Length (ft)	Description	Volume (bbl)
120.00	WCM 10%W 90%M	0.61

**Gas Rates**

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



**TRILOBITE TESTING, INC.**

## DRILL STEM TEST REPORT

Baird Oil Company LLC

**David Worcester Unit #1-13**

PO Box 428  
Logan KS 67646

**13-07s-22w Graham, KS**

ATTN: Rich Bell

Job Ticket: 58935

**DST#: 1**

Test Start: 2014.05.16 @ 16:44:20

### GENERAL INFORMATION:

Formation: **LKC F&G**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:18:40

Time Test Ended: 22:29:40

Test Type: Conventional Straddle (Initial)

Tester: Tate Lang

Unit No: 49

**Interval: 3460.00 ft (KB) To 3504.00 ft (KB) (TVD)**

Reference Elevations: 2165.00 ft (KB)

Total Depth: 3795.00 ft (KB) (TVD)

2157.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

**Serial #: 8354 Below (Straddle)**

Press@RunDepth: psig @ 3511.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.16

End Date:

2014.05.16

Last Calib.:

2014.05.16

Start Time: 16:44:34

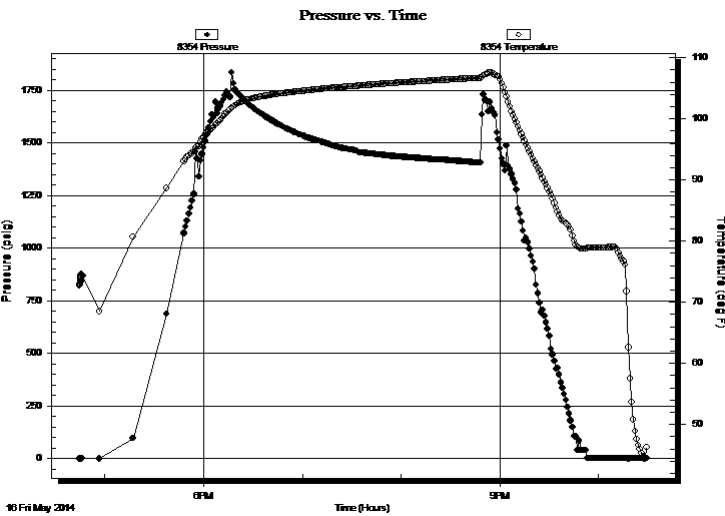
End Time:

22:29:33

Time On Btm:

Time Off Btm:

**TEST COMMENT:** Weak surface blow built to 2 3/4"  
Dead no blow back  
Weak surface blow built to 1/4 in  
Dead no blow back



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

### Recovery

Length (ft)	Description	Volume (bbl)
120.00	WCM 10%W 90%M	0.61

### Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Baird Oil Comapny LLC

**David Worcester Unit #1-13**

PO Box 428  
Logan KS 67646

**13-07s-22w Graham,KS**

Job Ticket: 58935

**DST#: 1**

ATTN: Rich Bell

Test Start: 2014.05.16 @ 16:44:20

## Tool Information

Drill Pipe:	Length: 3324.00 ft	Diameter: 3.80 inches	Volume: 46.63 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 118.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 47.21 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	3460.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	3504.00 ft			
Interval betw een Packers:	44.00 ft			
Tool Length:	365.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

**Length (ft) Serial No. Position Depth (ft) Accum. Lengths**

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3438.00	
Hydraulic tool	5.00			3443.00	
Jars	5.00			3448.00	
Safety Joint	2.00			3450.00	
Packer	5.00			3455.00	27.00 Bottom Of Top Packer
Packer	5.00			3460.00	
Stubb	1.00			3461.00	
Perforations	2.00			3463.00	
Recorder	0.00	8897	Inside	3463.00	
Recorder	0.00	8898	Outside	3463.00	
Change Over Sub	1.00			3464.00	
Drill Pipe	29.00			3493.00	
Change Over Sub	1.00			3494.00	
Perforations	5.00			3499.00	
Blank Off Sub	1.00			3500.00	
Blank Spacing	4.00			3504.00	44.00 Tool Interval
Packer	5.00			3509.00	
Stubb	1.00			3510.00	
Perforations	1.00			3511.00	
Recorder	0.00	8354	Below	3511.00	
Change Over Sub	1.00			3512.00	
Drill Pipe	282.00			3794.00	
Change Over Sub	1.00			3795.00	
Bullnose	3.00			3798.00	294.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>365.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Baird Oil Comapny LLC

**David Worcester Unit #1-13**

PO Box 428  
Logan KS 67646

**13-07s-22w Graham,KS**

Job Ticket: 58935

**DST#: 1**

ATTN: Rich Bell

Test Start: 2014.05.16 @ 16:44:20

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1900.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
120.00	WCM 10%W 90%M	0.608

Total Length: 120.00 ft      Total Volume: 0.608 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

