



KANSAS CORPORATION COMMISSION 1120370  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

June 2009

Form Must Be Typed

Form must be Signed

All blanks must be Filled

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

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

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
- Conv. to GSW
- Plug Back: \_\_\_\_\_ Plug Back Total Depth \_\_\_\_\_
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date      Date Reached TD      Completion Date or Recompletion Date

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

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

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

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

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

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

Total 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**

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



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

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

**INSTRUCTIONS:** Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i>  List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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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
_____ Perforate _____ Protect Casing _____ Plug Back TD _____ Plug Off Zone				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____		Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No	
Date of First, Resumed Production, SWD or ENHR. _____		Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____	
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls. Gas-Oil Ratio Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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## DRILL STEM TEST REPORT

Prepared For: **Deutscher Oil Operations**

2334 130th Avenue  
Ellis, KS 67637

ATTN: Richard Bell

### **TP Management #1-32**

#### **32-12s-20w Ellis,KS**

Start Date: 2012.08.24 @ 13:31:50

End Date: 2012.08.24 @ 19:15:35

Job Ticket #: 47852                      DST #: 1

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

Printed: 2012.09.10 @ 15:26:55



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Deutscher Oil Operations

**32-12s-20w Ellis,KS**

2334 130th Avenue  
Ellis, KS 67637

**TP Management #1-32**

Job Ticket: 47852

**DST#: 1**

ATTN: Richard Bell

Test Start: 2012.08.24 @ 13:31:50

## GENERAL INFORMATION:

Formation: **H-I**  
 Deviated: No Whipstock: 0.00 ft (KB)  
 Time Tool Opened: 15:28:50  
 Time Test Ended: 19:15:35  
 Interval: **3594.00 ft (KB) To 3645.00 ft (KB) (TVD)**  
 Total Depth: 3645.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Jason McLemore  
 Unit No: 54  
 Reference Elevations: 2170.00 ft (KB)  
 2165.00 ft (CF)  
 KB to GR/CF: 5.00 ft

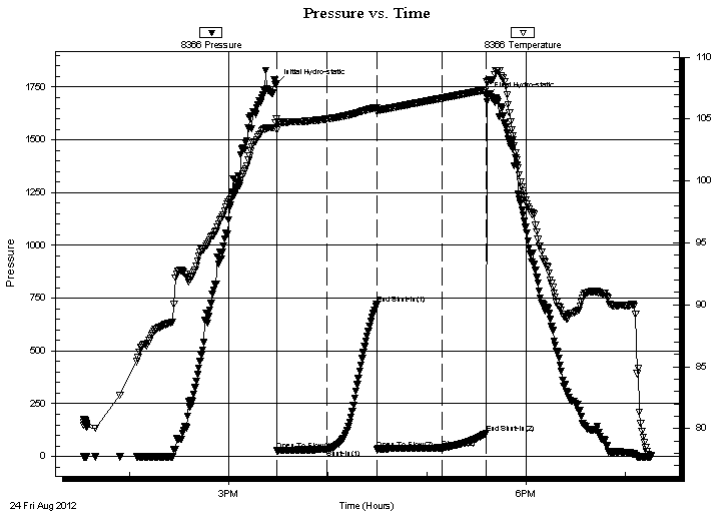
## Serial #: 8366

Inside

Press @ Run Depth: 40.58 psig @ 3629.00 ft (KB)  
 Start Date: 2012.08.24 End Date: 2012.08.24  
 Start Time: 13:31:52 End Time: 19:15:35  
 Capacity: 8000.00 psig  
 Last Calib.: 2012.08.25  
 Time On Btm: 2012.08.24 @ 15:28:35  
 Time Off Btm: 2012.08.24 @ 17:36:05

TEST COMMENT: IFP-Weak Surace Blow , Died in 15 Min.  
 ISI-Dead  
 FFP-Dead  
 FSI-Dead

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1766.85	105.01	Initial Hydro-static
1	27.06	104.09	Open To Flow (1)
31	33.07	105.00	Shut-In(1)
61	720.71	105.93	End Shut-In(1)
61	35.19	105.59	Open To Flow (2)
101	40.58	106.68	Shut-In(2)
127	110.97	107.36	End Shut-In(2)
128	1704.88	108.01	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud W/Oil Specks	0.02

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Deutscher Oil Operations

**32-12s-20w Ellis,KS**

2334 130th Avenue  
Ellis, KS 67637

**TP Management #1-32**

Job Ticket: 47852

**DST#: 1**

ATTN: Richard Bell

Test Start: 2012.08.24 @ 13:31:50

## Tool Information

Drill Pipe:	Length: 3459.00 ft	Diameter: 3.80 inches	Volume: 48.52 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 123.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 46000.00 lb
			<u>Total Volume: 49.12 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3594.00 ft			Final 45000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	51.00 ft			
Tool Length:	72.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3574.00	
Shut In Tool	5.00			3579.00	
Hydraulic tool	5.00			3584.00	
Packer	5.00			3589.00	21.00 Bottom Of Top Packer
Packer	5.00			3594.00	
Stubb	1.00			3595.00	
Perforations	1.00			3596.00	
Change Over Sub	1.00			3597.00	
Blank Spacing	31.00			3628.00	
Change Over Sub	1.00			3629.00	
Recorder	0.00	8366	Inside	3629.00	
Recorder	0.00	8289	Outside	3629.00	
Perforations	13.00			3642.00	
Bullnose	3.00			3645.00	51.00 Bottom Packers & Anchor

**Total Tool Length: 72.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Deutscher Oil Operations

**32-12s-20w Ellis,KS**

2334 130th Avenue  
Ellis, KS 67637

**TP Management #1-32**

Job Ticket: 47852

**DST#: 1**

ATTN: Richard Bell

Test Start: 2012.08.24 @ 13:31:50

## 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: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.38 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud W/Oil Specks	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

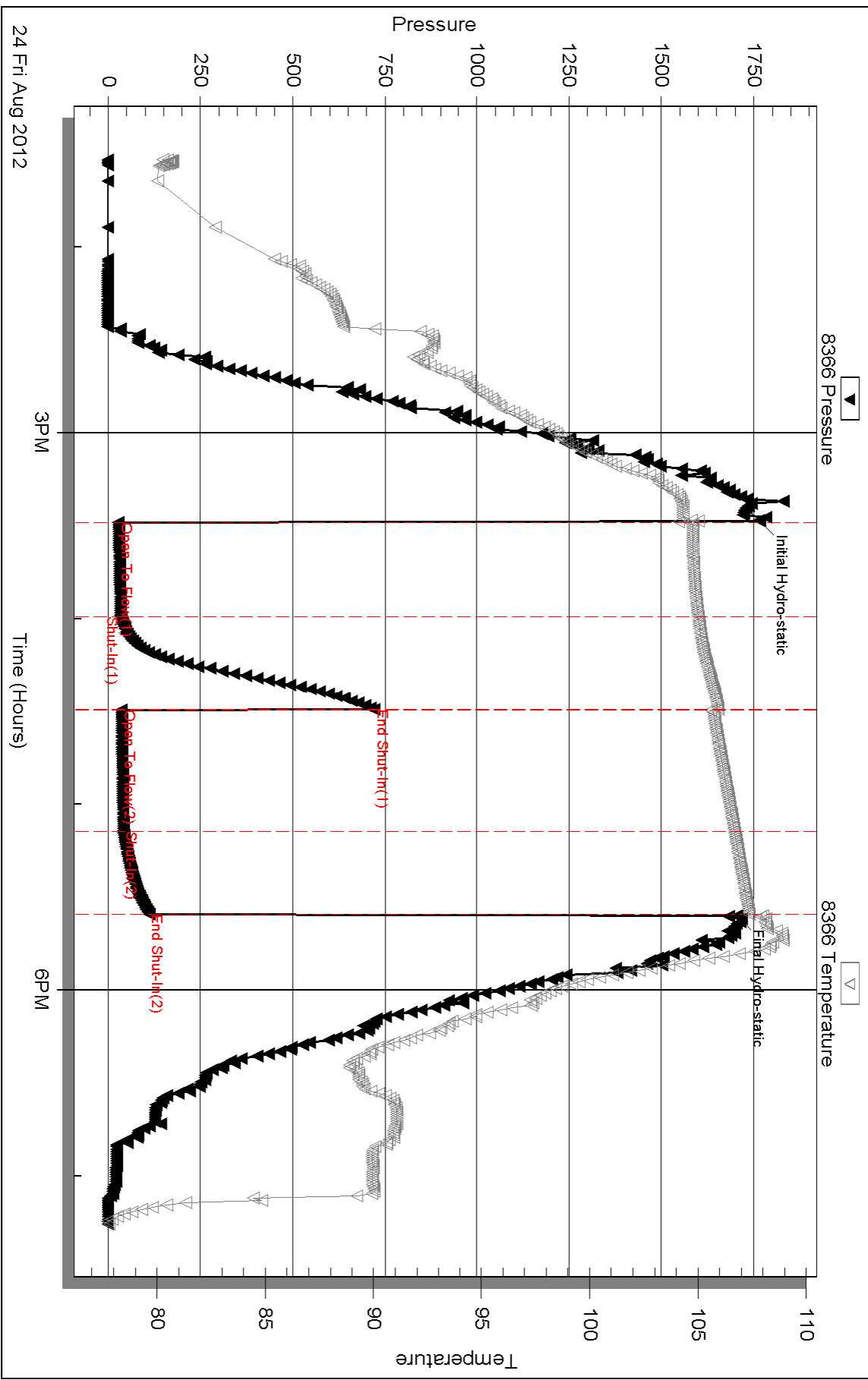
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

