



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1210054  
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: \_\_\_\_\_

1210054

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

<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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# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Call 785-324-1041

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

No. 226

Date <b>5-10-14</b>	Sec. <b>2</b>	Twp. <b>12</b>	Range <b>21</b>	County <b>Trego</b>	State <b>KS</b>	On Location	Finish <b>4:45PM</b>
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Location **Riga N to HRd, 1 1/4 E, N n 2**

Lease <b>Kohl D</b>	Well No. <b>1</b>	Owner
Contractor <b>Discovery #4</b>		To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.
Type Job <b>Surface</b>		Charge To <b>Drilling Oil</b>
Hole Size <b>12 1/4</b>	T.D. <b>221</b>	Street
Csg. <b>8 5/8</b>	Depth <b>220.77</b>	City
Tbg. Size	Depth	State
Tool	Depth	The above was done to satisfaction and supervision of owner agent or contractor.
Cement Left in Csg.	Shoe Joint <b>20</b>	Cement Amount Ordered <b>150sx com 3%acc, 2%gel</b>
Meas Line	Displace <b>12 1/2</b>	

**EQUIPMENT**

Pumptrk <b>20</b> No.	Cementer	Common <b>150</b>
	Helper <b>NICK</b>	Poz. Mix
Bulktrk <b>14</b> No.	Driver <b>David</b>	Gel. <b>3</b>
	Driver <b>Billy</b>	Calcium <b>5</b>
Bulktrk <b>P4</b> No.	Driver <b>Travis</b>	

**JOB SERVICES & REMARKS**

Remarks: <b>Cement did circulate</b>	Hulls
Rat Hole	Salt
Mouse Hole	Flowseal
Centralizers	Kol-Seal
Baskets	Mud CLR 48
D/V or Port Collar	CFL-117 or CD110 CAF 38

Handling <b>158</b>
Mileage

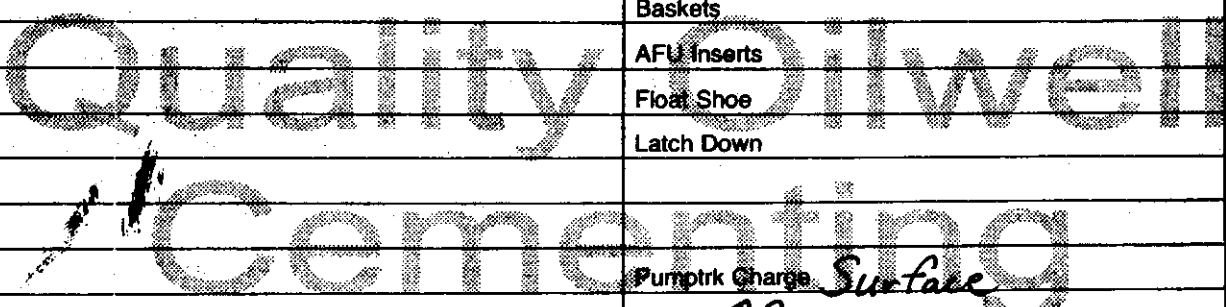
**FLOAT EQUIPMENT**

Guide Shoe
Centralizer
Baskets
AFU Inserts
Float Shoe
Latch Down

Pumptrk Charge <b>Surface</b>
Mileage <b>28</b>

X Signature **[Signature]**

Tax
Discount
Total Charge



## GENERAL TERMS AND CONDITIONS

**DEFINITIONS:** In these terms and conditions, "Quality" shall mean Quality Oilwell Cementing, Inc., and "Customer" shall refer to the party identified by that term on the front of this contract. As applicable, "Job" relates to the services described on the front side of this contract, "merchandise" refers to the material described on the front of this contract and to any other materials, products, or supplies used, sold, or furnished under the requirements of this contract.

- **TERMS:** Unless satisfactory credit has been established, "CUSTOMER" must tender full cash payment to "QUALITY" before the job is undertaken or merchandise is delivered. If satisfactory credit has been established, the terms of payment for the job and/or merchandise, including bulk cement, are net cash, payable in 30 days from the completion of the job and/or delivery of the merchandise. For all past due invoices, "CUSTOMER" agrees to pay interest on amounts invoiced at a rate of 18 percent per annum until paid. Notwithstanding the foregoing in no event shall this Contract provide for interest exceeding the maximum rate of interest that "CUSTOMER" may agree to pay under applicable law. If any such interest should be provided for, it shall be and hereby is deemed to be a mistake, and this contract shall be automatically reformed to lower the rate of interest to the maximum legal contract rate, any amounts previously paid as excess interest shall be deducted from the amounts owing from the "CUSTOMER" or at the option of "QUALITY," refunded directly to "CUSTOMER." For purposes of this paragraph, QUALITY and CUSTOMER agree that KANSAS law shall apply. Any discounts granted with this contract are null and void if the charges are not paid when due.

- **ATTORNEY FEES:** In any legal action or proceeding between the parties to enforce any of the terms of this Service Contract, or in any way pertaining to the term of this Contract, the prevailing party shall be entitled to recover all expenses, including, but not limit to, a reasonable sum as and attorney's fees.

- **PRICES AND TAXES:** All merchandise listed in "QUALITY'S" current price schedule are F.O.B. QUALITY'S local station and are subject to change without notice. All prices are exclusive of any federal, state, local, or special taxes for the sale or use of the merchandise or services listed. The amount of taxes required to be paid by QUALITY shall be added to the quoted prices charged to CUSTOMER.

- **TOWING CHARGES:** QUALITY will make a reasonable attempt to get to and from each job site using its own equipment. Should QUALITY be unable to do so because of poor or inadequate road conditions, and should it become necessary to employ a tractor or other pulling equipment to get to or from the job site, the tractor or pulling equipment will be supplied by CUSTOMER or, if furnished by QUALITY, will be charged to and paid by CUSTOMER.

- **PREPARATION CHARGES:** If a job and/or merchandise is ordered and CUSTOMER cancels the order after preparation of a chemical solution or other material, CUSTOMER will pay QUALITY for the expenses incurred by QUALITY as a result of the cancellation.

- **DEADHAUL CHARGES:** Unless otherwise specified on the front of this Contract, a deadhaul charge as set forth in QUALITY'S current price book will be charged each way for each service unit which is ordered by CUSTOMER but not used.

- **SERVICE CONDITIONS AND LIABILITIES:** 1. QUALITY carries public liability and property damage insurance, but since there are so many uncertain and unknown conditions beyond QUALITY'S control, QUALITY shall not be liable for injuries to property or persons or for loss or damage arising from the performance of the job or delivery of the merchandise. Customer shall be responsible for and indemnify, defend, and hold harmless QUALITY, its officers, agents and employees, from and against any and all claims or suits for:

(A) Damage to property or for bodily injury, sickness, disease, or death, brought by any person, including CUSTOMER and/or the well owner; and:

(B) Oil spills, pollution, surface or sub-surface damage, injury to the well, reservoir loss, or damage arising from a well blowout arising out of or in connection with QUALITY'S performance of the job or furnishing of merchandise in accordance with this contract, unless such loss or damage is caused by the willful misconduct or gross negligence of QUALITY or its employees.

2. With respect to any of QUALITY'S tools, equipment, or instruments which are lost in the well or damaged when performing or attempting to perform the job or, in the case of marine operations, are lost or damaged at any time after delivery to the landing for CUSTOMER and before return to QUALITY at the landing, CUSTOMER shall either recover the lost item without cost to QUALITY or reimburse QUALITY the current replacement cost of the item unless the loss or damage results from the sole negligence of QUALITY or its employees.

3. QUALITY does not assume any liability or responsibility for damages or conditions resulting from chemical action in cements caused by contamination of water or other fluids.

**WARRANTIES:** 1. QUALITY warrants all merchandise manufactured or furnished by it to be free from defects in material and workmanship under normal use and service when installed, and used, and/or serviced in the manner provided and intended. QUALITY'S obligation under this warranty is expressly limited to repair replacement, or allowance for credit, at its option, for any merchandise which is determined by QUALITY to be defective. THIS IS THE SOLE WARRANTY OF QUALITY AND NO OTHER WARRANTY IS APPLICABLE, EITHER EXPRESS OR OTHERWISE IMPLIED, IN FACT OR IN LAW, INCLUDING ANY WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE, CUSTOMER'S sole and only remedy with regard to any defective merchandise shall be the repair or replacement thereof or allowance for credit as herein provided, and QUALITY shall not be liable for any consequential, special, incidental, or punitive damages resulting from or caused by defective materials, products or supplies.

2. More specifically:

(A) Nothing in this contract shall be construed as a warranty by QUALITY of the success or the effectiveness of the result of any work done or merchandise used, sold, or furnished under this contract.

(B) Nothing in this contract shall be construed as a warranty of the accuracy or correctness of any facts, information, or data furnished by QUALITY or any interpretation of test, meter readings, chart information, analysis or research, or recommendations made by QUALITY, unless the inaccuracy or incorrectness is caused by the willful misconduct or gross negligence of QUALITY or its employees in the preparation or furnishing of such facts, information or data. (C) Work done by QUALITY shall be under the direct supervision and control of the CUSTOMER or his agent and QUALITY will accomplish the job as an independent contractor and not as an employee or agent



CHARGE TO: Drilling Oil Co.  
 ADDRESS: \_\_\_\_\_  
 CITY, STATE, ZIP CODE: \_\_\_\_\_

TICKET 25497  
 PAGE 1 OF 2

SERVICE LOCATIONS  
 1. Hays, KS  
 2. Ness City, KS  
 3. \_\_\_\_\_  
 4. \_\_\_\_\_

WELL/PROJECT NO. 41 LEASE Kob 1 "D" COUNTY/PARISH Trego STATE KS CITY \_\_\_\_\_  
 TICKET TYPE  SERVICE CONTRACTOR \_\_\_\_\_ RIG NAME/NO. \_\_\_\_\_  
 SALES \_\_\_\_\_  
 WELL TYPE \_\_\_\_\_ WELL CATEGORY \_\_\_\_\_ JOB PURPOSE 2 stage WELLS PERMIT NO. \_\_\_\_\_  
 REFERRAL LOCATION \_\_\_\_\_ INVOICE INSTRUCTIONS \_\_\_\_\_

DATE 5-19-14 ORDER NO. \_\_\_\_\_  
 OWNER Sarant  
 WELL LOCATION \_\_\_\_\_

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	MILEAGE #	QTY.			UNIT PRICE	AMOUNT
		LOC	ACCT	DF			QTY.	UM	QTY.		
575							35	mi		6.00	210.00
579					Pump Charge (2-stage)		1	ea	4070	2000.00	2000.00
221					KCL		4	bal		25.00	100.00
281					Mudflush		5	gal		1.00	5.00
290					D-A		8	gal		42.00	336.00
402					Centrifuges		5	hr	53.11	70.00	580.00
403					Baskets		4	ea		300.00	1200.00
407					Insert Flare Seal off Mill		1	ea		375.00	375.00
408					DV Tool & Plugset P/T		1	ea		3500.00	3500.00
417					DV LD Plug & Baffle		1	ea		200.00	200.00
419					Rotating Head		1	ea		200.00	200.00

**LEGAL TERMS:** Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

DATE SIGNED 5-19-14 TIME SIGNED 0610  A.M.  P.M.

SWIFT OPERATOR MMH APPROVAL \_\_\_\_\_

**REMIT PAYMENT TO:**  
 SWIFT SERVICES, INC.  
 P.O. BOX 466  
 NESS CITY, KS 67560  
 785-798-2300

**SURVEY**  
 OUR EQUIPMENT PERFORMED WITHOUT BROWDOWN?  
 WE UNDERSTOOD AND MET YOUR NEEDS?  
 OUR SERVICE WAS PERFORMED WITHOUT DELAY?  
 WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?  
 ARE YOU SATISFIED WITH OUR SERVICE?  
 CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL 1  
 9356.00  
 pay. 2  
 8987.50  
 Subtotal  
 18,343.50  
 1990  
 TAX 7.65%  
 1126.35  
 TOTAL 19,469.85

Thank You!



PO Box 466  
Ness City, KS 67560  
Off: 785-798-2300

TICKET CONTINUATION

TICKET No. 25497

CUSTOMER  
Drelling Oil Co.

WEIGHT  
Kohli 11" #1

DATE  
5-19-14

PAGE 2 OF 2

LINE NO.	DESCRIPTION	QTY	UNIT	WEIGHT	CUBIC FEET	DATE	PRICE	TOTAL
325	Standard Cement	2	150 bks				2175.00	
326	SMD Cement	2	225 bks				4162.50	
276	F/cycle	2	100 #				252.00	
283	S/LT	2	750 #				156.00	
284	Calcey 1	2	750 #				245.00	
286	Pollock 1	2	750 #				595.00	
581	SERVICE CHARGE	2			375		750.00	
583	TOTAL WEIGHT	2		37716	75		666.00	

8907.50

**JOB LOG**

**SWIFT Services, Inc.**

DATE 5-19-14 PAGE NO.

