



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1236896  
OIL & GAS CONSERVATION DIVISION

Form ACO-1  
August 2013

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

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

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

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

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

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

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

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

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

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

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

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

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

Designate Type of Completion:

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

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

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

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

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

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

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

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

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

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

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

Footages Calculated from Nearest Outside Section Corner:

- NE       NW       SE       SW

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

Datum:  NAD27       NAD83       WGS84

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

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

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

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

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

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

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

Multiple Stage Cementing Collar Used?  Yes  No

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

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

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

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

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

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

Location of fluid disposal if hauled offsite:

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

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

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

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

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

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



1236896

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

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

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

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

Drill Stem Tests Taken <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  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
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

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

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

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

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

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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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

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <i>(Submit ACO-4)</i>	<b>PRODUCTION INTERVAL:</b> _____ _____
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# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

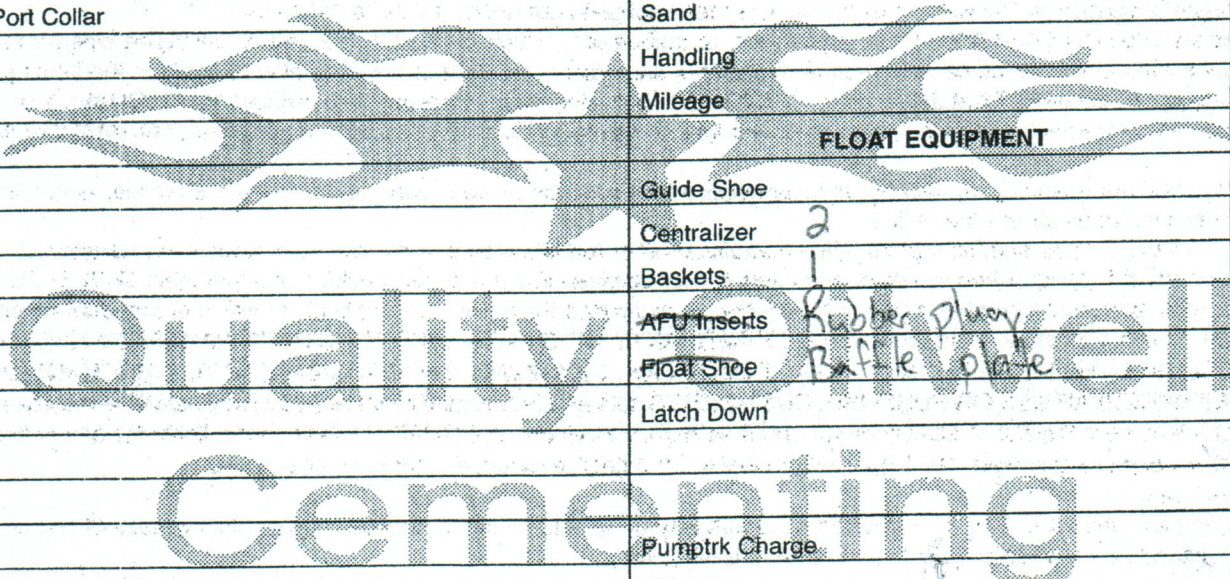
Phone 785-483-2025

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

No. 889

Cell 785-324-1041

Date	11-26-14	Sec.	22	Twp.	15	Range	17	County	Ellis	State	Ks	On Location		Finish	12:00 PM	
Lease	Schmidt Farm unit							Well No.	1	Location Victoria, Ks -85 to Chetolah Gold Rd						
Contractor	Royal 1							Owner	3w 1/2 w 5 into							
Type Job	Surface							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.								
Hole Size	12 1/4"		T.D.	1126'		Charge To	Charter Energy									
Csg.	8 5/8" 28#		Depth	1126'		Street										
Tbg. Size			Depth			City	State									
Tool			Depth			The above was done to satisfaction and supervision of owner agent or contractor.										
Cement Left in Csg.	39'		Shoe Joint	39'		Cement Amount Ordered	450 80/20 3%CC 2% Gel									
Meas Line			Displace	67 3/4 BCS		1/4" H Flo seal										
<b>EQUIPMENT</b>													Common			
Pumptrk	20	No.	Cementer	Nick		Poz. Mix										
			Helper													
Bulktrk	21	No.	Driver	Lannie M		Gel.										
			Driver													
Bulktrk	pu.	No.	Driver	Rick		Calcium										
			Driver													
<b>JOB SERVICES &amp; REMARKS</b>													Hulls			
Remarks:	Cement did Circulate												Salt			
Rat Hole	Displacement 67 3/4 BCS												Flowseal			
Mouse Hole													Kol-Seal			
Centralizers	28# .0624												Mud CLR 48			
Baskets													CFL-117 or CD110 CAF 38			
D/V or Port Collar													Sand			
													Handling			
													Mileage			
<b>FLOAT EQUIPMENT</b>																
													Guide Shoe			
													Centralizer 2			
													Baskets 1			
													AFU Inserts Rubber Plug			
													Float Shoe Baffle plate			
													Latch Down			
													Pumptrk Charge			
													Mileage			
													Tax			
													Discount			
													Total Charge			
X Signature Doug Buey																



# 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. 6310

Date	12-6-14	Sec.	22	Twp.	15	Range	17	County	Ellis	State	KS	On Location		Finish	4:00pm
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Location Victoria s to chetolah 602 3 1/2 W S into

Lease	Schmidt Farm unit	Well No.	1	Owner	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.
Contractor	Royal		1		

Type Job	Plug	Charge To	Charter Energy
Hole Size	7 7/8	T.D.	3598
Csg.	DP 4 1/2	Depth	3570

Tbg. Size		Depth		City		State	
Tool		Depth		The above was done to satisfaction and supervision of owner agent or contractor.			
Cement Left in Csg.		Shoe Joint		Cement Amount Ordered	255 sk 60/40 4% gel 1/4# flow seal		

Meas Line		Displace	mud / H <sub>2</sub> O
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EQUIPMENT			
Pumptrk	20	No. Cementer	Nick
Bulktrk	19	No. Driver	Lonnie m
Bulktrk	PU	No. Driver	Billy

JOB SERVICES & REMARKS	
Remarks:	Salt
Rat Hole	30 sk
Mouse Hole	15 sk
Centralizers	Mud CLR 48
Baskets	CFL-117 or CD110 CAF 38
D/V or Port Collar	Sand
	Handling 264
	Mileage

FLOAT EQUIPMENT	
1st	3570 ft 50 sk
2nd	1150 ft 50 sk
3rd	470 ft 100 sk
	Cement die circulate
	40 ft 40 10 sk
	Rat 30 sk

