



**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
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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

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: \_\_\_\_\_



1115922

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:  Yes  No

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

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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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> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

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

No. 6198

Date	11-23-12	Sec.	2	Twp.	15	Range	20	County	Ellis	State	Ks	On Location		Finish	3:00 AM	
Lease	Armbuster							Well No.	1	Owner	Antonino, Ks - <del>Antonino, Ks</del> 7 1/4 W 51/4 Trto					
Contractor	Discovery #4							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	Surface							Charge To Zinszer oil								
Hole Size	12 1/4"							T.D.	1317'							
Csg.	8 7/8"							Depth	1317'							
Tbg. Size								Depth								
Tool								Depth								
Cement Left in Csg.	42'							Shoe Joint	42'							
Meas Line								Displace	81 BLS 2% Gel							
<b>EQUIPMENT</b>										Common 430						
Pumptrk	5	No.	Cementer		Brett		Poz. Mix									
Bulktrk	12	No.	Driver		Lonnie W.		Gel. 9									
Bulktrk	piu.	No.	Driver		Rick		Calcium 16									
<b>JOB SERVICES &amp; REMARKS</b>										Hulls						
Remarks:	Cement did Circulate															
Rat Hole	Flowseal															
Mouse Hole	Kol-Seal															
Centralizers	Mud CLR 48															
Baskets	CFL-117 or CD110 CAF 38															
D/V or Port Collar	Sand															
	Handling 475															
	Mileage															
<b>FLOAT EQUIPMENT</b>										Guide Shoe						
	Centralizer															
	Baskets															
	AFU Inserts															
	Float Shoe															
	Latch Down															
	1- Baffle plate															
	1- Rubber plug															
	Pumptrk Charge Long Surface															
	Mileage 18															
											Tax					
											Discount					
											Total Charge					
X Signature	Mike Gooden															



Services, Inc.

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

TICKET NO: 22977

WELL/PROJECT NO: 71 LEASE: Armbuster COUNTY/PARISH: Ellis STATE: TX CITY: \_\_\_\_\_

DATE: 11-29-12 OWNER: Sq. 112

1. Hays, Ks. TICKET TYPE:  SERVICE CONTRACTOR: Discovery Drilling #4 RIG NAME NO.: \_\_\_\_\_  
 2. Ness City, Ks.  SALES WELL TYPE: 011 WELL CATEGORY: Development JOB PURPOSE: Longstring SHIPPED VIA: CF DELIVERED TO: Location WELL PERMIT NO.: \_\_\_\_\_  
 3. \_\_\_\_\_  
 4. REFERRAL LOCATION: \_\_\_\_\_ INVOICE INSTRUCTIONS: \_\_\_\_\_

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.	UM	QTY.	UM	UNIT PRICE	AMOUNT
		LOC	ACCT	DF							
575					MILEAGE <u>4111</u>	30	mi			6.00	180.00
578					<u>Pump Charge (Longstring)</u>	1	hr	3692		1500.00	1500.00
221					<u>KCL</u>	2	bu			25.00	50.00
281					<u>Mud Wash</u>	500	gal			1.25	625.00
290					<u>D-Air</u>	2	gal			35.00	70.00
402					<u>Centralizers</u>	6	kg	5 1/2"		70.00	420.00
405					<u>Basket</u>	1	ea			250.00	250.00
406					<u>L D Plug &amp; Baffle</u>	1	ea			250.00	250.00
407					<u>Insert Foot Shoe w/LH 11</u>	1	ea			350.00	350.00
419					<u>Rotating Head</u>	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: 11-29-12 TIME SIGNED: 0600  A.M.  P.M.

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

SURVEY	OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?	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?	AGREE	UN-DECIDED	DIS-AGREE	PAGE TOTAL	AMOUNT
					<input type="checkbox"/> YES <input type="checkbox"/> NO				3895	00
									4186	50
									8061	50
									362	72
									6.37	00
									8424	22

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES: \_\_\_\_\_ APPROVAL: Mike [Signature]  
 SWIFT OPERATOR: \_\_\_\_\_  
 THANK YOU!



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

TICKET CONTINUATION

TICKET No. 22977

CUSTOMER  
Zinszer Oil Co.

WELL #1 Armbrook for

DATE  
11-29-12

PAGE 2 OF 2

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	QTY	UM	QTY	UM	UNIT PRICE	AMOUNT
		LOC	ACCT	DR								
325						Standard Cement	175	Sks			13.00	2362.50
276						Fluocel	50	#			2.00	100.00
283						Salt	900	#			2.00	1800.00
284						Calstra	8	Sks			35.00	280.00
292						Halod-322	80	#			7.75	620.00
581											2.00	350.00
583											1.00	224.00

SERVICE CHARGE  
TOTAL WEIGHT 18250  
LOADED MILES 50  
CUBIC FEET 175 Sks  
TON MILES 274

CONTINUATION TOTAL

4116.50





## DRILL STEM TEST REPORT

Prepared For: **Zinszer Oil Co. Inc**

PO Box 211  
Hays, KS 67601

ATTN: Perry Henman

### **Armbruster #1**

### **2-15s-20w Ellis KS**

Start Date: 2012.11.26 @ 02:27:00

End Date: 2012.11.26 @ 09:31:00

Job Ticket #: 51557                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.11.30 @ 15:11:54



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Zinszer Oil Co. Inc

**2-15s-20w Ellis KS**

PO Box 211  
Hays, KS 67601

**Armbruster #1**

Job Ticket: 51557

**DST#: 1**

ATTN: Perry Henman

Test Start: 2012.11.26 @ 02:27:00

## GENERAL INFORMATION:

Formation: **Topeka**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:00:00

Time Test Ended: 09:31:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Cody Bloedorn

Unit No: 44

**Interval: 3229.00 ft (KB) To 3285.00 ft (KB) (TVD)**

Reference Elevations: 2053.00 ft (KB)

Total Depth: 3285.00 ft (KB) (TVD)

2048.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8737 Outside**

Press @ RunDepth: 109.86 psig @ 3265.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.11.26

End Date:

2012.11.26

Last Calib.:

2012.11.26

Start Time: 02:27:01

End Time:

09:31:00

Time On Btm:

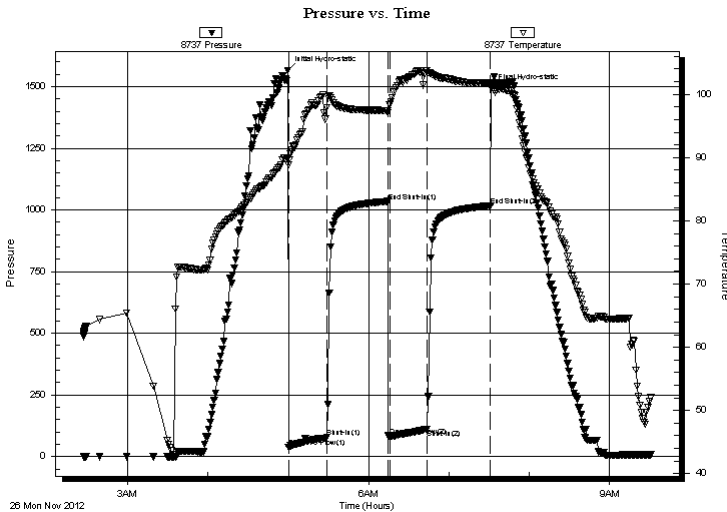
2012.11.26 @ 04:59:30

Time Off Btm:

2012.11.26 @ 07:31:30

**TEST COMMENT:** 30 - IF- 9 1/2" blow  
45 - IS- No blow back  
30 - FF- 5 1/2" blow  
45 - FS- No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1565.88	89.79	Initial Hydro-static
1	36.90	88.83	Open To Flow (1)
29	77.08	97.85	Shut-In(1)
75	1034.94	97.46	End Shut-In(1)
76	80.86	98.33	Open To Flow (2)
104	109.86	103.74	Shut-In(2)
152	1017.78	101.77	End Shut-In(2)
152	1494.09	101.90	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
124.00	WM, 40%W, 60%M	1.46
45.00	Mud w ith oil spots, 100%M	0.63