CUSTOMER *Drilling Oil Co.* WELL NO. #1 LEASE *Koh 1" D" #1* JOB TYPE *2-Stage* TICKET NO. *2-5497*

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0130							<i>ca 100 w/FE</i>
								<i>RTD 4065' LTD 4070'</i>
								<i>5 1/2" x 14" x 4067' x 20'</i>
								<i>Conn. 1, 3, 5, 7, 9, 11, 58, 77'</i>
								<i>Block 2, 12, 60, 78'</i>
								<i>DV 60 @ 17.38'</i>
	0145							<i>Start LI</i>
	0340							<i>Break Circ</i>
	0410	5	0				200	<i>Start Pvc flushes 500 gal mud flush</i>
		5	32/0				200	<i>20 bbl KCL Flush</i>
	0425		36					<i>Start EA-2 Cement</i>
								<i>End Cement</i>
								<i>Wash PTL</i>
	0432	6	0				200	<i>Start Displacement wtr</i>
		5	60				250	<i>cut mud</i>
		5	80				300	<i>KCL Flush</i>
	0500		99				750/1500	<i>Land Plug</i>
								<i>Release Pressure</i>
								<i>Float Hold</i>
								<i>Drop Closing Plug</i>
	0505	2	7/4					<i>Plug RHMH 30/150ks SMD Cement</i>
	0575						1400	<i>Start <del>SMD</del> Oper DV</i>
	0516	5	0				200	<i>Start SMD 180ks</i>
	0535		100					<i>End Cement</i>
								<i>Drop Closing Plug</i>
	0540	5	0				200	<i>Start Displacement</i>
		4	25					<i>circ cement</i>
	0600		42.5				450/1500	<i>Land Plug / Release Pressure</i>
								<i>DV closed</i>
								<i>circ 250ks top it</i>

*Mich [Signature]*  
*Chris [Signature]*  
*Ken [Signature]*





## DRILL STEM TEST REPORT

Prepared For: **Dreiling Oil Inc**

PO Box 550  
Hays KS 67601-2431

ATTN: Roger Fisher

**Kohl D #1**

**2 12s 21w Trego,KS**

Start Date: 2014.05.14 @ 21:51:00

End Date: 2014.05.15 @ 03:50:00

Job Ticket #: 58863                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.05.20 @ 15:41:58



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Dreiling Oil Inc  
 PO Box 550  
 Hays KS 67601-2431  
 ATTN: Roger Fisher

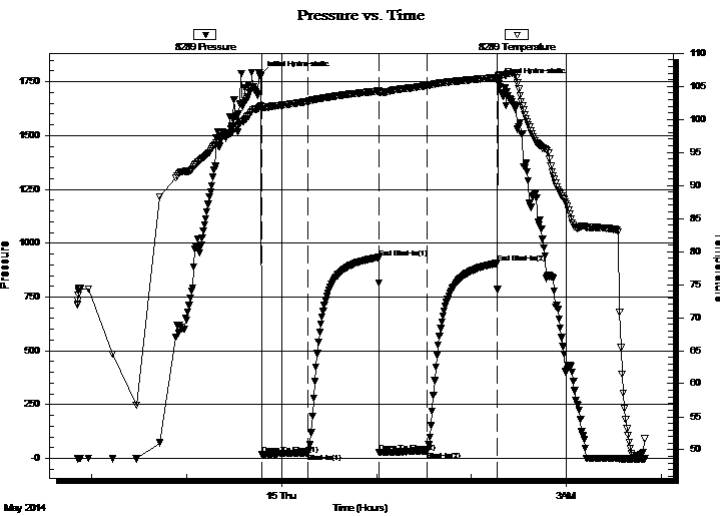
**2 12s 21w Trego,KS**  
**Kohl D #1**  
 Job Ticket: 58863      **DST#: 1**  
 Test Start: 2014.05.14 @ 21:51:00

## GENERAL INFORMATION:

Formation: **Toronto - LKC " A "**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 23:47:15  
 Time Test Ended: 03:50:00  
 Interval: **3573.00 ft (KB) To 3620.00 ft (KB) (TVD)**  
 Total Depth: 3620.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Jim Svaty  
 Unit No: 76  
 Reference Elevations: 2320.00 ft (KB)  
 2313.00 ft (CF)  
 KB to GR/CF: 7.00 ft

**Serial #: 8289      Outside**  
 Press@RunDepth: 34.41 psig @ 3585.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2014.05.14      End Date: 2014.05.15      Last Calib.: 2014.05.15  
 Start Time: 21:51:02      End Time: 03:50:00      Time On Btm: 2014.05.14 @ 23:46:45  
 Time Off Btm: 2014.05.15 @ 02:16:45

TEST COMMENT: 30-IFP- Surface Blow Building to 1"  
 45-ISIP- No Blow  
 30-FFP- No Blow  
 45-FSIP- No Blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1780.50	102.01	Initial Hydro-static
1	19.85	101.64	Open To Flow (1)
30	25.51	102.72	Shut-In(1)
75	933.88	104.28	End Shut-In(1)
75	27.74	104.02	Open To Flow (2)
105	34.41	105.10	Shut-In(2)
150	907.13	106.34	End Shut-In(2)
150	1747.94	106.61	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
25.00	OSM 100%	0.12

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

Dreiling Oil Inc  
PO Box 550  
Hays KS 67601-2431  
ATTN: Roger Fisher

**2 12s 21w Trego,KS**  
**Kohl D #1**  
Job Ticket: 58863      **DST#: 1**  
Test Start: 2014.05.14 @ 21:51:00

### GENERAL INFORMATION:

Formation: **Toronto - LKC " A "**

Deviated: No Whipstock:      ft (KB)

Time Tool Opened: 23:47:15

Time Test Ended: 03:50:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jim Svaty

Unit No: 76

**Interval: 3573.00 ft (KB) To 3620.00 ft (KB) (TVD)**

Total Depth: 3620.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2320.00 ft (KB)

2313.00 ft (CF)

KB to GR/CF: 7.00 ft

**Serial #: 8789      Inside**

Press@RunDepth:      psig @      3585.00 ft (KB)

Start Date: 2014.05.14

End Date:

2014.05.15

Capacity: 8000.00 psig

Last Calib.:

2014.05.15

Start Time: 21:51:02

End Time:

03:49:45

Time On Btm:

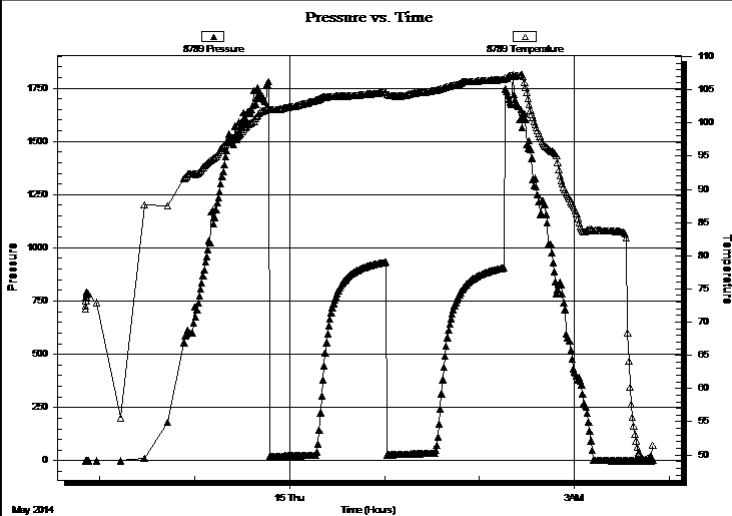
Time Off Btm:

TEST COMMENT: 30-IFP- Surface Blow Building to 1"

45-ISIP- No Blow

30-FFP- No Blow

45-FSIP- No Blow



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
25.00	OSM 100%	0.12

### Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Dreiling Oil Inc  
 PO Box 550  
 Hays KS 67601-2431  
 ATTN: Roger Fisher

**2 12s 21w Trego,KS**  
**Kohl D #1**  
 Job Ticket: 58863      **DST#: 1**  
 Test Start: 2014.05.14 @ 21:51:00

**Tool Information**

Drill Pipe:	Length: 3531.00 ft	Diameter: 3.80 inches	Volume: 49.53 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 52000.00 lb
			<u>Total Volume: 49.68 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3573.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	47.00 ft			
Tool Length:	68.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Change Over Sub	1.00			3553.00	
Shut In Tool	5.00			3558.00	
Hydraulic tool	5.00			3563.00	
Packer	5.00			3568.00	21.00      Bottom Of Top Packer
Packer	5.00			3573.00	
Stubb	1.00			3574.00	
Perforations	10.00			3584.00	
Change Over Sub	1.00			3585.00	
Recorder	0.00	8789	Inside	3585.00	
Recorder	0.00	8289	Outside	3585.00	
Blank Spacing	31.00			3616.00	
Change Over Sub	1.00			3617.00	
Bullnose	3.00			3620.00	47.00      Bottom Packers & Anchor

**Total Tool Length: 68.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Dreiling Oil Inc  
PO Box 550  
Hays KS 67601-2431  
ATTN: Roger Fisher

**2 12s 21w Trego,KS**  
**Kohl D #1**  
Job Ticket: 58863      **DST#: 1**  
Test Start: 2014.05.14 @ 21:51:00

## Mud and Cushion Information

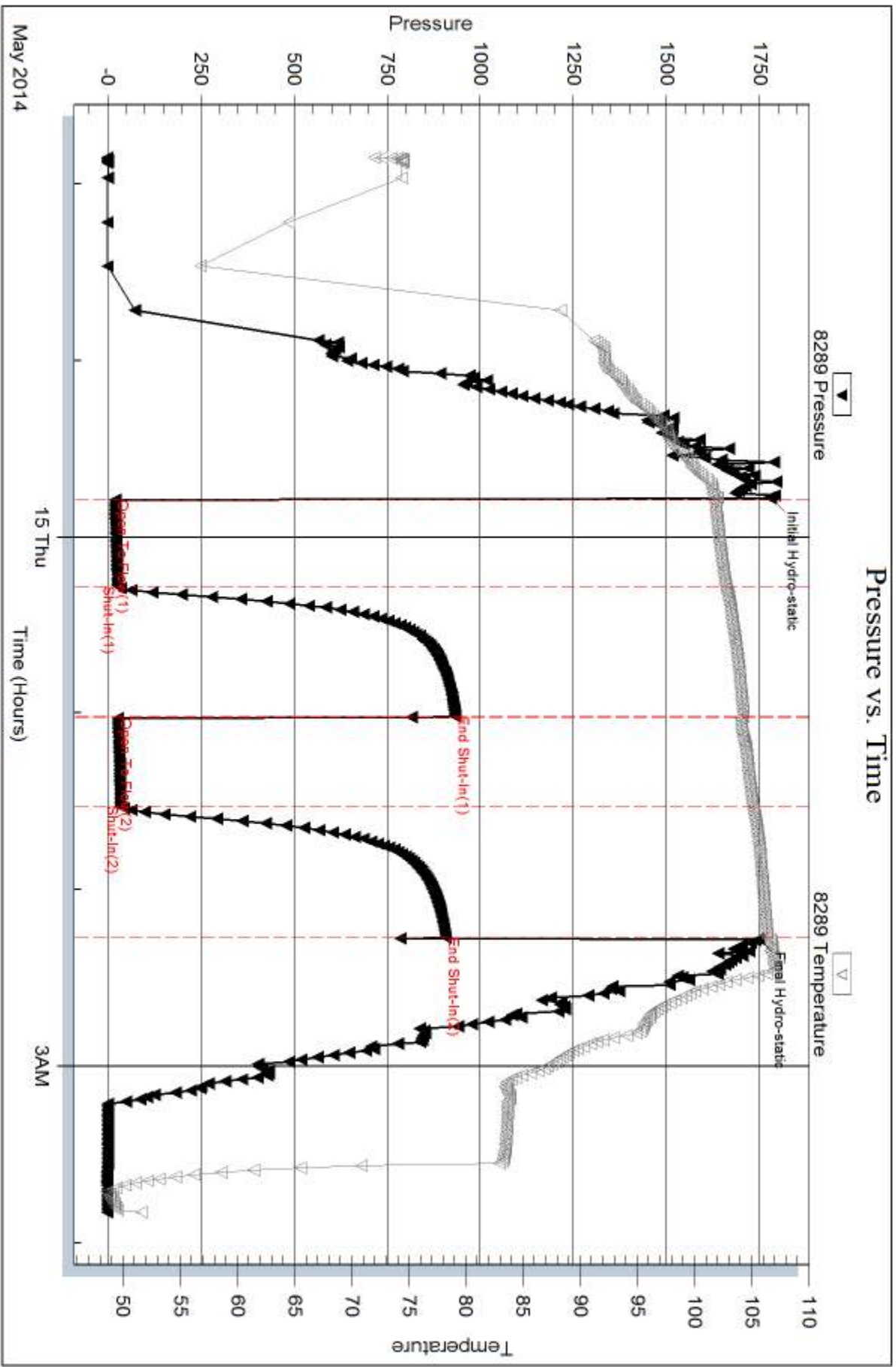
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 60.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.72 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 3500.00 ppm			
Filter Cake: 2.00 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
25.00	OSM 100%	0.123