	Pumptrk Charge	plug
	Mileage	15
	Tax	
	Discount	
	Total Charge	

X Signature Doug Buege



## DRILL STEM TEST REPORT

Prepared For: **Charter Energy**

PO Box 252  
Great Bend KS 67530

ATTN: Clint Muscove

### **Schmidt Farm Unit #1**

### **22-15s-17w Ellis,KS**

Start Date: 2014.12.04 @ 08:51:00

End Date: 2014.12.04 @ 14:22:00

Job Ticket #: 60300                      DST #: 1

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.12.10 @ 14:31:13



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Charter Energy  
 PO Box 252  
 Great Bend KS 67530  
 ATTN: Clint Muscove

**22-15s-17w Ellis,KS**  
**Schmidt Farm Unit #1**  
 Job Ticket: 60300 **DST#: 1**  
 Test Start: 2014.12.04 @ 08:51:00

## GENERAL INFORMATION:

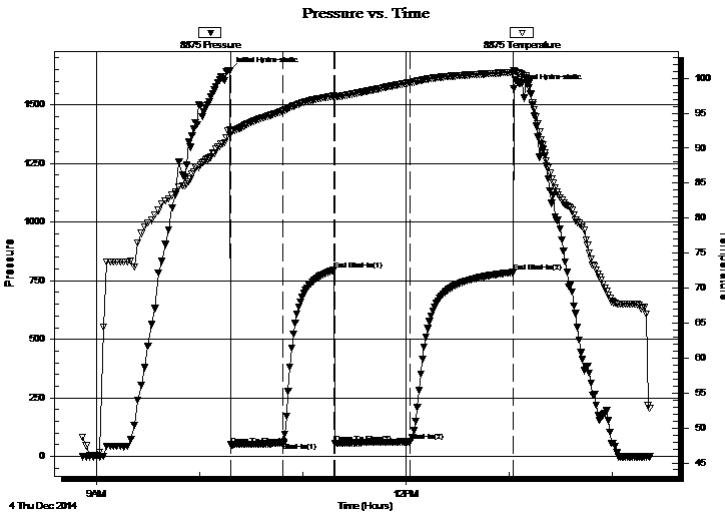
Formation: **LKC A-F**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 10:18:00  
 Time Test Ended: 14:22:00  
 Interval: **3300.00 ft (KB) To 3380.00 ft (KB) (TVD)**  
 Total Depth: 3380.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Dustin Ellis  
 Unit No: S2  
 Reference Elevations: 1978.00 ft (KB)  
 1970.00 ft (CF)  
 KB to GR/CF: 8.00 ft

## Serial #: 8875 Outside

Press@RunDepth: 63.25 psig @ 3375.25 ft (KB) Capacity: 5000.00 psig  
 Start Date: 2014.12.04 End Date: 2014.12.04 Last Calib.: 2014.12.04  
 Start Time: 08:52:00 End Time: 14:22:00 Time On Btm: 2014.12.04 @ 10:17:30  
 Time Off Btm: 2014.12.04 @ 13:02:30

TEST COMMENT: IFP 30 min. Weak building blow built to 2 inches  
 ISI 30 min. No blow back.  
 FFP 45 min. Weak blow built to 2 inches.  
 FSI 60 min. No blow back.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1644.43	92.67	Initial Hydro-static
1	49.69	92.38	Open To Flow (1)
31	60.67	95.32	Shut-In(1)
61	795.32	97.47	End Shut-In(1)
61	56.34	97.28	Open To Flow (2)
105	63.25	99.35	Shut-In(2)
165	785.40	100.85	End Shut-In(2)
165	1570.46	101.12	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
30.00	Very lightly oil spotted mud	0.42

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Charter Energy

**22-15s-17w Ellis,KS**

PO Box 252  
Great Bend KS 67530

**Schmidt Farm Unit #1**

Job Ticket: 60300

**DST#: 1**

ATTN: Clint Muscove

Test Start: 2014.12.04 @ 08:51:00

## Tool Information

Drill Pipe:	Length: 3290.00 ft	Diameter: 3.80 inches	Volume: 46.15 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 56000.00 lb
			<u>Total Volume: 46.15 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3300.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	80.25 ft			
Tool Length:	100.25 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3285.00	
Hydraulic tool	5.00			3290.00	
Top Packer	5.00			3295.00	
Packer	5.00			3300.00	20.00 Bottom Of Top Packer
Anchor	5.00			3305.00	
Change Over Sub	0.75			3305.75	
Drill Pipe	63.75			3369.50	
Change Over Sub	0.75			3370.25	
Anchor	5.00			3375.25	
Recorder	0.00	6839	Inside	3375.25	
Recorder	0.00	8875	Outside	3375.25	
Bull Plug	5.00			3380.25	80.25 Anchor Tool

**Total Tool Length: 100.25**





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Charter Energy

**22-15s-17w Ellis,KS**

PO Box 252  
Great Bend KS 67530

**Schmidt Farm Unit #1**

Job Ticket: 60300      **DST#: 1**

ATTN: Clint Muscove

Test Start: 2014.12.04 @ 08:51:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length: ft

Water Salinity: ppm

Viscosity: 60.00 sec/qt

Cushion Volume: bbl

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 2300.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	Very lightly oil spotted mud	0.421