## Gas Rates

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







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Zinszer Oil Co. Inc

**2-15s-20w Ellis KS**

PO Box 211  
Hays, KS 67601

**Armbruster #1**

Job Ticket: 51557

**DST#: 1**

ATTN: Perry Henman

Test Start: 2012.11.26 @ 02:27:00

## Tool Information

Drill Pipe:	Length: 3198.00 ft	Diameter: 3.80 inches	Volume: 44.86 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 46000.00 lb
			<u>Total Volume: 45.01 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3229.00 ft			Final 42000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	56.00 ft			
Tool Length:	76.00 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			3210.00	
Shut In Tool	5.00			3215.00	
Hydraulic tool	5.00			3220.00	
Packer	4.00			3224.00	20.00 Bottom Of Top Packer
Packer	5.00			3229.00	
Perforations	3.00			3232.00	
Change Over Sub	1.00			3233.00	
Drill Pipe	31.00			3264.00	
Change Over Sub	1.00			3265.00	
Recorder	0.00	8321	Inside	3265.00	
Recorder	0.00	8737	Outside	3265.00	
Perforations	17.00			3282.00	
Bullnose	3.00			3285.00	56.00 Bottom Packers & Anchor

**Total Tool Length: 76.00**



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Zinszer Oil Co. Inc

**2-15s-20w Ellis KS**

PO Box 211  
Hays, KS 67601

**Armbruster #1**

Job Ticket: 51557

**DST#: 1**

ATTN: Perry Henman

Test Start: 2012.11.26 @ 02:27:00

**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: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.58 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
124.00	WM, 40%W, 60%M	1.457
45.00	Mud with oil spots, 100%M	0.631

Total Length: 169.00 ft

Total Volume: 2.088 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

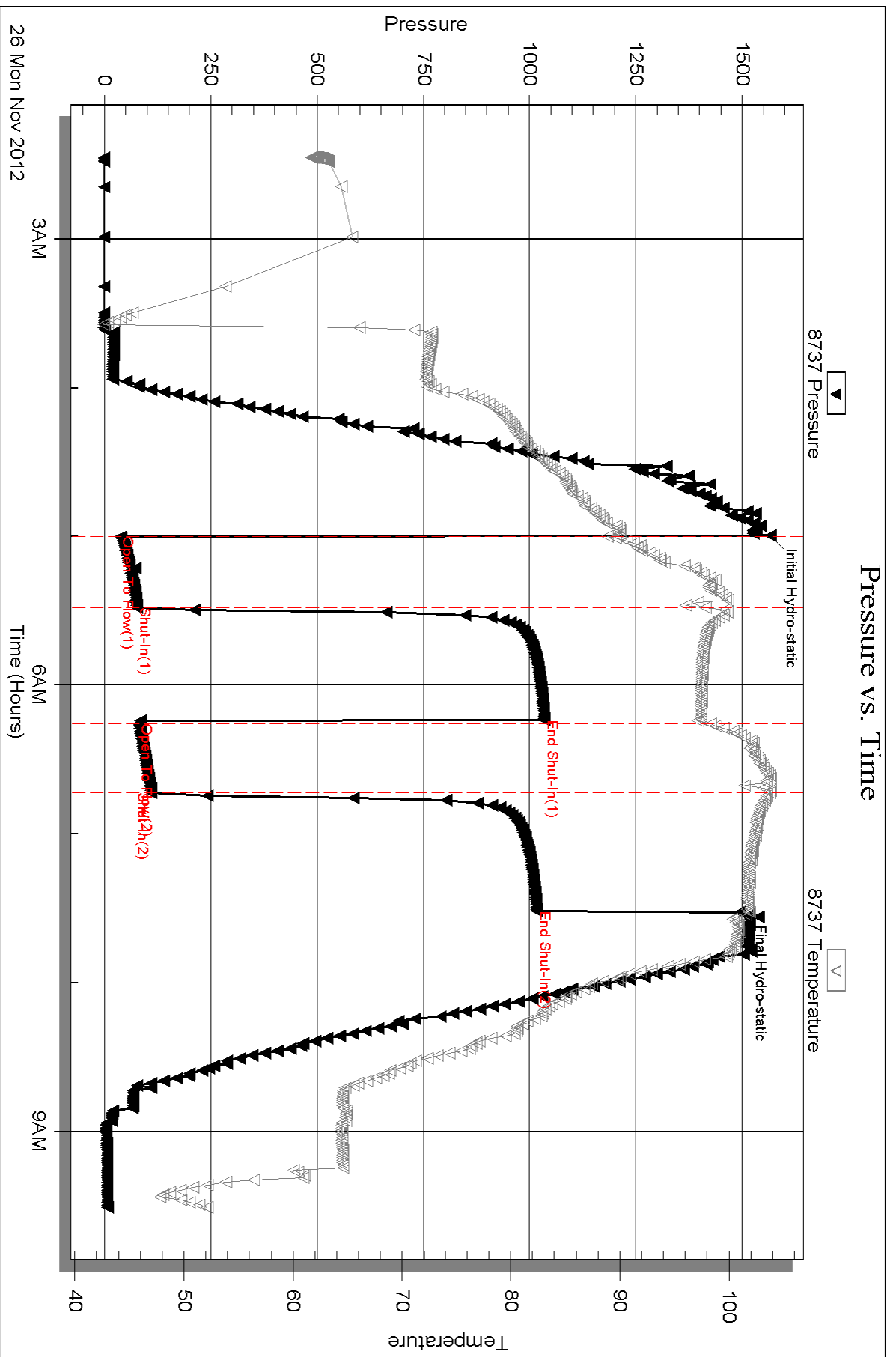
Recovery Comments:

Serial #: 8737

Outside Zinszer Oil Co. Inc

Armbruster #1

DST Test Number: 1



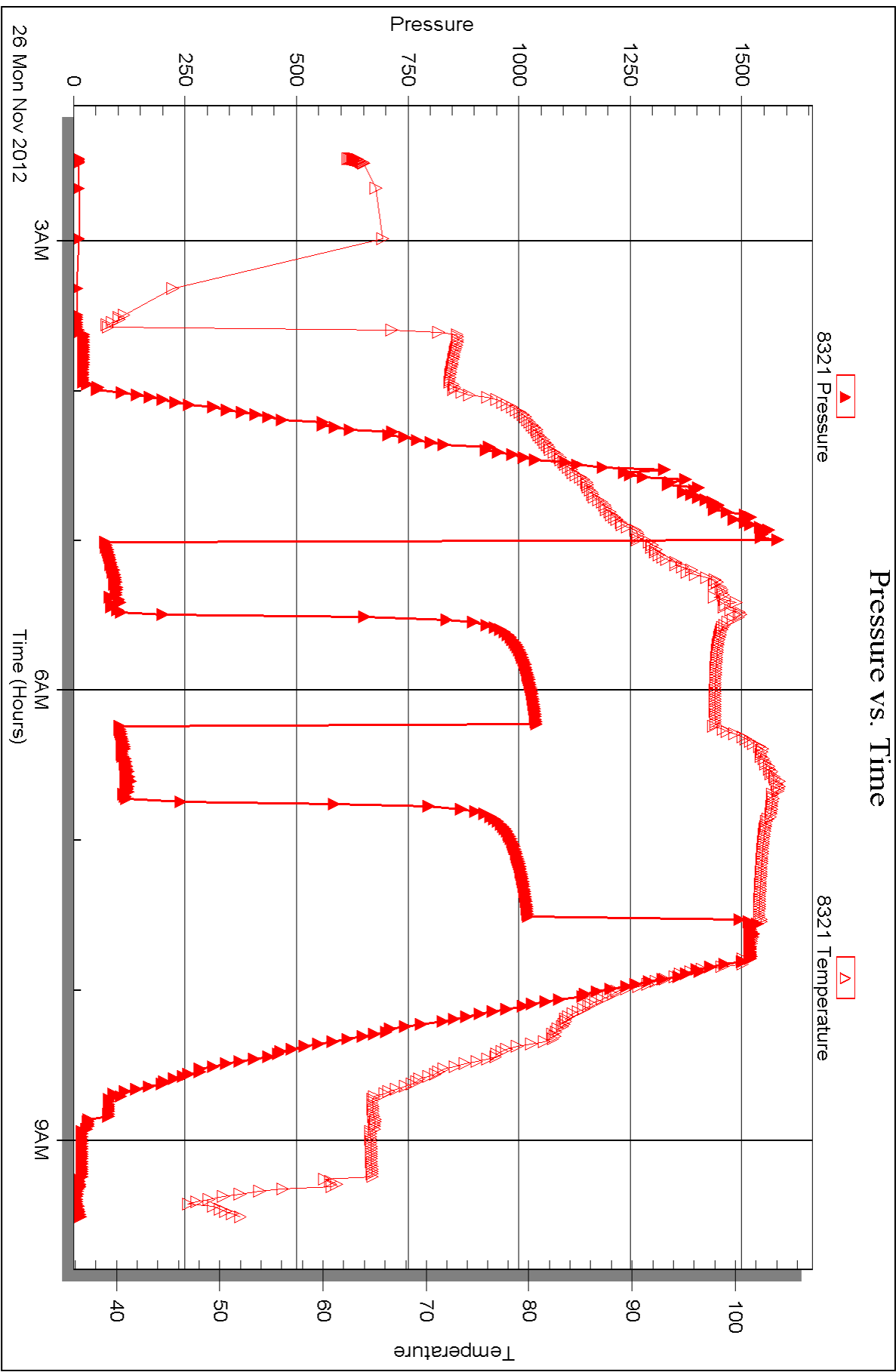
Serial #: 8321

Inside

Zinszer Oil Co. Inc

Arnbruster #1

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **Zinszer Oil Co. Inc**

PO Box 211  
Hays, KS 67601

ATTN: Perry Henman

### **Armbruster #1**

### **2-15s-20w Ellis KS**

Start Date: 2012.11.26 @ 20:30:00

End Date: 2012.11.27 @ 02:58:30

Job Ticket #: 51558                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.11.30 @ 15:11:12



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Zinszer Oil Co. Inc

**2-15s-20w Ellis KS**

PO Box 211  
Hays, KS 67601

**Armbruster #1**

Job Ticket: 51558

**DST#: 2**

ATTN: Perry Henman

Test Start: 2012.11.26 @ 20:30:00

## GENERAL INFORMATION:

Formation: **Toronto - D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:19:30

Time Test Ended: 02:58:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Cody Bloedorn

Unit No: 44

**Interval: 3336.00 ft (KB) To 3410.00 ft (KB) (TVD)**

Reference Elevations: 2053.00 ft (KB)

Total Depth: 3410.00 ft (KB) (TVD)

2048.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8737 Outside**

Press @ Run Depth: 197.01 psig @ 3375.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.11.26

End Date:

2012.11.27

Last Calib.: 2012.11.27

Start Time: 20:30:01

End Time:

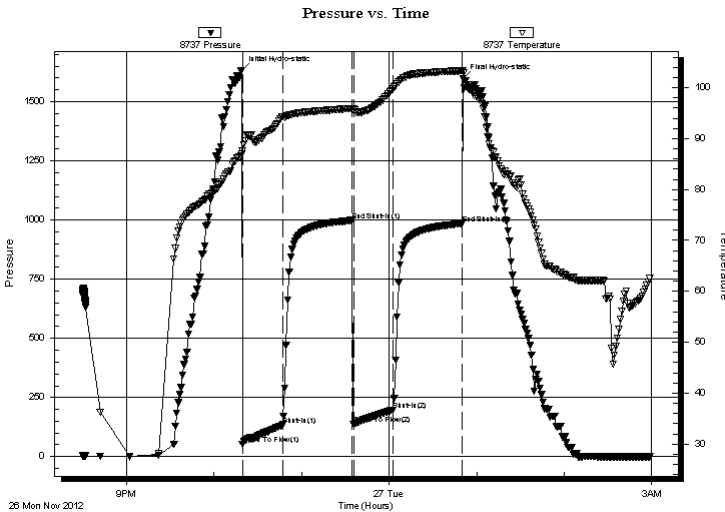
02:58:30

Time On Btm: 2012.11.26 @ 22:19:00

Time Off Btm: 2012.11.27 @ 00:50:30

**TEST COMMENT:** 30 - IF- B.O.B. in 4 Minutes  
45 - IS- Surface blow throughout  
30 - FF- B.O.B. in 5 Minutes  
45 - FS-

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1632.15	86.91	Initial Hydro-static
1	53.24	87.61	Open To Flow (1)
28	134.66	94.31	Shut-In(1)
76	998.52	95.90	End Shut-In(1)
77	135.60	95.75	Open To Flow (2)
104	197.01	99.74	Shut-In(2)
151	984.57	103.29	End Shut-In(2)
152	1597.04	103.37	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
93.00	GV SOCM, 5%G, 5%O, 90%M	1.02
186.00	GMCO, 10%M, 30%G, 60%O	2.61
124.00	GMCWO, 5%M, 10%W, 25%G, 60%O	1.74
0.00	1178' of G.I.P.	0.00

## Gas Rates

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

\* Recovery from multiple tests







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Zinszer Oil Co. Inc

**2-15s-20w Ellis KS**

PO Box 211  
Hays, KS 67601

**Armbruster #1**

Job Ticket: 51558

**DST#: 2**

ATTN: Perry Henman

Test Start: 2012.11.26 @ 20:30:00

## Tool Information

Drill Pipe:	Length: 3292.00 ft	Diameter: 3.80 inches	Volume: 46.18 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 48000.00 lb
			<u>Total Volume: 46.33 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3336.00 ft			Final 42000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	74.00 ft			
Tool Length:	94.00 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			3317.00	
Shut In Tool	5.00			3322.00	
Hydraulic tool	5.00			3327.00	
Packer	4.00			3331.00	20.00 Bottom Of Top Packer
Packer	5.00			3336.00	
Perforations	6.00			3342.00	
Change Over Sub	1.00			3343.00	
Drill Pipe	31.00			3374.00	
Change Over Sub	1.00			3375.00	
Recorder	0.00	8321	Inside	3375.00	
Recorder	0.00	8737	Outside	3375.00	
Perforations	32.00			3407.00	
Bullnose	3.00			3410.00	74.00 Bottom Packers & Anchor

**Total Tool Length: 94.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Zinszer Oil Co. Inc

**2-15s-20w Ellis KS**

PO Box 211  
Hays, KS 67601

**Armbruster #1**

Job Ticket: 51558

**DST#: 2**

ATTN: Perry Henman

Test Start: 2012.11.26 @ 20:30:00

## 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: 53.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.97 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 3000.00 ppm			
Filter Cake: inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
93.00	GVSOCM, 5%G, 5%O, 90%M	1.022
186.00	GMCO, 10%M, 30%G, 60%O	2.609
124.00	GMCWO, 5%M, 10%W, 25%G, 60%O	1.739
0.00	1178' of G.I.P.	0.000

Total Length: 403.00 ft      Total Volume: 5.370 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

