

Confidentiality Requested:

☐ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1230905

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

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: _____

Sec. _____ Twp. _____ S. R. _____ ☐ East ☐ West County: _____

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

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

CASING RECORD ☐ New ☐ 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				

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 (Amount and Kind of Material Used)		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

DISPOSITION OF GAS: ☐ Vented ☐ Sold ☐ Used on Lease <i>(If vented, Submit ACO-18.)</i>		METHOD OF COMPLETION: ☐ Open Hole ☐ Perf. ☐ Dually Comp. ☐ Commingled <i>(Submit ACO-5)</i> ☐ Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Farmer, John O., Inc.
Well Name	Leas 1
Doc ID	1230905

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	23	515	Common	250	3% C.C., 2% gel

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. 393

Date <u>9-30-14</u>	Sec. <u>33</u>	Twp. <u>13</u>	Range <u>15</u>	County <u>Russell</u>	State <u>KS</u>	On Location	Finish <u>7:00 A.M.</u>
				Location <u>Carburem 1 1/2 E Sinto</u>			

Lease <u>LEAS</u>	Well No. <u>1</u>	Owner
Contractor <u>Discovery #2</u>		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 <u>Surface</u>		
Hole Size <u>12 1/4</u>	T.D. <u>515</u>	Charge To <u>J.O Farmer</u>
Csg. <u>8 5/8</u>	Depth <u>514</u>	Street
Tbg. Size	Depth	City
Tool	Depth	State
Cement Left in Csg. <u>25'</u>	Shoe Joint	The above was done to satisfaction and supervision of owner agent or contractor.
Meas Line	Displace <u>31 1/2 B/L</u>	Cement Amount Ordered <u>250 com 3/1/14 2/1/14</u>

EQUIPMENT		Common <u>250</u>
Pumptrk <u>20</u> No.	Cement Helper <u>Long</u>	Poz. Mix
Bulktrk No.	Driver <u>Nick</u>	Gel. <u>6</u>
Bulktrk <u>1</u> No.	Driver <u>Lennie</u>	Calcium <u>9</u>

JOB SERVICES & REMARKS		Hulls
Remarks:		Salt
Rat Hole		Flowseal
Mouse Hole		Kol-Seal
Centralizers		Mud CLR 48
Baskets		CFL-117 or CD110 CAF 38
D/V or Port Collar		Sand
<u>8 5/8 on bottom Est. Circulation</u>		Handling <u>265</u>
<u>Mix 250 SK + Displace Plug</u>		Mileage

Cement Circulated?		FLOAT EQUIPMENT
		Guide Shoe
		Centralizer <u>8 5/8 Wooden Plug</u>
		Baskets
		AFU Inserts
		Float Shoe
		Latch Down

Pumptrk Charge <u>Long Surface</u>		Tax
Mileage <u>8</u>		Discount
Signature <u>[Signature]</u>		Total Charge

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. 649

Date	10-6-14	Sec.	33	Twp.	13	Range	15	County	Russell	State	Ks	On Location		Finish	3:15 PM
Lease								Location							
Leas								Gocham, Ks - 1 1/2 E 5 1/4 N							
Well No. 1								Owner							
Contractor Discovery								To Quality Oilwell Cementing, Inc.							
Type Job Plug								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 7 7/8"								Charge To J.O. Farmer							
Csg.								Depth							
Tbg. Size 4 1/2" D.P.								Depth 3332'							
Tool								Depth							
Cement Left in Csg.								Shoe Joint							
Meas Line								Displace H2O/mud							
EQUIPMENT								Common 131							
Pumptrk 16 No. Cementer Billy								Poz. Mix 94							
Bulktrk 14 No. Driver Chad								Gel. 8							
Bulktrk p.u. No. Driver Rick								Calcium							
JOB SERVICES & REMARKS								Hulls							
Remarks:								Salt							
Rat Hole								Flowseal 60#							
Mouse Hole								Kol-Seal							
Centralizers								Mud CLR 48							
Baskets								CFL-117 or CD110 CAF 38							
D/V or Port Collar								Sand							
3332' - 50 SX								Handling 243							
1000' - 50 SX								Mileage							
600' - 80 SX								FLOAT EQUIPMENT							
40' - 10 SX w/ plug								Guide Shoe							
Rathole - 30 SX								Centralizer							
Mousehole - 15 SX								Baskets							
Cement did Circulate								AFU Inserts							
								Float Shoe							
								Latch Down							
								1 - Dry hole plug							
								Pumptrk Charge plug							
								Mileage 8 plug							
X Signature								Tax							
								Discount							
								Total Charge							



DRILL STEM TEST REPORT

Prepared For: **Farmer John O Inc**

370 W Wichita Ave
Russell KS 67665+2635

ATTN: Austin Klams

Leas #1

33-13s-15w Gorham,KS

Start Date: 2014.10.03 @ 16:20:00

End Date: 2014.10.03 @ 22:23:00

Job Ticket #: 60446 DST #: 1

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

Printed: 2014.10.07 @ 16:00:57



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Farmer John O Inc

33-13s-15w Gorham,KS

370 W Wichita Ave
Russell KS 67665+2635

Leas #1

Job Ticket: 60446

DST#: 1

ATTN: Austin Klams

Test Start: 2014.10.03 @ 16:20:00

GENERAL INFORMATION:

Formation: **LKC 'A-B'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:52:00

Time Test Ended: 22:23:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: S5

Interval: 3050.00 ft (KB) To 3112.00 ft (KB) (TVD)

Reference Elevations: 1917.00 ft (KB)

Total Depth: 3312.00 ft (KB) (TVD)

1909.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8525 Outside

Press@RunDepth: 117.74 psig @ 3088.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.10.03

End Date:

2014.10.03

Last Calib.: 2014.10.03

Start Time: 16:21:00

End Time:

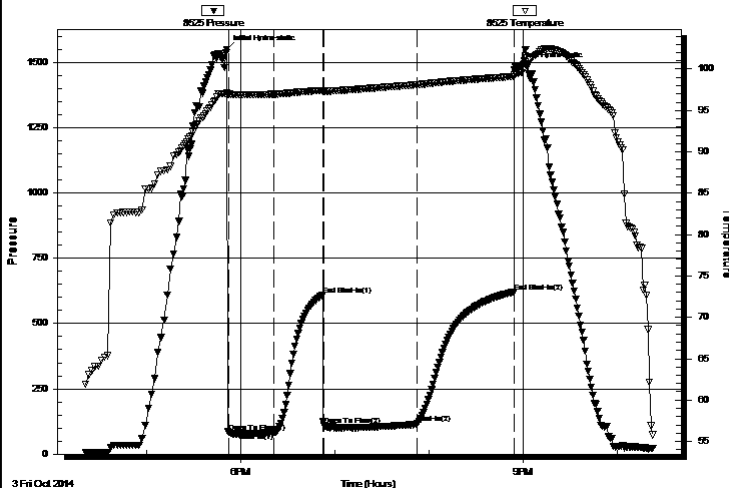
22:23:00

Time On Btm: 2014.10.03 @ 17:51:00

Time Off Btm: 2014.10.03 @ 20:55:00

TEST COMMENT: IFP 30 Minutes-Weak buildingg blow built 5 1/2"
ISIP 30 Minutes-No blow back
FFP 60 Minutes-Weak blow built 8 1/8"
FSIP 60 Minutes-No blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1548.09	97.19	Initial Hydro-static
1	84.90	96.97	Open To Flow (1)
30	83.25	96.97	Shut-In(1)
61	609.02	97.43	End Shut-In(1)
62	111.55	97.33	Open To Flow (2)
122	117.74	98.12	Shut-In(2)
183	620.21	99.11	End Shut-In(2)
184	1483.73	99.42	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
150.00	Spot oil mud 1%oil 99%mud	1.19