Total Length: 25.00 ft      Total Volume: 0.123 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:



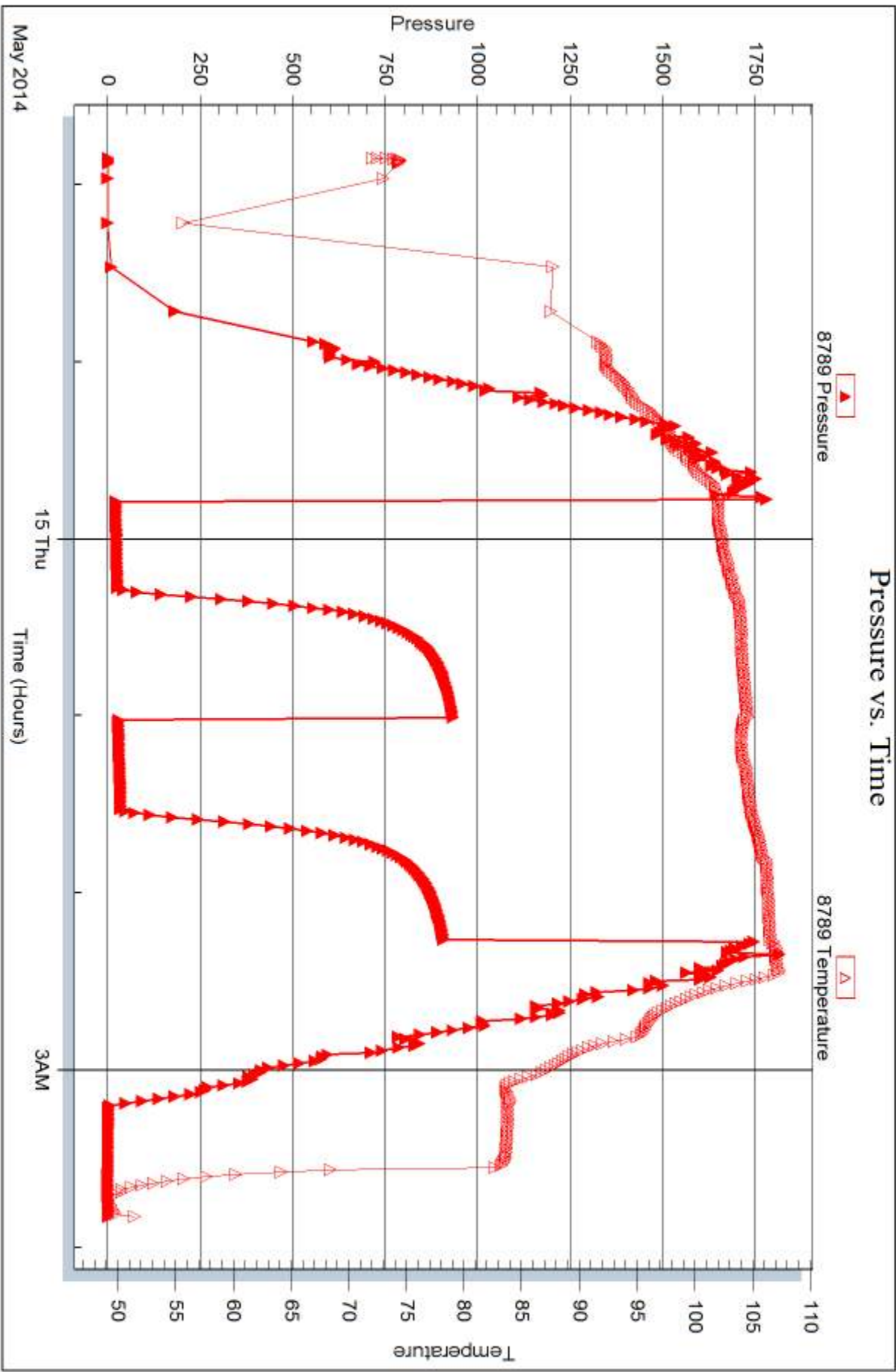
Serial #: 8789

Inside

Dreiling Oil Inc

Kohl D#1

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **Dreiling Oil Inc**

PO Box 550  
Hays KS 67601-2431

ATTN: Roger Fisher

**Kohl D #1**

**2 12s 21w Trego,KS**

Start Date: 2014.05.15 @ 14:00:00

End Date: 2014.05.15 @ 20:02:00

Job Ticket #: 58864                      DST #: 2

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

Printed: 2014.05.20 @ 15:41:33





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Dreiling Oil Inc  
PO Box 550  
Hays KS 67601-2431  
ATTN: Roger Fisher

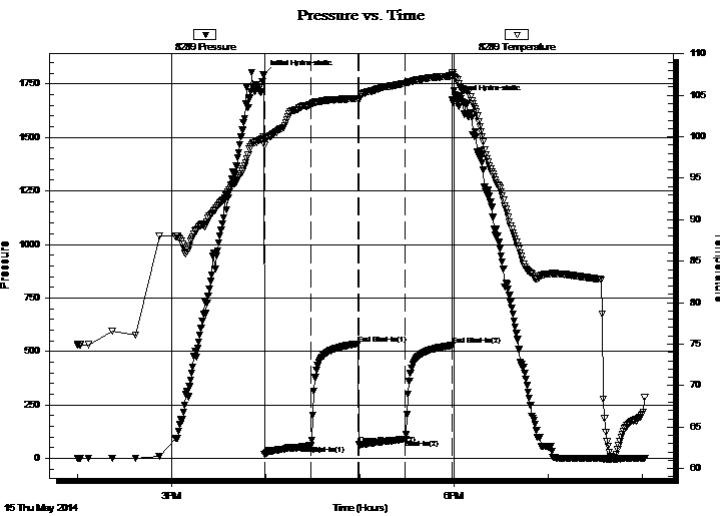
**2 12s 21w Trego,KS**  
**Kohl D #1**  
Job Ticket: 58864      **DST#: 2**  
Test Start: 2014.05.15 @ 14:00:00

## GENERAL INFORMATION:

Formation: **LKC " C - F "**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 15:59:00  
Time Test Ended: 20:02:00  
Interval: **3635.00 ft (KB) To 3700.00 ft (KB) (TVD)**  
Total Depth: 3700.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Reference Elevations: 2320.00 ft (KB)  
2313.00 ft (CF)  
KB to GR/CF: 7.00 ft  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Jim Svaty  
Unit No: 76

**Serial #: 8289      Outside**  
Press@RunDepth: 91.07 psig @ 3640.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2014.05.15      End Date: 2014.05.15      Last Calib.: 2014.05.15  
Start Time: 14:00:02      End Time: 20:02:00      Time On Btm: 2014.05.15 @ 15:58:45  
Time Off Btm: 2014.05.15 @ 17:59:00

**TEST COMMENT:** 30-IFP- Surface Blow Building to 8 3/4"  
30-ISIP- No Blow  
30-FFP- Surface Blow Building to 7"  
30-FSIP- No Blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1794.57	100.05	Initial Hydro-static
1	18.02	99.00	Open To Flow (1)
30	59.62	103.91	Shut-In(1)
60	535.89	104.62	End Shut-In(1)
61	65.04	104.47	Open To Flow (2)
91	91.07	106.44	Shut-In(2)
120	527.86	107.32	End Shut-In(2)
121	1674.85	107.76	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
125.00	OSMCW 30% m 70% w	1.47
35.00	OSM 100%	0.49
1.00	CO 100%	0.01

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Dreiling Oil Inc  
PO Box 550  
Hays KS 67601-2431  
ATTN: Roger Fisher

**2 12s 21w Trego,KS**  
**Kohl D #1**  
Job Ticket: 58864      **DST#: 2**  
Test Start: 2014.05.15 @ 14:00:00

**Tool Information**

Drill Pipe:	Length: 3594.00 ft	Diameter: 3.80 inches	Volume: 50.41 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	55000.00 lb
			<u>Total Volume: 50.56 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial	52000.00 lb
Depth to Top Packer:	3635.00 ft			Final	53000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	65.00 ft				
Tool Length:	86.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Change Over Sub	1.00			3615.00	
Shut In Tool	5.00			3620.00	
Hydraulic tool	5.00			3625.00	
Packer	5.00			3630.00	21.00      Bottom Of Top Packer
Packer	5.00			3635.00	
Stubb	1.00			3636.00	
Perforations	3.00			3639.00	
Change Over Sub	1.00			3640.00	
Recorder	0.00	8789	Inside	3640.00	
Recorder	0.00	8289	Outside	3640.00	
Blank Spacing	31.00			3671.00	
Change Over Sub	1.00			3672.00	
Perforations	25.00			3697.00	
Bullnose	3.00			3700.00	65.00      Bottom Packers & Anchor

**Total Tool Length: 86.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Dreiling Oil Inc  
PO Box 550  
Hays KS 67601-2431  
ATTN: Roger Fisher

**2 12s 21w Trego,KS**  
**Kohl D #1**  
Job Ticket: 58864      **DST#: 2**  
Test Start: 2014.05.15 @ 14:00:00

### Mud and Cushion Information

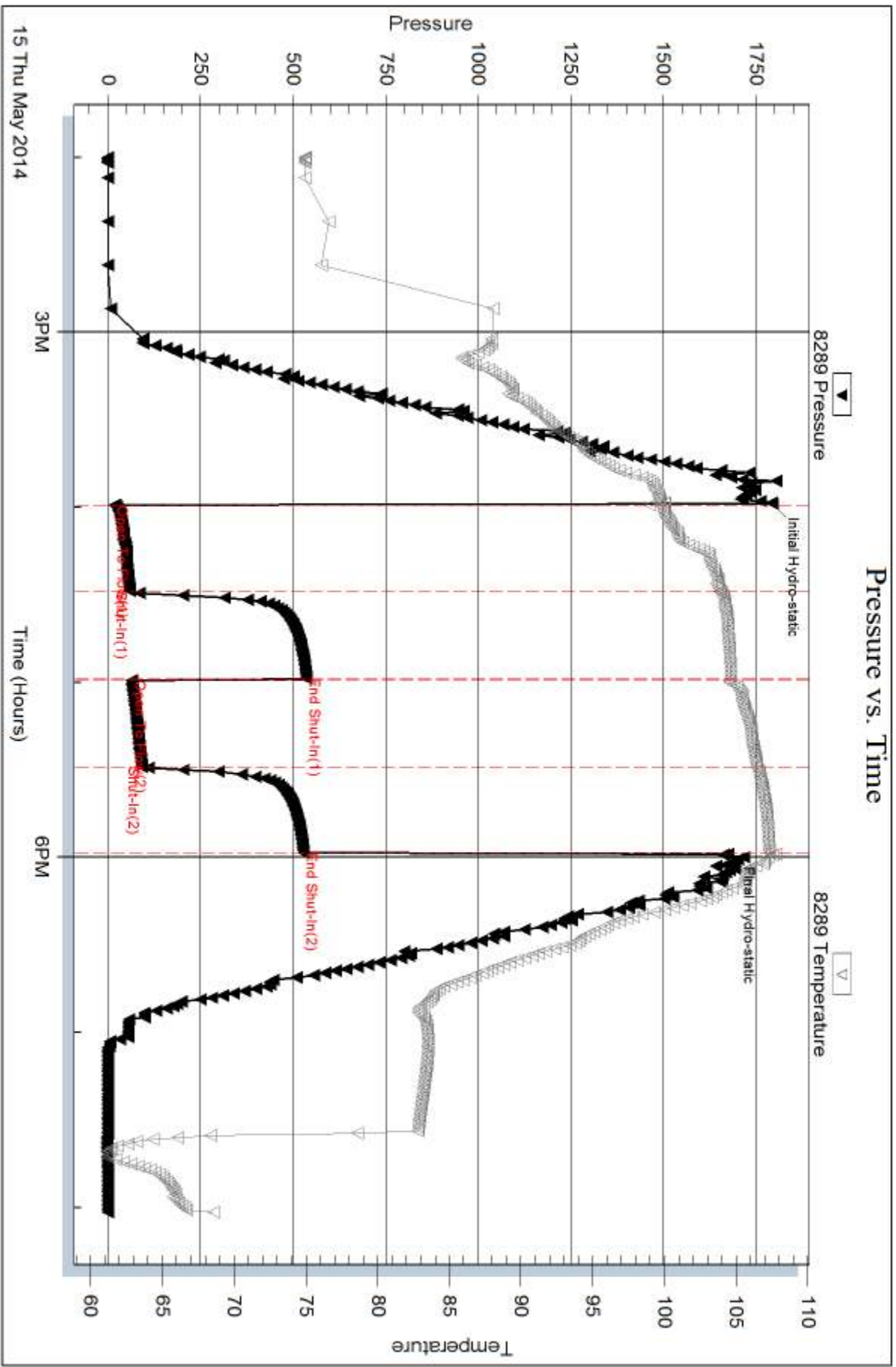
Mud Type: Gel Chem	Cushion Type:	Oil API: 28 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 27000 ppm
Viscosity: 66.00 sec/qt	Cushion Volume: bbl	
Water Loss: 9.12 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 45000.00 ppm		
Filter Cake: 1.00 inches		