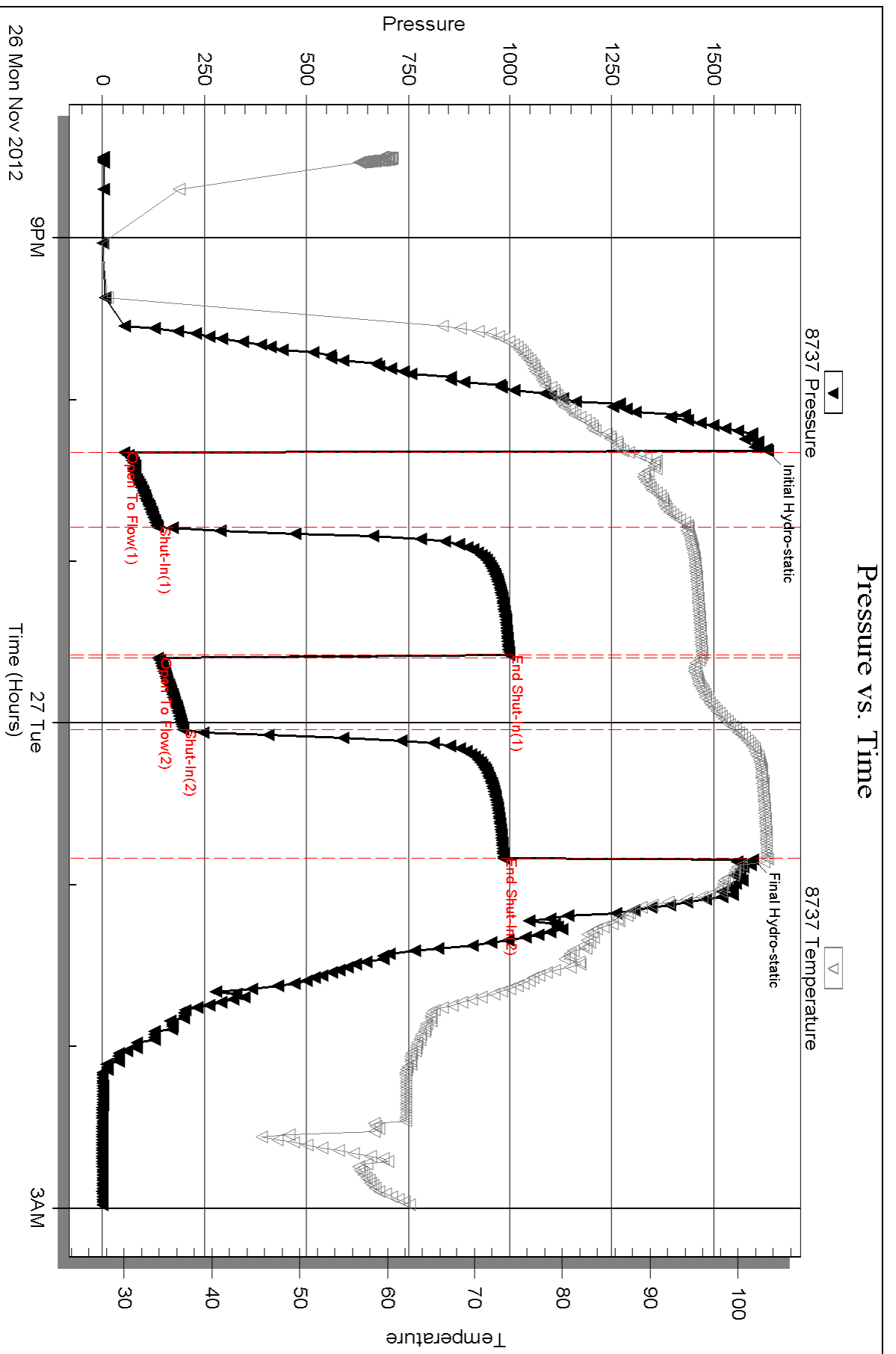
Recovery Comments:

Serial #: 8737

Outside Zinszer Oil Co. Inc

Armbruster #1

DST Test Number: 2



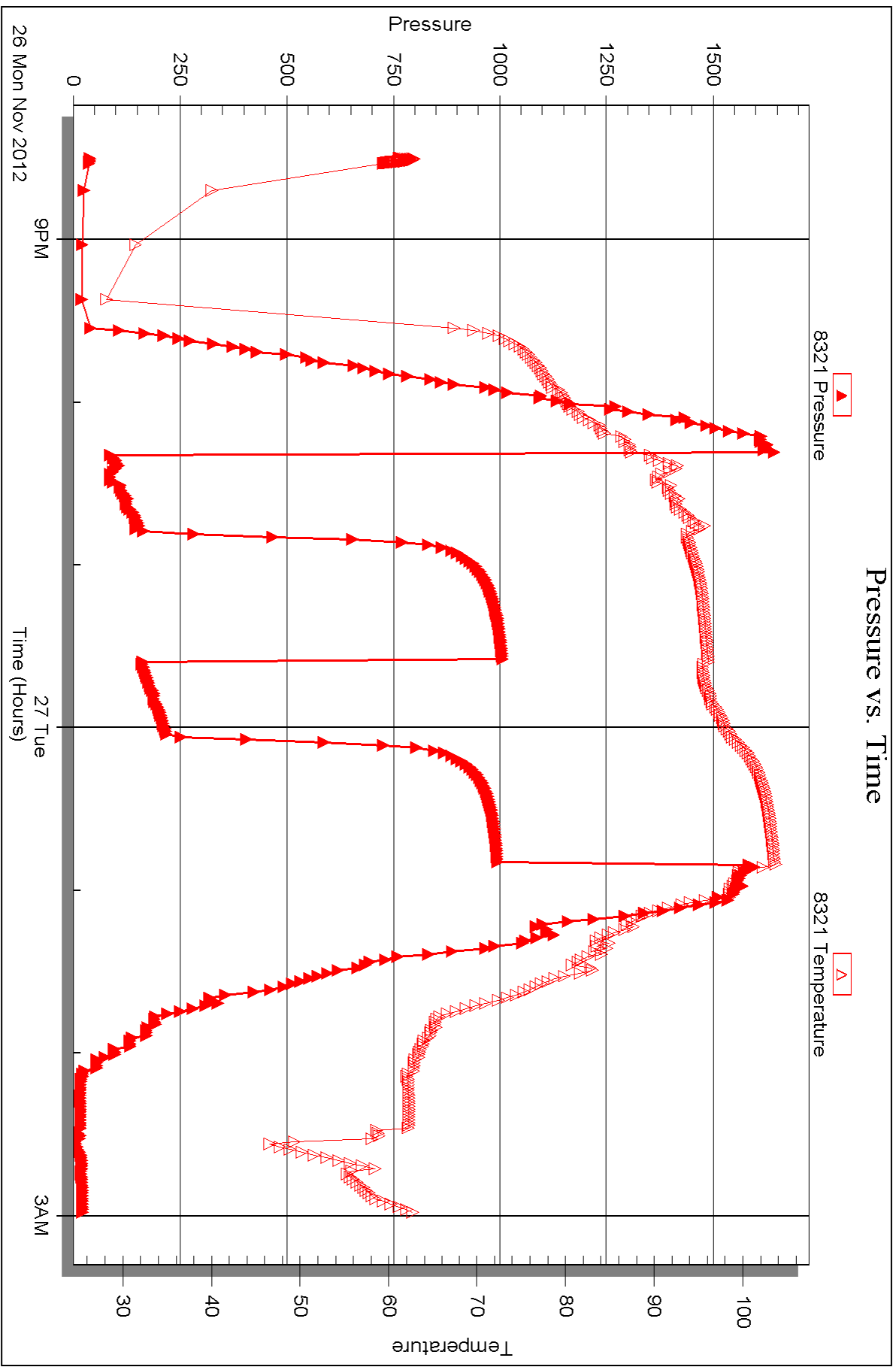
Serial #: 8321

Inside

Zinszer Oil Co. Inc

Armbruster #1

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 51558

Printed: 2012.11.30 @ 15:11:17



## DRILL STEM TEST REPORT

Prepared For: **Zinszer Oil Co. Inc**

PO Box 211  
Hays, KS 67601

ATTN: Perry Henman

### **Armbruster #1**

### **2-15s-20w Ellis KS**

Start Date: 2012.11.27 @ 14:46:00

End Date: 2012.11.27 @ 21:12:30

Job Ticket #: 51559                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.11.30 @ 15:10:23



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Zinszer Oil Co. Inc

**2-15s-20w Ellis KS**

PO Box 211  
Hays, KS 67601

**Armbruster #1**

ATTN: Perry Henman

Job Ticket: 51559

**DST#: 3**

Test Start: 2012.11.27 @ 14:46:00

## GENERAL INFORMATION:

Formation: **H,I,J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:59:00

Time Test Ended: 21:12:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Cody Bloedorn

Unit No: 44

**Interval: 3477.00 ft (KB) To 3540.00 ft (KB) (TVD)**

Reference Elevations: 2053.00 ft (KB)

Total Depth: 3540.00 ft (KB) (TVD)

2048.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8737 Outside**

Press @ Run Depth: 48.95 psig @ 3516.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.11.27 End Date: 2012.11.27