Total Length: 30.00 ft      Total Volume: 0.421 bbl

Num Fluid Samples: 0

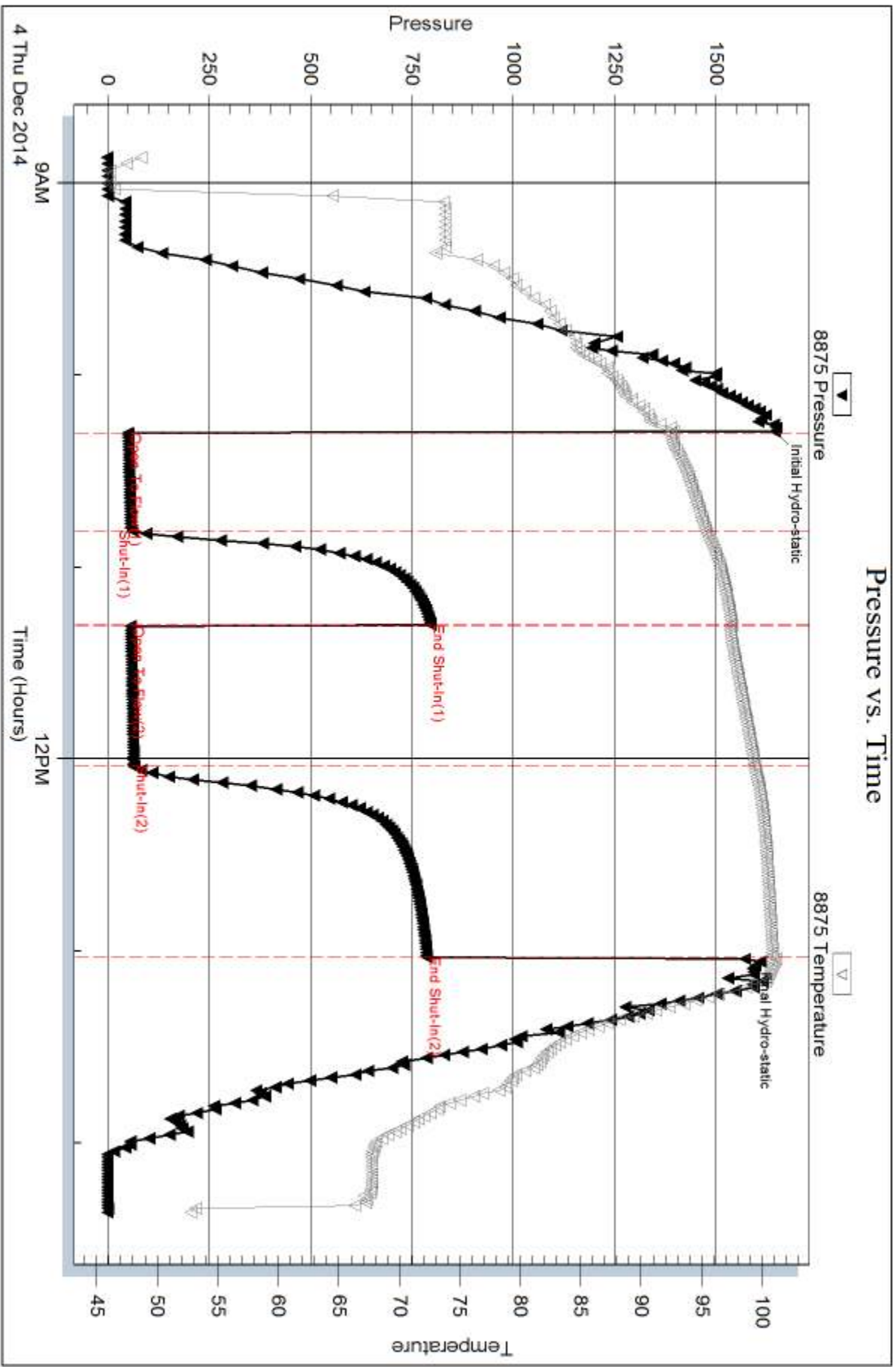
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



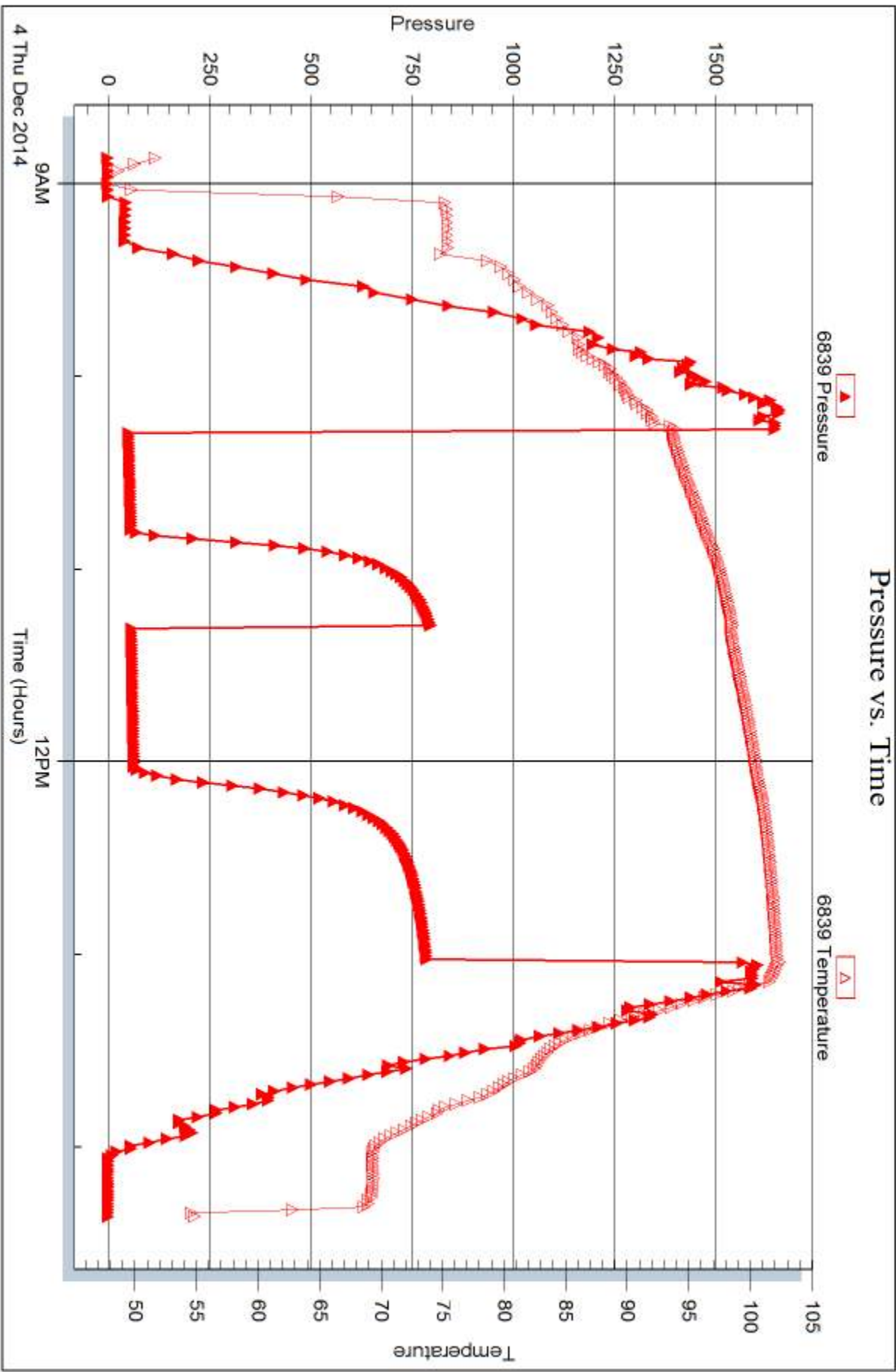
Serial #: 6839

Inside

Charter Energy

Schmidt Farm Unit #1

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **Charter Energy**

PO Box 252  
Great Bend KS 67530

ATTN: Clint Muscove

### **Schmidt Farm Unit #1**

### **22-15s-17w Ellis,KS**

Start Date: 2014.12.05 @ 12:42:00

End Date: 2014.12.05 @ 17:11:00

Job Ticket #: 62101                      DST #: 2

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.12.10 @ 14:30:49



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Charter Energy  
PO Box 252  
Great Bend KS 67530  
ATTN: Clint Muscove