# Pressure vs. Time



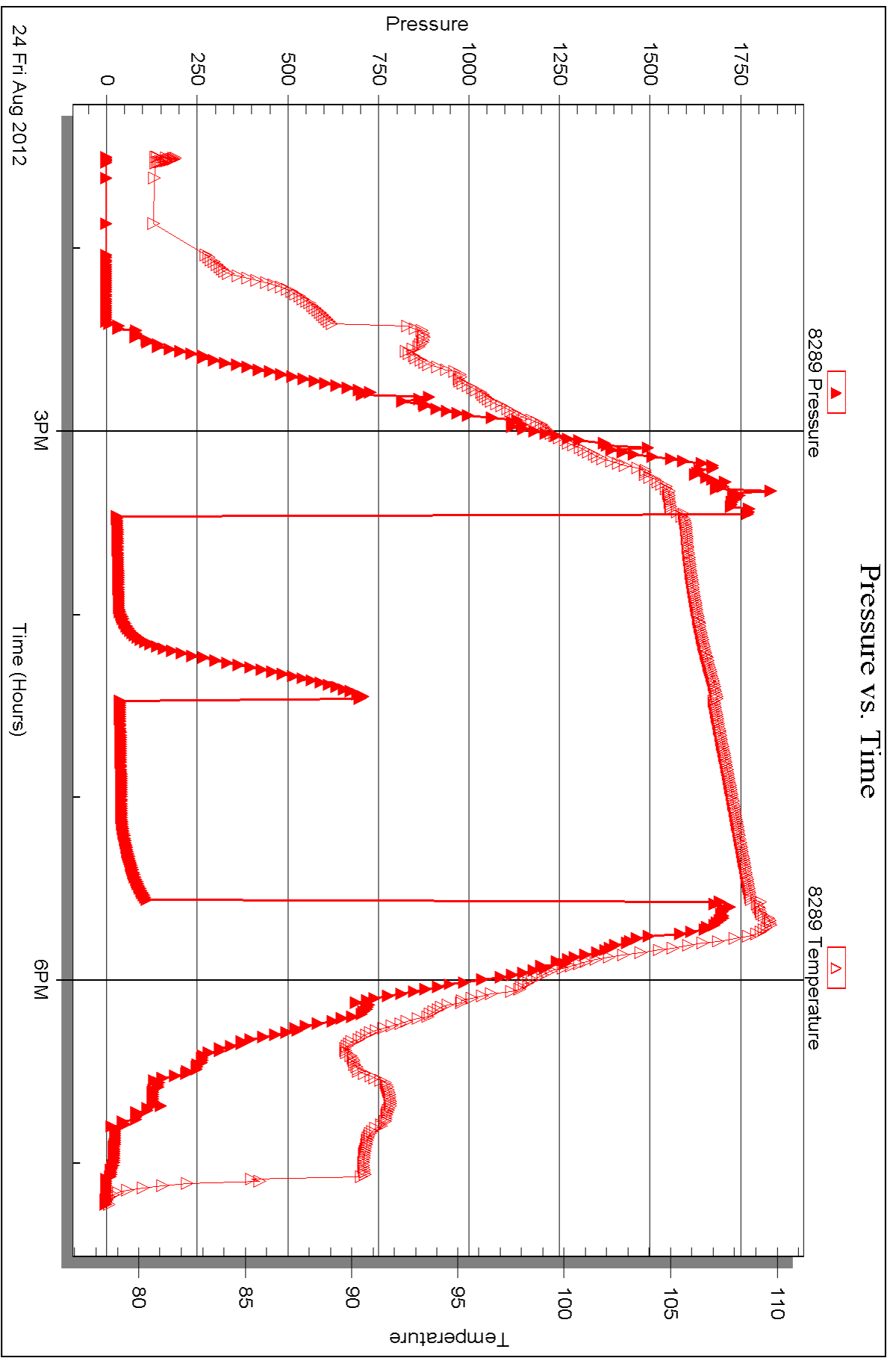


Serial #: 8289

Outside Deutscher Oil Operations

TP Management #1-32

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 47852

Printed: 2012.09.10 @ 15:27:02



## DRILL STEM TEST REPORT

Prepared For: **Deutscher Oil Operations**

2334 130th Avenue  
Ellis, KS 67637

ATTN: Richard Bell

### **TP Management #1-32**

#### **32-12s-20w Ellis,KS**

Start Date: 2012.08.25 @ 09:35:49

End Date: 2012.08.25 @ 15:04:19

Job Ticket #: 47853                      DST #: 2

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

Printed: 2012.09.10 @ 15:25:39



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Deutscher Oil Operations  
2334 130th Avenue  
Ellis, KS 67637  
ATTN: Richard Bell

**32-12s-20w Ellis,KS**  
**TP Management #1-32**  
Job Ticket: 47853      **DST#: 2**  
Test Start: 2012.08.25 @ 09:35:49

## GENERAL INFORMATION:

Formation: **J-K-L**  
Deviated: No      Whipstock: 0.00 ft (KB)  
Time Tool Opened: 11:39:04  
Time Test Ended: 15:04:19  
Interval: **3647.00 ft (KB) To 3720.00 ft (KB) (TVD)**  
Total Depth: 3720.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches      Hole Condition: Good  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Jason McLemore  
Unit No: 54  
Reference Elevations: 2170.00 ft (KB)  
2165.00 ft (CF)  
KB to GR/CF: 5.00 ft

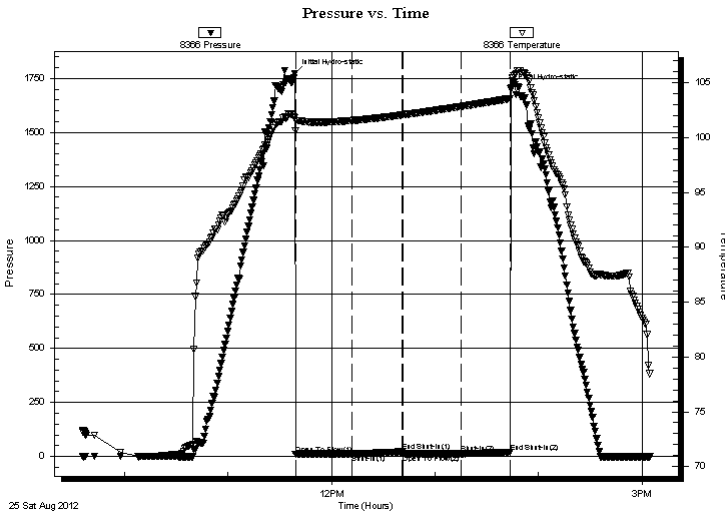
## Serial #: 8366

Inside

Press @ RunDepth: 12.79 psig @ 3717.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2012.08.25      End Date: 2012.08.25      Last Calib.: 2012.08.25  
Start Time: 09:35:51      End Time: 15:04:19      Time On Btm: 2012.08.25 @ 11:38:49  
Time Off Btm: 2012.08.25 @ 13:43:49

TEST COMMENT: IFP-Surge On Open, Dead  
ISI-Dead  
FFP-Dead  
FSI-Dead

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1771.69	101.81	Initial Hydro-static
1	11.14	100.64	Open To Flow (1)
34	12.26	101.56	Shut-In(1)
63	21.91	102.06	End Shut-In(1)
63	11.94	102.07	Open To Flow (2)
97	12.79	102.83	Shut-In(2)
125	19.18	103.54	End Shut-In(2)
125	1701.56	104.48	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1.00	Drilling Mud	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**

Deutscher Oil Operations

**32-12s-20w Ellis, KS**

2334 130th Avenue  
Ellis, KS 67637

**TP Management #1-32**

Job Ticket: 47853

**DST#: 2**

ATTN: Richard Bell

Test Start: 2012.08.25 @ 09:35:49

## Tool Information

Drill Pipe:	Length: 3523.00 ft	Diameter: 3.80 inches	Volume: 49.42 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 123.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 48000.00 lb
			<u>Total Volume: 50.02 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3647.00 ft			Final 45000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	73.00 ft			
Tool Length:	94.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Change Over Sub	1.00			3627.00	
Shut In Tool	5.00			3632.00	
Hydraulic tool	5.00			3637.00	
Packer	5.00			3642.00	21.00 Bottom Of Top Packer
Packer	5.00			3647.00	
Stubb	1.00			3648.00	
Perforations	5.00			3653.00	
Change Over Sub	1.00			3654.00	
Blank Spacing	62.00			3716.00	
Change Over Sub	1.00			3717.00	
Recorder	0.00	8366	Inside	3717.00	
Recorder	0.00	8289	Outside	3717.00	
Bullnose	3.00			3720.00	73.00 Bottom Packers & Anchor

**Total Tool Length: 94.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Deutscher Oil Operations

**32-12s-20w Ellis,KS**

2334 130th Avenue  
Ellis, KS 67637

**TP Management #1-32**

Job Ticket: 47853

**DST#: 2**

ATTN: Richard Bell

Test Start: 2012.08.25 @ 09:35:49

## 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: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.37 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	Drilling Mud	0.005

Total Length: 1.00 ft      Total Volume: 0.005 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

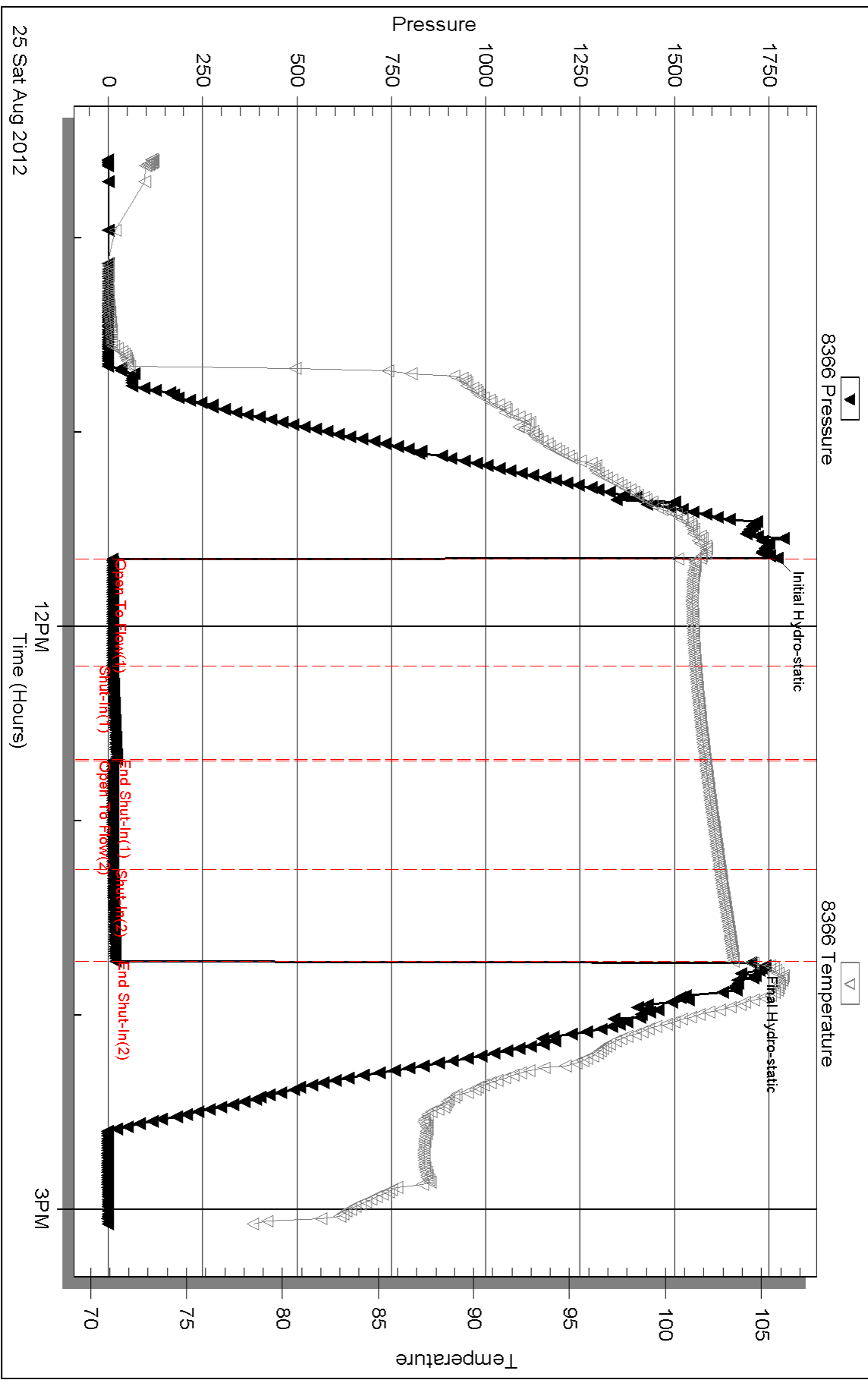
Serial #:

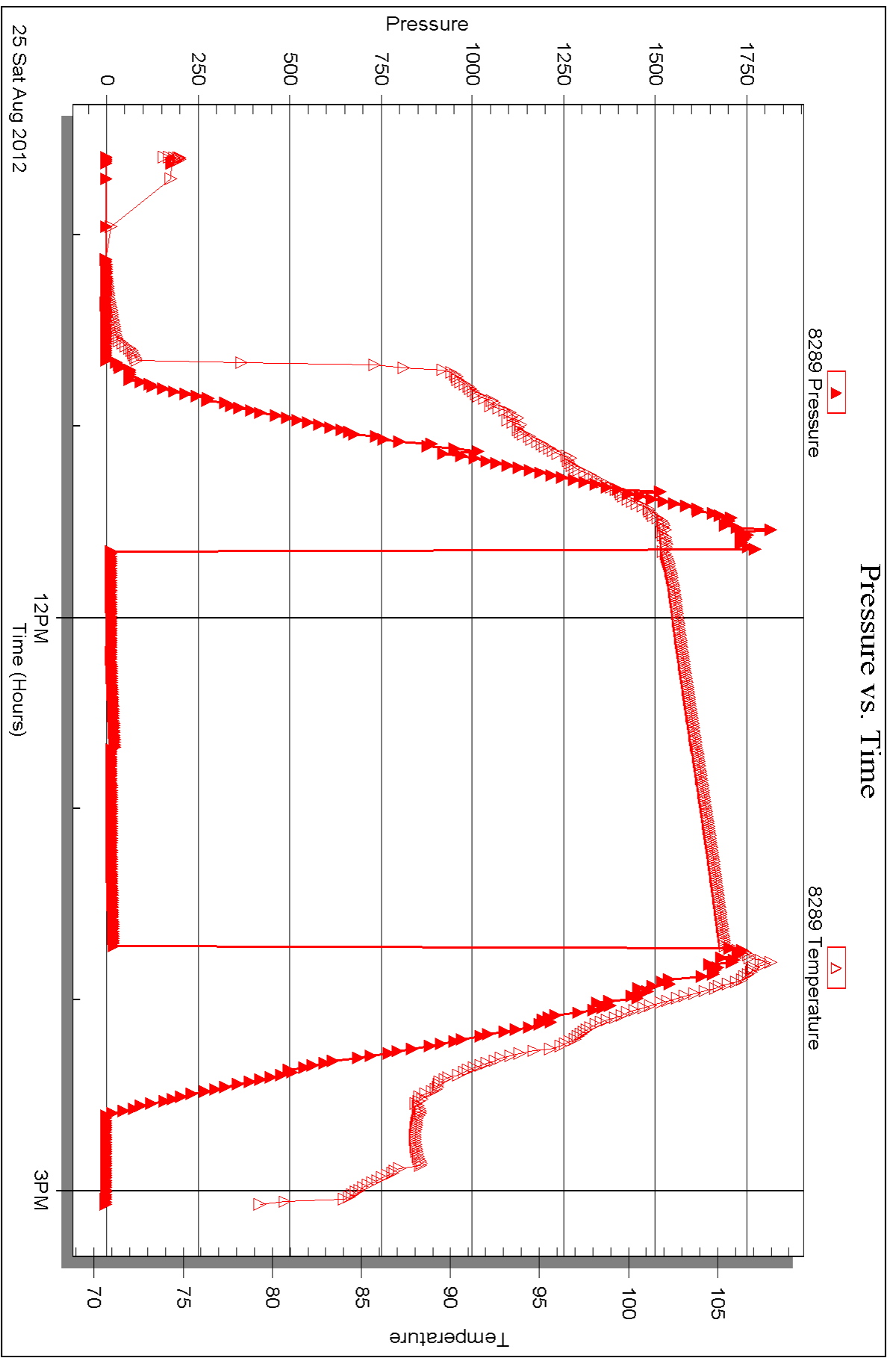
Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time









## DRILL STEM TEST REPORT

Prepared For: **Deutscher Oil Operations**

2334 130th Avenue  
Ellis, KS 67637

ATTN: Richard Bell

### **TP Management #1-32**

#### **32-12s-20w Ellis,KS**

Start Date: 2012.08.25 @ 23:21:48

End Date: 2012.08.26 @ 05:59:33

Job Ticket #: 47854                      DST #: 3

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

Printed: 2012.09.10 @ 15:24:51



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Deutscher Oil Operations

**32-12s-20w Ellis,KS**

2334 130th Avenue  
Ellis, KS 67637

**TP Management #1-32**

Job Ticket: 47854

**DST#: 3**

ATTN: Richard Bell

Test Start: 2012.08.25 @ 23:21:48

## GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 01:23:33

Time Test Ended: 05:59:33

Test Type: Conventional Bottom Hole (Reset)

Tester: Jason McLemore

Unit No: 54

**Interval: 3777.00 ft (KB) To 3798.00 ft (KB) (TVD)**

Reference Elevations: 2170.00 ft (KB)

Total Depth: 3798.00 ft (KB) (TVD)

2165.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8366 Inside**

Press @ Run Depth: 183.29 psig @ 3780.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.08.25

End Date:

2012.08.26

Last Calib.:

2012.08.26

Start Time: 23:21:50

End Time:

05:59:33

Time On Btm:

2012.08.26 @ 01:23:18

Time Off Btm:

2012.08.26 @ 03:53:33

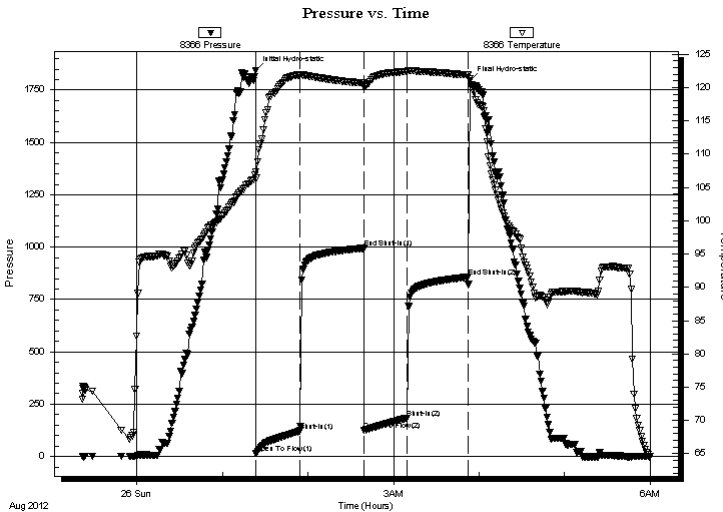
TEST COMMENT: IFP-Good Blow , BOB in 26 Min.

ISI-Dead

FFP-Good Blow , Built to 9"

FSI-Dead

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1843.94	107.31	Initial Hydro-static
1	15.19	106.39	Open To Flow (1)
31	122.06	121.84	Shut-In(1)
76	994.62	120.65	End Shut-In(1)
76	126.16	120.08	Open To Flow (2)
107	183.29	122.40	Shut-In(2)
149	857.69	121.89	End Shut-In(2)
151	1793.99	121.36	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
300.00	Muddy Water-90%W-10%M	3.09
16.00	Free Oil	0.22

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Deutscher Oil Operations

**32-12s-20w Ellis,KS**

2334 130th Avenue  
Ellis, KS 67637

**TP Management #1-32**

Job Ticket: 47854

**DST#: 3**

ATTN: Richard Bell

Test Start: 2012.08.25 @ 23:21:48

## Tool Information

Drill Pipe:	Length: 3646.00 ft	Diameter: 3.80 inches	Volume: 51.14 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 123.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	50000.00 lb
			<u>Total Volume: 51.74 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial	45000.00 lb
Depth to Top Packer:	3777.00 ft			Final	46000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	21.00 ft				
Tool Length:	42.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3757.00	
Shut In Tool	5.00			3762.00	
Hydraulic tool	5.00			3767.00	
Packer	5.00			3772.00	21.00 Bottom Of Top Packer
Packer	5.00			3777.00	
Stubb	1.00			3778.00	
Perforations	2.00			3780.00	
Recorder	0.00	8366	Inside	3780.00	
Recorder	0.00	8289	Outside	3780.00	
Perforations	15.00			3795.00	
Bullnose	3.00			3798.00	21.00 Bottom Packers & Anchor

**Total Tool Length: 42.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Deutscher Oil Operations

**32-12s-20w Ellis,KS**

2334 130th Avenue  
Ellis, KS 67637

**TP Management #1-32**

Job Ticket: 47854

**DST#: 3**

ATTN: Richard Bell

Test Start: 2012.08.25 @ 23:21:48

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

39 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

16000 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4800.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
300.00	Muddy Water-90%W-10%M	3.088
16.00	Free Oil	0.224