Last Calib.: 2012.11.27

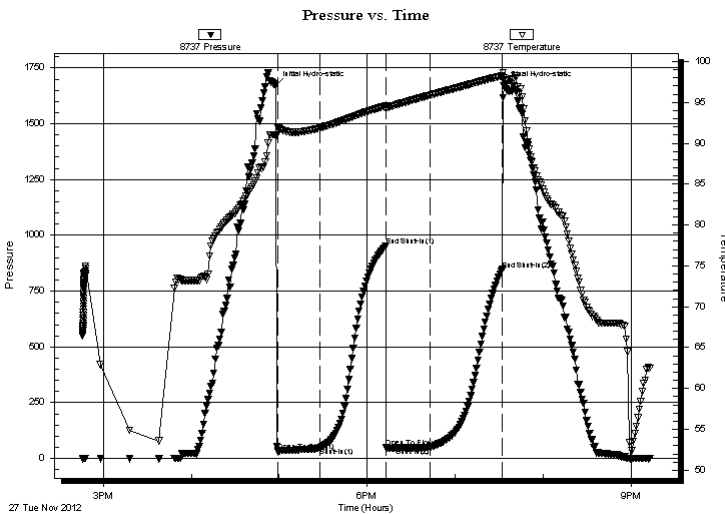
Start Time: 14:46:01 End Time: 21:12:30

Time On Btm: 2012.11.27 @ 16:57:30

Time Off Btm: 2012.11.27 @ 19:33:00

**TEST COMMENT:** 30 - IF- 3/4" blow  
45 - IS- No blow back  
30 - FF- 1/2" blow  
45 - FS- No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1671.73	90.97	Initial Hydro-static
2	33.20	91.88	Open To Flow (1)
31	48.11	91.90	Shut-In(1)
75	951.59	94.57	End Shut-In(1)
76	49.09	94.25	Open To Flow (2)
105	48.95	95.86	Shut-In(2)
155	846.48	98.24	End Shut-In(2)
156	1668.92	98.08	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
40.00	Mud w ith oil spots, 100%M	0.28

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Zinszer Oil Co. Inc

**2-15s-20w Ellis KS**

PO Box 211  
Hays, KS 67601

**Armbruster #1**

Job Ticket: 51559

**DST#: 3**

ATTN: Perry Henman

Test Start: 2012.11.27 @ 14:46:00

### Tool Information

Drill Pipe:	Length: 3448.00 ft	Diameter: 3.80 inches	Volume: 48.37 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 48000.00 lb
			<u>Total Volume: 48.52 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 44000.00 lb
Depth to Top Packer:	3477.00 ft			Final 44000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	63.00 ft			
Tool Length:	83.00 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			3458.00	
Shut In Tool	5.00			3463.00	
Hydraulic tool	5.00			3468.00	
Packer	4.00			3472.00	20.00 Bottom Of Top Packer
Packer	5.00			3477.00	
Perforations	6.00			3483.00	
Change Over Sub	1.00			3484.00	
Drill Pipe	31.00			3515.00	
Change Over Sub	1.00			3516.00	
Recorder	0.00	8321	Inside	3516.00	
Recorder	0.00	8737	Outside	3516.00	
Perforations	21.00			3537.00	
Bullnose	3.00			3540.00	63.00 Bottom Packers & Anchor

**Total Tool Length: 83.00**





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Zinszer Oil Co. Inc

**2-15s-20w Ellis KS**

PO Box 211  
Hays, KS 67601

**Armbruster #1**

Job Ticket: 51559

**DST#: 3**

ATTN: Perry Henman

Test Start: 2012.11.27 @ 14:46:00

## 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:

bbbl

Water Loss: 8.78 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
40.00	Mud w ith oil spots, 100%M	0.279

Total Length: 40.00 ft      Total Volume: 0.279 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

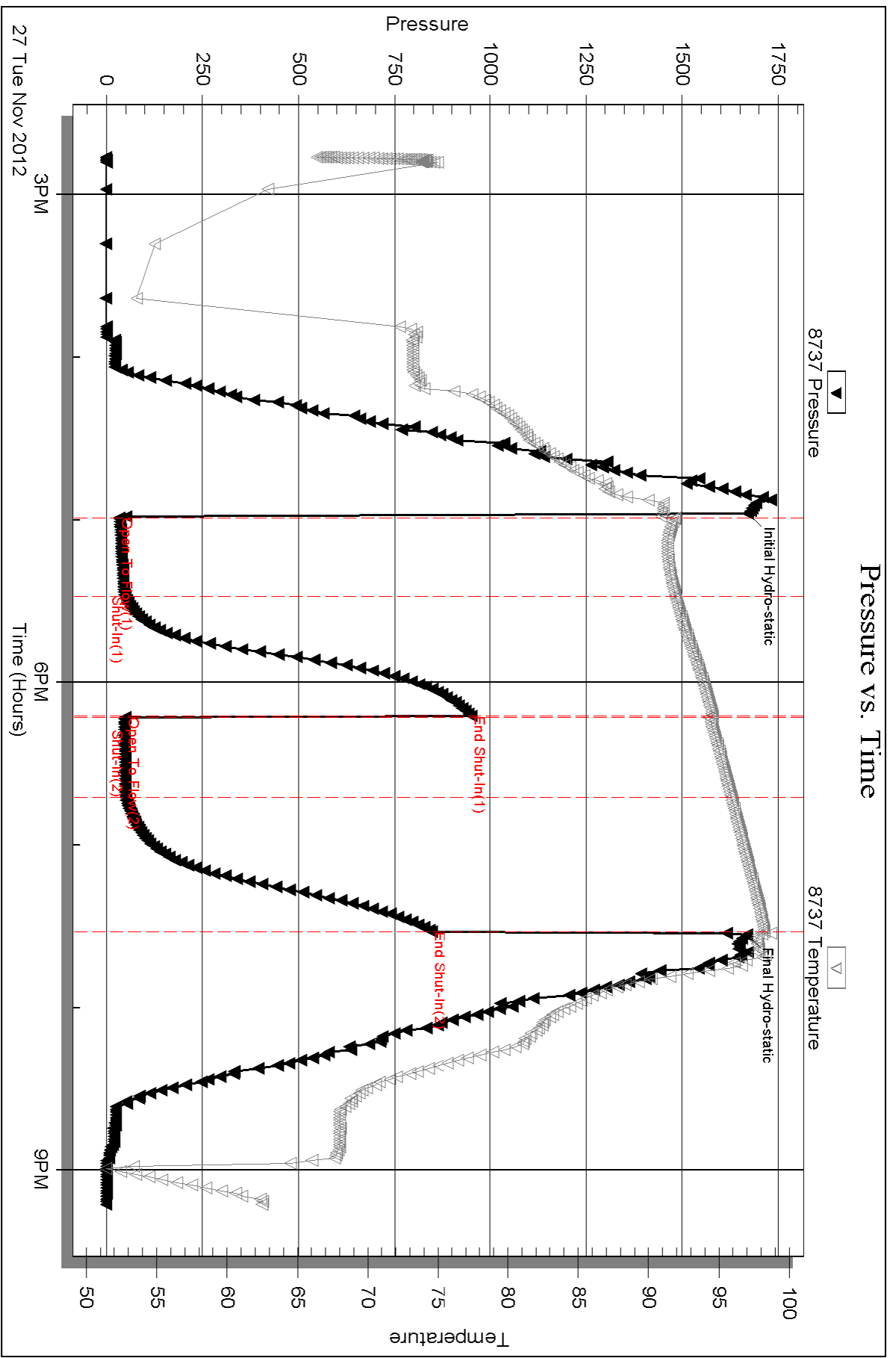
Recovery Comments:

Serial #: 8737

Outside Zinszer Oil Co. Inc

Armbruster #1

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 51559

Printed: 2012.11.30 @ 15:10:27

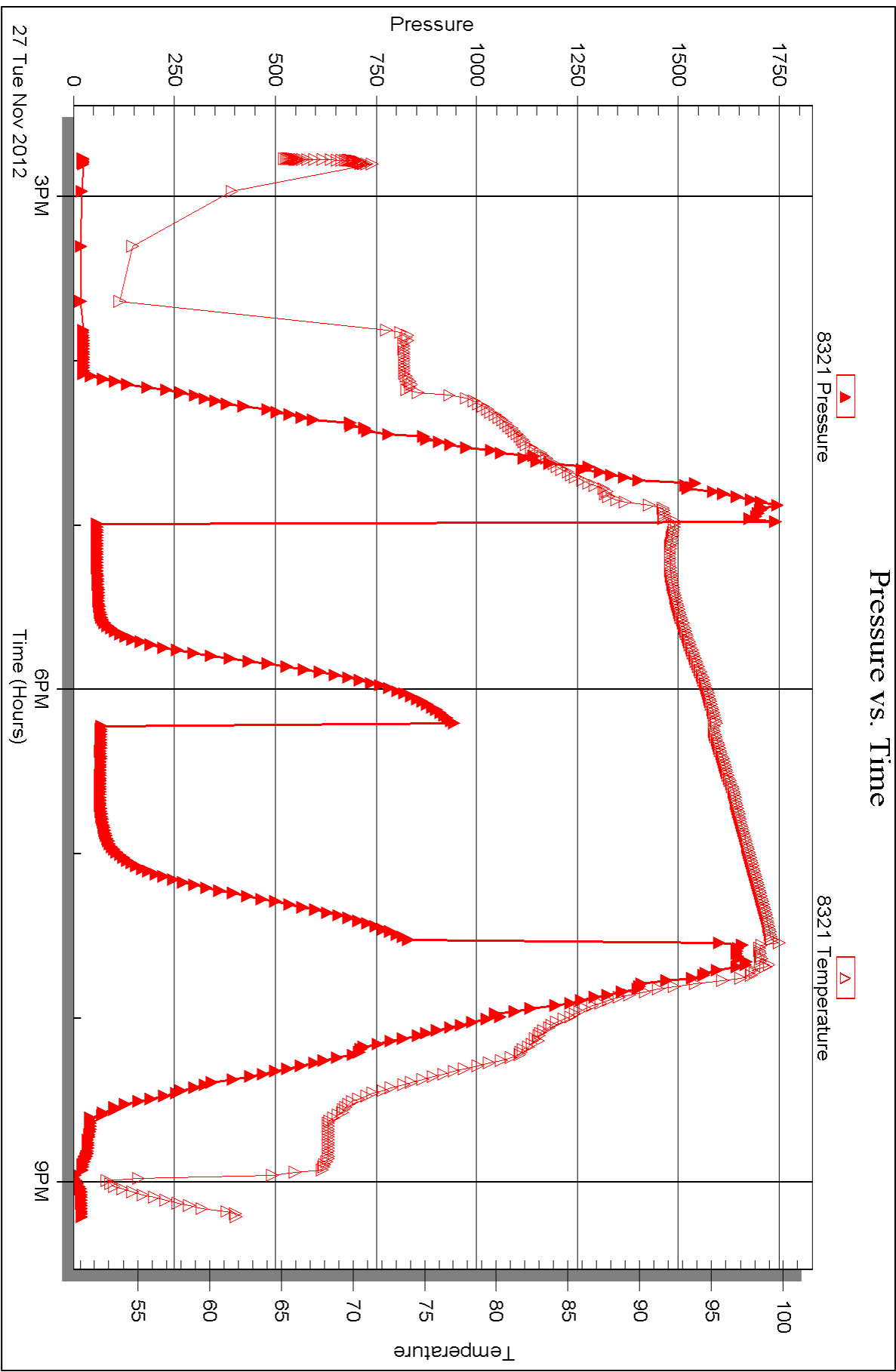
Serial #: 8321

Inside

Zinszer Oil Co. Inc

Arnbruster #1

DST Test Number: 3





## DRILL STEM TEST REPORT

Prepared For: **Zinszer Oil Co. Inc**

PO Box 211  
Hays, KS 67601

ATTN: Perry Henman

### **Armbruster #1**

### **2-15s-20w Ellis KS**

Start Date: 2012.11.28 @ 09:13:15

End Date: 2012.11.28 @ 16:20:45

Job Ticket #: 44319                      DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.11.30 @ 15:09:22



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Zinszer Oil Co. Inc

**2-15s-20w Ellis KS**

PO Box 211  
Hays, KS 67601

**Armbruster #1**

Job Ticket: 44319

**DST#: 4**

ATTN: Perry Henman

Test Start: 2012.11.28 @ 09:13:15

## GENERAL INFORMATION:

Formation: **Conglomerate**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:35:45

Time Test Ended: 16:20:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Jeff Brown

Unit No: 44

**Interval: 3670.00 ft (KB) To 3692.00 ft (KB) (TVD)**

Reference Elevations: 2053.00 ft (KB)

Total Depth: 3692.00 ft (KB) (TVD)

2048.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8321**

**Inside**

Press @ Run Depth: 58.77 psig @ 3671.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.11.28

End Date:

2012.11.28

Last Calib.:

2012.11.28

Start Time: 09:13:16

End Time:

16:17:45

Time On Btm:

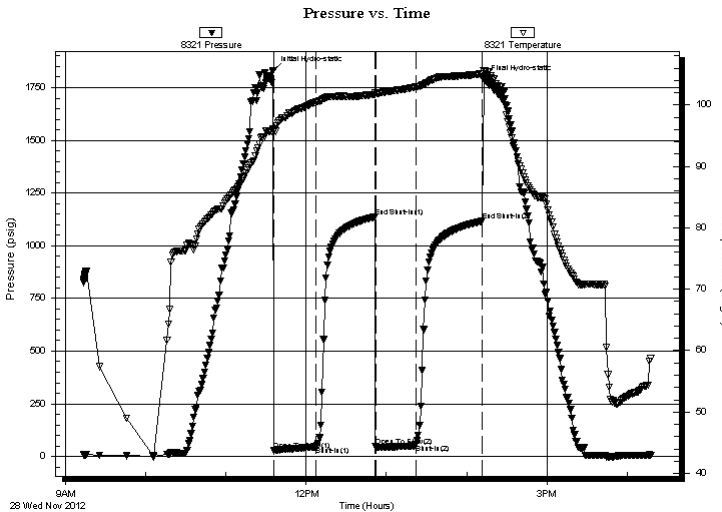
2012.11.28 @ 11:35:15

Time Off Btm:

2012.11.28 @ 14:12:45

**TEST COMMENT:** IFP=Fair blow built to 5 1/4"  
ISI=Weak surface blow back built to 1/8"  
FFP=Fair blow built to 4 1/2"  
FSI=Weak surface blow back built to 1/8"

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1831.41	96.08	Initial Hydro-static
1	27.43	95.72	Open To Flow (1)
32	47.76	100.47	Shut-In(1)
76	1136.83	101.74	End Shut-In(1)
77	46.99	102.04	Open To Flow (2)
107	58.77	102.90	Shut-In(2)
157	1116.91	105.07	End Shut-In(2)
158	1787.14	105.57	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	MCO 50%M 50%O	0.10
58.00	Free Oil	0.71

## Gas Rates

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

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Zinszer Oil Co. Inc

**2-15s-20w Ellis KS**

PO Box 211  
Hays, KS 67601

**Armbruster #1**

Job Ticket: 44319

**DST#: 4**

ATTN: Perry Henman

Test Start: 2012.11.28 @ 09:13:15

## Tool Information

Drill Pipe:	Length: 3637.00 ft	Diameter: 3.80 inches	Volume: 51.02 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	22000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	48000.00 lb
			<u>Total Volume: 51.17 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial	45000.00 lb
Depth to Top Packer:	3670.00 ft			Final	46000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	22.00 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			3651.00	
Shut In Tool	5.00			3656.00	
Hydraulic tool	5.00			3661.00	
Packer	4.00			3665.00	20.00 Bottom Of Top Packer
Packer	5.00			3670.00	
Stubb	1.00			3671.00	
Recorder	0.00	8321	Inside	3671.00	
Recorder	0.00	8737	Outside	3671.00	
Perforations	18.00			3689.00	
Bullnose	3.00			3692.00	22.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>42.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Zinszer Oil Co. Inc

**2-15s-20w Ellis KS**

PO Box 211  
Hays, KS 67601

**Armbruster #1**

Job Ticket: 44319

**DST#: 4**

ATTN: Perry Henman

Test Start: 2012.11.28 @ 09:13:15

## 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:

ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	MCO 50%M 50%O	0.098
58.00	Free Oil	0.713

Total Length: 78.00 ft      Total Volume: 0.811 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