**22-15s-17w Ellis,KS**  
**Schmidt Farm Unit #1**  
Job Ticket: 62101 **DST#: 2**  
Test Start: 2014.12.05 @ 12:42:00

## GENERAL INFORMATION:

Formation: **Arbuckle**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 14:04:30  
Time Test Ended: 17:11:00  
Interval: **3510.00 ft (KB) To 3583.00 ft (KB) (TVD)**  
Total Depth: 3583.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Dustin Ellis  
Unit No: S2  
Reference Elevations: 1978.00 ft (KB)  
1970.00 ft (CF)  
KB to GR/CF: 8.00 ft

## Serial #: 6839

Inside

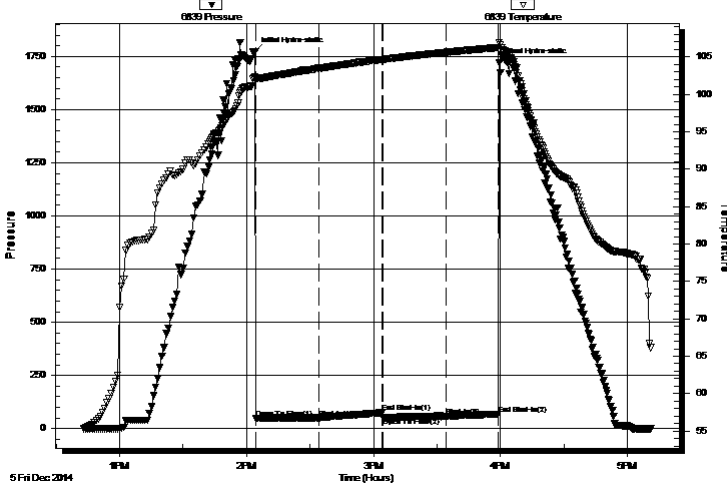
Press@RunDepth: 56.60 psig @ 3578.95 ft (KB) Capacity: 5000.00 psig  
Start Date: 2014.12.05 End Date: 2014.12.05 Last Calib.: 2014.12.05  
Start Time: 12:43:00 End Time: 17:11:00 Time On Btm: 2014.12.05 @ 14:04:00  
Time Off Btm: 2014.12.05 @ 15:59:30

TEST COMMENT: IFP 30 min Weak blow built to 1/2 inch.  
ISI 30 min. No blow back  
FFP 30 min. Dead  
FSI 30 min. No blow back

## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1773.58	102.34	Initial Hydro-static
1	48.74	102.03	Open To Flow (1)
30	50.68	103.56	Shut-In(1)
60	74.77	104.66	End Shut-In(1)
61	51.38	104.66	Open To Flow (2)
91	56.60	105.62	Shut-In(2)
115	68.33	106.25	End Shut-In(2)
116	1720.52	106.94	Final Hydro-static

Pressure vs. Time



## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud 100%	0.07

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Charter Energy  
 PO Box 252  
 Great Bend KS 67530  
 ATTN: Clint Muscove

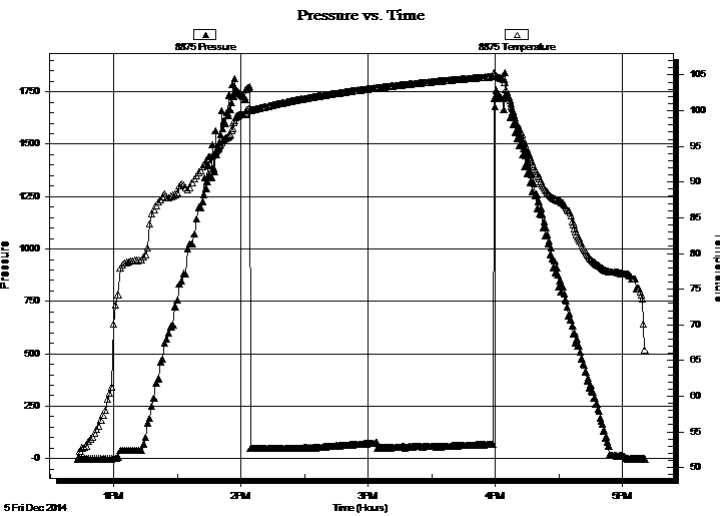
**22-15s-17w Ellis,KS**  
**Schmidt Farm Unit #1**  
 Job Ticket: 62101 **DST#: 2**  
 Test Start: 2014.12.05 @ 12:42:00

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 14:04:30  
 Time Test Ended: 17:11:00  
**Interval: 3510.00 ft (KB) To 3583.00 ft (KB) (TVD)**  
 Total Depth: 3583.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Dustin Ellis  
 Unit No: S2  
 Reference Elevations: 1978.00 ft (KB)  
 1970.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8875 Outside**  
 Press@RunDepth: psig @ 3578.95 ft (KB) Capacity: 5000.00 psig  
 Start Date: 2014.12.05 End Date: 2014.12.05 Last Calib.: 2014.12.05  
 Start Time: 12:43:00 End Time: 17:10:30 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** IFP 30 min Weak blow built to 1/2 inch.  
 ISI 30 min. No blow back  
 FFP 30 min. Dead  
 FSI 30 min. No blow back



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud 100%	0.07

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Charter Energy

**22-15s-17w Ellis,KS**

PO Box 252  
Great Bend KS 67530

**Schmidt Farm Unit #1**

Job Ticket: 62101

**DST#: 2**

ATTN: Clint Muscove

Test Start: 2014.12.05 @ 12:42:00

## Tool Information

Drill Pipe:	Length: 3512.00 ft	Diameter: 3.80 inches	Volume: 49.26 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 57000.00 lb
			<u>Total Volume: 49.26 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 53000.00 lb
Depth to Top Packer:	3510.00 ft			Final 53000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	73.95 ft			
Tool Length:	93.95 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3495.00	
Hydraulic tool	5.00			3500.00	
Top Packer	5.00			3505.00	
Packer	5.00			3510.00	20.00 Bottom Of Top Packer
Anchor	6.00			3516.00	
Change Over Sub	0.75			3516.75	
Drill Pipe	31.45			3548.20	
Change Over Sub	0.75			3548.95	
Anchor	30.00			3578.95	
Recorder	0.00	6839	Inside	3578.95	
Recorder	0.00	8875	Outside	3578.95	
Bull Plug	5.00			3583.95	73.95 Anchor Tool

**Total Tool Length: 93.95**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Charter Energy

**22-15s-17w Ellis,KS**

PO Box 252  
Great Bend KS 67530

**Schmidt Farm Unit #1**

Job Ticket: 62101 **DST#: 2**

ATTN: Clint Muscove

Test Start: 2014.12.05 @ 12:42:00

## 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: 46.00 sec/qt

Cushion Volume: bbl

Water Loss: 7.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 2400.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud 100%	0.070