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Farmer John O Inc
370 W Wichita Ave
Russell KS 67665+2635
ATTN: Austin Klams

33-13s-15w Gorham,KS

Leas #1

Job Ticket: 60446

DST#: 1

Test Start: 2014.10.03 @ 16:20:00

GENERAL INFORMATION:

Formation: **LKC 'A-B'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:52:00

Time Test Ended: 22:23:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: S5

Interval: 3050.00 ft (KB) To 3112.00 ft (KB) (TVD)

Reference Elevations: 1917.00 ft (KB)

Total Depth: 3312.00 ft (KB) (TVD)

1909.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8400 Inside

Press@RunDepth: 620.70 psig @ 3087.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.10.03

End Date:

2014.10.03

Last Calib.: 2014.10.03

Start Time: 16:21:00

End Time:

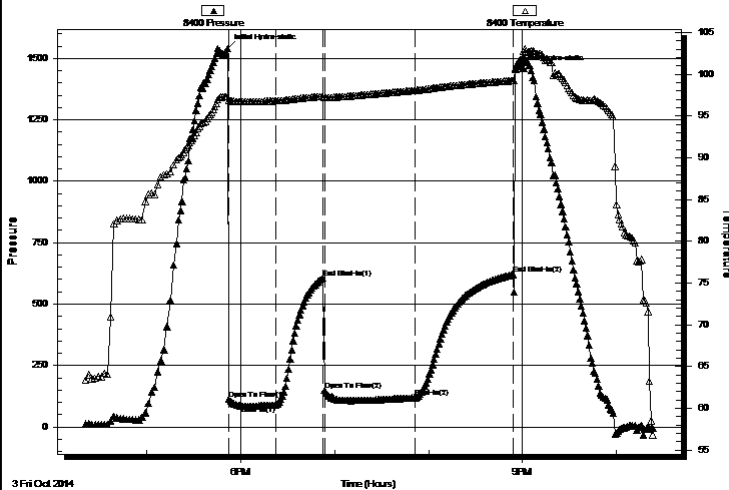
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Time On Btm: 2014.10.03 @ 17:51:30

Time Off Btm: 2014.10.03 @ 20:55:30

TEST COMMENT: IFP 30 Minutes-Weak building blow built 5 1/2"
ISIP 30 Minutes-No blow back
FFP 60 Minutes-Weak blow built 8 1/8"
FSIP 60 Minutes-No blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1539.16	97.31	Initial Hydro-static
1	111.75	96.87	Open To Flow (1)
31	89.50	96.83	Shut-In(1)
61	606.70	97.37	End Shut-In(1)
62	147.90	97.22	Open To Flow (2)
120	118.99	98.09	Shut-In(2)
183	620.70	99.26	End Shut-In(2)
184	1456.37	100.76	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
150.00	Spot oil mud 1%oil 99%mud	1.19

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Farmer John O Inc

33-13s-15w Gorham,KS

370 W Wichita Ave
Russell KS 67665+2635

Leas #1

Job Ticket: 60446

DST#: 1

ATTN: Austin Klams

Test Start: 2014.10.03 @ 16:20:00

Tool Information

Drill Pipe:	Length:	2730.00 ft	Diameter:	3.80 inches	Volume:	38.29 bbl	Tool Weight:	1000.00 lb
Heavy Wt. Pipe:	Length:	300.00 ft	Diameter:	2.86 inches	Volume:	2.38 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length:	30.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:	57000.00 lb
					Total Volume:	40.82 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		30.00 ft					String Weight: Initial	50000.00 lb
Depth to Top Packer:		3050.00 ft					Final	50000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		62.00 ft						
Tool Length:		82.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				
Tool Comments:								

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3035.00	
Hydraulic tool	5.00			3040.00	
Packer	5.00			3045.00	20.00 Bottom Of Top Packer
Packer	5.00			3050.00	
Anchor	3.00			3053.00	
Change Over Sub	0.75			3053.75	
Drill Pipe	31.50			3085.25	
Change Over Sub	0.75			3086.00	
Recorder	1.00	8400	Inside	3087.00	
Recorder	1.00	8525	Outside	3088.00	
Anchor	21.00			3109.00	
Bullnose	3.00			3112.00	62.00 Bottom Packers & Anchor

Total Tool Length: 82.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Farmer John O Inc

33-13s-15w Gorham,KS

370 W Wichita Ave
Russell KS 67665+2635

Leas #1

Job Ticket: 60446

DST#: 1

ATTN: Austin Klams

Test Start: 2014.10.03 @ 16:20:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 54.00 sec/qt

Water Loss: 8.37 in³

Resistivity: ohm.m

Salinity: 1800.00 ppm

Filter Cake: 1.50 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
150.00	Spot oil mud 1%oil 99%mud	1.192