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
125.00	OSMCW 30%m 70%w	1.471
35.00	OSM 100%	0.491
1.00	CO 100%	0.014

Total Length: 161.00 ft      Total Volume: 1.976 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments: 0.27 @ 67



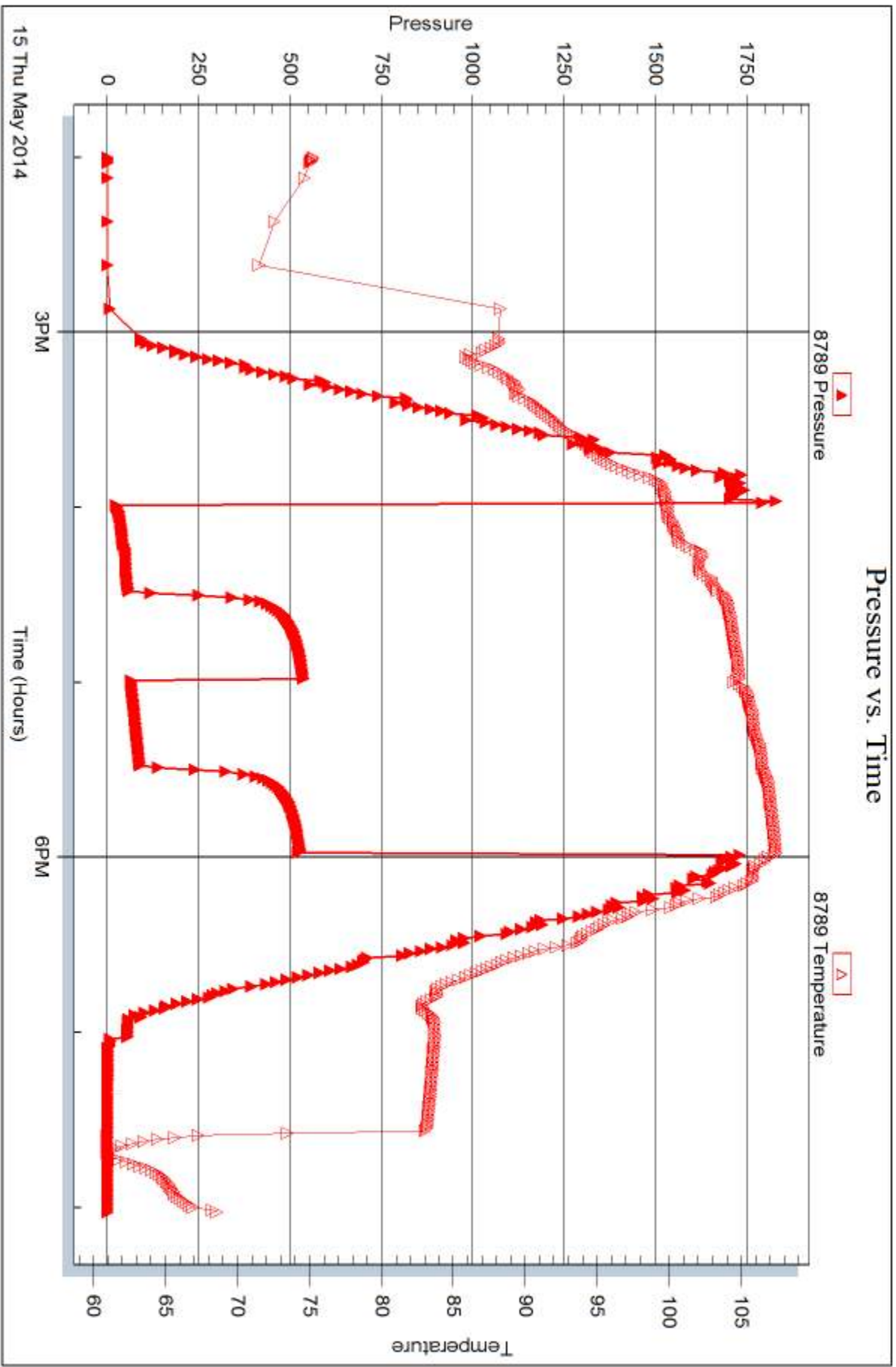
Serial #: 8789

Inside

Dreiling Oil Inc

Kohl D#1

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 58864

Printed: 2014.05.20 @ 15:41:34



## DRILL STEM TEST REPORT

Prepared For: **Dreiling Oil Inc**

PO Box 550  
Hays KS 67601-2431

ATTN: Roger Fisher

**Kohl D #1**

**2 12s 21w Trego,KS**

Start Date: 2014.05.16 @ 07:15:00

End Date: 2014.05.16 @ 14:00:00

Job Ticket #: 58865                      DST #: 3

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

Printed: 2014.05.20 @ 15:41:10



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Dreiling Oil Inc  
PO Box 550  
Hays KS 67601-2431  
ATTN: Roger Fisher

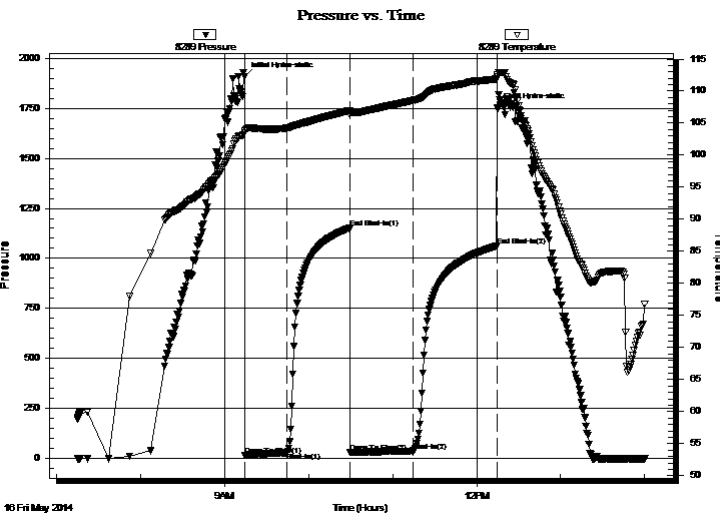
**2 12s 21w Trego,KS**  
**Kohl D #1**  
Job Ticket: 58865      **DST#: 3**  
Test Start: 2014.05.16 @ 07:15:00

## GENERAL INFORMATION:

Formation: **LKC "I - J"**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 09:14:30  
Time Test Ended: 14:00:00  
Interval: **3760.00 ft (KB) To 3795.00 ft (KB) (TVD)**  
Total Depth: 3795.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Jim Svaty  
Unit No: 76  
Reference Elevations: 2320.00 ft (KB)  
2313.00 ft (CF)  
KB to GR/CF: 7.00 ft

**Serial #: 8289      Outside**  
Press@RunDepth: 38.51 psig @ 3767.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2014.05.16      End Date: 2014.05.16      Last Calib.: 2014.05.16  
Start Time: 07:15:02      End Time: 14:00:00      Time On Btm: 2014.05.16 @ 09:14:15  
Time Off Btm: 2014.05.16 @ 12:14:30

**TEST COMMENT:** 30-IFP- Surface Blow Building to 2 1/4"  
45-ISIP- No Blow  
45-FFP- Surface Blow Building to 1 1/4"  
60-FSIP- No Blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1908.38	103.81	Initial Hydro-static
1	17.17	103.49	Open To Flow (1)
31	30.75	104.21	Shut-In(1)
75	1150.52	106.95	End Shut-In(1)
76	32.90	106.30	Open To Flow (2)
121	38.51	108.52	Shut-In(2)
180	1061.35	111.87	End Shut-In(2)
181	1752.89	112.17	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
45.00	MCW 30% m 70% w	0.35

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Dreiling Oil Inc  
 PO Box 550  
 Hays KS 67601-2431  
 ATTN: Roger Fisher

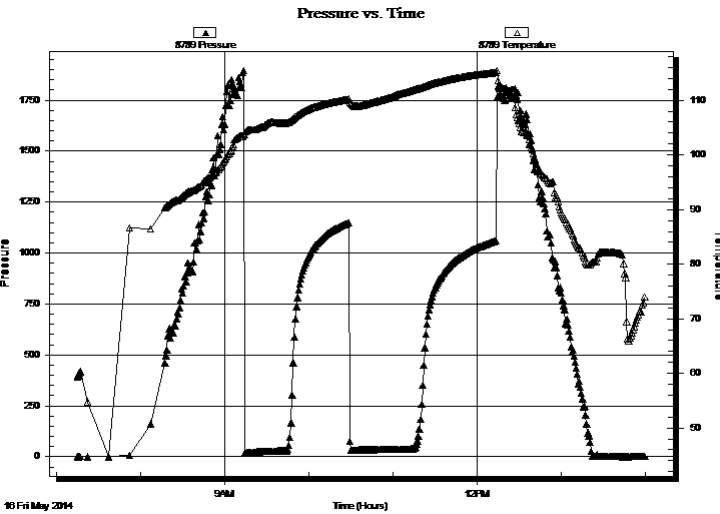
**2 12s 21w Trego,KS**  
**Kohl D #1**  
 Job Ticket: 58865      **DST#: 3**  
 Test Start: 2014.05.16 @ 07:15:00

## GENERAL INFORMATION:

Formation: **LKC " I - J "**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 09:14:30  
 Time Test Ended: 14:00:00  
 Interval: **3760.00 ft (KB) To 3795.00 ft (KB) (TVD)**  
 Total Depth: 3795.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Jim Svaty  
 Unit No: 76  
 Reference Elevations: 2320.00 ft (KB)  
 2313.00 ft (CF)  
 KB to GR/CF: 7.00 ft

**Serial #: 8789**      **Inside**  
 Press@RunDepth:      psig @      3767.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2014.05.16      End Date: 2014.05.16      Last Calib.: 2014.05.16  
 Start Time: 07:15:02      End Time: 13:59:45      Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** 30-IFP- Surface Blow Building to 2 1/4"  
 45-ISIP- No Blow  
 45-FFP- Surface Blow Building to 1 1/4"  
 60-FSIP- No Blow



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
45.00	MCW 30% m 70% w	0.35

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Dreiling Oil Inc  
PO Box 550  
Hays KS 67601-2431  
ATTN: Roger Fisher

**2 12s 21w Trego,KS**  
**Kohl D #1**  
Job Ticket: 58865      **DST#: 3**  
Test Start: 2014.05.16 @ 07:15:00

**Tool Information**

Drill Pipe:	Length: 3719.00 ft	Diameter: 3.80 inches	Volume: 52.17 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	55000.00 lb
			<u>Total Volume: 52.32 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial	52000.00 lb
Depth to Top Packer:	3760.00 ft			Final	52000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	35.00 ft				
Tool Length:	56.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Change Over Sub	1.00			3740.00	
Shut In Tool	5.00			3745.00	
Hydraulic tool	5.00			3750.00	
Packer	5.00			3755.00	21.00      Bottom Of Top Packer
Packer	5.00			3760.00	
Stubb	1.00			3761.00	
Perforations	6.00			3767.00	
Recorder	0.00	8789	Inside	3767.00	
Recorder	0.00	8289	Outside	3767.00	
Perforations	25.00			3792.00	
Bullnose	3.00			3795.00	35.00      Bottom Packers & Anchor