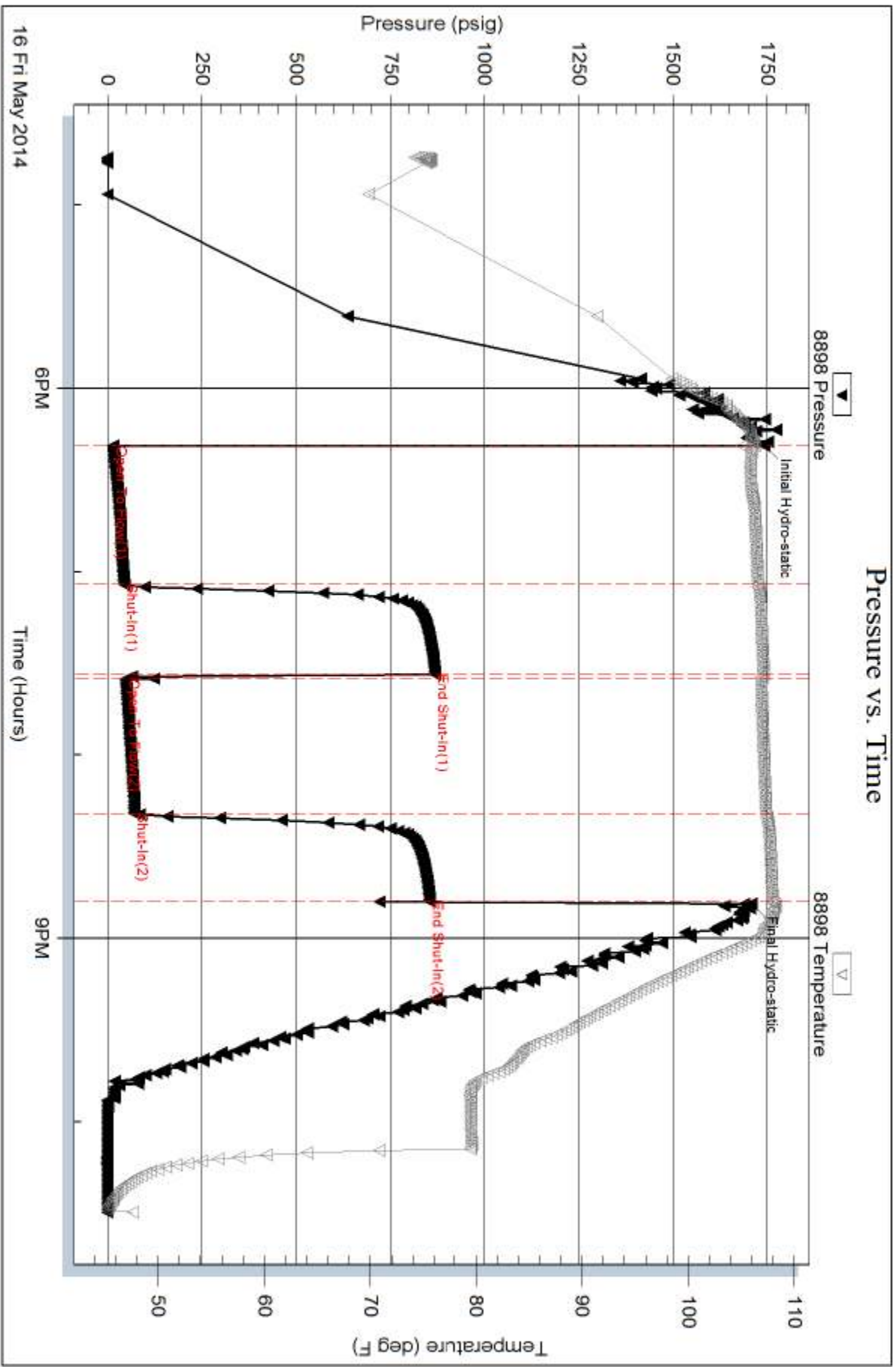
Recovery Comments:

Serial #: 8898

Outside Baird Oil Company LLC

13-07s-22w Graham,KS

DST Test Number: 1



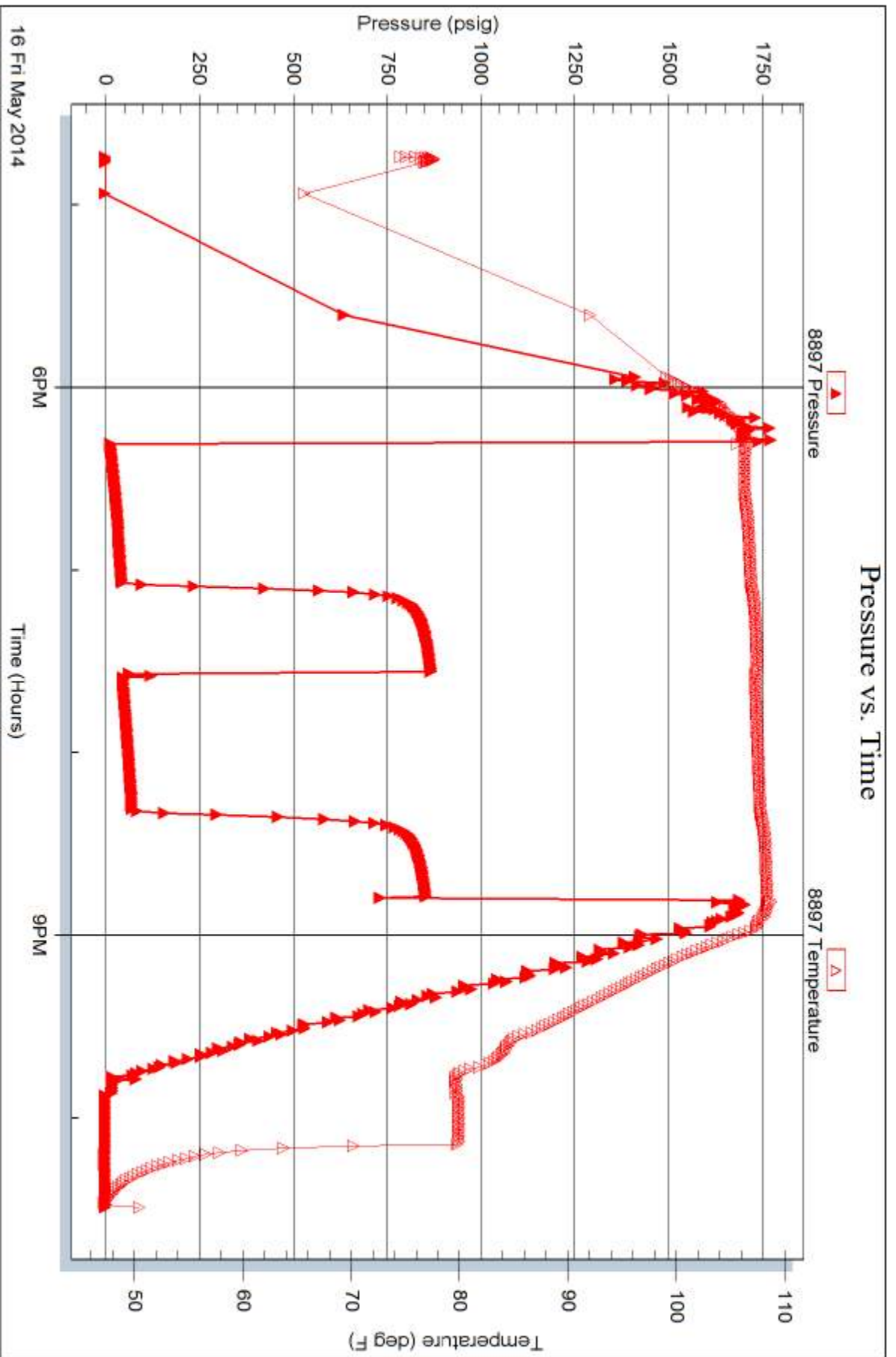
Serial #: 8897

Inside

Baird Oil Company LLC

13-07s-22w Graham,KS

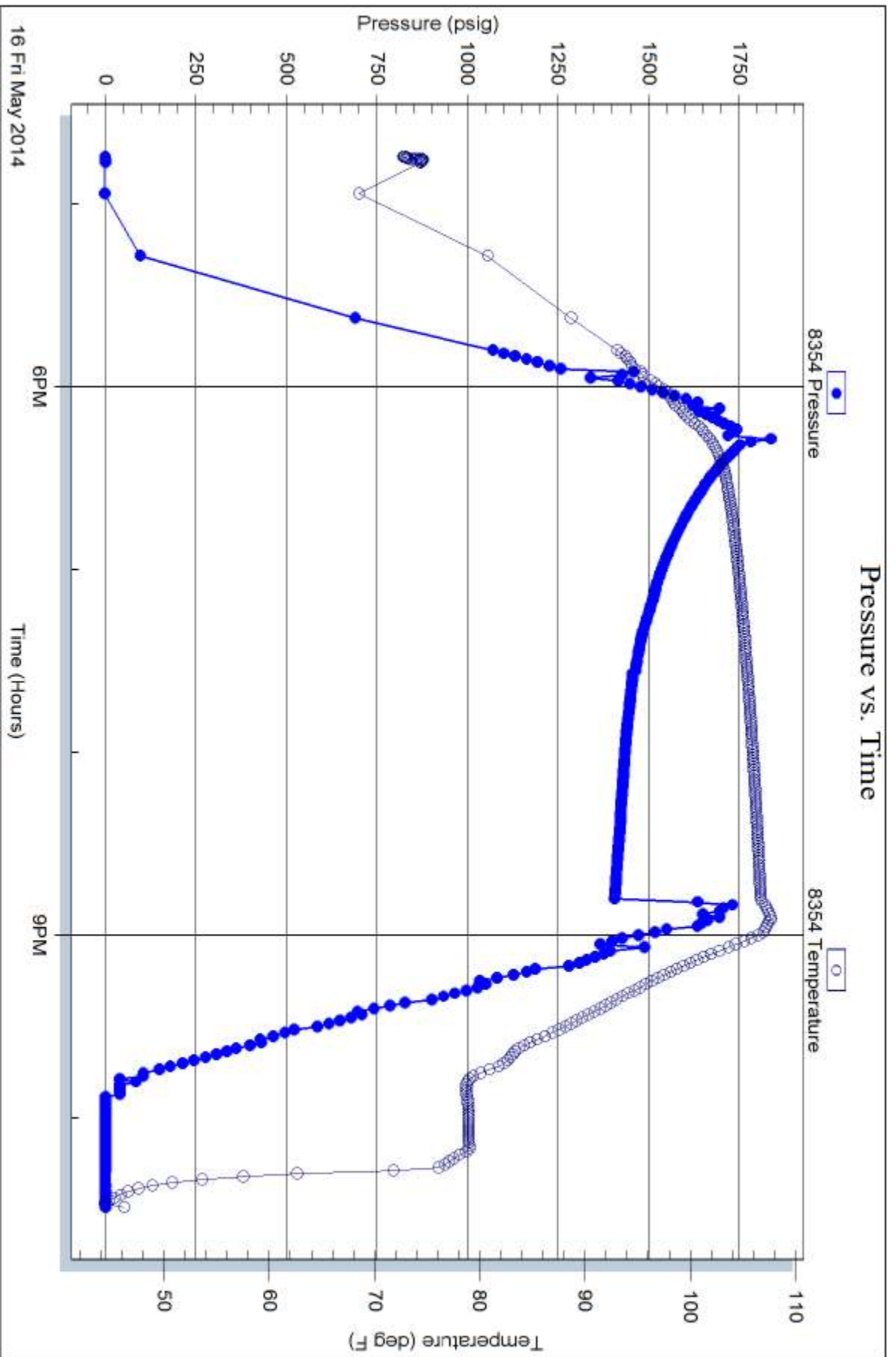
DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 58935