Serial #: 8321

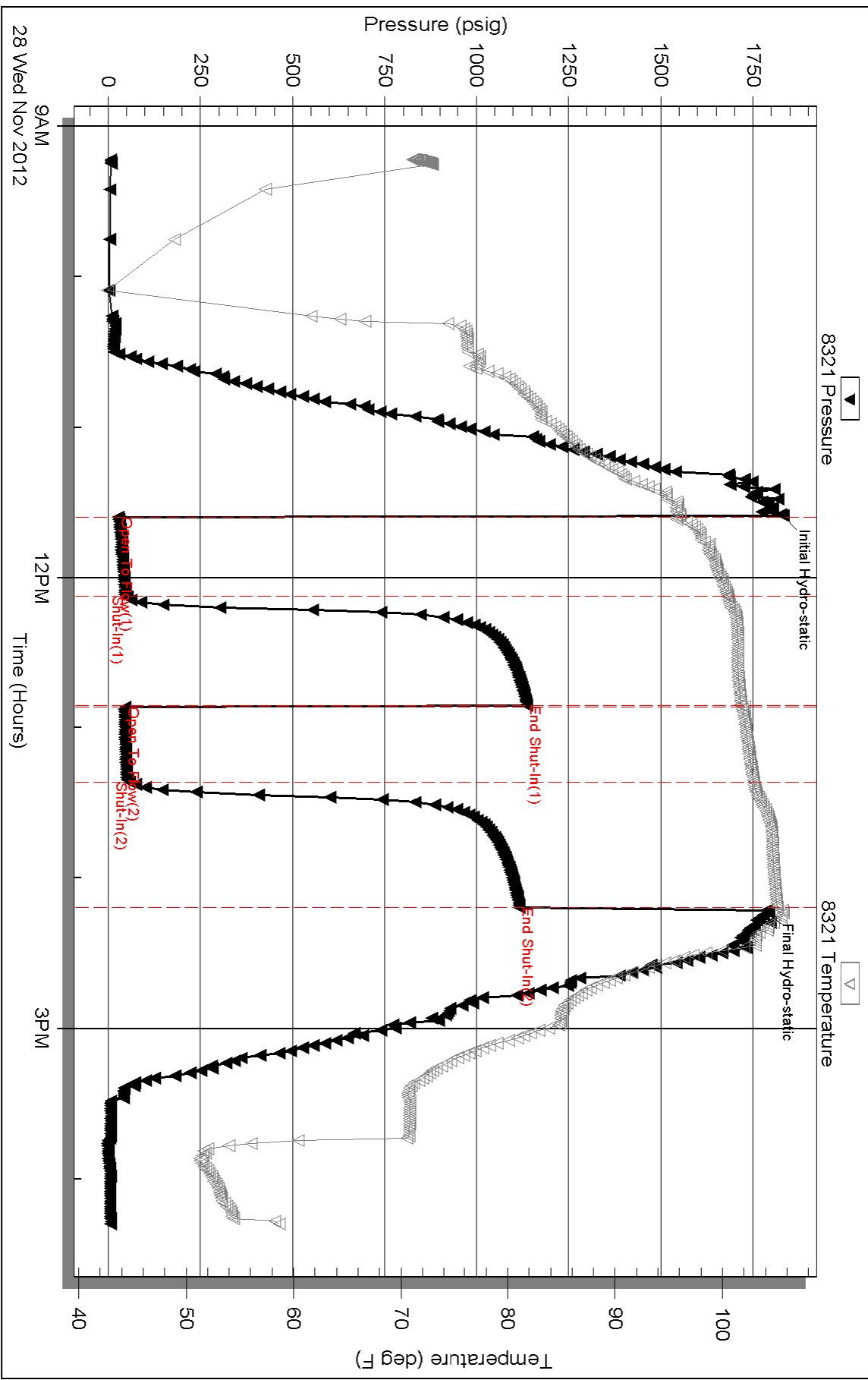
Inside

Zinszer Oil Co. Inc

Armbruster #1

DST Test Number: 4

### Pressure vs. Time

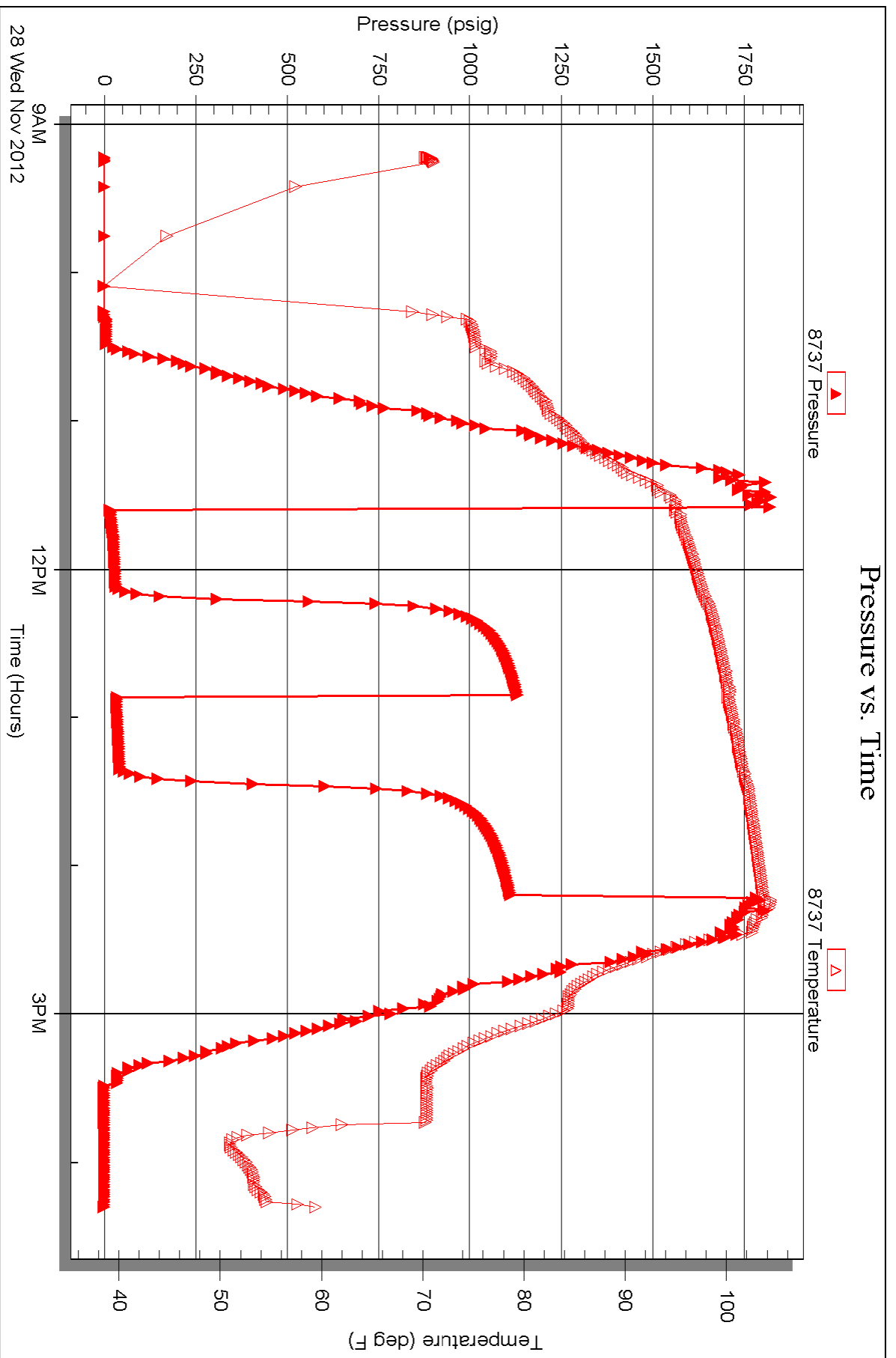


Serial #: 8737

Outside Zinszer Oil Co. Inc

Arnbruster #1

DST Test Number: 4





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 51557

Well Name & No. Armbruster #1 Test No. 1 Date 11-26-12  
 Company Zinszer Oil Co Inc Elevation 2053 KB 2048 GL  
 Address Po Box 211, Hays KS, 67601  
 Co. Rep / Geo. Perry Henman Rig Discovery #4  
 Location: Sec. 2 Twp. 15S Rge. 20W Co. Ellis State KS

Interval Tested 3229-3285 Zone Tested Topeka  
 Anchor Length 56' Drill Pipe Run 3198' Mud Wt. 8.6  
 Top Packer Depth 3224 Drill Collars Run 31' Vis 56  
 Bottom Packer Depth 3229 Wt. Pipe Run — WL 7.6  
 Total Depth 3285 Chlorides 3,000 ppm System LCM —  
 Blow Description IF-9 1/2" blow  
ISI- No blow back  
FF-5 1/2" blow  
FSI- No blow back