Total Length: 5.00 ft Total Volume: 0.070 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

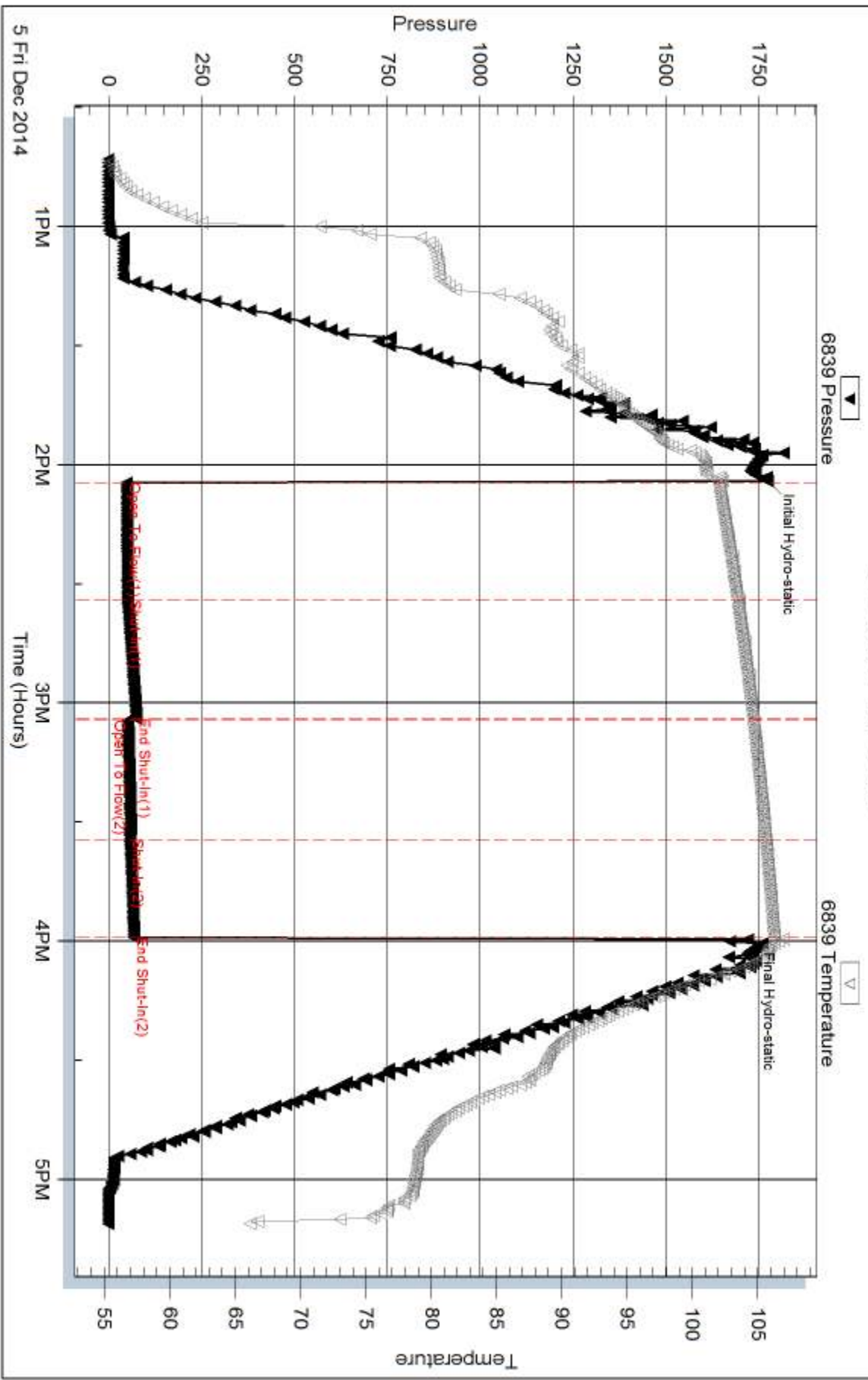
Laboratory Name:

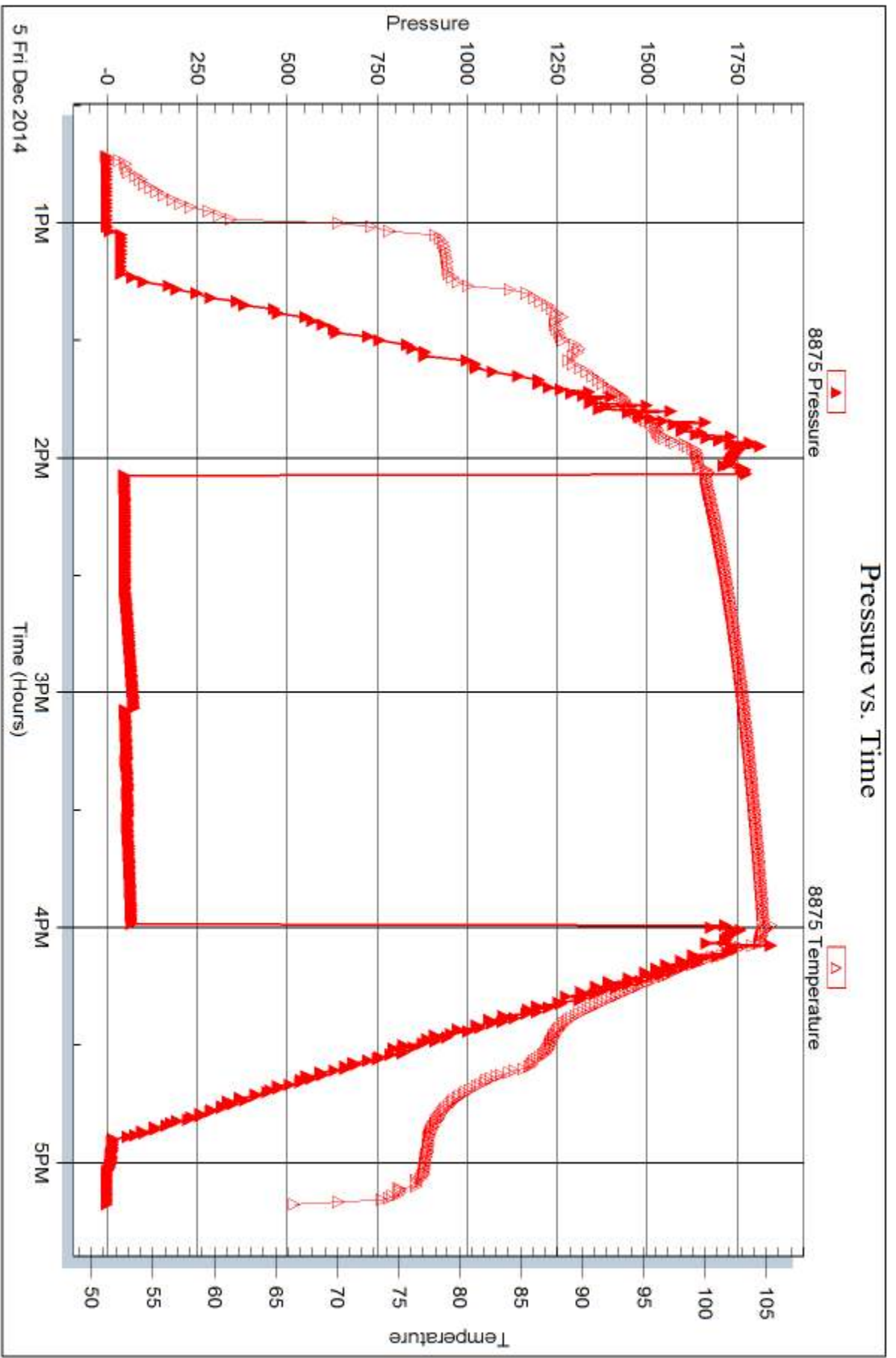
Laboratory Location:

Recovery Comments:



### Pressure vs. Time







## DRILL STEM TEST REPORT

Prepared For: **Charter Energy**

PO Box 252  
Great Bend KS 67530

ATTN: Clint Muscove

### **Schmidt Farm Unit #1**

### **22-15s-17w Ellis,KS**

Start Date: 2014.12.05 @ 10:42:00

End Date: 2014.12.05 @ 16:12:00

Job Ticket #: 62102                      DST #: 3

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.12.10 @ 14:30:16



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Charter Energy  
 PO Box 252  
 Great Bend KS 67530  
 ATTN: Clint Muscove

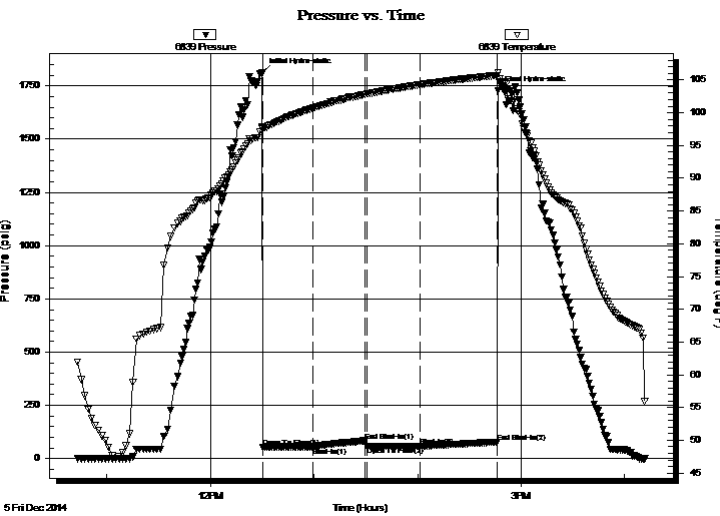
**22-15s-17w Ellis,KS**  
**Schmidt Farm Unit #1**  
 Job Ticket: 62102 **DST#: 3**  
 Test Start: 2014.12.05 @ 10:42:00

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 12:30:30  
 Time Test Ended: 16:12:00  
 Interval: **3510.00 ft (KB) To 3590.00 ft (KB) (TVD)**  
 Total Depth: 3590.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Dustin Ellis  
 Unit No: S2  
 Reference Elevations: 1978.00 ft (KB)  
 1970.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 6839 Inside**  
 Press@RunDepth: 56.37 psig @ 3585.14 ft (KB) Capacity: 5000.00 psig  
 Start Date: 2014.12.05 End Date: 2014.12.05 Last Calib.: 2014.12.06  
 Start Time: 10:43:00 End Time: 16:12:00 Time On Btm: 2014.12.05 @ 12:30:00  
 Time Off Btm: 2014.12.05 @ 14:46:30

**TEST COMMENT:** IFP 30 min. Weak blow built to 1.5 inches.  
 ISI 30 min. No blow back  
 FFP 30 min. Dead  
 FSI 45 min. No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1813.47	97.81	Initial Hydro-static
1	53.76	97.53	Open To Flow (1)
30	55.28	100.73	Shut-In(1)
60	83.71	102.80	End Shut-In(1)
61	56.11	102.94	Open To Flow (2)
92	56.37	104.29	Shut-In(2)
136	76.03	105.72	End Shut-In(2)
137	1727.21	106.16	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud 100%	0.14

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Charter Energy

**22-15s-17w Ellis,KS**

PO Box 252  
Great Bend KS 67530

**Schmidt Farm Unit #1**

Job Ticket: 62102

**DST#: 3**

ATTN: Clint Muscove

Test Start: 2014.12.05 @ 10:42:00

## Tool Information

Drill Pipe:	Length: 3512.00 ft	Diameter: 3.80 inches	Volume: 49.26 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 57000.00 lb
			<u>Total Volume: 49.26 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 53000.00 lb
Depth to Top Packer:	3510.00 ft			Final 53000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	80.14 ft			
Tool Length:	100.14 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3495.00	
Hydraulic tool	5.00			3500.00	
Top Packer	5.00			3505.00	
Packer	5.00			3510.00	20.00 Bottom Of Top Packer
Anchor	6.00			3516.00	
Change Over Sub	0.75			3516.75	
Drill Pipe	31.64			3548.39	
Change Over Sub	0.75			3549.14	
Anchor	36.00			3585.14	
Recorder	0.00	6839	Inside	3585.14	
Recorder	0.00	8875	Outside	3585.14	
Bull Plug	5.00			3590.14	80.14 Anchor Tool

**Total Tool Length: 100.14**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Charter Energy

**22-15s-17w Ellis,KS**

PO Box 252  
Great Bend KS 67530

**Schmidt Farm Unit #1**

Job Ticket: 62102      **DST#: 3**

ATTN: Clint Muscove

Test Start: 2014.12.05 @ 10:42:00

## 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: 46.00 sec/qt

Cushion Volume: bbl

Water Loss: 7.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 2400.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Mud 100%	0.140

Total Length: 10.00 ft      Total Volume: 0.140 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