Printed: 2014.05.20 @ 11:56:28





APT# 15-265-24035-00-00

GEOLOGICAL REPORT  
DRILLING TIME AND SAMPLE LOG

COMPANY Baird Oil Company, LLC.  
 LEASE David Worcester Unit #1-13  
 FIELD Worcester East  
 LOCATION 2630'FNL 41725'FWL  
 SEC 13 TWSP 7s RGE 22w  
 COUNTY Graham STATE Kansas

ELEVATION  
 KB 2165'  
 DF 2163'  
 GL 2157'  
 Depths Measured From  
 Log KB Drilling KB

CONTRACTOR WWD Drilling Rig #12  
 SPUD 5-12-14 COMP 5-16-14  
 SAMPLES SAVED FROM 3100' TO R.T.D

CASING  
 Surface 8 5/8" @ 219'  
 Production none  
 ELECTRIC LOGS  
Nabors

FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	SAMPLE	E. LOG	DATUM <i>E-log</i>	A	B	C	D
<u>Anhydrite</u>	<u>1792</u>	<u>1790</u>	<u>+ 375</u>	<u>+ 373</u>			
<u>Base Anhydrite</u>	<u>1823</u>	<u>1821</u>	<u>+ 344</u>	<u>+ 342</u>			
<u>Topeka</u>	<u>3159</u>	<u>3157</u>	<u>- 992</u>	<u>- 986</u>			
<u>Heebner</u>	<u>3369</u>	<u>3366</u>	<u>- 1201</u>	<u>- 1193</u>			
<u>Toronto</u>	<u>3392</u>	<u>3389</u>	<u>- 1224</u>	<u>- 1215</u>			
<u>Lansing</u>	<u>3409</u>	<u>3406</u>	<u>- 1241</u>	<u>- 1232</u>			
<u>Base Kansas City</u>	<u>3600</u>	<u>3597</u>	<u>- 1432</u>	<u>- 1420</u>			
<u>Arbuckle</u>	<u>3765</u>	<u>3762</u>	<u>- 1597</u>	<u>- 1502</u>			
<u>Total Depth</u>	<u>3795</u>	<u>3793</u>	<u>- 1628</u>	<u>- 1528</u>			

REFERENCE WELLS

A Baird Oil Co., #1-13 Worcester Unit, 2290'FNL + 2500'FWL  
 B SEC 13-7s-22w  
 C  
 D



REMARKS

This well ran 9 feet lower on the Lansing top and 95 feet lower on the Albuckle top than the reference well. Considering the low structural position and the results of the Straddle test it was decided this well should be plugged and abandoned.