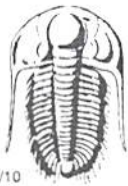
Rec	Feet of	%gas	%oil	%water	%mud
<u>124</u>	<u>WM</u>		<u>40</u>	<u>60</u>	
<u>45</u>	<u>Mud with oil spots</u>			<u>100</u>	

Rec Total 169' BHT 101° Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>1565</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1:51 am</u>
(B) First Initial Flow <u>36</u>	<input type="checkbox"/> Jars <u>—</u>	T-Started <u>2:27 am</u>
(C) First Final Flow <u>77</u>	<input type="checkbox"/> Safety Joint <u>—</u>	T-Open <u>5:00 am</u>
(D) Initial Shut-In <u>1034</u>	<input type="checkbox"/> Circ Sub <u>—</u>	T-Pulled <u>7:30 am</u>
(E) Second Initial Flow <u>80</u>	<input type="checkbox"/> Hourly Standby <u>—</u>	T-Out <u>9:31 am</u>
(F) Second Final Flow <u>109</u>	<input checked="" type="checkbox"/> Mileage <u>HORT 62</u>	Comments <u>Cody - 785-639-5280</u>
(G) Final Shut-In <u>1017</u>	<input type="checkbox"/> Sampler <u>—</u>	
(H) Final Hydrostatic <u>1494</u>	<input type="checkbox"/> Straddle <u>—</u>	<input type="checkbox"/> Ruined Shale Packer <u>—</u>
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer <u>—</u>	<input type="checkbox"/> Ruined Packer <u>—</u>
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer <u>—</u>	<input type="checkbox"/> Extra Copies <u>—</u>
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder <u>—</u>	Sub Total <u>0</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Day Standby <u>—</u>	Total <u>1212</u>
	<input type="checkbox"/> Accessibility <u>—</u>	MP/DST Disc't <u>—</u>
	Sub Total <u>1212</u>	

Approved By \_\_\_\_\_ Our Representative Cody Bleedorn

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 51558

Well Name & No. Armbruster #1 Test No. 2 Date 11-26-12  
 Company Zinszer Oil Co Inc Elevation 2053 KB 2048 GL  
 Address Po Box 211, Hays KS, 67601  
 Co. Rep / Geo. Perry Henman Rig Discovery #4  
 Location: Sec. 2 Twp. 15s Rge. 20W Co. Ellis State KS

Interval Tested 3336 - 3410 Zone Tested Toronto - LKC "D"  
 Anchor Length 74' Drill Pipe Run 3292' Mud Wt. 8.8  
 Top Packer Depth 3331 Drill Collars Run 31' Vis 53  
 Bottom Packer Depth 3336 Wt. Pipe Run - WL 8.0  
 Total Depth 3410 Chlorides 3,000 ppm System LCM -

Blow Description IF - B.O.B. in 4 Minutes  
ISI - Surface blow  
FF - B.O.B. in 5 Minutes  
FSI -

Rec	Feet of	%gas	%oil	%water	%mud
124	GMCWO	25	60	10	5
186	GMCO	30	60		10
93	GVSOCM	5	5		90
	1178' of G.I.P				

Rec Total 403 BHT 103° Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic 1632  Test 1150 T-On Location 8:11 pm  
 (B) First Initial Flow 53  Jars - T-Started 8:30 pm  
 (C) First Final Flow 134  Safety Joint - T-Open 10:20 pm  
 (D) Initial Shut-In 998  Circ Sub - T-Pulled 12:50 a.m.  
 (E) Second Initial Flow 135  Hourly Standby - T-Out 3:00 am  
 (F) Second Final Flow 197  Mileage 40 RT 62  
 (G) Final Shut-In 984  Sampler -  
 (H) Final Hydrostatic 1597  Straddle -

Initial Open 30  Shale Packer -  Ruined Shale Packer -  
 Initial Shut-In 45  Extra Packer -  Ruined Packer -  
 Final Flow 30  Extra Recorder - Sub Total 0  
 Final Shut-In 45  Day Standby - Total 1212  
 Accessibility - MP/DST Disc't -  
 Sub Total 1212

Approved By \_\_\_\_\_ Our Representative Cody Blair

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. 51559

4/10

Well Name & No. Arm bruster #1 Test No. 3 Date 11-27-12  
 Company Zinszer oil Co. INC. Elevation 2053 KB 2048 GL  
 Address Po Box 211, Hays KS, 67601  
 Co. Rep / Geo. Perry Henman Rig Discovery #4  
 Location: Sec. 2 Twp. 15S Rge. 20W Co. Ellis State KS

Interval Tested 3477-3540 Zone Tested "H,I,J"  
 Anchor Length 63' Drill Pipe Run 3448' Mud Wt. 8.8  
 Top Packer Depth 3472 Drill Collars Run 31' Vis 54  
 Bottom Packer Depth 3477 Wt. Pipe Run - WL 8.8  
 Total Depth 3540 Chlorides 5,000 ppm System LCM -

Blow Description IF- 3/4" blow  
ISI- No blow back  
FF- 1/2" blow  
FSI- No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>40</u>	<u>Mud with oil spots</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 40 BHT 98° Gravity - API RW - @ - F Chlorides - ppm

(A) Initial Hydrostatic 1671  Test 1150 T-On Location 2:27pm  
 (B) First Initial Flow 33  Jars \_\_\_\_\_ T-Started 2:46pm  
 (C) First Final Flow 48  Safety Joint \_\_\_\_\_ T-Open 4:55pm  
 (D) Initial Shut-In 951  Circ Sub \_\_\_\_\_ T-Pulled 7:25pm  
 (E) Second Initial Flow 49  Hourly Standby \_\_\_\_\_ T-Out 9:09pm  
 (F) Second Final Flow 48  Mileage 40 X2 62  
 (G) Final Shut-In 846  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1668  Straddle \_\_\_\_\_

Initial Open 30  Ruined Shale Packer \_\_\_\_\_  
 Initial Shut-In 45  Ruined Packer \_\_\_\_\_  
 Final Flow 30  Extra Packer \_\_\_\_\_  
 Final Shut-In 45  Extra Recorder \_\_\_\_\_  
 Sub Total 0  
 Total 1212  
 MP/DST Disc't \_\_\_\_\_  
 Sub Total 1212

Approved By \_\_\_\_\_ Our Representative Cody R

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. 44319

Well Name & No. Armbruster #1 Test No. 4 Date 11-28-12  
 Company Zinszer Oil Co INC Elevation 2053 KB 2048 GL  
 Address PO Box 211 Hays KS 67601  
 Co. Rep / Geo. Perry Henman Rig Discovery #4  
 Location: Sec. 2 Twp. 15S Rge. 20W Co. ELL's State KS

Interval Tested 3670-3692 Zone Tested CONGLOMERATE  
 Anchor Length 22 Drill Pipe Run 3637 Mud Wt. 8.8  
 Top Packer Depth 3665 Drill Collars Run 30 Vis 54  
 Bottom Packer Depth 3670 Wt. Pipe Run 0 WL 2.8  
 Total Depth 3692 Chlorides 5000 ppm System LCM 3

Blow Description FF-Fair Blow Built TO 5 1/4 IN  
1st-Weak surface Blow Back Built TO 1/8 IN  
FF-Fair Blow Built TO 4 1/2 IN  
FSL-Weak surface Blow Back Built TO 1/8 IN

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>MCO</u>	<u>50</u>	<u>oil</u>	<u>50</u>	<u>mud</u>
<u>58</u>	<u>Free oil</u>	<u>100</u>	<u>oil</u>		

Rec Total 78 BHT 105 Gravity 28 API RW @ \_\_\_\_\_ ° F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1831  Test 1150 T-On Location 8:44  
 (B) First Initial Flow 27  Jars T-Started 9:13  
 (C) First Final Flow 48  Safety Joint T-Open 11:37  
 (D) Initial Shut-In 1137  Circ Sub T-Pulled ~~12:07~~ 14:07  
 (E) Second Initial Flow 47  Hourly Standby T-Out 16:20  
 (F) Second Final Flow 59  Mileage 62 Comments \_\_\_\_\_  
 (G) Final Shut-In 1117  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1787  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_

Initial Open 30  
 Initial Shut-In 45  
 Final Flow 30  
 Final Shut-In 45

Sub Total 1212

Approved By \_\_\_\_\_ Our Representative Jeff Brown

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