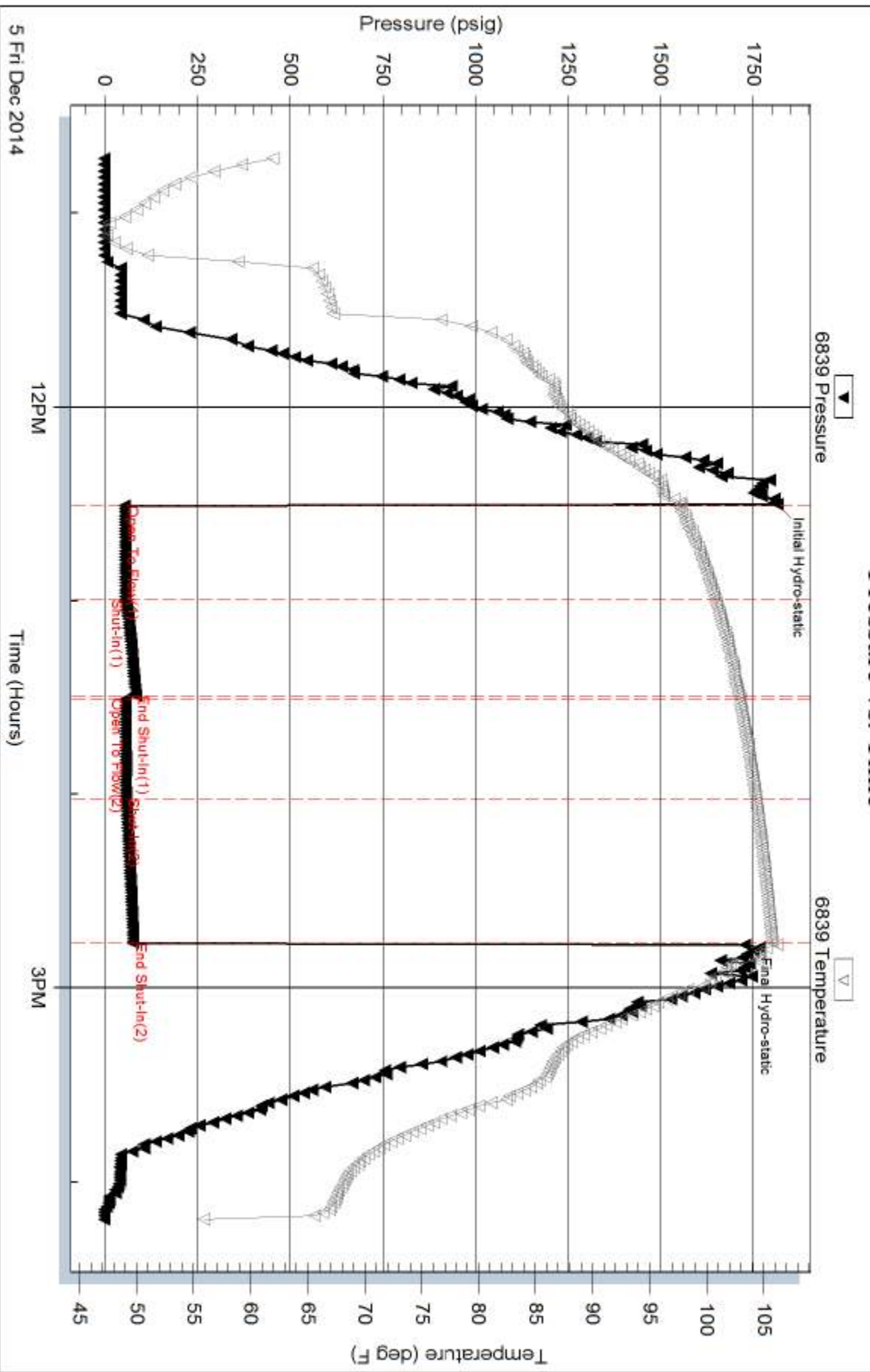
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time



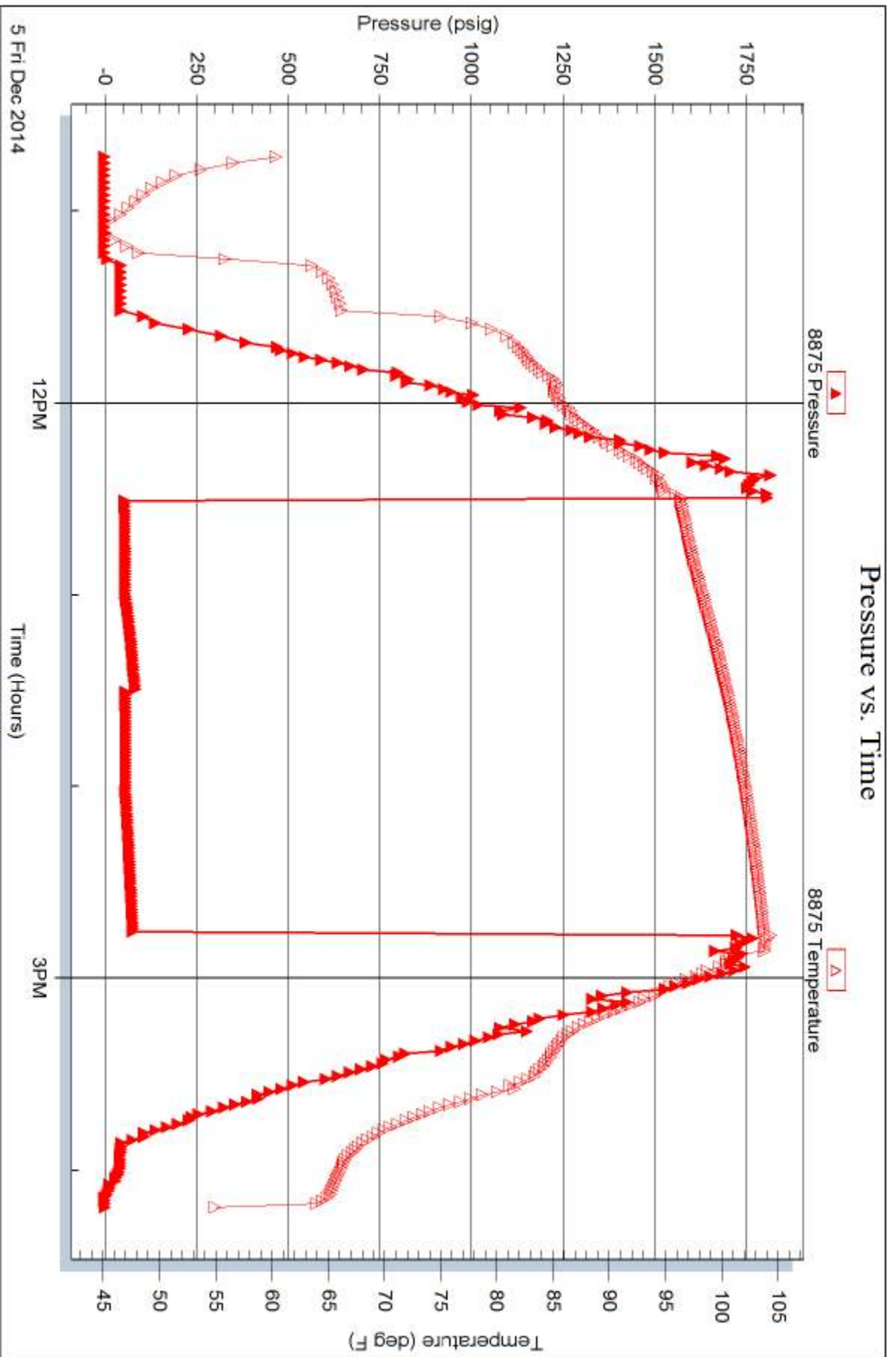


Serial #: 8875

Outside Charter Energy

Schmidt Farm Unit #1

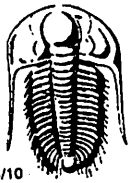
DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 62102