Richard B. Bell  
5-17-14

7502

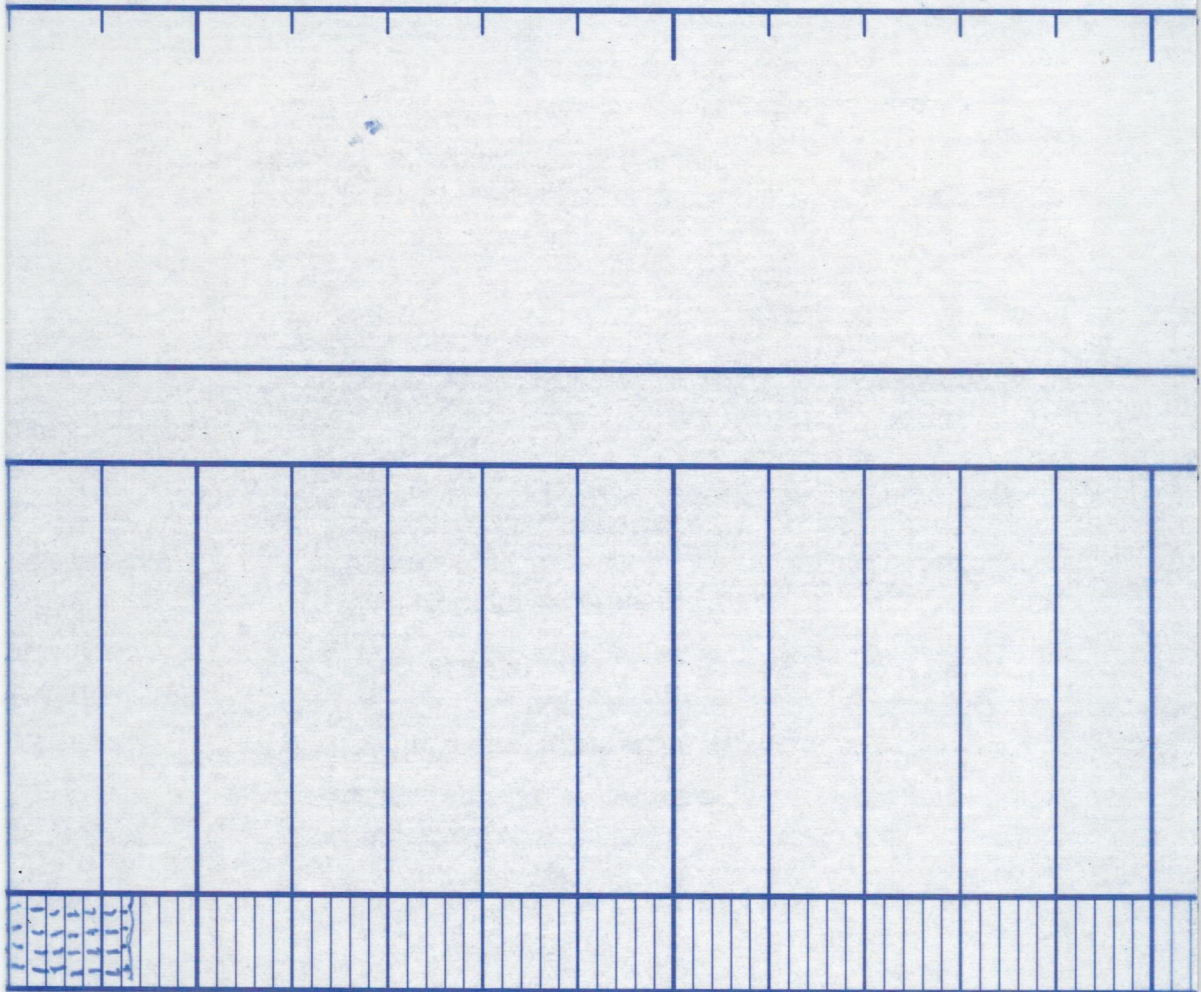
LEGEND

- Anhydrite
- Salt
- Sandstone
- Shale
- Carb sh
- Limestone
- Ool. Lime
- Chert
- Dolomite

DRILLING TIME IN MINUTES PER FOOT Rate of Penetration Decreases	DEPTH	LITHOLOGY	SAMPLE DESCRIPTIONS	OIL SHOWS	REMARKS
	1780  1800				

LOG 7710



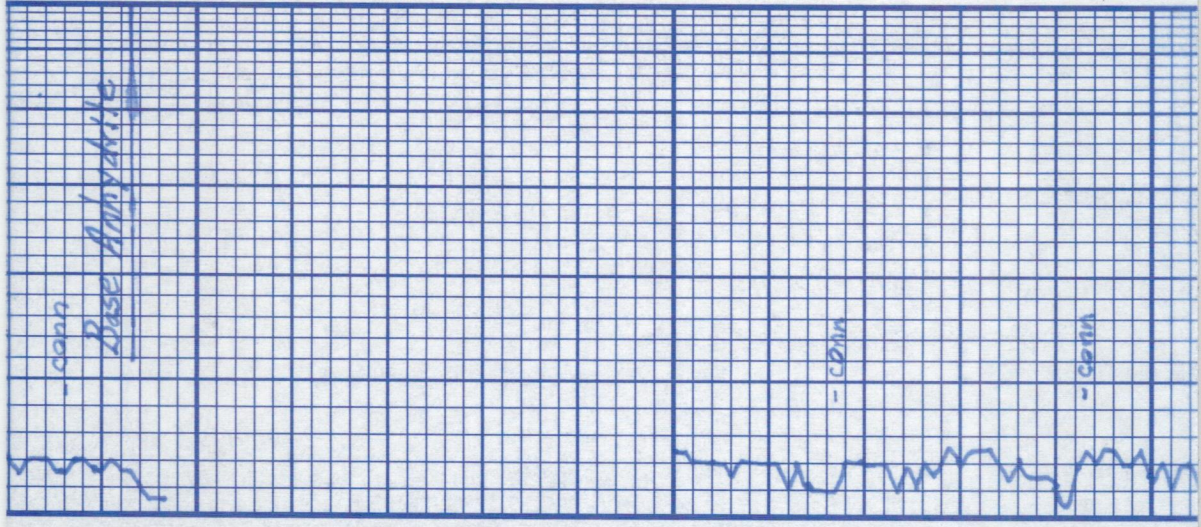


1820

3000

20

40



-CORN

Base Anhydride

-CORN

-CORN



Samples are logged  
good samples

			LS: tn-gry fs/f dns		LS: tn-gry fs/f dns		Sltstone: gry		LS: tn-gry fs/f dns
									LS: tn-gry fs/f dns
									5 ft stone: gry Tr 55 V. fn. gn. concol. ingran PNSD.
									LS: tn-gry fs/f dns
									sh: brn + gry