**Total Tool Length: 56.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Dreiling Oil Inc  
PO Box 550  
Hays KS 67601-2431  
ATTN: Roger Fisher

**2 12s 21w Trego,KS**  
**Kohl D #1**  
Job Ticket: 58865      **DST#: 3**  
Test Start: 2014.05.16 @ 07:15:00

### 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: 54.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.94 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4000.00 ppm			
Filter Cake: 1.50 inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
45.00	MCW 30%m 70%w	0.349

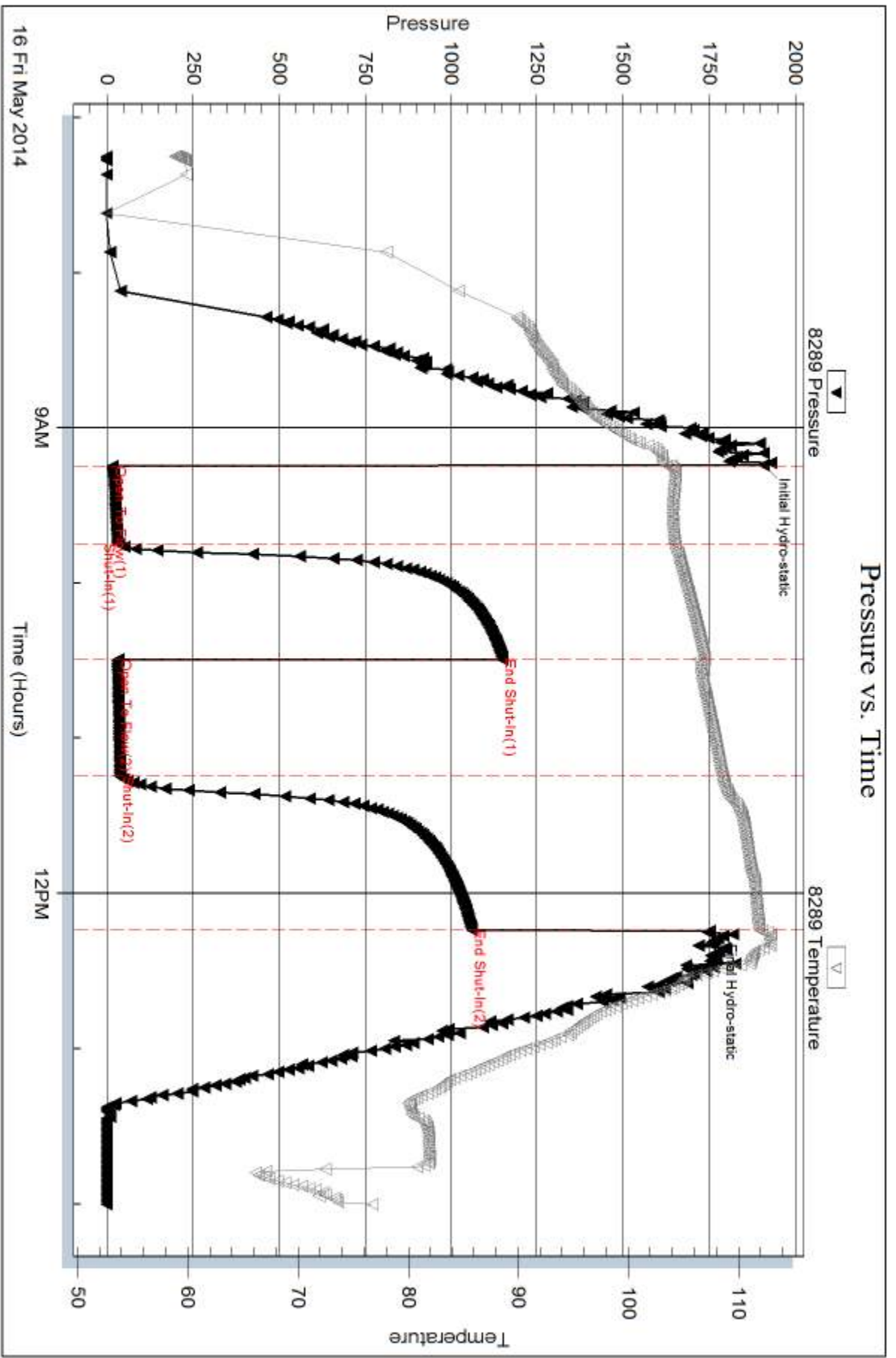
Total Length: 45.00 ft      Total Volume: 0.349 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:

Serial #: 8289

Outside Drilling Oil Inc

Kohl D#1

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 58865

Printed: 2014.05.20 @ 15:41:11

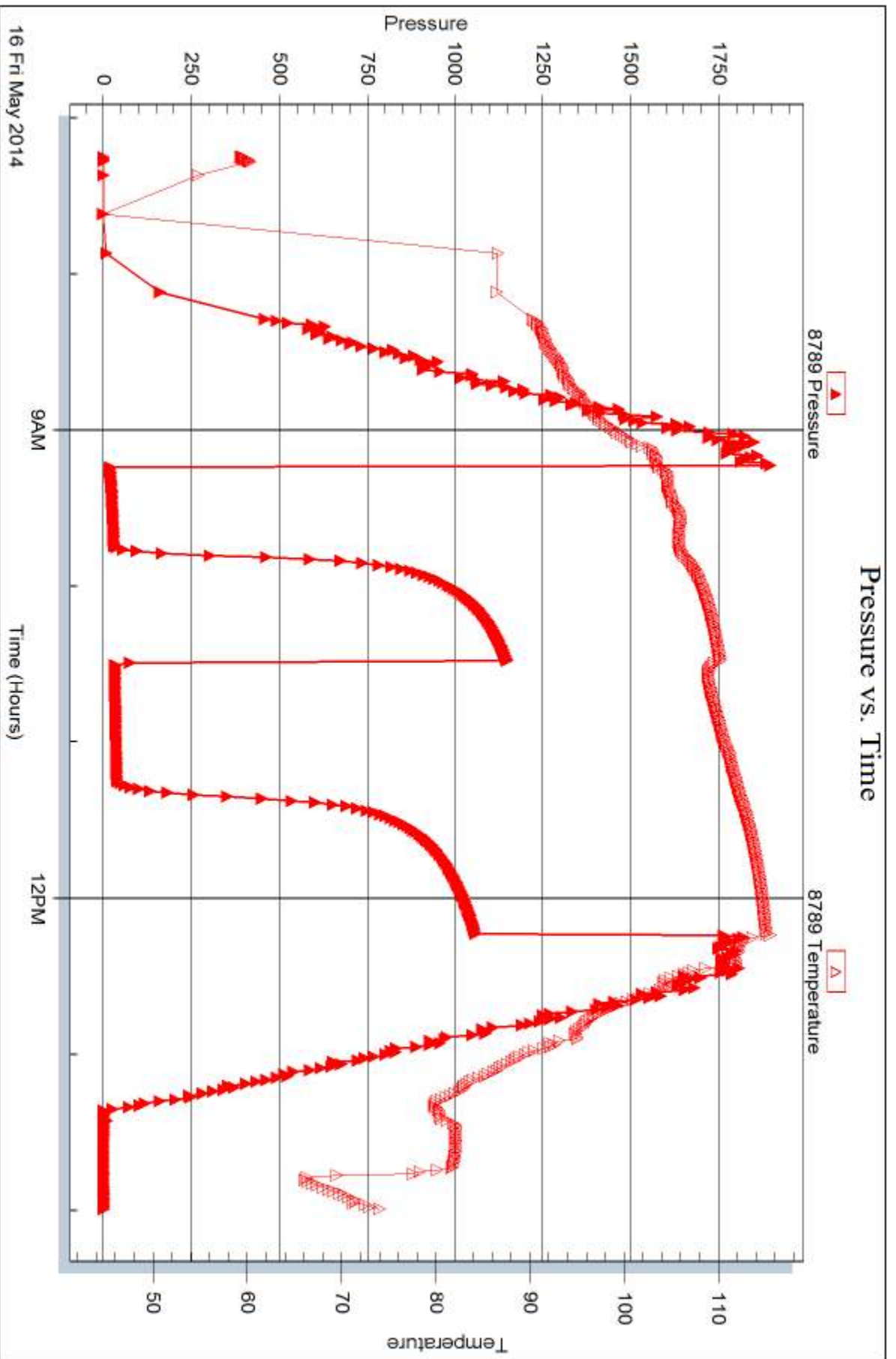
Serial #: 8789

Inside

Dreiling Oil Inc

Kohl D#1

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 58865

Printed: 2014.05.20 @ 15:41:11



## DRILL STEM TEST REPORT

Prepared For: **Dreiling Oil Inc**

PO Box 550  
Hays KS 67601-2431

ATTN: Roger Fisher

**Kohl D #1**

**2 12s 21w Trego,KS**

Start Date: 2014.05.17 @ 04:48:00

End Date: 2014.05.17 @ 11:35:00

Job Ticket #: 58866                      DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.05.20 @ 15:40:34



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Dreiling Oil Inc  
 PO Box 550  
 Hays KS 67601-2431  
 ATTN: Roger Fisher

**2 12s 21w Trego,KS**  
**Kohl D #1**  
 Job Ticket: 58866 **DST#: 4**  
 Test Start: 2014.05.17 @ 04:48:00

## GENERAL INFORMATION:

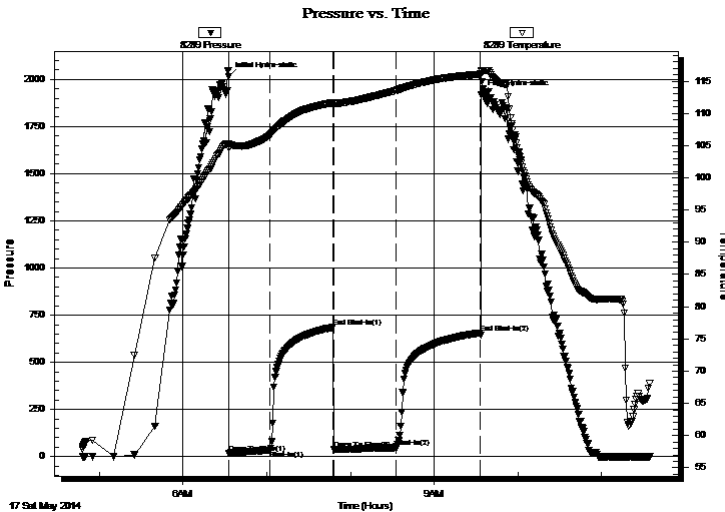
Formation: **Marmaton**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 06:33:00  
 Time Test Ended: 11:35:00  
 Interval: **3908.00 ft (KB) To 3930.00 ft (KB) (TVD)**  
 Total Depth: 3930.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Jim Svaty  
 Unit No: 76  
 Reference Elevations: 2320.00 ft (KB)  
 2313.00 ft (CF)  
 KB to GR/CF: 7.00 ft

## Serial #: 8289 Outside

Press@RunDepth: 47.39 psig @ 3912.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.05.17 End Date: 2014.05.17 Last Calib.: 2014.05.17  
 Start Time: 04:48:02 End Time: 11:35:00 Time On Btm: 2014.05.17 @ 06:32:45  
 Time Off Btm: 2014.05.17 @ 09:34:00

TEST COMMENT: 30-IFP- Surface Blow Building to 4 1/4"  
 45-ISIP- No Blow  
 45-FFP- Surface Blow Building to 3"  
 60-FSIP- No Blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2013.33	105.30	Initial Hydro-static
1	16.51	104.68	Open To Flow (1)
30	34.18	106.66	Shut-In(1)
75	685.53	111.64	End Shut-In(1)
76	37.58	111.43	Open To Flow (2)
120	47.39	113.52	Shut-In(2)
181	656.72	116.08	End Shut-In(2)
182	1918.35	116.62	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
75.00	OMCW 10%o 20%m 70%w	0.77
8.00	CO 100%	0.11

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Dreiling Oil Inc  
PO Box 550  
Hays KS 67601-2431  
ATTN: Roger Fisher