Total Length: 316.00 ft

Total Volume: 3.312 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

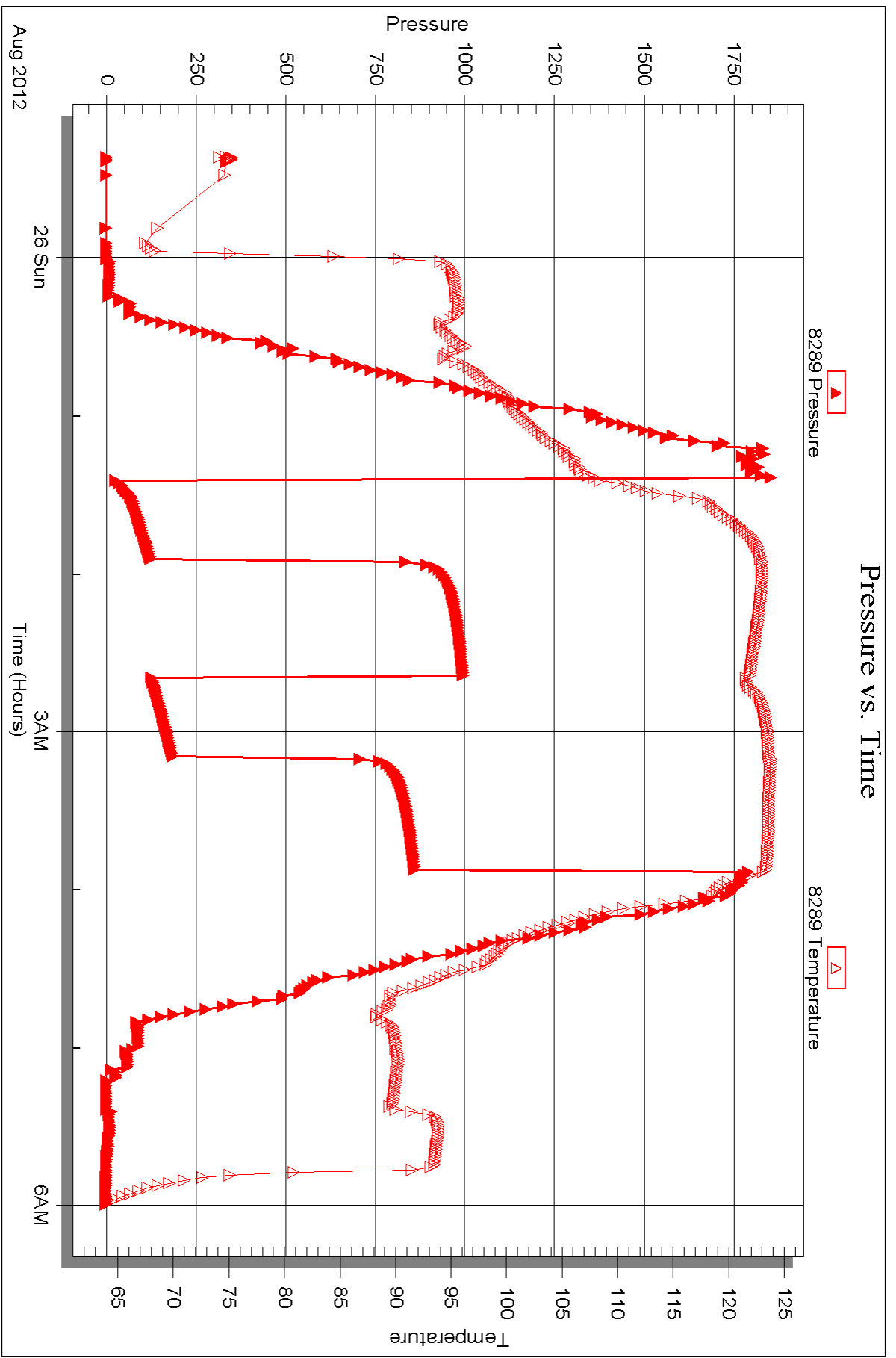


Serial #: 8289

Outside Deutscher Oil Operations

TP Management #1-32

DST Test Number: 3





## DRILL STEM TEST REPORT

Prepared For: **Deutscher Oil Operations**

2334 130th Avenue  
Ellis, KS 67637

ATTN: Richard Bell

### **TP Management #1-32**

#### **32-12s-20w Ellis,KS**

Start Date: 2012.08.26 @ 14:43:53

End Date: 2012.08.26 @ 19:49:23

Job Ticket #: 47855                      DST #: 4

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

Printed: 2012.09.10 @ 15:23:57





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Deutscher Oil Operations  
2334 130th Avenue  
Ellis, KS 67637  
ATTN: Richard Bell

**32-12s-20w Ellis,KS**  
**TP Management #1-32**  
Job Ticket: 47855 **DST#: 4**  
Test Start: 2012.08.26 @ 14:43:53

## GENERAL INFORMATION:

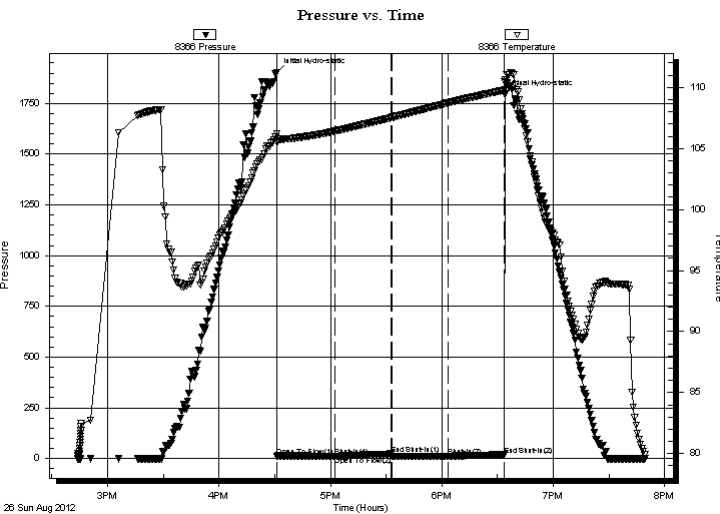
Formation: **Arbuckle**  
Deviated: No Whipstock: 0.00 ft (KB)  
Time Tool Opened: 16:31:23  
Time Test Ended: 19:49:23  
Interval: **3835.00 ft (KB) To 3850.00 ft (KB) (TVD)**  
Total Depth: 3850.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Jason McLemore  
Unit No: 54  
Reference Elevations: 2170.00 ft (KB)  
2165.00 ft (CF)  
KB to GR/CF: 5.00 ft

## Serial #: 8366

Inside

Press @ Run Depth: 11.92 psig @ 3837.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2012.08.26 End Date: 2012.08.26 Last Calib.: 2012.08.26  
Start Time: 14:43:55 End Time: 19:49:23 Time On Btm: 2012.08.26 @ 16:31:08  
Time Off Btm: 2012.08.26 @ 18:33:53

TEST COMMENT: IFP-Surge On Open, Dead in 5 Min.  
ISI-Dead  
FFP-Dead  
FSI-Dead



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1903.64	106.22	Initial Hydro-static
1	12.20	105.49	Open To Flow (1)
32	12.05	106.43	Shut-In(1)
62	22.63	107.52	End Shut-In(1)
62	11.20	107.52	Open To Flow (2)
92	11.92	108.72	Shut-In(2)
123	18.29	109.77	End Shut-In(2)
123	1796.81	110.43	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1.00	Mud W/Oil Spots,5%O-95%M	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**

Deutscher Oil Operations

**32-12s-20w Ellis,KS**

2334 130th Avenue  
Ellis, KS 67637

**TP Management #1-32**

Job Ticket: 47855

**DST#: 4**

ATTN: Richard Bell

Test Start: 2012.08.26 @ 14:43:53

## Tool Information

Drill Pipe:	Length: 3711.00 ft	Diameter: 3.80 inches	Volume: 52.06 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 123.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume: 52.66 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial	45000.00 lb
Depth to Top Packer:	3835.00 ft			Final	45000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	15.00 ft				
Tool Length:	36.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3815.00	
Shut In Tool	5.00			3820.00	
Hydraulic tool	5.00			3825.00	
Packer	5.00			3830.00	21.00 Bottom Of Top Packer
Packer	5.00			3835.00	
Stubb	1.00			3836.00	
Perforations	1.00			3837.00	
Recorder	0.00	8366	Inside	3837.00	
Recorder	0.00	8289	Outside	3837.00	
Perforations	10.00			3847.00	
Bullnose	3.00			3850.00	15.00 Bottom Packers & Anchor

**Total Tool Length: 36.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Deutscher Oil Operations

**32-12s-20w Ellis,KS**

2334 130th Avenue  
Ellis, KS 67637

**TP Management #1-32**

Job Ticket: 47855

**DST#: 4**

ATTN: Richard Bell

Test Start: 2012.08.26 @ 14:43:53

## 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: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.38 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	Mud W/Oil Spots,5%O-95%M	0.005

Total Length: 1.00 ft      Total Volume: 0.005 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