Total Length: 150.00 ft

Total Volume: 1.192 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

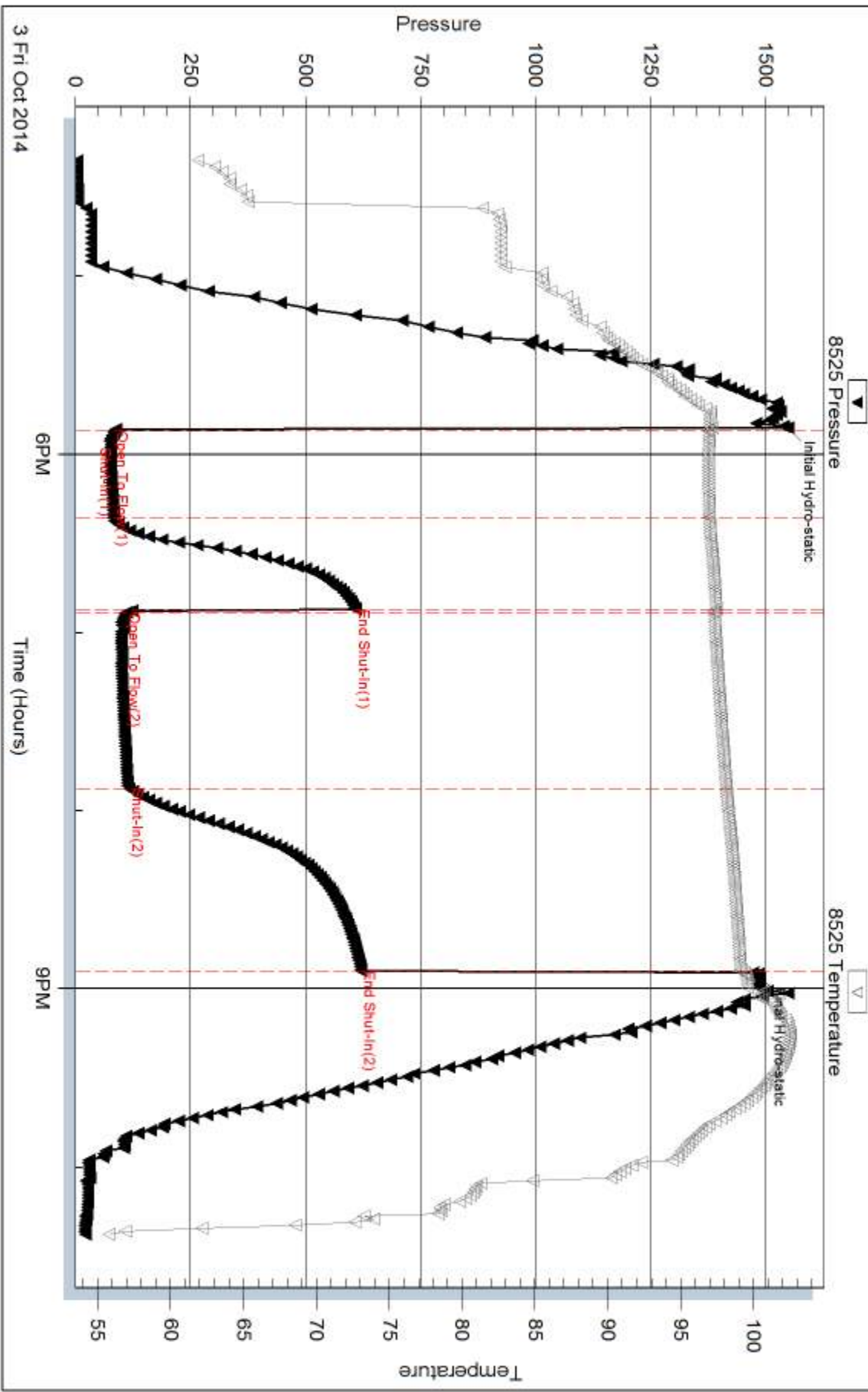
Serial #: 8525

Outside Farmer John O Inc

Leas #1

DST Test Number: 1

Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 60446

Printed: 2014, 10, 07 @ 16:00:58

Serial #: 8400

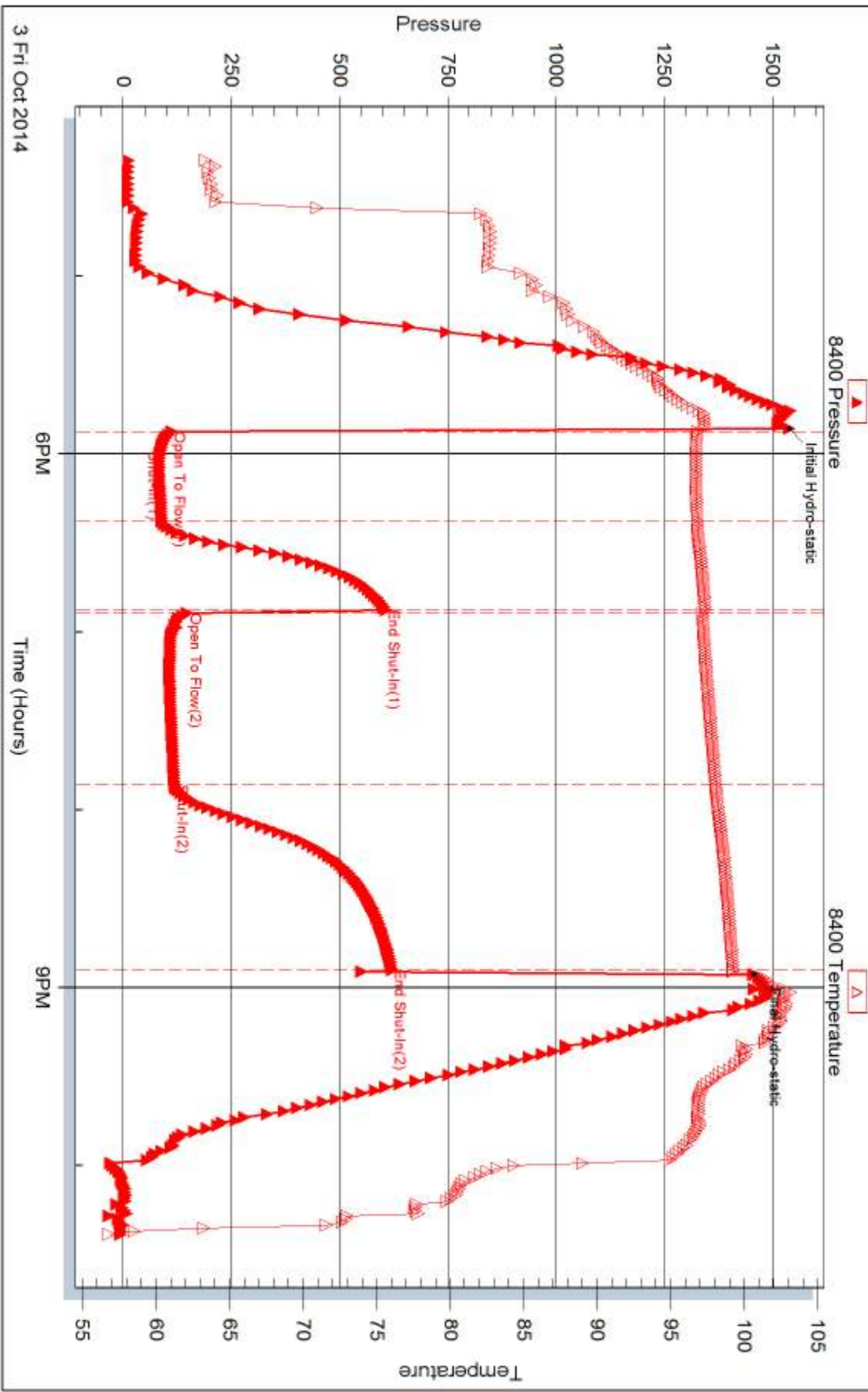
Inside

Farmer John O Inc

Leas #1

DST Test Number: 1

Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 60446

Printed: 2014, 10, 07 @ 16:00:58



DRILL STEM TEST REPORT

Prepared For: **Farmer John O Inc**

370 W Wichita Ave
Russell KS 67665+2635

ATTN: Austin Klams

Leas #1

33-13s-15w Gorham,KS

Start Date: 2014.10.04 @ 05:15:00

End Date: 2014.10.04 @ 10:14:30

Job Ticket #: 60447 DST #: 2

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

Printed: 2014.10.07 @ 16:00:36



Test Start: 2014.10.04 @ 05:15:00

KB to GR/CF: 8.00 ft

Time Off Btm: 2014.10.04 @ 08:46:00

Printed: 2014.10.07 @ 16:00:37



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Farmer John O Inc
370 W Wichita Ave
Russell KS 67665+2635
ATTN: Austin Klams

33-13s-15w Gorham,KS

Leas #1

Job Ticket: 60447

DST#: 2

Test Start: 2014.10.04 @ 05:15:00

GENERAL INFORMATION:

Formation: **LKC 'C-D'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:39:30

Time Test Ended: 10:14:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: S5

Interval: 3115.00 ft (KB) To 3144.00 ft (KB) (TVD)

Reference Elevations: 1917.00 ft (KB)

Total Depth: 3144.00 ft (KB) (TVD)

1909.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8525 Outside

Press@RunDepth: 174.60 psig @ 3117.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.10.04

End Date:

2014.10.04

Last Calib.: 2014.10.04

Start Time: 05:16:00

End Time:

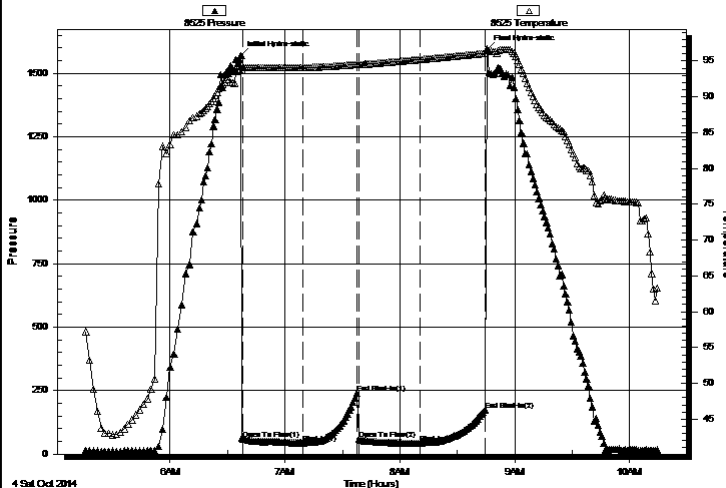
10:14:30

Time On Btm: 2014.10.04 @ 06:37:00

Time Off Btm: 2014.10.04 @ 08:45:30

TEST COMMENT: IFP 30 Minutes-Weak blow built 3/4"
ISIP 30 Minutes-No blow back
FFP 30 Minutes-Very weak surge did not build
FSIP 30 Minutes-No blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1569.87	94.24	Initial Hydro-static
1	60.27	94.06	Open To Flow (1)
33	44.53	94.09	Shut-In(1)
61	240.08	94.54	End Shut-In(1)
62	57.33	94.51	Open To Flow (2)
94	43.70	95.21	Shut-In(2)
128	174.60	96.08	End Shut-In(2)
129	1594.55	96.77	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud	0.08

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Farmer John O Inc

33-13s-15w Gorham,KS

370 W Wichita Ave
Russell KS 67665+2635

Leas #1

Job Ticket: 60447

DST#: 2

ATTN: Austin Klams

Test Start: 2014.10.04 @ 05:15:00

Tool Information

Drill Pipe:	Length: 2855.00 ft	Diameter: 3.80 inches	Volume: 40.05 bbl	Tool Weight:	1000.00 lb
Heavy Wt. Pipe:	Length: 270.00 ft	Diameter: 2.86 inches	Volume: 2.15 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:	80000.00 lb
		Total Volume:	42.20 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial	50000.00 lb
Depth to Top Packer:	3115.00 ft			Final	50000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	29.00 ft				
Tool Length:	49.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		

Tool Comments: ruined packer

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3100.00	
Hydraulic tool	5.00			3105.00	
Packer	5.00			3110.00	20.00 Bottom Of Top Packer
Packer	5.00			3115.00	
Recorder	1.00	8400	Inside	3116.00	
Recorder	1.00	8525	Outside	3117.00	
Anchor	24.00			3141.00	
Bullnose	3.00			3144.00	29.00 Bottom Packers & Anchor

Total Tool Length: 49.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Farmer John O Inc

33-13s-15w Gorham,KS

370 W Wichita Ave
Russell KS 67665+2635

Leas #1

Job Ticket: 60447

DST#: 2

ATTN: Austin Klams

Test Start: 2014.10.04 @ 05:15:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 54.00 sec/qt

Water Loss: 8.38 in³

Resistivity: ohm.m

Salinity: 1800.00 ppm

Filter Cake: 1.50 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	mud	0.079