60

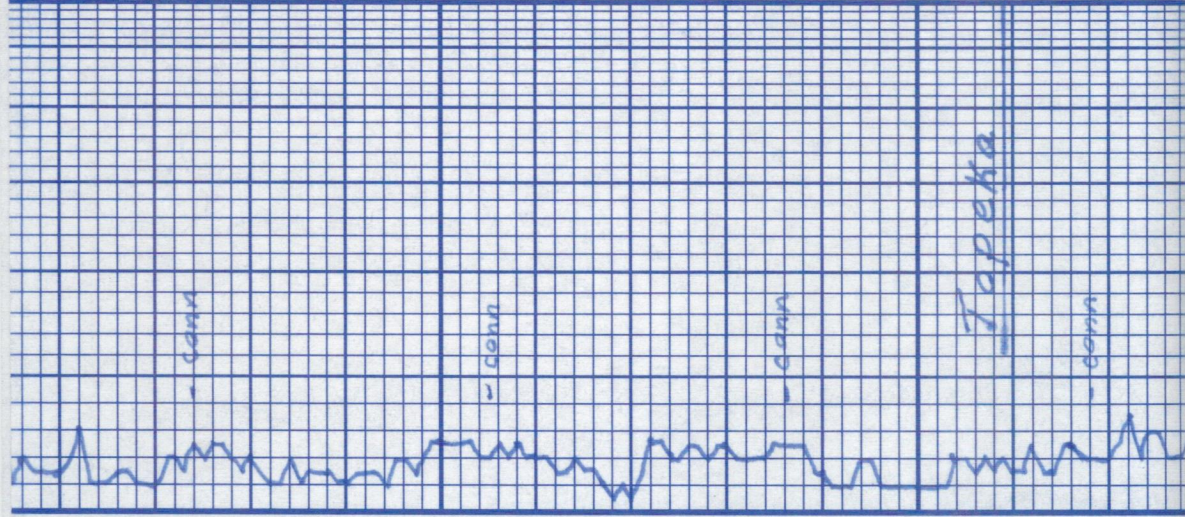
80

3100

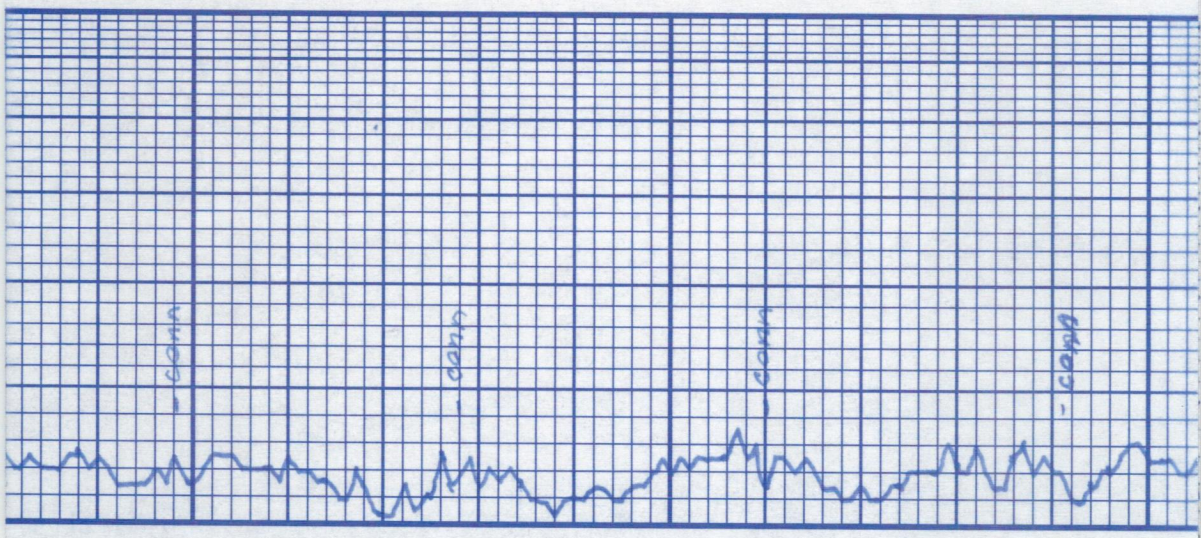
20

40

60







LS: wh. tn. fxln dns	0
LS: gry fsif dns	3200
LS: wh. tn. gry sl. Chy - fsif No vis @ N.S.O.	
LS: gry fsif dns	
LS: tn. gry fsif dns	20
LS: wh. tn. V. Chy - fsif N.S.O. - Δywh. tn.	
a.a.	
Chy Δyaa	40
LS: wh. tn. decr. Chy - fxln dns	
Sh: blk Carb.	60
LS: tn - brn mly fsif dns	
Siltstone: gry	
Siltstone: brn + gry	80
LS: wh. tn. fxln dns N.S.O.	
LS: tn. gry fsif dns	3300
Sh: brn	



15: wh-tn fcln sli 001-sub  
 001 dns N.S.O.  
 Sh: blk Carb  
 AS: tn fslf dns  
 ✓

15: wh-tn cky-fcln pp  
 1 PC- w/aspl spks  
 Δ tn  
 15: wh-tn fslf dns  
 Sh: brn

15: wh-tn - Lt. gry cky-fslf  
 Pr. pp Δ wh-gry N.S.O.

a.a. - decr. Δ

Sh: Blk Carb.  
 15: tn fslf dns.

Sh: gry Sltty + brn

15: wh-tn fcln sli 001 pr.  
 pp N.S.O. Δ wh-tn

15: wh-tn sli. cky-fcln  
 001-sub. 001 pp N.S.O.