**2 12s 21w Trego,KS**

**Kohl D #1**

Job Ticket: 58866 **DST#: 4**  
Test Start: 2014.05.17 @ 04:48:00

## GENERAL INFORMATION:

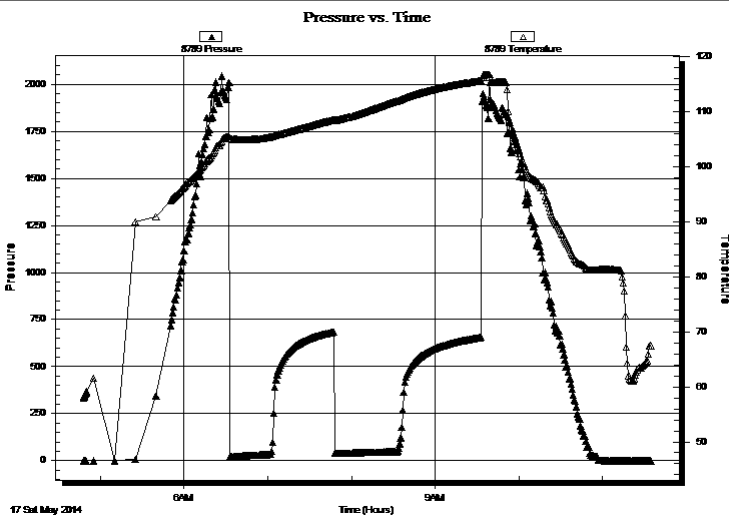
Formation: **Marmaton**  
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)  
Time Tool Opened: 06:33:00 Tester: Jim Svaty  
Time Test Ended: 11:35:00 Unit No: 76  
Interval: **3908.00 ft (KB) To 3930.00 ft (KB) (TVD)** Reference Elevations: 2320.00 ft (KB)  
Total Depth: 3930.00 ft (KB) (TVD) 2313.00 ft (CF)  
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 7.00 ft

**Serial #: 8789**

**Inside**

Press@RunDepth: psig @ 3912.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2014.05.17 End Date: 2014.05.17 Last Calib.: 2014.05.17  
Start Time: 04:48:02 End Time: 11:34:45 Time On Btm:  
Time Off Btm:

TEST COMMENT: 30-IFP- Surface Blow Building to 4 1/4"  
45-ISIP- No Blow  
45-FFP- Surface Blow Building to 3"  
60-FSIP- No Blow



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
75.00	OMCW 10%o 20%m 70%w	0.77
8.00	CO 100%	0.11

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Dreiling Oil Inc  
PO Box 550  
Hays KS 67601-2431  
ATTN: Roger Fisher

**2 12s 21w Trego,KS**  
**Kohl D #1**  
Job Ticket: 58866      **DST#: 4**  
Test Start: 2014.05.17 @ 04:48:00

**Tool Information**

Drill Pipe:	Length: 3877.00 ft	Diameter: 3.80 inches	Volume: 54.38 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	53000.00 lb
			<u>Total Volume: 54.53 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial	51000.00 lb
Depth to Top Packer:	3908.00 ft			Final	51000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	22.00 ft				
Tool Length:	43.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Change Over Sub	1.00			3888.00	
Shut In Tool	5.00			3893.00	
Hydraulic tool	5.00			3898.00	
Packer	5.00			3903.00	21.00      Bottom Of Top Packer
Packer	5.00			3908.00	
Stubb	1.00			3909.00	
Perforations	3.00			3912.00	
Recorder	0.00	8789	Inside	3912.00	
Recorder	0.00	8289	Outside	3912.00	
Perforations	15.00			3927.00	
Bullnose	3.00			3930.00	22.00      Bottom Packers & Anchor

**Total Tool Length: 43.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Dreiling Oil Inc  
PO Box 550  
Hays KS 67601-2431  
ATTN: Roger Fisher

**2 12s 21w Trego,KS**  
**Kohl D #1**  
Job Ticket: 58866      **DST#: 4**  
Test Start: 2014.05.17 @ 04:48:00

### Mud and Cushion Information

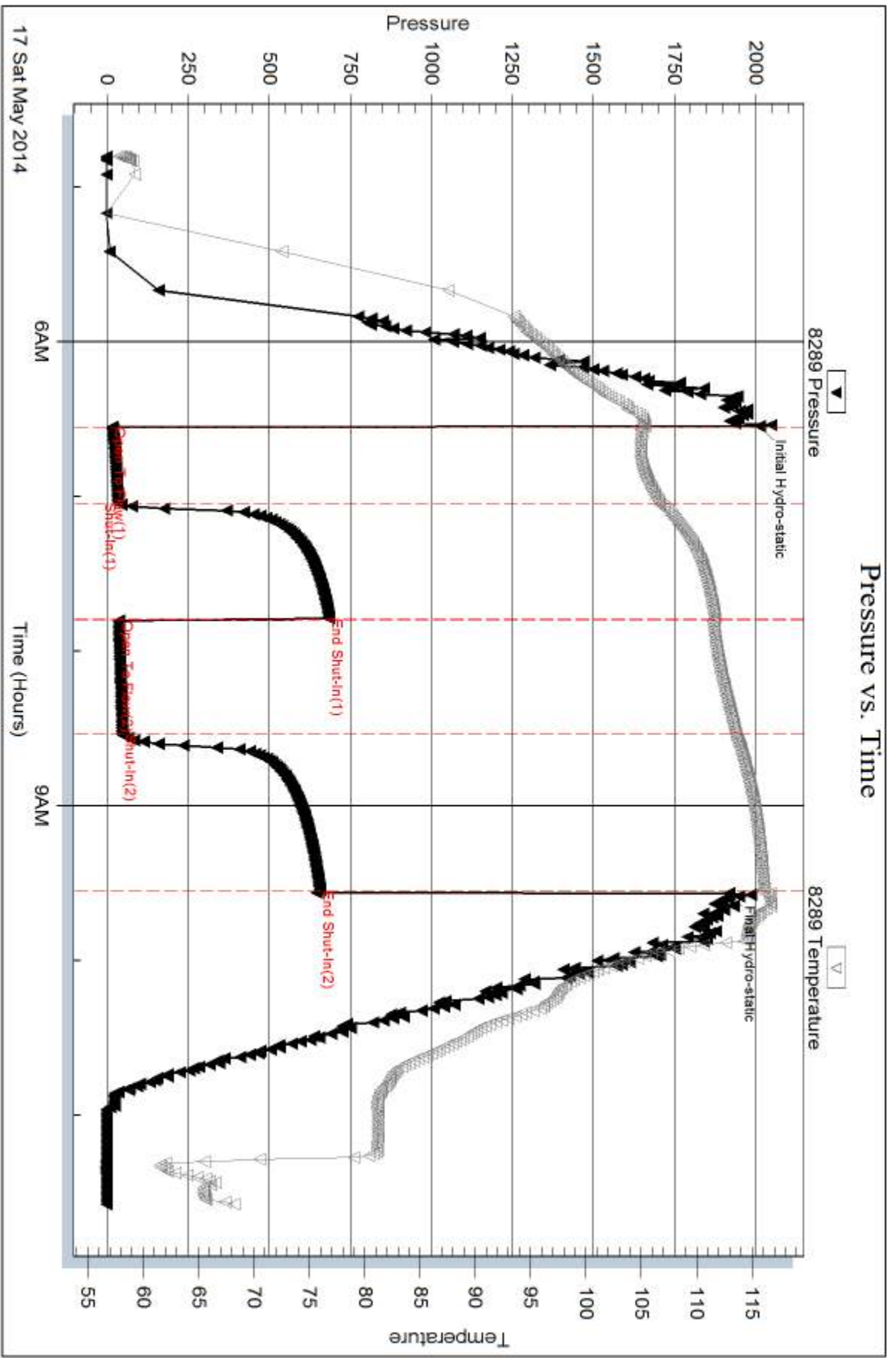
Mud Type: Gel Chem	Cushion Type:	Oil API: 34 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 20000 ppm
Viscosity: 54.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.95 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 4000.00 ppm		
Filter Cake: 1.50 inches		

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
75.00	OMCW 10%o 20%m 70%w	0.770
8.00	CO 100%	0.112

Total Length: 83.00 ft      Total Volume: 0.882 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments: .372 @ 64



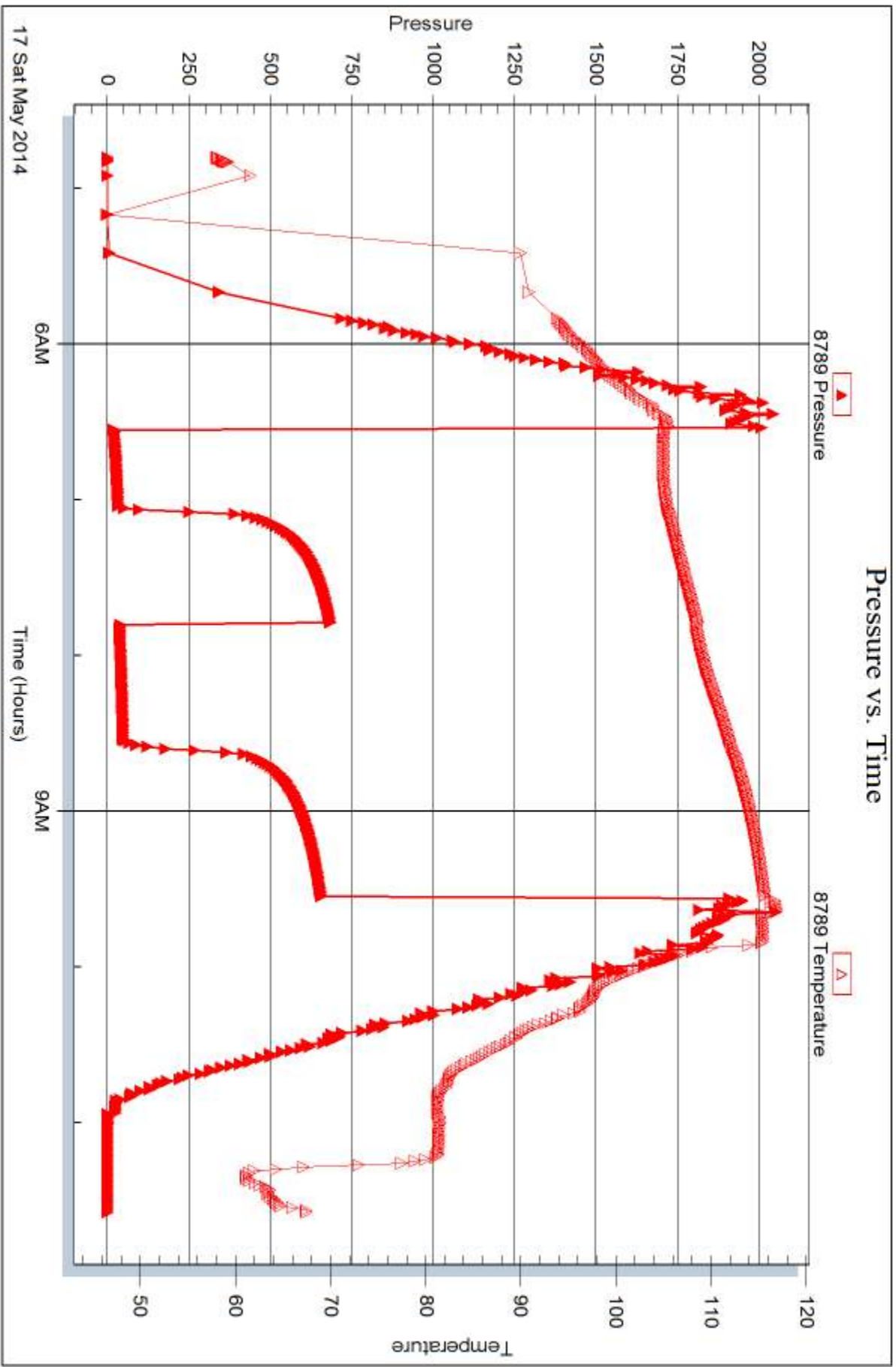
Serial #: 8789

Inside

Dreiling Oil Inc

Kohl D#1

DST Test Number: 4





## DRILL STEM TEST REPORT

Prepared For: **Dreiling Oil Inc**

PO Box 550  
Hays KS 67601-2431

ATTN: Roger Fisher

**Kohl D #1**

**2 12s 21w Trego,KS**

Start Date: 2014.05.17 @ 23:33:00

End Date: 2014.05.18 @ 06:26:00

Job Ticket #: 58867                      DST #: 5

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

Printed: 2014.05.20 @ 15:40:03



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Dreiling Oil Inc  
PO Box 550  
Hays KS 67601-2431  
ATTN: Roger Fisher