Total Length: 10.00 ft

Total Volume: 0.079 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8400

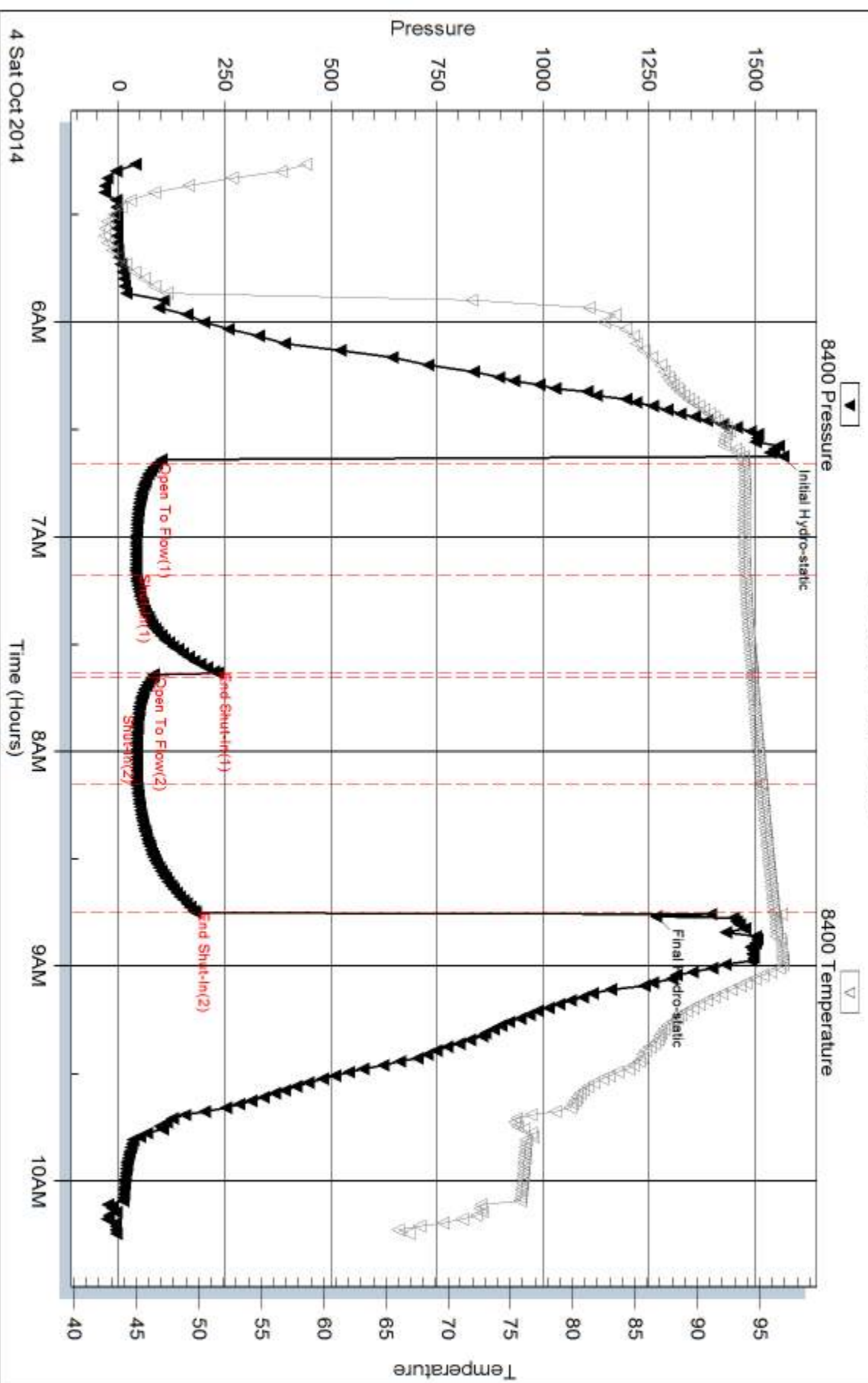
Inside

Farmer John O Inc

Leas #1

DST Test Number: 2

Pressure vs. Time



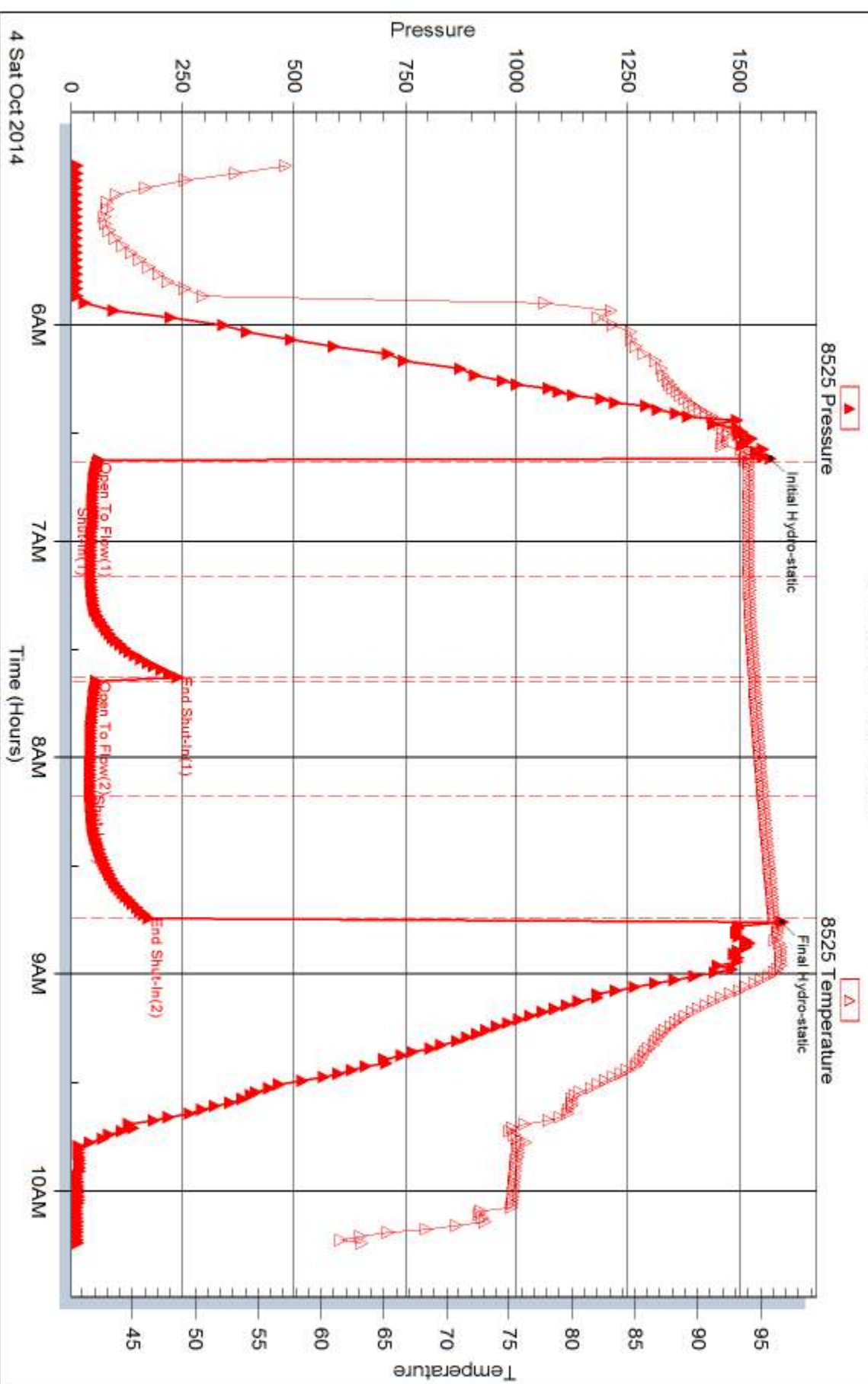
Serial #: 8525

Outside Farmer John O Inc

Leas #1

DST Test Number: 2

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Farmer John O Inc**

370 W Wichita Ave
Russell KS 67665+2635

ATTN: Austin Klams

Leas #1

33-13s-15w Gorham,KS

Start Date: 2014.10.04 @ 19:50:00

End Date: 2014.10.05 @ 01:37:00

Job Ticket #: 60448 DST #: 3

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

Printed: 2014.10.07 @ 16:00:17



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Farmer John O Inc
370 W Wichita Ave
Russell KS 67665+2635
ATTN: Austin Klams

33-13s-15w Gorham,KS

Leas #1

Job Ticket: 60448

DST#: 3

Test Start: 2014.10.04 @ 19:50:00

GENERAL INFORMATION:

Formation: **LKC 'E-G'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:06:30

Time Test Ended: 01:37:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: S5

Interval: 3141.00 ft (KB) To 3212.00 ft (KB) (TVD)

Reference Elevations: 1917.00 ft (KB)

Total Depth: 32112.00 ft (KB) (TVD)

1909.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8400 Inside

Press@RunDepth: 139.15 psig @ 3178.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.10.04

End Date:

2014.10.05

Last Calib.: 2014.10.05

Start Time: 19:51:00

End Time:

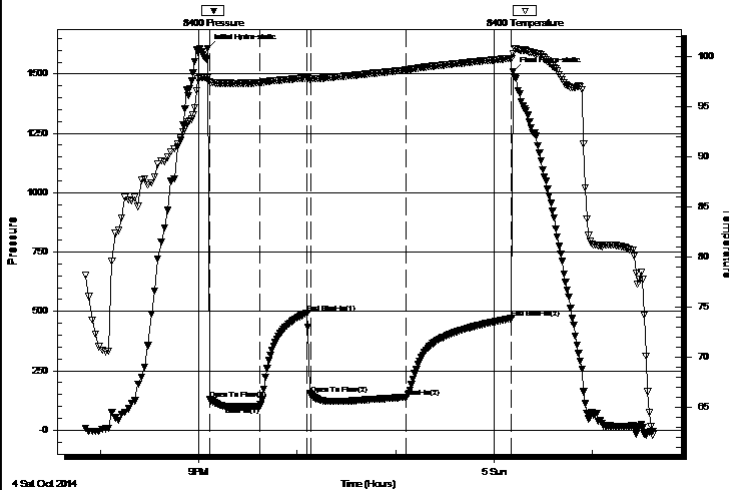
01:37:00

Time On Btm: 2014.10.04 @ 21:05:30

Time Off Btm: 2014.10.05 @ 00:11:30

TEST COMMENT: IFP 30 Minutes-Weak blow built 6"
ISP 30 Minutes-No blow back
FFP 60 Minutes-Weak blow built 6"
FSIP 60 Minutes-No blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1607.96	97.85	Initial Hydro-static
1	129.26	97.44	Open To Flow (1)
32	101.88	97.34	Shut-In (1)
61	494.32	97.84	End Shut-In (1)
63	151.53	97.72	Open To Flow (2)
121	139.15	98.61	Shut-In (2)
185	471.02	99.79	End Shut-In (2)
186	1509.89	100.25	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
150.00	water mud 25% water 75% mud	1.19

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Farmer John O Inc
370 W Wichita Ave
Russell KS 67665+2635
ATTN: Austin Klams

33-13s-15w Gorham,KS

Leas #1

Job Ticket: 60448

DST#: 3

Test Start: 2014.10.04 @ 19:50:00

GENERAL INFORMATION:

Formation: **LKC 'E-G'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:06:30

Time Test Ended: 01:37:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: S5

Interval: 3141.00 ft (KB) To 3212.00 ft (KB) (TVD)

Reference Elevations: 1917.00 ft (KB)

Total Depth: 32112.00 ft (KB) (TVD)

1909.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8525 Outside

Press@RunDepth: 465.51 psig @ 3179.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.10.04

End Date:

2014.10.05

Last Calib.: 2014.10.05

Start Time: 19:51:00

End Time:

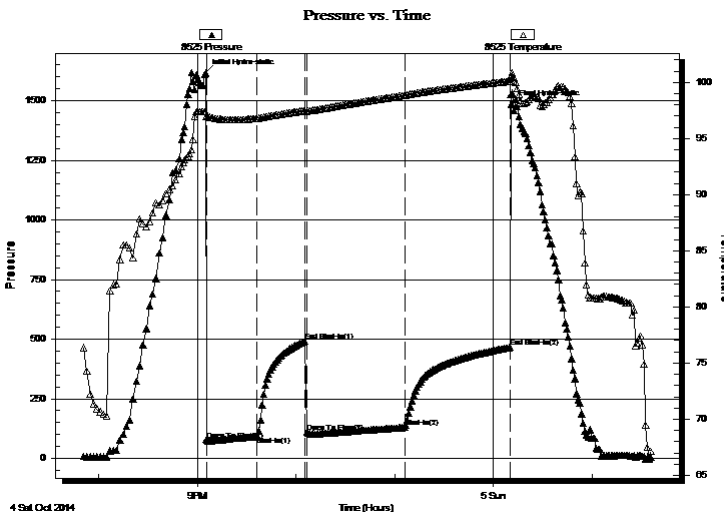
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Time On Btm: 2014.10.04 @ 21:05:00