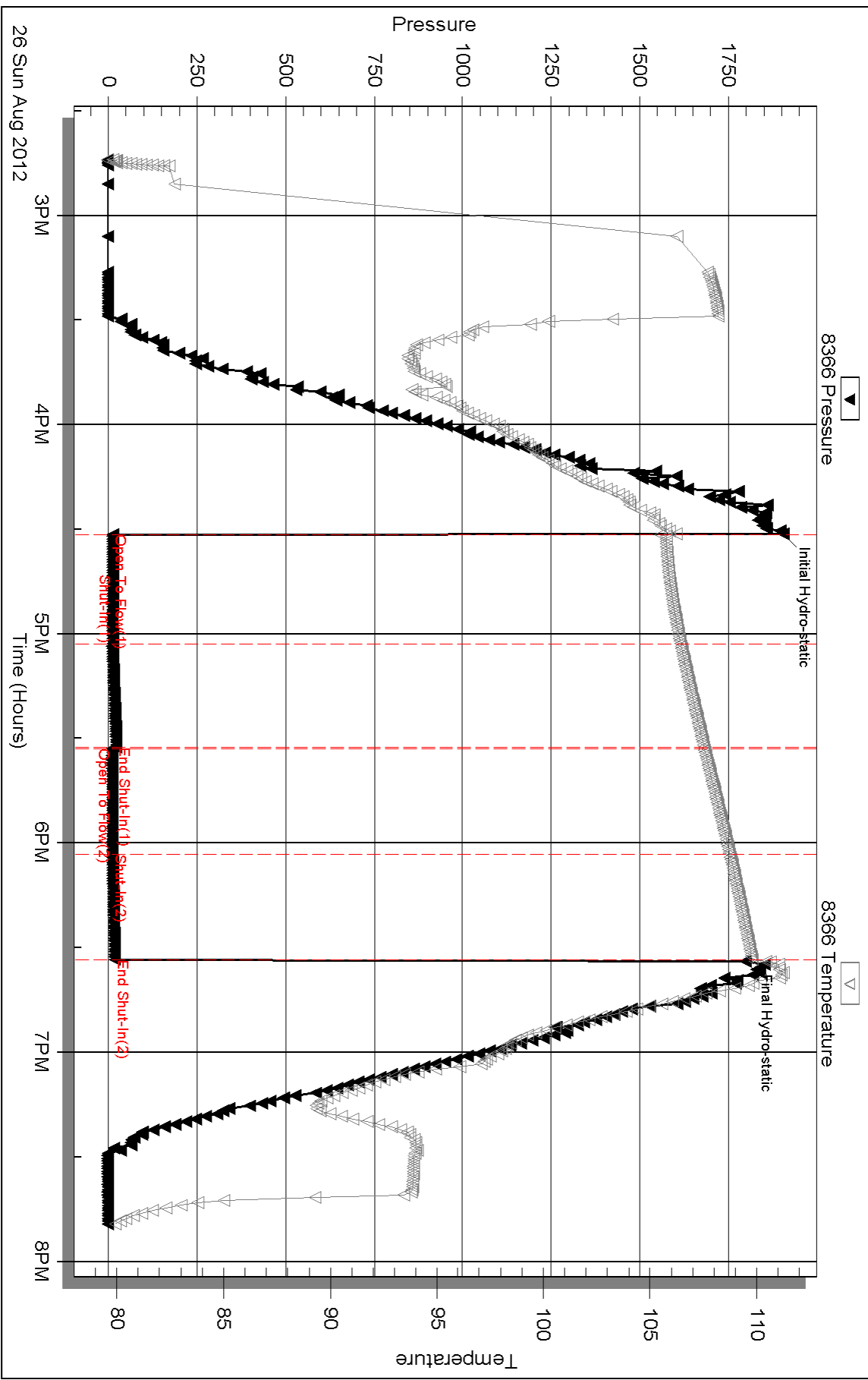
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

# Pressure vs. Time

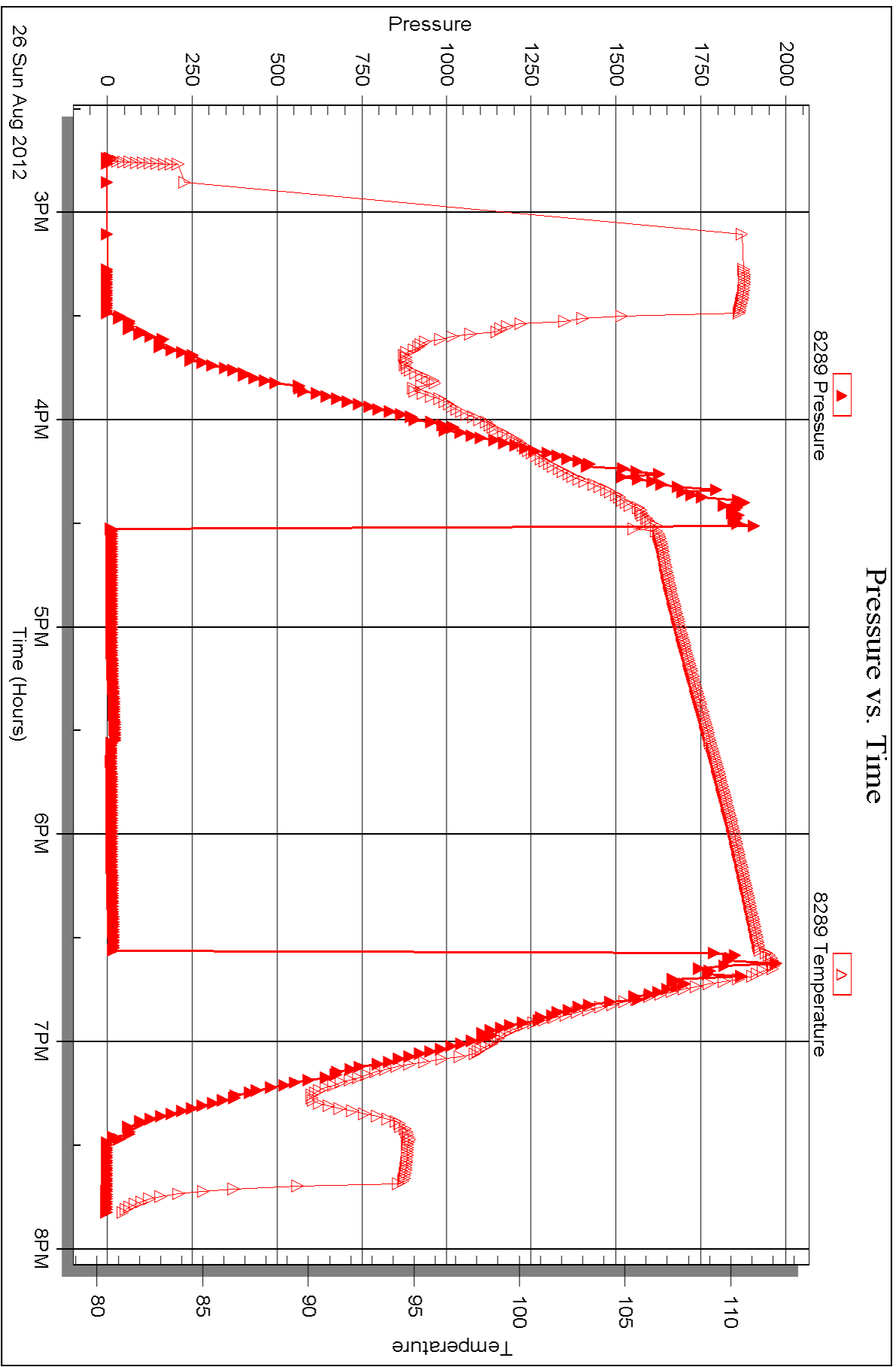


Serial #: 8289

Outside Deutscher Oil Operations

TP Management #1-32

DST Test Number: 4





## DRILL STEM TEST REPORT

Prepared For: **Deutscher Oil Operations**

2334 130th Avenue  
Ellis, KS 67637

ATTN: Richard Bell

### **TP Management #1-32**

#### **32-12s-20w Ellis,KS**

Start Date: 2012.08.27 @ 09:58:11

End Date: 2012.08.27 @ 14:28:26

Job Ticket #: 47856                      DST #: 5

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

Printed: 2012.09.10 @ 15:22:52



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Deutscher Oil Operations

**32-12s-20w Ellis,KS**

2334 130th Avenue  
Ellis, KS 67637

**TP Management #1-32**

ATTN: Richard Bell

Job Ticket: 47856

**DST#: 5**

Test Start: 2012.08.27 @ 09:58:11

## GENERAL INFORMATION:

Formation: **D**  
 Deviated: No Whipstock: 0.00 ft (KB)  
 Time Tool Opened: 11:42:26  
 Time Test Ended: 14:28:26  
 Interval: **3516.00 ft (KB) To 3535.00 ft (KB) (TVD)**  
 Total Depth: 3895.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Straddle (Reset)  
 Tester: Jason McLemore  
 Unit No: 54  
 Reference Elevations: 2170.00 ft (KB)  
 2165.00 ft (CF)  
 KB to GR/CF: 5.00 ft

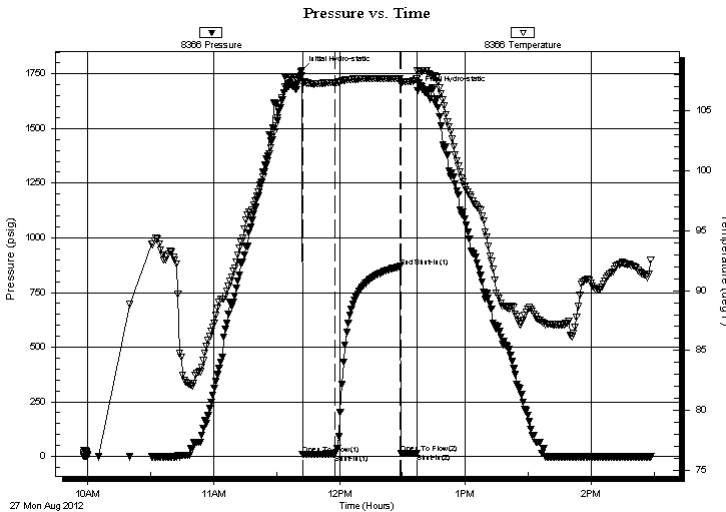
## Serial #: 8366

Inside

Press @ Run Depth: 11.75 psig @ 3517.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.08.27 End Date: 2012.08.27 Last Calib.: 2012.08.27  
 Start Time: 09:58:13 End Time: 14:28:26 Time On Btm: 2012.08.27 @ 11:42:11  
 Time Off Btm: 2012.08.27 @ 12:37:11

TEST COMMENT: IFP-Weak Surface Blow , Dead in 15 Min.  
 ISI-Dead  
 FFP-Dead, Pull Tool

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1766.02	107.94	Initial Hydro-static
1	9.55	107.29	Open To Flow (1)
16	11.75	107.34	Shut-In(1)
47	869.23	107.71	End Shut-In(1)
47	12.99	107.23	Open To Flow (2)
55	13.95	107.65	Shut-In(2)
55	1674.09	108.34	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
3.00	Mud W/Oil Specks	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**