**2 12s 21w Trego,KS**  
**Kohl D #1**  
Job Ticket: 58867      **DST#: 5**  
Test Start: 2014.05.17 @ 23:33:00

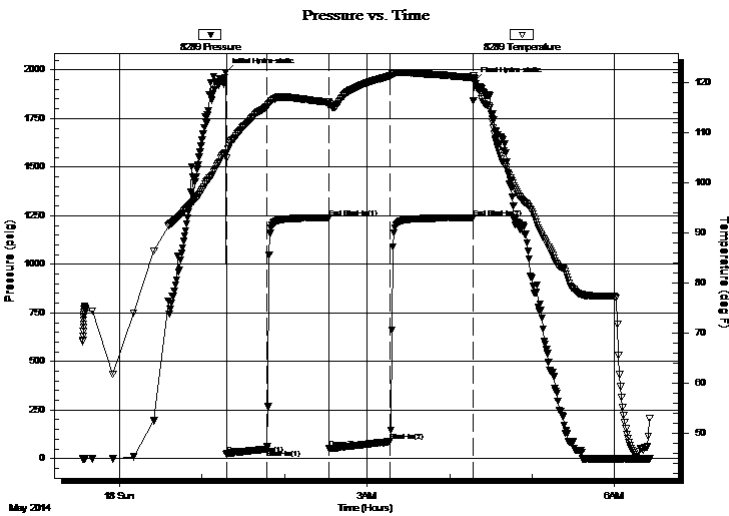
## GENERAL INFORMATION:

Formation: **Arbuckle**  
Deviated: No Whipstock:                      ft (KB)  
Time Tool Opened: 01:17:30  
Time Test Ended: 06:26:00  
Interval: **3996.00 ft (KB) To 4016.00 ft (KB) (TVD)**  
Total Depth: 4016.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Jim Svaty  
Unit No: 76  
Reference Elevations: 2320.00 ft (KB)  
2313.00 ft (CF)  
KB to GR/CF: 7.00 ft

**Serial #: 8289      Outside**  
Press@RunDepth: 88.70 psig @ 3998.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2014.05.17      End Date: 2014.05.18      Last Calib.: 2014.05.18  
Start Time: 23:33:02      End Time: 06:26:00      Time On Btm: 2014.05.18 @ 01:17:15  
Time Off Btm: 2014.05.18 @ 04:17:45

**TEST COMMENT:** 30-IFP- BOB in 30 min.  
45-ISIP- Surface Blow in 3 min. Died in 15 min.  
45-FFP- BOB in 26 min.  
60-FSIP- Surface Blow in 2 min. Building to 1/2"

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1987.59	105.97	Initial Hydro-static
1	23.34	104.83	Open To Flow (1)
30	49.47	115.06	Shut-In(1)
75	1239.64	116.00	End Shut-In(1)
75	53.54	115.32	Open To Flow (2)
120	88.70	121.26	Shut-In(2)
180	1239.43	120.93	End Shut-In(2)
181	1941.11	120.93	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
70.00	OCM 50%o 50%m	0.70
126.00	CO 100%	1.77
0.00	219 GIP	0.00

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Dreiling Oil Inc  
 PO Box 550  
 Hays KS 67601-2431  
 ATTN: Roger Fisher

**2 12s 21w Trego,KS**  
**Kohl D #1**  
 Job Ticket: 58867      **DST#: 5**  
 Test Start: 2014.05.17 @ 23:33:00

**Tool Information**

Drill Pipe:	Length: 3970.00 ft	Diameter: 3.80 inches	Volume: 55.69 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 57000.00 lb
			<u>Total Volume: 55.84 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	3996.00 ft			Final 53000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	20.00 ft			
Tool Length:	41.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Change Over Sub	1.00			3976.00	
Shut In Tool	5.00			3981.00	
Hydraulic tool	5.00			3986.00	
Packer	5.00			3991.00	21.00 Bottom Of Top Packer
Packer	5.00			3996.00	
Stubb	1.00			3997.00	
Perforations	1.00			3998.00	
Recorder	0.00	8789	Inside	3998.00	
Recorder	0.00	8289	Outside	3998.00	
Perforations	15.00			4013.00	
Bullnose	3.00			4016.00	20.00 Bottom Packers & Anchor

**Total Tool Length: 41.00**





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Dreiling Oil Inc  
PO Box 550  
Hays KS 67601-2431  
ATTN: Roger Fisher

**2 12s 21w Trego,KS**  
**Kohl D #1**  
Job Ticket: 58867      **DST#: 5**  
Test Start: 2014.05.17 @ 23:33:00

### Mud and Cushion Information

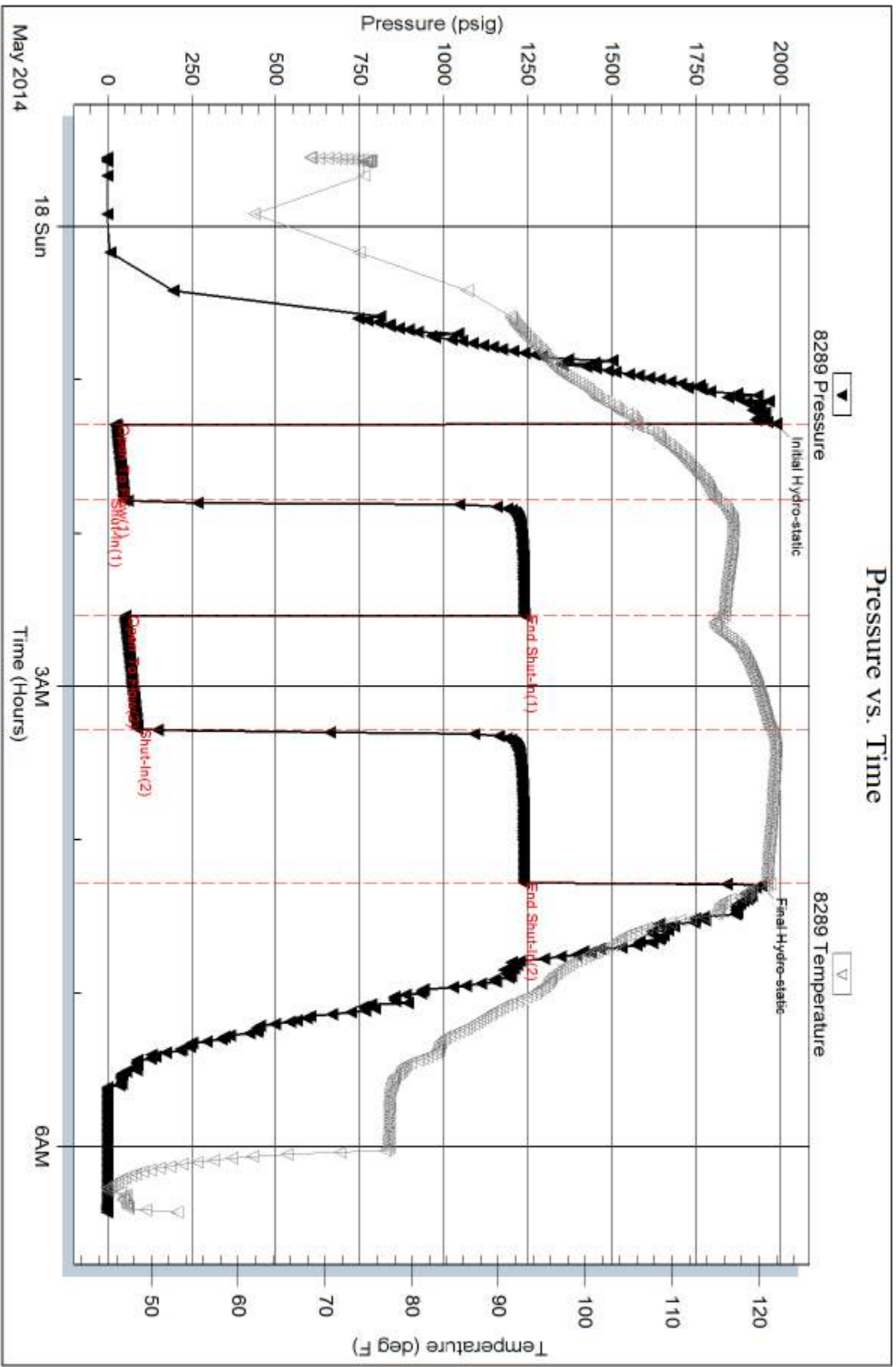
Mud Type: Gel Chem	Cushion Type:	Oil API: 34 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.98 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 6000.00 ppm		
Filter Cake: 0.50 inches		

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
70.00	OCM 50%o 50%m	0.700
126.00	CO 100%	1.767
0.00	219 GIP	0.000

Total Length: 196.00 ft      Total Volume: 2.467 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:



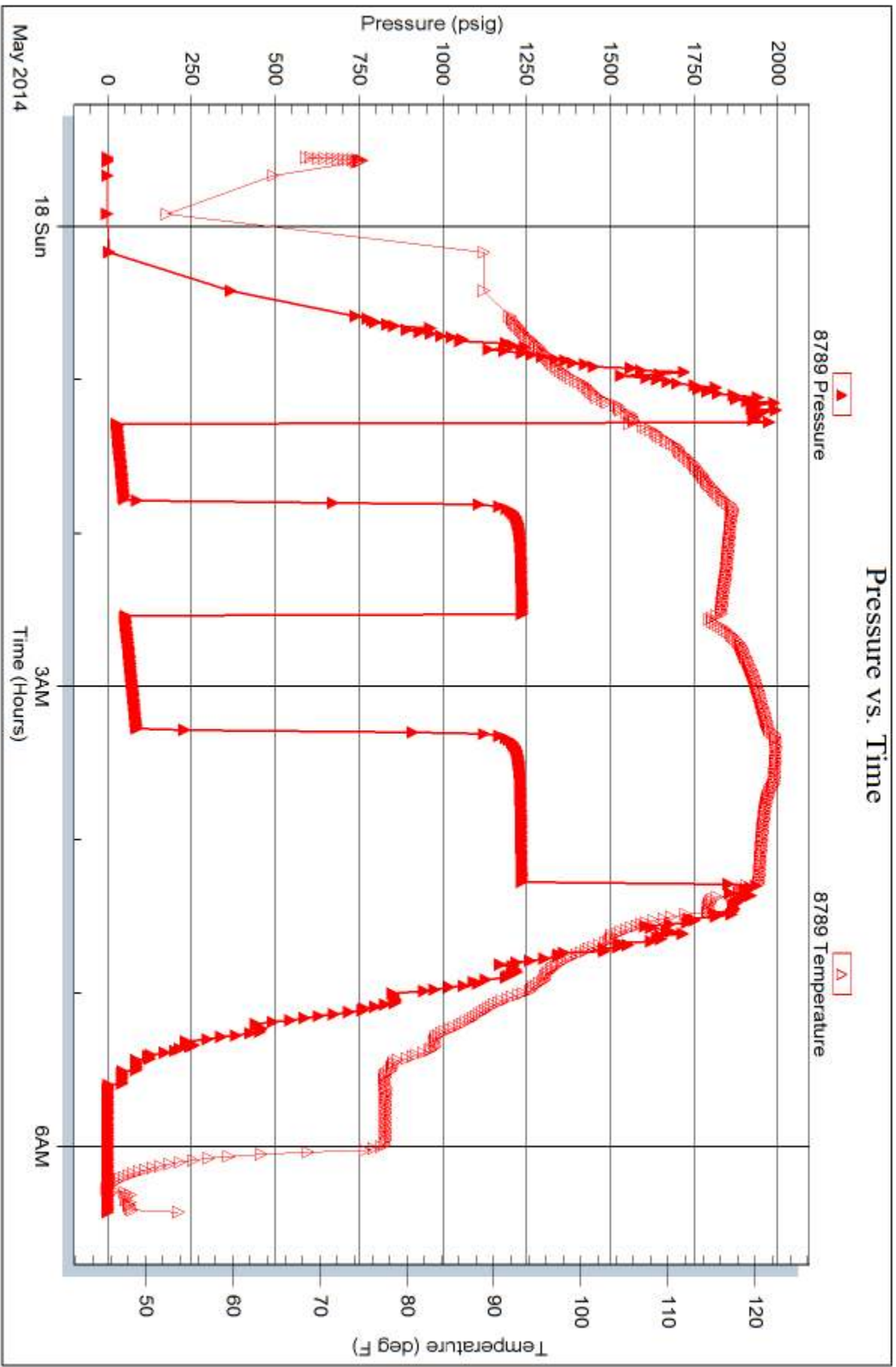
Serial #: 8789

Inside

Dreiling Oil Inc

Kohl D#1

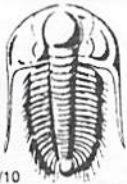
DST Test Number: 5



Trilobite Testing, Inc

Ref. No: 58867

Printed: 2014.05.20 @ 15:40:04



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 58863

Well Name & No. Kohl D #1 Test No. 1 Date 5-14-14  
 Company Drilling Oil Inc. Elevation 2320 KB 2313 GL  
 Address P.O. Box 550 Hays KS 67601-2431  
 Co. Rep / Geo. Roger Fisher 316-214-2043 Rig Discovery #4  
 Location: Sec. 02 Twp. 12<sup>s</sup> Rge. 21<sup>w</sup> Co. Trego State KS