Time Off Btm: 2014.10.05 @ 00:11:00

TEST COMMENT: IFP 30 Minutes-Weak blow built 6"
ISP 30 Minutes-No blow back
FFP 60 Minutes-Weak blow built 6"
FSIP 60 Minutes-No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1616.23	97.39	Initial Hydro-static
1	75.96	97.01	Open To Flow (1)
32	93.75	96.79	Shut-In(1)
61	491.58	97.50	End Shut-In(1)
62	111.49	97.44	Open To Flow (2)
121	130.30	98.84	Shut-In(2)
185	465.51	100.11	End Shut-In(2)
186	1485.71	100.11	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
150.00	water mud 25% water 75% mud	1.19

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Farmer John O Inc

33-13s-15w Gorham,KS

370 W Wichita Ave
Russell KS 67665+2635

Leas #1

Job Ticket: 60448

DST#: 3

ATTN: Austin Klams

Test Start: 2014.10.04 @ 19:50:00

Tool Information

Drill Pipe:	Length:	2796.00 ft	Diameter:	3.80 inches	Volume:	39.22 bbl	Tool Weight:	1000.00 lb
Heavy Wt. Pipe:	Length:	300.00 ft	Diameter:	2.86 inches	Volume:	2.38 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length:	30.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:	60000.00 lb
					Total Volume:	41.75 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		5.00 ft					String Weight: Initial	50000.00 lb
Depth to Top Packer:		3141.00 ft					Final	50000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		71.00 ft						
Tool Length:		91.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				
Tool Comments:								

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3126.00	
Hydraulic tool	5.00			3131.00	
Packer	5.00			3136.00	20.00 Bottom Of Top Packer
Packer	5.00			3141.00	
Anchor	3.00			3144.00	
Change Over Sub	0.75			3144.75	
Drill Pipe	31.50			3176.25	
Change Over Sub	0.75			3177.00	
Recorder	1.00	8400	Inside	3178.00	
Recorder	1.00	8525	Outside	3179.00	
Anchor	30.00			3209.00	
Bullnose	3.00			3212.00	71.00 Bottom Packers & Anchor

Total Tool Length: 91.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Farmer John O Inc

33-13s-15w Gorham,KS

370 W Wichita Ave
Russell KS 67665+2635

Leas #1

Job Ticket: 60448

DST#: 3

ATTN: Austin Klams

Test Start: 2014.10.04 @ 19:50:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 48.00 sec/qt

Water Loss: 8.78 in³

Resistivity: 0.10 ohm.m

Salinity: 3800.00 ppm

Filter Cake: 1.50 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity: 52000 ppm

deg API

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
150.00	w ater mud 25%w ater 75%mud	1.192

Total Length: 150.00 ft Total Volume: 1.192 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: resistivity .1@60degree