15: wh-tn fcln dns

20

40

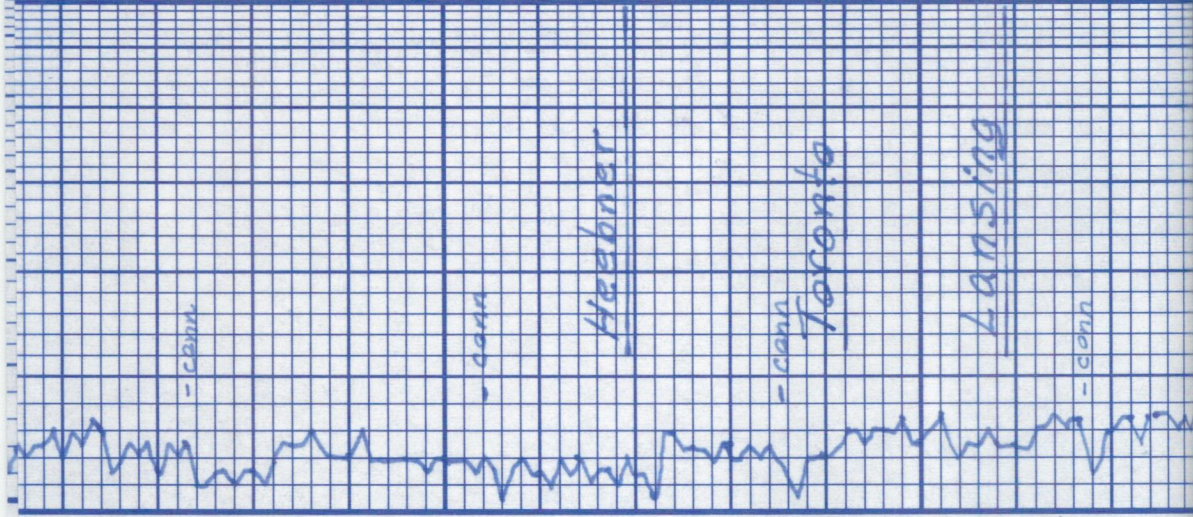
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80

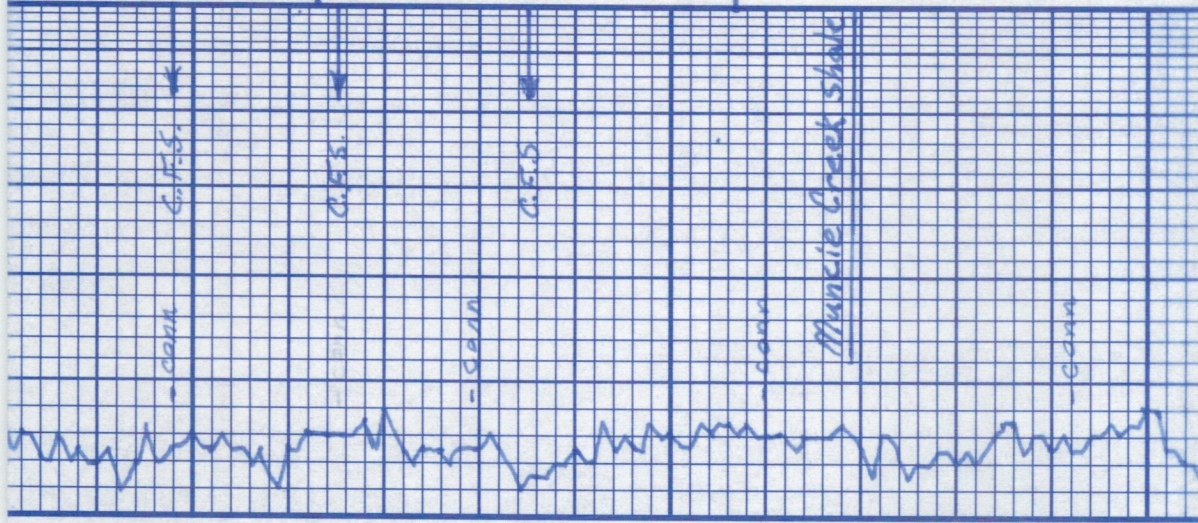
3400

'A'