Deutscher Oil Operations

**32-12s-20w Ellis,KS**

2334 130th Avenue  
Ellis, KS 67637

**TP Management #1-32**

Job Ticket: 47856

**DST#: 5**

ATTN: Richard Bell

Test Start: 2012.08.27 @ 09:58:11

## Tool Information

Drill Pipe:	Length: 3392.00 ft	Diameter: 3.80 inches	Volume: 47.58 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 123.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 48.18 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3516.00 ft			Final 45000.00 lb
Depth to Bottom Packer:	3535.00 ft			
Interval between Packers:	19.00 ft			
Tool Length:	401.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		
Tool Comments:				

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Recorder	0.00	6755	Fluid	3495.00	
Change Over Sub	1.00			3496.00	
Shut In Tool	5.00			3501.00	
Hydraulic tool	5.00			3506.00	
Packer	5.00			3511.00	21.00 Bottom Of Top Packer
Packer	5.00			3516.00	
Stubb	1.00			3517.00	
Recorder	0.00	8366	Inside	3517.00	
Recorder	0.00	8789	Outside	3517.00	
Perforations	14.00			3531.00	
Blank Off Sub	1.00			3532.00	
Blank Spacing	3.00			3535.00	19.00 Tool Interval
Packer	1.00			3536.00	
Perforations	6.00			3542.00	
Change Over Sub	1.00			3543.00	
Recorder	0.00	8289	Below	3543.00	
Blank Spacing	349.00			3892.00	
Change Over Sub	1.00			3893.00	
Bullnose	3.00			3896.00	361.00 Bottom Packers & Anchor

**Total Tool Length: 401.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Deutscher Oil Operations

**32-12s-20w Ellis,KS**

2334 130th Avenue  
Ellis, KS 67637

**TP Management #1-32**

Job Ticket: 47856

**DST#: 5**

ATTN: Richard Bell

Test Start: 2012.08.27 @ 09:58:11

## 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: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.38 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
3.00	Mud W/Oil Specks	0.015

Total Length: 3.00 ft      Total Volume: 0.015 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

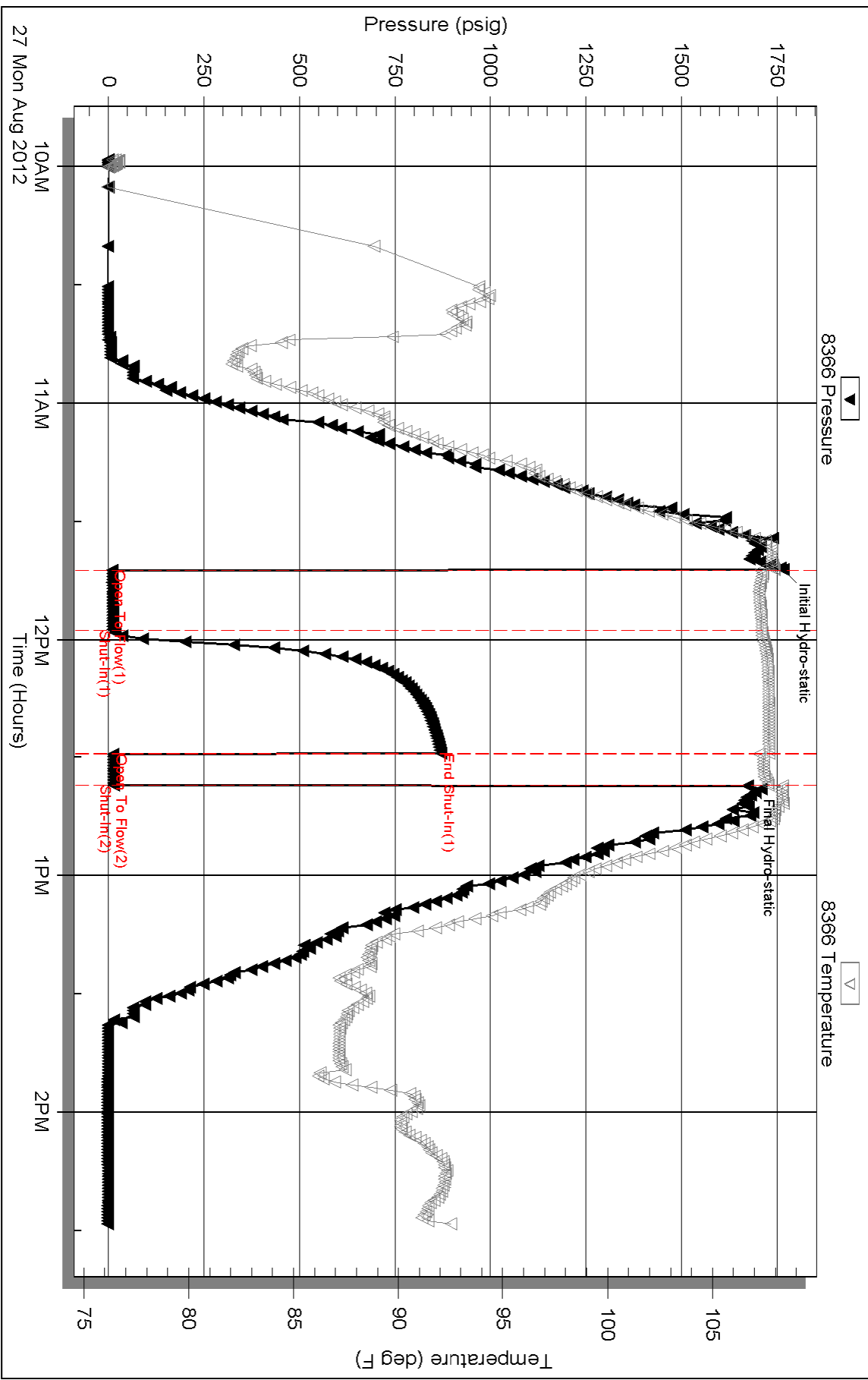
Serial #:

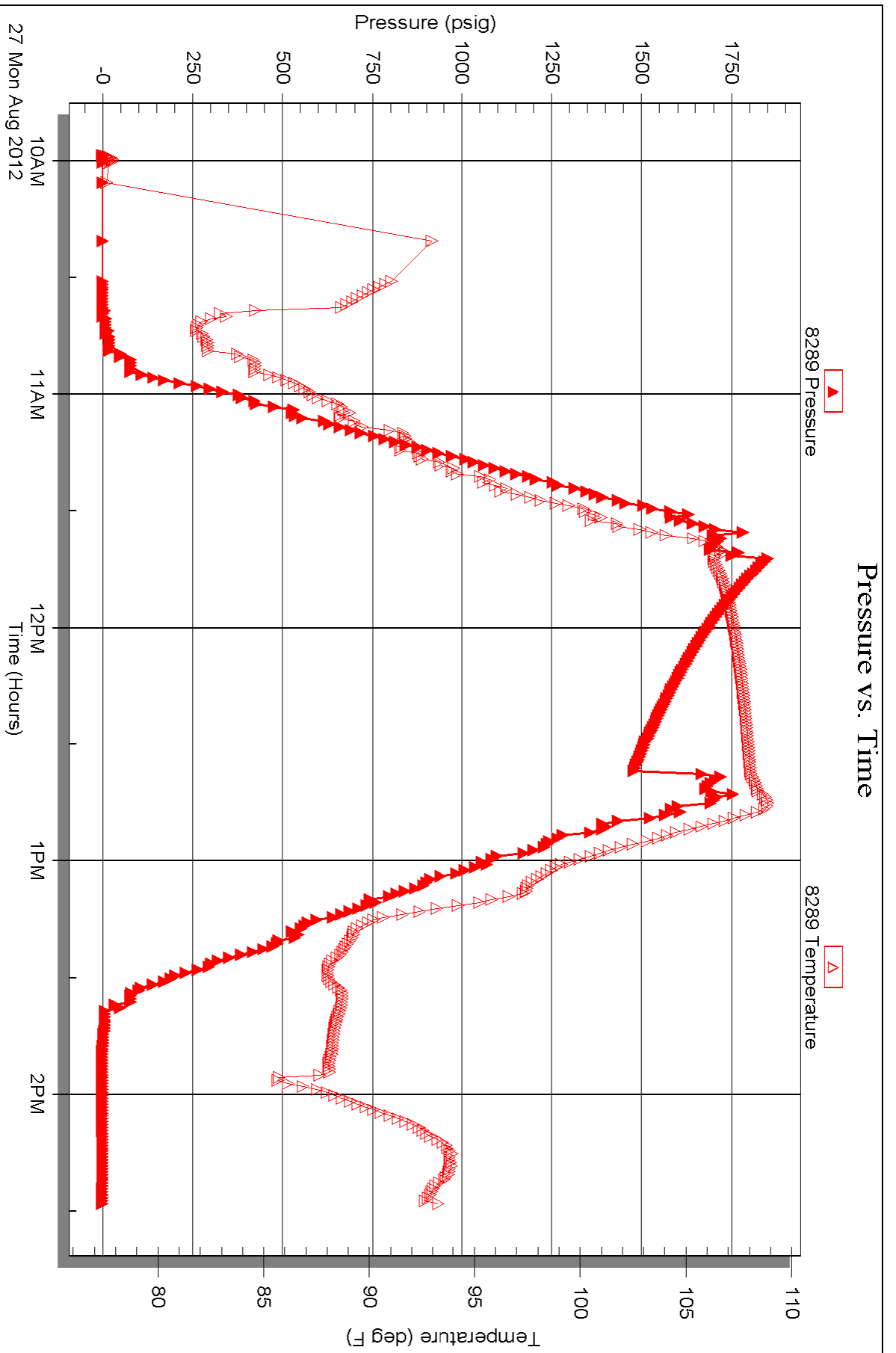
Laboratory Name:

Laboratory Location:

Recovery Comments:

# Pressure vs. Time



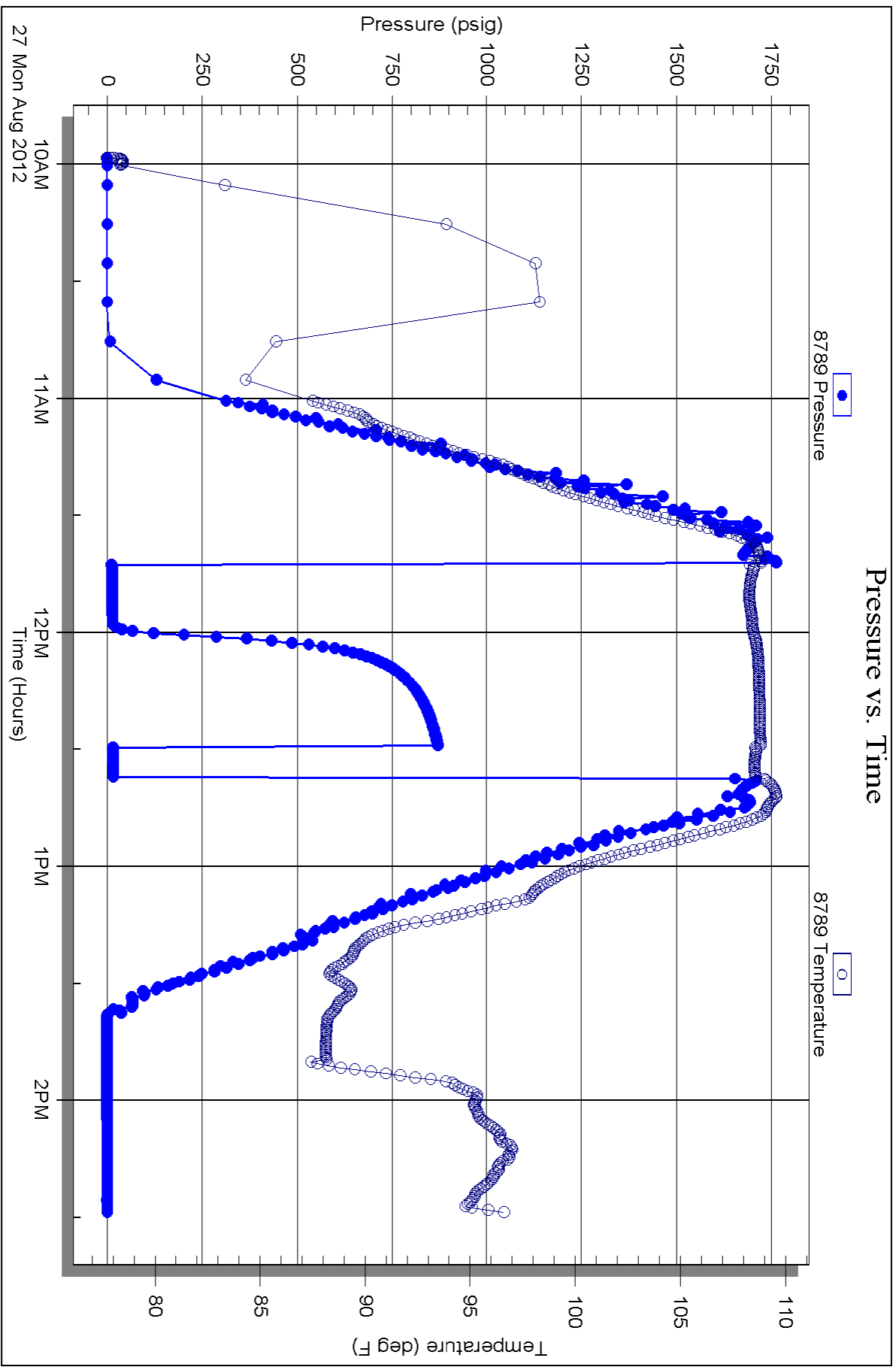


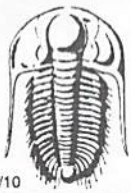
Serial #: 8789

Outside Deutscher Oil Operations

TP Management #1-32

DST Test Number: 5





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 47852

Well Name & No. TP Management #1-32 Test No. 1 Date 8-24-12  
 Company Deutscher Oil Operations Elevation 2170 KB 2165 GL  
 Address 2334 130th Avenue, Ellis, KS. 67637  
 Co. Rep / Geo. Richard Bell Rig WV #8  
 Location: Sec. 32 Twp. 12s Rge. 20w Co. Ellis State \_\_\_\_\_

Interval Tested 3594-3645 Zone Tested LKC - 'H-I'  
 Anchor Length 51 Drill Pipe Run 3459 Mud Wt. 9.0  
 Top Packer Depth 3589 Drill Collars Run 123 Vis 62  
 Bottom Packer Depth 3594 Wt. Pipe Run 0 WL 6.4  
 Total Depth 3645 Chlorides 5,000 ppm System LCM 1 #  
 Blow Description IFP-Weak Surface Blow, Dead in 15 min.  
ISI-Dead  
FFP-Dead  
FSI-Dead

Rec	Feet of	%gas	%oil	%water	%mud
<u>5'</u>	<u>Mud w/oil, specks</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 5 BHT 108 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

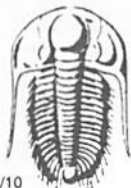
(A) Initial Hydrostatic <u>1767</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>12:19</u>
(B) First Initial Flow <u>27</u>	<input type="checkbox"/> Jars _____	T-Started <u>13:29</u>
(C) First Final Flow <u>33</u>	<input type="checkbox"/> Safety Joint _____	T-Open <u>15:22</u>
(D) Initial Shut-In <u>721</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>17:22</u>
(E) Second Initial Flow <u>35</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>19:09</u>
(F) Second Final Flow <u>41</u>	<input checked="" type="checkbox"/> Mileage <u>38rt</u> <u>58.90</u>	Comments _____
(G) Final Shut-In <u>111</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1705</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>1208.90</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1208.90</u>	

Approved By \_\_\_\_\_

Our Representative Jason McLenon thank you

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.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 47853

Well Name & No. TP Management #1-32 Test No. 2 Date 8-25-12  
 Company Deutscher Oil Operations Elevation 2170 KB 2165 GL  
 Address 2334 130th Avenue, Ellis, KS. 67637  
 Co. Rep / Geo. Richard Bell Rig WW #8  
 Location: Sec. 32 Twp. 12s Rge. 20w Co. Ellis State KS

Interval Tested 3647-3720 Zone Tested J-K-L  
 Anchor Length 73' Drill Pipe Run 3523 Mud Wt. 8.9  
 Top Packer Depth 3642 Drill Collars Run 123 Vis 55  
 Bottom Packer Depth 3647 Wt. Pipe Run 0 WL 7.2  
 Total Depth 3720 Chlorides 4800 ppm System LCM 1/2#  
 Blow Description IFP- Surge on Open, Dead  
ISI- Dead  
FFP- Dead  
FSI- Dead

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>Drilling Mud</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 1 BHT 103° Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1772  Test 1150 T-On Location 9:16  
 (B) First Initial Flow 11  Jars \_\_\_\_\_ T-Started 9:33  
 (C) First Final Flow 12  Safety Joint \_\_\_\_\_ T-Open 11:38  
 (D) Initial Shut-In 22  Circ Sub \_\_\_\_\_ T-Pulled 13:38  
 (E) Second Initial Flow 12  Hourly Standby \_\_\_\_\_ T-Out 15:03  
 (F) Second Final Flow 13  Mileage 58.90 Comments \_\_\_\_\_  
 (G) Final Shut-In 19  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1702  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1208.90

Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Sub Total 0  
 Total 1208.90  
 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative Jason McJannet Thank You

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.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 47854

Well Name & No. TP Management #1-32 Test No. 3 Date 8-25-12  
 Company Deutscher Oil Operations Elevation 2170 KB 2165 GL  
 Address 2334 130th Avenue, Ellis, KS. 67637  
 Co. Rep / Geo. Richard Bell Rig WW #8  
 Location: Sec. 32 Twp. 12s Rge. 20w Co. \_\_\_\_\_ State KS

Interval Tested 3777-3798 Zone Tested Marmaton  
 Anchor Length 21' Drill Pipe Run 3646 Mud Wt. 8.9  
 Top Packer Depth 2772 Drill Collars Run 123 Vis 55  
 Bottom Packer Depth 3777 Wt. Pipe Run 0 WL 7.2  
 Total Depth 3798 Chlorides 4800 ppm System LCM 42<sup>#</sup>  
 Blow Description IFP- Good Blow, BOB in 26 min.  
ISI- Dead  
FPP- Good Blow, Built to 9"  
FSI- Dead

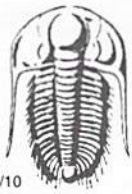
Rec	Feet of	%gas	%oil	%water	%mud
<u>16</u>	<u>Free Oil</u>				
<u>300</u>	<u>Muddy Water</u>		<u>90</u>	<u>10</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 316' BHT 122° Gravity 39 API RW 421 @ 64 °F Chlorides 16,000 ppm

(A) Initial Hydrostatic <u>1844</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>23:12</u>
(B) First Initial Flow <u>15</u>	<input type="checkbox"/> Jars _____	T-Started <u>23:19</u>
(C) First Final Flow <u>122</u>	<input type="checkbox"/> Safety Joint _____	T-Open <u>1:23</u>
(D) Initial Shut-In <u>995</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>3:53</u>
(E) Second Initial Flow <u>126</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>6:00</u>
(F) Second Final Flow <u>183</u>	<input checked="" type="checkbox"/> Mileage <u>58.90</u>	Comments _____
(G) Final Shut-In <u>858</u>	<input type="checkbox"/> Sampler _____	_____
(H) Final Hydrostatic <u>1794</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>45</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>45</u>	<input type="checkbox"/> Day Standby _____	Total <u>1208.90</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1208.90</u>	

Approved By \_\_\_\_\_ Our Representative Jane McLaw Thank you

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.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 47855

Well Name & No. TP Management #1-32 Test No. 4 Date 8-26-12  
 Company Deutscher Oil Operations Elevation 2170 KB 2165 GL  
 Address 2334 130th Avenue, Ellis, Ks. 67637  
 Co. Rep / Geo. Richard Bell Rig WW # 8  
 Location: Sec. 32 Twp. 12s Rge. 20w Co. Ellis State KS

Interval Tested 3835-3850 Zone Tested Arbuckle  
 Anchor Length 15' Drill Pipe Run 3711 Mud Wt. 8.9  
 Top Packer Depth 3830 Drill Collars Run 123 Vis 55  
 Bottom Packer Depth 3835 Wt. Pipe Run 0 WL 7.2  
 Total Depth 3850 Chlorides 4800 ppm System LCM 1/2 #  
 Blow Description IFP- Surge on open, Died in 5 min.  
ISI- Dead.  
FFP- Dead  
FSI- Dead

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>Mud with oil spots</u>	<u>5</u>	<u>95</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