Interval Tested 3573-3620 Zone Tested Toronto - LKC "A"  
 Anchor Length 47 Drill Pipe Run 3531 Mud Wt. 8.6  
 Top Packer Depth 3568 Drill Collars Run 31 Vis 60  
 Bottom Packer Depth 3573 Wt. Pipe Run 0 WL 8.8  
 Total Depth 3620 Chlorides 3500 ppm System LCM 2

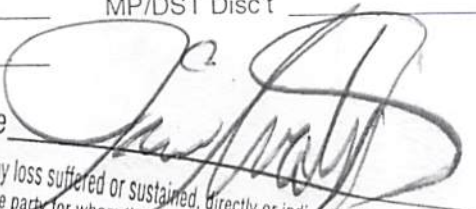
Blow Description IFP - Surface Blow Building to lin.  
ISIP - No Blow  
FFP - No Blow  
FSIP - No Blow

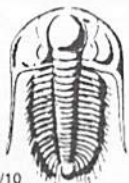
Rec	Feet of	%gas	%oil	%water	%mud
<u>25</u>	<u>05m</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 25 BHT 106 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic \_\_\_\_\_  Test 1150 T-On Location 19:55  
 (B) First Initial Flow \_\_\_\_\_  Jars \_\_\_\_\_ T-Started 21:51  
 (C) First Final Flow \_\_\_\_\_  Safety Joint \_\_\_\_\_ T-Open 23:47  
 (D) Initial Shut-In \_\_\_\_\_  Circ Sub \_\_\_\_\_ T-Pulled 02:17  
 (E) Second Initial Flow \_\_\_\_\_  Hourly Standby \_\_\_\_\_ T-Out 03:50  
 (F) Second Final Flow \_\_\_\_\_  Mileage RT 55 85.25 Comments \_\_\_\_\_  
 (G) Final Shut-In \_\_\_\_\_  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic \_\_\_\_\_  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_

Initial Open 30  
 Initial Shut-In 45  
 Final Flow 30  
 Final Shut-In 45  
 Sub Total 0  
 Total 1235.25  
 MP/DST Disc't \_\_\_\_\_  
 Sub Total 1235.25

Approved By \_\_\_\_\_ Our Representative   
 Trilobite Testing Inc. shall not be liable for damaged or lost equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.  
7856395814



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 58864

Well Name & No. Kohl D #1 Test No. 2 Date 5-15-14  
 Company Dreiling Oil Inc. Elevation 2320 KB 2313 GL  
 Address P.O. Box 550 Hays KS 67601-2431  
 Co. Rep / Geo. Roger Fisher Rig Discovery #4  
 Location: Sec. 2 Twp. 12<sup>s</sup> Rge. 21<sup>w</sup> Co. Trego State KS

Interval Tested 3635-3700 Zone Tested LKC "C-F"  
 Anchor Length 65 Drill Pipe Run 3594 Mud Wt. 9.1  
 Top Packer Depth 3600 Drill Collars Run 31 Vis 66  
 Bottom Packer Depth 3635 Wt. Pipe Run 0 WL 9.2  
 Total Depth 3700 Chlorides 4500 ppm System LCM 1

Blow Description IFP - Surface Blow Building to 8 3/4 in.  
ISIP - No Blow  
FFP - Surface Blow Building to 7 in.  
FSIP - No Blow

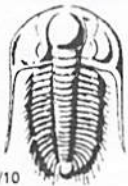
Rec	Feet of	%gas	%oil	%water	%mud
<u>125</u>	<u>OSMCW</u>			<u>70</u>	<u>30</u>
<u>35</u>	<u>OSM</u>			<u>100</u>	
<u>1</u>	<u>CO</u>	<u>100</u>			

Rec Total 161 BHT 107 Gravity 28 API RW 0.27 @ 67 °F Chlorides 27000 ppm

(A) Initial Hydrostatic <u>1794</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>12:59</u>
(B) First Initial Flow <u>18</u>	<input type="checkbox"/> Jars	T-Started <u>14:00</u>
(C) First Final Flow <u>59</u>	<input type="checkbox"/> Safety Joint	T-Open <u>15:59</u>
(D) Initial Shut-In <u>535</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>17:59</u>
(E) Second Initial Flow <u>65</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>20:02</u>
(F) Second Final Flow <u>91</u>	<input checked="" type="checkbox"/> Mileage <u>85.25</u>	Comments
(G) Final Shut-In <u>527</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1674</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer

Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1235.25</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
Sub Total <u>1235.25</u>		

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



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 58865

Well Name & No. Kohl D #1 Test No. 3 Date 5-16-14  
 Company Dreiling Oil Inc. Elevation 2320 KB 2313 GL  
 Address P.O. Box 550 HAYS KS 67601-2431  
 Co. Rep / Geo. Roger Fisher Rig Discovery #4  
 Location: Sec. 2 Twp. 12<sup>s</sup> Rge. 21<sup>w</sup> Co. Trego State KS

Interval Tested 3760-3795 Zone Tested LKC "I+J"  
 Anchor Length 35 Drill Pipe Run 3719 Mud Wt. 9.0  
 Top Packer Depth 3755 Drill Collars Run 31 Vis 54  
 Bottom Packer Depth 3760 Wt. Pipe Run 0 WL 8  
 Total Depth 3798 Chlorides 4000 ppm System LCM 1 1/2

Blow Description IFP - Surface Blow Building to 2 1/4 in  
ISIP - No Blow  
FFP - Surface Blow Building to 1 1/4 in.  
FSIP No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>45</u>	<u>mcw</u>		<u>70</u>	<u>30</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 45 BHT 112 Gravity \_\_\_\_\_ API RW .360 @ 68 °F Chlorides 19000 ppm

(A) Initial Hydrostatic 1908  Test 1150 T-On Location 7:00  
 (B) First Initial Flow 17  Jars \_\_\_\_\_ T-Started 7:15  
 (C) First Final Flow 30  Safety Joint \_\_\_\_\_ T-Open 9:15  
 (D) Initial Shut-In 1150  Circ Sub \_\_\_\_\_ T-Pulled 12:15  
 (E) Second Initial Flow 32  Hourly Standby \_\_\_\_\_ T-Out 14:00  
 (F) Second Final Flow 38  Mileage 85.25 Comments \_\_\_\_\_  
 (G) Final Shut-In 1060  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1752  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_

Initial Open 30  Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Initial Shut-In 45  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Final Flow 45  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Shut-In 60  Day Standby \_\_\_\_\_ Total 1235.25  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1235.25

Approved By \_\_\_\_\_ Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 58866

4/10

Well Name & No. Kohl D #1 Test No. 4 Date 5-17-14  
 Company Drilling Oil Inc. Elevation 2320 KB 2313 GL  
 Address P.O. Box 550 Hays KS 67601-2431  
 Co. Rep / Geo. Roger Fisher Rig Discovery #4  
 Location: Sec. 2 Twp. 12<sup>S</sup> Rge. 21<sup>W</sup> Co. Trego State KS

Interval Tested 3908-3930 Zone Tested Marmaton  
 Anchor Length 22 Drill Pipe Run 3877 Mud Wt. 9.0  
 Top Packer Depth 3903 Drill Collars Run 31 Vis 54  
 Bottom Packer Depth 3908 Wt. Pipe Run 0 WL 8.0  
 Total Depth 3930 Chlorides 4000 ppm System LCM 1/2

Blow Description IFP - Surface Blow Building to 4 1/4 in.  
ISIP - No Blow  
FFP - Surface Blow Building to 3 in.  
FSIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>75</u>	<u>0MCCW</u>	<u>10</u>	<u>70</u>	<u>20</u>	
<u>8</u>	<u>CO</u>	<u>100</u>			

Rec Total 83 BHT 116 Gravity 34 API RW .372 @ 64 °F Chlorides 20000 ppm

(A) Initial Hydrostatic 2013  Test 1150 T-On Location 4:02  
 (B) First Initial Flow 16  Jars \_\_\_\_\_ T-Started 4:48  
 (C) First Final Flow 34  Safety Joint \_\_\_\_\_ T-Open 6:33  
 (D) Initial Shut-In 685  Circ Sub \_\_\_\_\_ T-Pulled 9:33  
 (E) Second Initial Flow 37  Hourly Standby \_\_\_\_\_ T-Out 11:35  
 (F) Second Final Flow 47  Mileage 85.25 Comments \_\_\_\_\_  
 (G) Final Shut-In 656  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1918  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1235.25  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_

Initial Open 30  
 Initial Shut-In 45  
 Final Flow 45  
 Final Shut-In 60  
 Sub Total 1235.25

Approved By \_\_\_\_\_ Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 58867

Well Name & No. Kohl D #1 Test No. 5 Date 5-17-14  
 Company Dreiling Oil Inc. Elevation 2320 KB 2313 GL  
 Address P.O. Box 550 Hays KS 67601  
 Co. Rep / Geo. Roger Fisher Rig Discovery #4  
 Location: Sec. 2 Twp. 12<sup>s</sup> Rge. 21<sup>w</sup> Co. Trego State KS

Interval Tested 3996-4016 Zone Tested Arbuckle  
 Anchor Length 20 Drill Pipe Run 3970 Mud Wt. 9.4  
 Top Packer Depth 3991 Drill Collars Run 31 Vis 50  
 Bottom Packer Depth 3996 Wt. Pipe Run 0 WL 8.0  
 Total Depth 4016 Chlorides 6000 ppm System LCM 1/2  
 Blow Description IIP- BOB in 30 min.  
ISIP- Surface Blow in 3 min. Died in 15 min.  
FFP- BOB in 26 min  
FSIP- Surface Blow in 2 min. Building to 1/2 in.

Rec	Feet of	%gas	%oil	%water	%mud
<u>70</u>	<u>MCO</u>	<u>50</u>		<u>50</u>	
<u>126</u>	<u>CO</u>	<u>100</u>			
	<u>219</u>				

Rec Total 196 BHT 121 Gravity 34 API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1987  Test 1250 T-On Location 22:25  
 (B) First Initial Flow 23  Jars \_\_\_\_\_ T-Started 23:33  
 (C) First Final Flow 49  Safety Joint \_\_\_\_\_ T-Open 01:17  
 (D) Initial Shut-In 1239  Circ Sub \_\_\_\_\_ T-Pulled 04:17  
 (E) Second Initial Flow 53  Hourly Standby \_\_\_\_\_ T-Out 06:26  
 (F) Second Final Flow 88  Mileage 85.25 Comments \_\_\_\_\_  
 (G) Final Shut-In 1239  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1941  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1335.25  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1335.25

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



**LITHOLOGY STRIP LOG**  
**WellSight Systems**  
 Scale 1:240 (5"=100') Imperial  
 Measured Depth Log

Well Name: Kohl D #1  
 Well Id: API-15-195-22928-00-00  
 Location: E2-SE-SW-SW/4 Section 2-T12S-R21W  
 License Number: 5145  
 Spud Date: May 10, 2014  
 Surface Coordinates: 330' FSL & 1045' FWL Section 2- T12S-R21W  
 Region: Trego Co, KS  
 Drilling Completed: May 18, 2014

Bottom Hole Coordinates:  
 Ground Elevation (ft): 2313' To: TD K.B. Elevation (ft): 2321'  
 Logged Interval (ft): NTD Total Depth (ft): 4165  
 Formation:  
 Type of Drilling Fluid: Chemical Displaced at 3000'  
 Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

**OPERATOR**

Company: Dreiling Oil Inc.  
 Address: 1008 Cody Ave.  
 P.O. Box 550  
 Hays, KS 67601

**GEOLOGIST**

Name: Roger L. Fisher  
 Company: Consulting Geologist  
 Address: 2610 W. Rio Vista  
 Wichita Kansas, 67204

**COMMENTS**

Discovery Rig #4  
 Surface Casing: 221' of 8 7/8"  
 Andy's Mud Co  
 OH Logs: Nabors Wireline; DILL, CDL/CNL, Micro  
 Surveys:  
 220' .75 degree  
 3620' 1 degree  
 4065' .75 degree  
 5 1/2" Casing was set to further evaluate postive DST in the Arbuckle.

**ROCK TYPES**

Anhy	Congl	Lmst	Black sh
Bent	Sdy dolo	Mrlst	Gry sh
Brec	Shy dolo	Salt	Shale
Cht	Dol	Shale	Shysltst
Clyst	Gyp	Sltst	Slysh
Coal	Sdy lmst	Ss	