Printed: 2014.12.10 @ 14:30:17



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 60300

4/10

Well Name & No. Schmidt Farm Unit #1 Test No. 1 Date 12-4-14  
 Company Charter Energy Elevation 1970 KB 1978 GL  
 Address PO Box 252 Great Bend Ks 67530  
 Co. Rep / Geo. Clint Muscrow Rig Royal Drilling Rig 2  
 Location: Sec. 22 Twp. 15S Rge. 17W Co. Ellis State Ks

Interval Tested 3300 - 3380 Zone Tested Lansing A-F  
 Anchor Length 80 Drill Pipe Run 3290 Mud Wt. 8.8  
 Top Packer Depth 3295 Drill Collars Run 0 Vis 60  
 Bottom Packer Depth 3300 Wt. Pipe Run 50,000 WL 7.2  
 Total Depth 3380 Chlorides 2300 ppm System LCM 2

Blow Description Initial open - weak building blow built to 2 inches.  
Initial shut-in - No blow back.  
Final Flow - weak building blow built to 2 inches.  
Final shut-in - No blow back.

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>very light oil spot 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 30 BHT \_\_\_\_\_ Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ ° F Chlorides \_\_\_\_\_ ppm  
 (A) Initial Hydrostatic 1644  Test 1150 T-On Location 8:00am  
 (B) First Initial Flow 49  Jars \_\_\_\_\_ T-Started 8:51am  
 (C) First Final Flow 60  Safety Joint \_\_\_\_\_ T-Open 10:17am  
 (D) Initial Shut-In 795  Circ Sub \_\_\_\_\_ T-Pulled 1:02pm  
 (E) Second Initial Flow 56  Hourly Standby \_\_\_\_\_ T-Out \_\_\_\_\_  
 (F) Second Final Flow 63  Mileage 128 198.40 Comments \_\_\_\_\_  
 (G) Final Shut-In 795  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1570  Straddle \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_

Initial Open 30  
 Initial Shut-In 30  
 Final Flow 45  
 Final Shut-In 60  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1348.40  
 Sub Total 1348.40  
 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative Dustin Ellis

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. 62101

Well Name & No. Schmidt Farms Unit #1 Test No. 2 Date 12-5-14  
 Company Charter Energy Elevation 1970 KB 1978 GL  
 Address Po Box 252 Great Bend KS 67530  
 Co. Rep / Geo. Clint Muscrow Rig Royal Drilling  
 Location: Sec. 22 Twp. 15s Rge. 17w Co. Ellis State KS

Interval Tested 3510-3583 Zone Tested Arbuckle  
 Anchor Length 73 Drill Pipe Run 3512 Mud Wt. 9.0  
 Top Packer Depth 3505 Drill Collars Run 0 Vis 46  
 Bottom Packer Depth 3510 Wt. Pipe Run 53,000 WL 7.8  
 Total Depth 3583 Chlorides 2406 ppm System LCM 1

Blow Description Initial open - weak blow built to 12 inch.  
Initial shut in - No blowback  
Final Flow - Dead  
Final shut in - No blowback.

Rec	Feet of	%gas	%oil	%water	%mud
5	mud			100	

Rec Total 5 BHT \_\_\_\_\_ Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

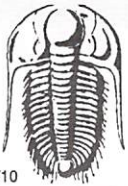
(A) Initial Hydrostatic 1173  Test 1150 T-On Location 12:00pm  
 (B) First Initial Flow 48  Jars \_\_\_\_\_ T-Started 12:42pm  
 (C) First Final Flow 50  Safety Joint \_\_\_\_\_ T-Open 2:04pm  
 (D) Initial Shut-In 74  Circ Sub \_\_\_\_\_ T-Pulled 480  
 (E) Second Initial Flow 51  Hourly Standby \_\_\_\_\_ T-Out 515  
 (F) Second Final Flow 56  Mileage 128 198.40 Comments \_\_\_\_\_  
 (G) Final Shut-In 600  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1720  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_

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

Sub Total 1348.40 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative Dustin Ellis

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 62102

Well Name & No. Schmid Farms Unit #1 Test No. 3 Date 12-5-14  
 Company Charter Energy Elevation 1970 KB 1978 GL  
 Address PO Box 252 Great Bend KS 67530  
 Co. Rep / Geo. Clint Muscrow Rig Royal Drilling  
 Location: Sec. 22 Twp. 15s Rge. 17w Co. Ellis State KS

Interval Tested 3510-3590 Zone Tested Arbuckle  
 Anchor Length 80 Drill Pipe Run 3512 Mud Wt. 9.0  
 Top Packer Depth 3505 Drill Collars Run 0 Vis 46  
 Bottom Packer Depth 3510 Wt. Pipe Run \_\_\_\_\_ WL 7.8  
 Total Depth 3590 Chlorides 2400 ppm System LCM 1

Blow Description Initial open - weak blow built to  
Initial shut-in - No blow back  
Final Flow - Dead  
Final Shut-in - No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>mud</u>			<u>100</u>	
____	____	____	____	____	____
____	____	____	____	____	____
____	____	____	____	____	____
____	____	____	____	____	____

Rec Total 10 BHT \_\_\_\_\_ Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1813  Test 1150 T-On Location 10:15pm  
 (B) First Initial Flow 53  Jars \_\_\_\_\_ T-Started 10:42pm  
 (C) First Final Flow 55  Safety Joint \_\_\_\_\_ T-Open 12:30am  
 (D) Initial Shut-In 83  Circ Sub \_\_\_\_\_ T-Pulled 3:00am  
 (E) Second Initial Flow 50  Hourly Standby \_\_\_\_\_ T-Out \_\_\_\_\_  
 (F) Second Final Flow 56  Mileage 128 198.40 Comments \_\_\_\_\_  
 (G) Final Shut-In 70  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1727  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_

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

Sub Total 1348.40  
 Total \_\_\_\_\_  
 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative Dustin Ellis  
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