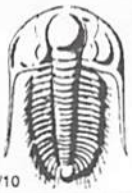
Rec Total 1 BHT 111° Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1904  Test 1150 T-On Location 14:30  
 (B) First Initial Flow 12  Jars \_\_\_\_\_ T-Started 14:41  
 (C) First Final Flow 12  Safety Joint \_\_\_\_\_ T-Open 16:30  
 (D) Initial Shut-In 23  Circ Sub \_\_\_\_\_ T-Pulled 18:30  
 (E) Second Initial Flow 11  Hourly Standby \_\_\_\_\_ T-Out 19:47  
 (F) Second Final Flow 12  Mileage 58.90 Comments \_\_\_\_\_  
 (G) Final Shut-In 18  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1797  Straddle \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_

Initial Open 30  
 Initial Shut-In 30  
 Final Flow 30  
 Final Shut-In 30  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1208.90  
 Sub Total 1208.90  
 Sub Total 0  
 Total 1208.90  
 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative Jason McLawrie Thank you

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# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 47856

Well Name & No. TP Management #1-32 Test No. 5 Date 8-27-12  
 Company Deutscher Oil Operations Elevation 2170 KB 2165 GL  
 Address 2334 130th Avenue, Ellis, KS. 67637  
 Co. Rep / Geo. Richard Bell Rig WW#8  
 Location: Sec. 32 Twp. 12s Rge. 20w Co. \_\_\_\_\_ State KS

Interval Tested 3516-3535 Zone Tested D  
 Anchor Length 19' Drill Pipe Run 3392 Mud Wt. 9.0  
 Top Packer Depth 3511 Drill Collars Run 123 Vis 55  
 Bottom Packer Depth 3516 straddle @ 3535 Wt. Pipe Run 0 WL 6.8  
 Total Depth 3895 Chlorides 6200 ppm System LCM 2#  
 Blow Description IFP- Weak Surface Blow, Dead in 15 min.  
ISI- Dead  
FFP- Dead, pull Tool

Rec	Feet of	%gas	%oil	%water	%mud
<u>3</u>	<u>Mud with Oil Specks</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 3 BHT 108° Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic <u>1766</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>8:45</u>
(B) First Initial Flow <u>10</u>	<input type="checkbox"/> Jars _____	T-Started <u>9:48</u>
(C) First Final Flow <u>12</u>	<input type="checkbox"/> Safety Joint _____	T-Open <u>11:33</u>
(D) Initial Shut-In <u>869</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>12:33</u>
(E) Second Initial Flow <u>13</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>14:20</u>
(F) Second Final Flow <u>14</u>	<input checked="" type="checkbox"/> Mileage <u>58.90</u>	Comments _____
(G) Final Shut-In <u>///</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1674</u>	<input checked="" type="checkbox"/> Straddle <u>600</u>	<input type="checkbox"/> Ruined Shale Packer _____
Initial Open <u>15</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>15</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In <u>///</u>	<input type="checkbox"/> Day Standby _____	Total <u>1808.90</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1808.90</u>	

Approved By \_\_\_\_\_ Our Representative \_\_\_\_\_

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API # 15-051-26317-00-00  
 GEOLGICAL REPORT  
 DRILLING TIME AND SAMPLE LOG

COMPANY *Deutsche Oil Operations*  
 LEASE # *Management # 1-32*  
 FIELD *Ellis*  
 DEPTH MEASURED FROM LOG # *8820208*  
 ELEVATION *2170'*  
 KB *2170'*  
 DF *2168'*  
 GL *2165'*

LOCATION *12165' EN 4335' ECL*  
 SEC *32* TWP *12S* RGE *20W*  
 COUNTY *Ellis* STATE *Kansas*  
 CONTRACTOR *Wild Drilling Rig # 8*  
 SPUD *8-20-12* COMP *8-27-12*  
 SAMPLES SAVED FROM *3200* TO *RTD*

FORMATION TOPS AND STRUCTURAL POSITION

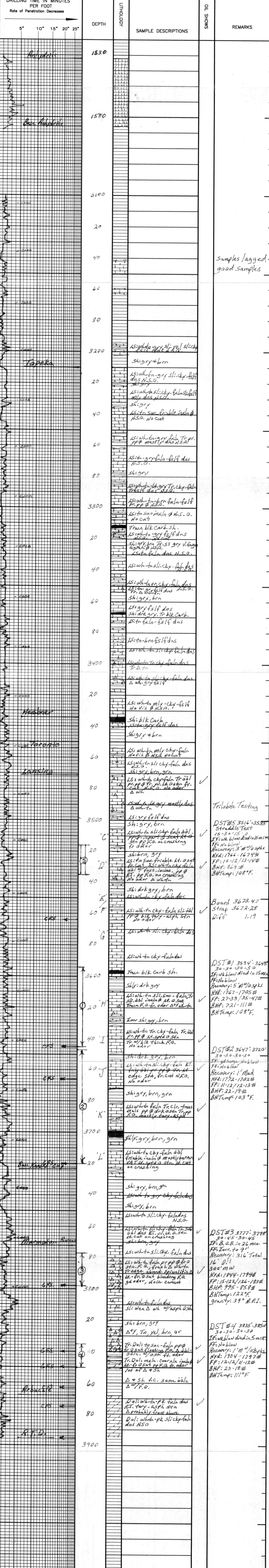
FORMATION	SAMPLE	E. LOG	DEPTH	A	B	C	D
Anhydrite	1532	1531	1531				
Basic Anhydrite	1572	1575	1575				
Tapoka	3210	3209	3209				
Heebner	3454	3454	3454				
Lansing	3471	3471	3471				
Base Kansas City	3723	3723	3723				
Wapanosauki	3772	3772	3772				
Arkuckle	3848	3848	3848				
Total Depth	3895	3895	3895				

REFERENCE WELLS  
 A *Alton Dickel, Shubert #1, SW-NE-NE Sec 32-12S-20W*  
 B *0*  
 C *0*  
 D *0*

REMARKS  
*This well ran 2 feet higher on the Lansing top but was 38 feet lower on the Arkuckle top than the reference well. The reference well is an abandoned Arkuckle producer. After evaluating D.S.T. and open hole log data it was decided this well should be plugged and abandoned.*  
*Richard B. Bell*  
*8/28/12*

LEGEND

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



# QUALITY WELL SERVICE, INC.


5630

Federal Tax I.D. # 481187368

Home Office 324 Simpson St., Pratt, KS 67124

Heath's Cell 620-727-3410  
Office / Fax 620-672-3663

Rich's Cell 620-727-3409  
Brady's Cell 620-727-6964

Date	8-20-12	Sec.	27	Twp.	12	Range	20	County	Ellis	State	KS	On Location		Finish	10:15-10:45	
Lease	IP Mgmt.		Well No.	Location Ellis, KS 1N winto												
Contractor	W W Drilling							Owner	To Quality Well Service, 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	Surface							Charge To	Deutscher Oil Operations							
Hole Size	12 1/4		T.D.	206												
Csg.	8 5/8		Depth	206												
Tbg. Size								Street								
Tool								City	State							
Cement Left in Csg.	15ft							Shoe Joint	The above was done to satisfaction and supervision of owner agent or contractor.							
Meas Line								Displace	12.16		Cement Amount Ordered	150 sx com 3%cc 2%gel				
<b>EQUIPMENT</b>																
Pumptrk	No.	8		Cody		Common		150								
Bulktrk	No.	4		Mike		Poz. Mix										
Bulktrk	No.					Gel.		3								
Pickup	No.					Calcium		5								
<b>JOB SERVICES &amp; REMARKS</b>																
Rat Hole								Hulls								
Mouse Hole								Salt								
Centralizers								Flowseal								
Baskets								Kol-Seal								
D/V or Port Collar								Mud CLR 48								
Ran 5 hrs of 8 5/8 casing and landing it							CFL-117 or CD110 CAF 38									
							Sand									
							Handling	158								
							Mileage	15								
Est Circulation with mud pump							<b>FLOAT EQUIPMENT</b>									
							Guide Shoe									
							Centralizer									
Hooked up and mixed 150sx and disp 12.16 bbl H2O ~ shut in @ 30 psi							Baskets									
							AFU Inserts									
							Float Shoe									
							Latch Down									
Cement Did Circulate to Surface!							Pumptrk Charge	Surface								
							Mileage	15								
Thank You! 							Tax									
							Discount									
							Total Charge									
X	Signature															

# QUALITY WELL SERVICE, INC.

5574

Federal Tax I.D. # 481187368

Home Office 324 Simpson St., Pratt, KS 67124

Heath's Cell 620-727-3410  
Office / Fax 620-672-3663

Rich's Cell 620-727-3409  
Brady's Cell 620-727-6964

Date	8-27-12	Sec.	27	Twp.	12	Range	20	County	Ellis	State	KS	On Location		Finish	8:45-9:15p
------	---------	------	----	------	----	-------	----	--------	-------	-------	----	-------------	--	--------	------------

Lease	IP Mgmt.	Well No.		Location	Ellis, KS 1 N Winto
-------	----------	----------	--	----------	---------------------

Contractor	WW Drilling	Owner	To Quality Well Service, 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	Rotary Plug	Hole Size	T.D. 3895
Csg.		Depth	Charge To Deutscher Oil
Tbg. Size		Depth	Street
Tool		Depth	City State
Cement Left in Csg.		Shoe Joint	The above was done to satisfaction and supervision of owner agent or contractor.
Meas Line		Displace	Cement Amount Ordered 230 sx 10/40 4% gel 1/4" Etc

**EQUIPMENT**

Pumptrk	No. 8		Cody	Common	140
Bulktrk	No. 7		Mike	Poz. Mix	90
Bulktrk	No.			Gel.	8
Pickup	No.			Calcium	

**JOB SERVICES & REMARKS**

Rat Hole	30sx	Hulls	
Mouse Hole		Salt	
Centralizers		Flowseal	57.50
Baskets		Kol-Seal	
D/V or Port Collar		Mud CLR 48	
1st plug @ 3848 = 25sx		CFL-117 or CD110 CAF 38	
		Sand	
2nd plug @ 1530 = 25sx		Handling	238
		Mileage	15

**FLOAT EQUIPMENT**

3rd plug @ 812 = 100sx	Guide Shoe
	Centralizer
4th plug @ 255 = 40sx	Baskets
	AFU Inserts
5th plug @ 40 = 10sx and woodplug	Float Shoe
	Latch Down

8 5/8 Wooden Plug

Pumptrk Charge Rotary Plug  
Mileage 15

Thank you  
*[Signature]*  
X Signature

Tax  
Discount  
Total Charge