20



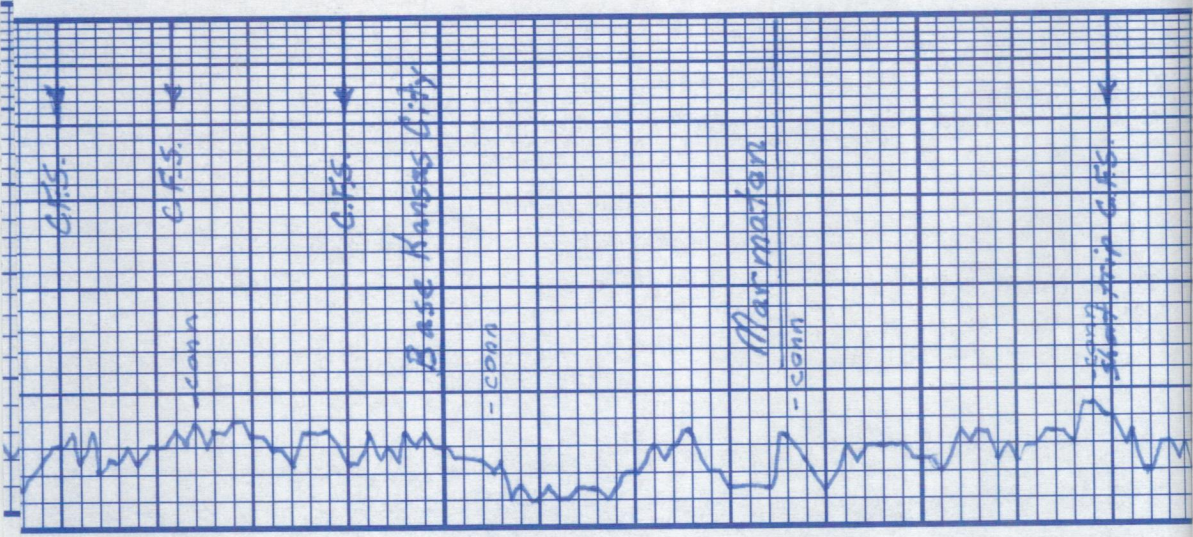




LS: gry fslf dns Sh: gry + brn	LS: wh-tn cky-fxn pph Tr Sl: vgy sp blk Tary - asph 5th N.F.O. No odor	Sh: gry + brn	LS: wh-tn fxl n dns Tr tary 0 5th Det. tn fxl n, meta p	LS: wh-tn fxl n dns N.S.O.	LS: wh-tn sl: cky-fxl n ool w/ fss incl. in part of Lt. Spid 0 5th N.F.O. No odor	LS: wh-tn slicky-fxl n dns Δ gry	LS: wh-tn sl: cky-fxl n dns	Sh: blk Carb LS: tn-gry fslf dns. sh: brn + gry	LS: wh-tn fxl n - Tr sli ool Tr vgy sp Tr Lt Spid 0 5th Tr pph 0 No odor	LS: tn-gry fslf dns sh: brn slicky	LS: wh-tn fxl n - sli: fslf Tr.
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Trilobite Testing  
 Test interval corrected to Rotary depths  
 DST # 1 3460'-3504'  
 Straddle Test  
 45-30-45-30  
 IF: wk blow incr. to 2 3/4"  
 FF: 1/4" blow  
 Recovery: 120' wcm  
 10% w, 90% m  
 HYD: 1742-1707 #  
 FP: 15-43 / 48-70 #  
 BHP: 867-854 #  
 BHTemp: 107°F.





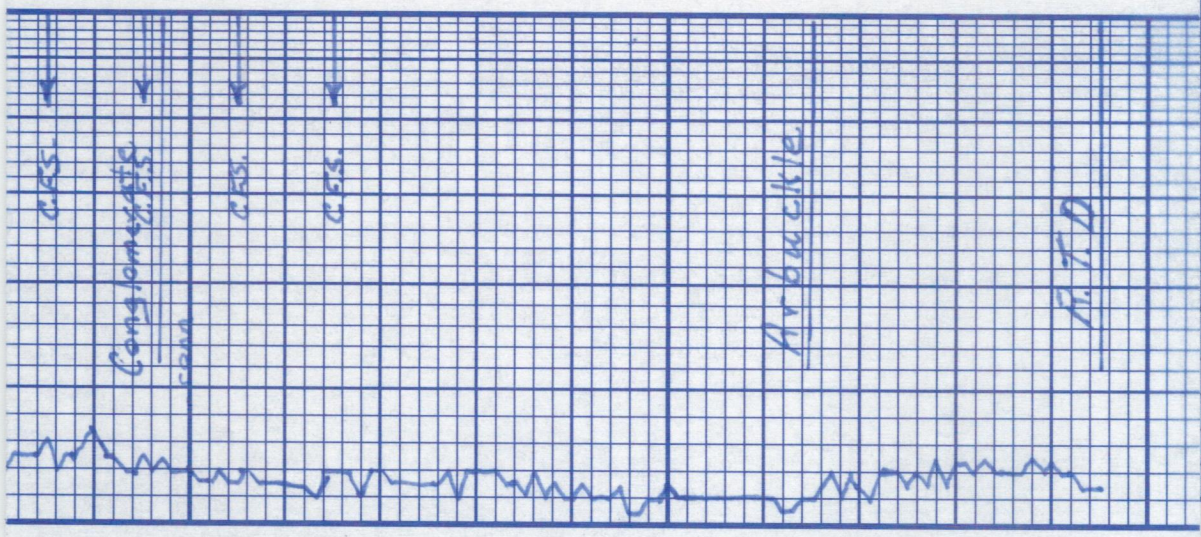
60	I	790' pr 4' 9" stn. Tr. pp floatin F.O. V. fr odor
80	'J'	LS: wh-tn sli. cky-fxln Tr pr. Fr & pr. LS. Sp'd 0.5tn Tr Small pp F.O. No odor Sh: brn + gry
3600	'K'	LS: wh-tn sli. cky-fxln RT. sli. ool. dns drk blk sp'd 0.5tn N.F.O. No odor LS: wh-tn sli. cky-fxln dns Sh: brn sily
20		Sh: brn sily
40		LS: wh-tn cky-fxln dns N.S.O. Sh: brn + gry
60		LS: wh-tn fxln sub ool. dns N.S.O. Sh: brn sily
80		SS: cir-frosted th. gn Concol ingran & Tr drk 0.5tn N.F.O. sky LS: wh-tn fxln sli cky in part of Tr pr Lt 0.5tn Sh: brn + gry, dr, wh-brn LS: wh-tn fxln dns

✓

✓

✓





Sh: brn, yel, gry		
Sh: a. Tr Δ tn-ye.		
V. Δ tv wh-tr	Δ Δ	
Δ + wea. Δ wh-yel-frost asph stn N.F.O. No odor	Δ Δ	
Sh: brn + gry	Δ Δ	
Δ + wea Δ wh-yel-brn dec. asph stn	Δ Δ	
Sh: brn slty decr Δ	Δ Δ	
Sh: brn + gry Tr S. tn fcln drs N.S.O.		
Dol: wh-tr fcln-mxn incln φ N.S.O.	///	
Dol: wh-tr fcln-mxn incln φ N.S.O.	///	
Dol: wh-tr fcln-mxn incln φ Tr vgy φ N.S.O.	///	
Glauc Spds Tr. pyrite Spds	///	

3700  
20  
40  
60  
80  
3800

C.R.S.  
Conglomerate  
C.R.S.  
C.R.S.

Arbuckle

R.T.D

✓