Serial #: 8400

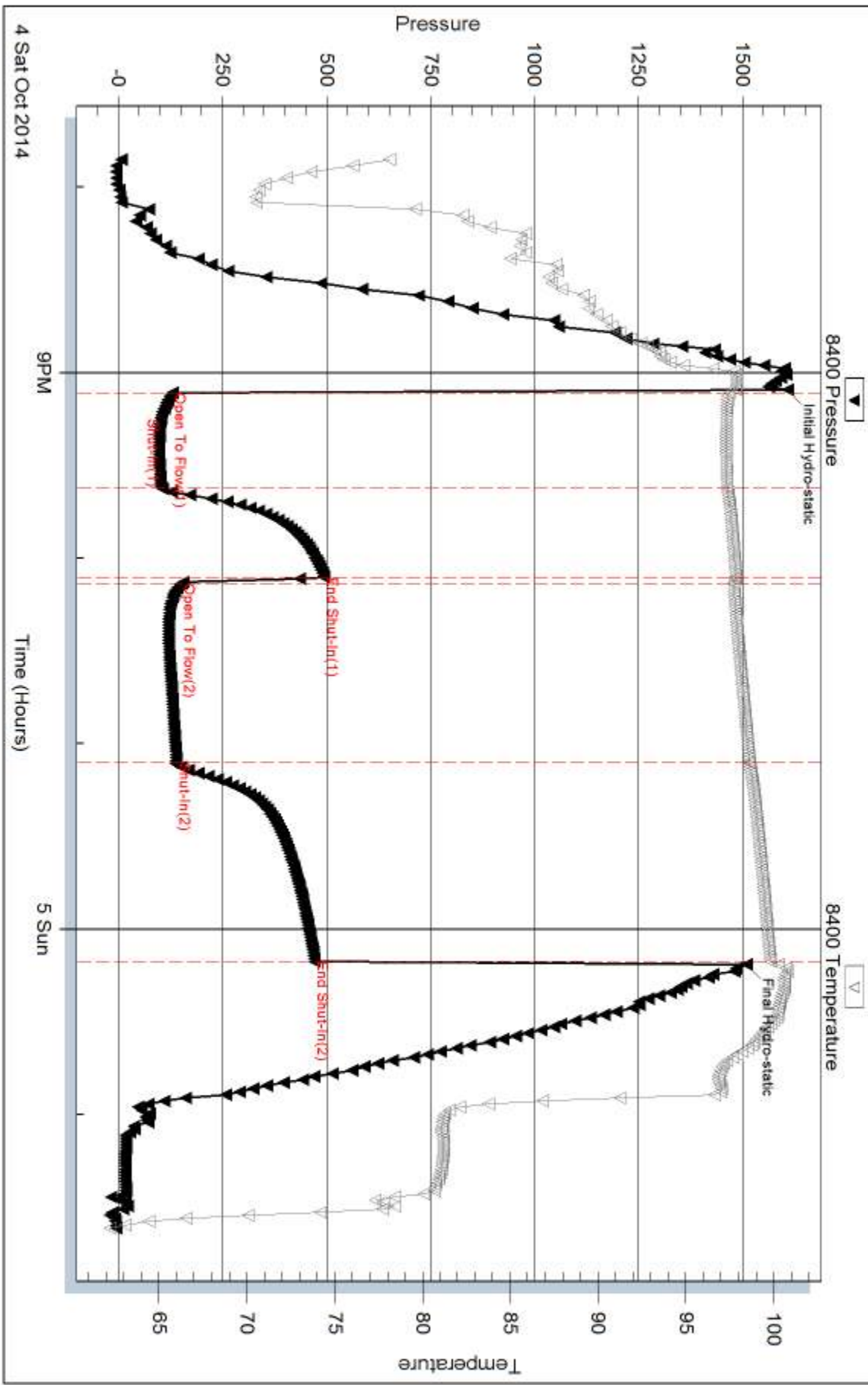
Inside

Farmer John O Inc

Leas #1

DST Test Number: 3

Pressure vs. Time



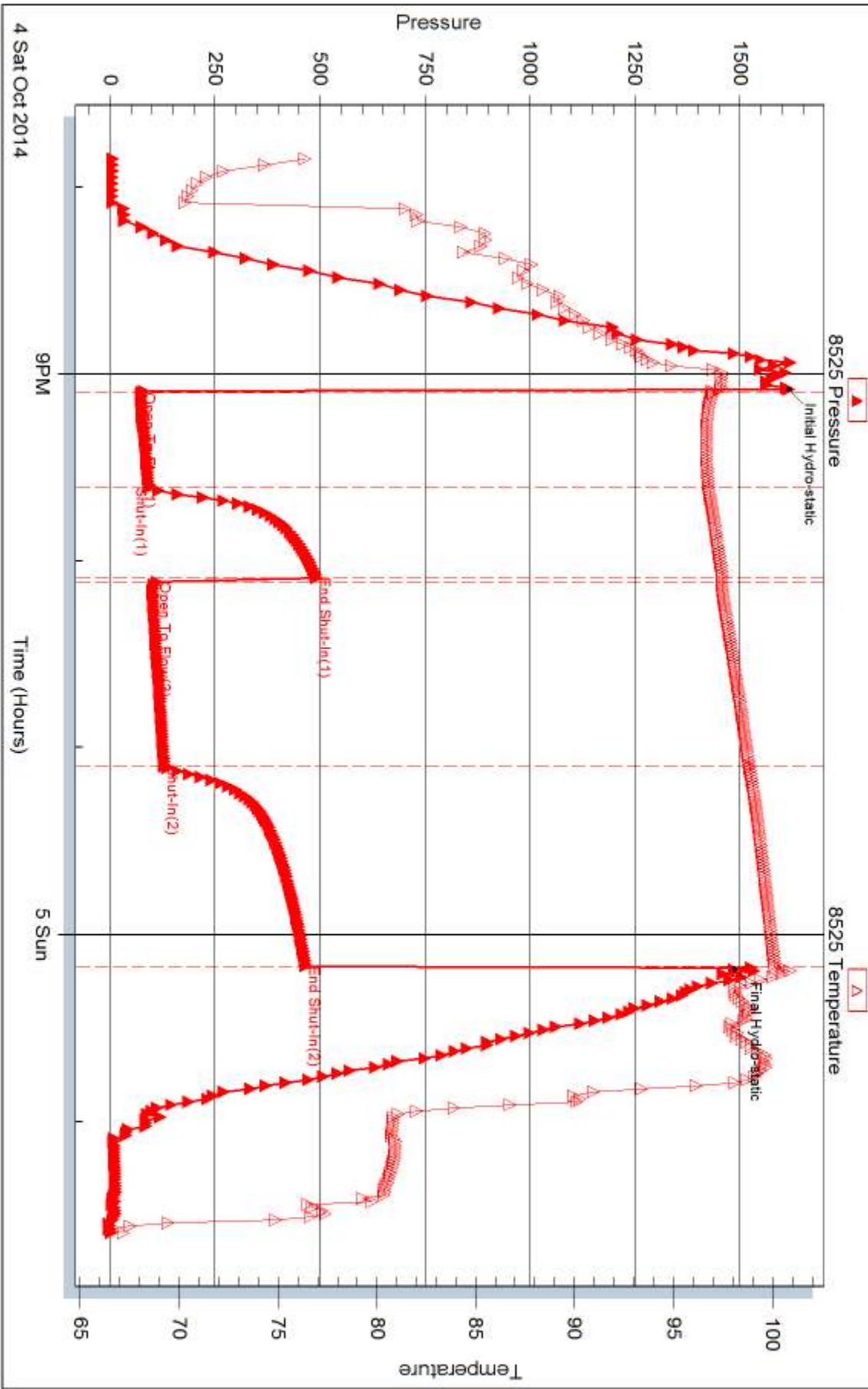
Serial #: 8525

Outside Farmer John O Inc

Leas #1

DST Test Number: 3

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Farmer John O Inc**

370 W Wichita Ave
Russell KS 67665+2635

ATTN: Austin Klams

Leas #1

33-13s-15w Gorham,KS

Start Date: 2014.10.05 @ 11:35:00

End Date: 2014.10.05 @ 16:43:30

Job Ticket #: 60449 DST #: 4

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

Printed: 2014.10.07 @ 15:59:42



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Farmer John O Inc
370 W Wichita Ave
Russell KS 67665+2635
ATTN: Austin Klams

33-13s-15w Gorham,KS

Leas #1

Job Ticket: 60449

DST#: 4

Test Start: 2014.10.05 @ 11:35:00

GENERAL INFORMATION:

Formation: **LKC 'H-L'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:16:00

Time Test Ended: 16:43:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: S5

Interval: 3206.00 ft (KB) To 3311.00 ft (KB) (TVD)

Reference Elevations: 1917.00 ft (KB)

Total Depth: 3311.00 ft (KB) (TVD)

1909.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8400 Inside

Press@RunDepth: 104.80 psig @ 3274.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.10.05

End Date:

2014.10.05

Last Calib.: 2014.10.05

Start Time: 11:36:00

End Time:

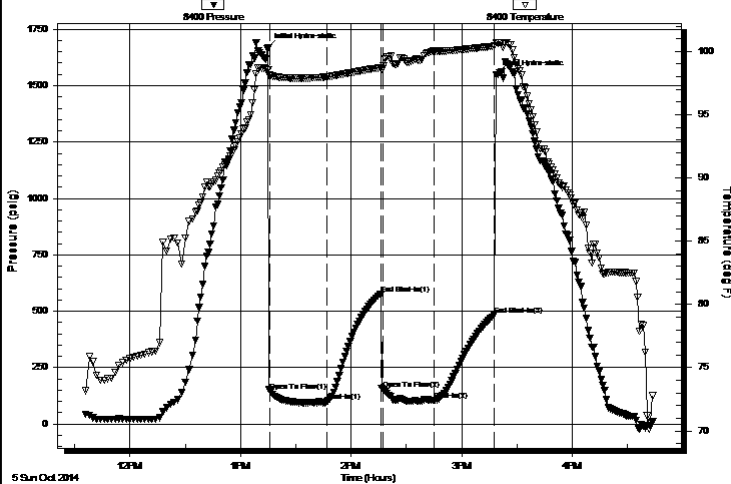
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Time On Btm: 2014.10.05 @ 13:15:00

Time Off Btm: 2014.10.05 @ 15:18:30

TEST COMMENT: IFP 30 Minutes-Weak blow built 1"
ISIP 30 Minutes-No blow back
FFP 30 Minutes-Very weak surface blow built 1/4"
FSIP 30 Minutes-No blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1668.55	98.57	Initial Hydro-static
1	147.18	98.11	Open To Flow (1)
32	99.38	97.99	Shut-In(1)
61	574.16	98.73	End Shut-In(1)
62	152.87	98.61	Open To Flow (2)
90	104.80	100.03	Shut-In(2)
123	481.89	100.42	End Shut-In(2)
124	1549.50	100.72	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud	0.08

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Farmer John O Inc
370 W Wichita Ave
Russell KS 67665+2635
ATTN: Austin Klams

33-13s-15w Gorham,KS

Leas #1

Job Ticket: 60449

DST#: 4

Test Start: 2014.10.05 @ 11:35:00

GENERAL INFORMATION:

Formation: **LKC 'H-L'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:16:00

Time Test Ended: 16:43:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: S5

Interval: 3206.00 ft (KB) To 3311.00 ft (KB) (TVD)

Reference Elevations: 1917.00 ft (KB)

Total Depth: 3311.00 ft (KB) (TVD)

1909.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8525 Outside

Press@RunDepth: 487.21 psig @ 3275.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.10.05

End Date:

2014.10.05

Last Calib.: 2014.10.05

Start Time: 11:36:00

End Time:

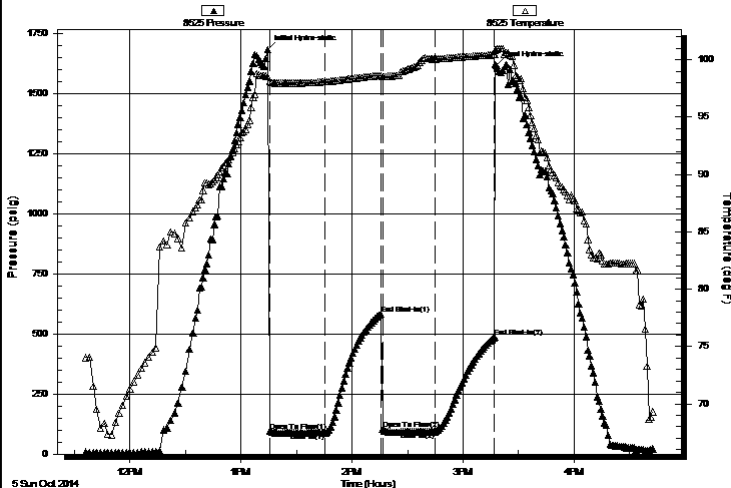
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Time On Btm: 2014.10.05 @ 13:14:30

Time Off Btm: 2014.10.05 @ 15:18:00

TEST COMMENT: IFP 30 Minutes-Weak blow built 1"
ISIP 30 Minutes-No blow back
FFP 30 Minutes-Very weak surface blow built 1/4"
FSIP 30 Minutes-No blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1685.12	98.50	Initial Hydro-static
1	97.00	98.08	Open To Flow (1)
31	89.08	98.07	Shut-In(1)
61	582.70	98.64	End Shut-In(1)
62	102.60	98.53	Open To Flow (2)
91	93.99	100.06	Shut-In(2)
123	487.21	100.43	End Shut-In(2)
124	1616.72	100.88	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud	0.08

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Farmer John O Inc

33-13s-15w Gorham,KS

370 W Wichita Ave
Russell KS 67665+2635

Leas #1

Job Ticket: 60449

DST#: 4

ATTN: Austin Klams

Test Start: 2014.10.05 @ 11:35:00

Tool Information

Drill Pipe:	Length:	2886.00 ft	Diameter:	3.80 inches	Volume:	40.48 bbl	Tool Weight:	1000.00 lb
Heavy Wt. Pipe:	Length:	300.00 ft	Diameter:	2.86 inches	Volume:	2.38 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length:	30.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:	65000.00 lb
					Total Volume:	43.01 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		30.00 ft					String Weight: Initial	50000.00 lb
Depth to Top Packer:		3206.00 ft					Final	50000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		105.00 ft						
Tool Length:		125.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				
Tool Comments:								

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3191.00	
Hydraulic tool	5.00			3196.00	
Packer	5.00			3201.00	20.00 Bottom Of Top Packer
Packer	5.00			3206.00	
Anchor	3.00			3209.00	
Change Over Sub	0.75			3209.75	
Drill Pipe	62.50			3272.25	
Change Over Sub	0.75			3273.00	
Recorder	1.00	8400	Inside	3274.00	
Recorder	1.00	8525	Outside	3275.00	
Anchor	33.00			3308.00	
Bullnose	3.00			3311.00	105.00 Bottom Packers & Anchor

Total Tool Length: 125.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Farmer John O Inc

33-13s-15w Gorham,KS

370 W Wichita Ave
Russell KS 67665+2635

Leas #1

Job Ticket: 60449

DST#: 4

ATTN: Austin Klams

Test Start: 2014.10.05 @ 11:35:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 54.00 sec/qt

Water Loss: 7.99 in³

Resistivity: ohm.m

Salinity: 3800.00 ppm

Filter Cake: 1.50 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	mud	0.079

Total Length: 10.00 ft

Total Volume: 0.079 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8400

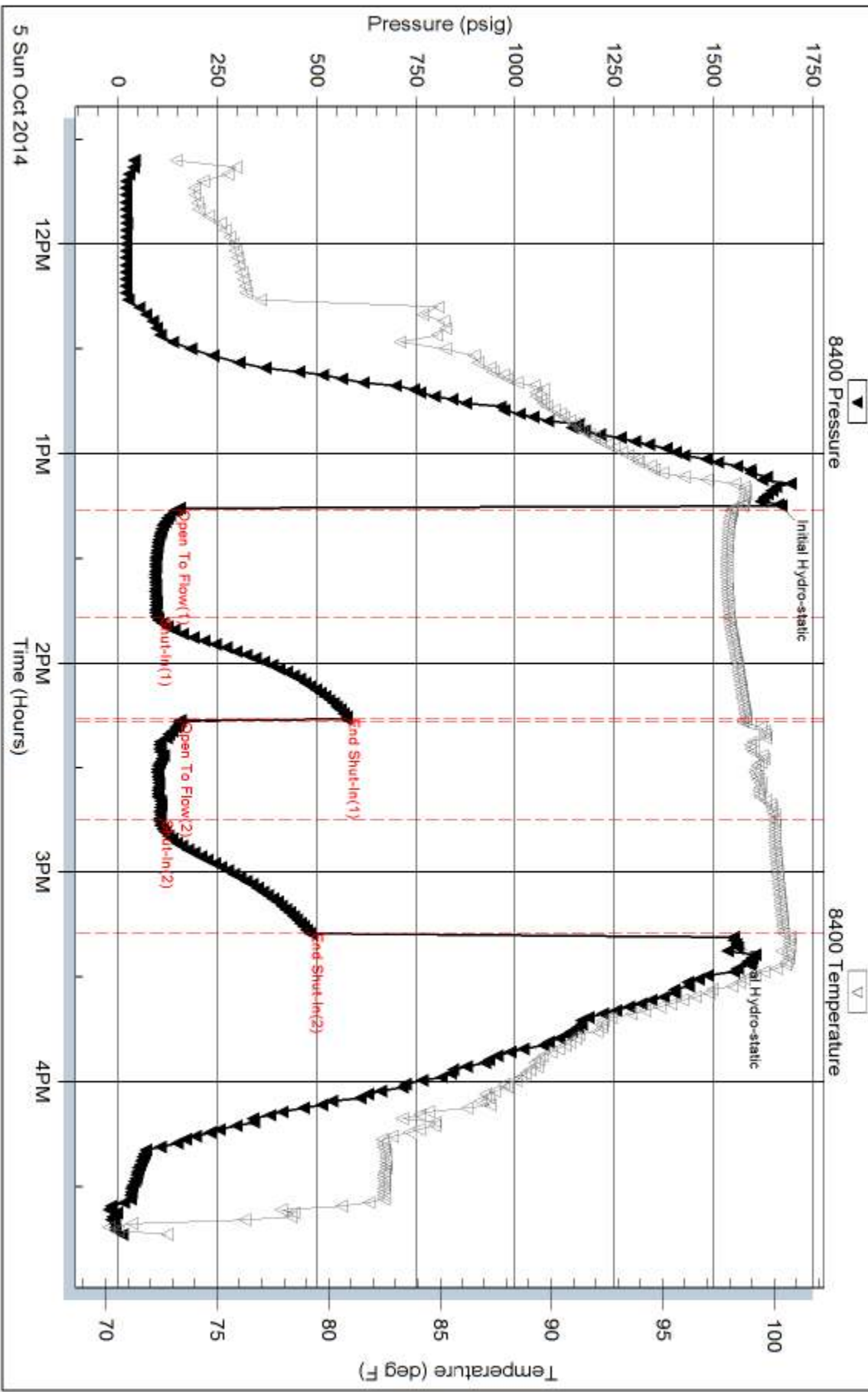
Inside

Farmer John O Inc

Leas #1

DST Test Number: 4

Pressure vs. Time



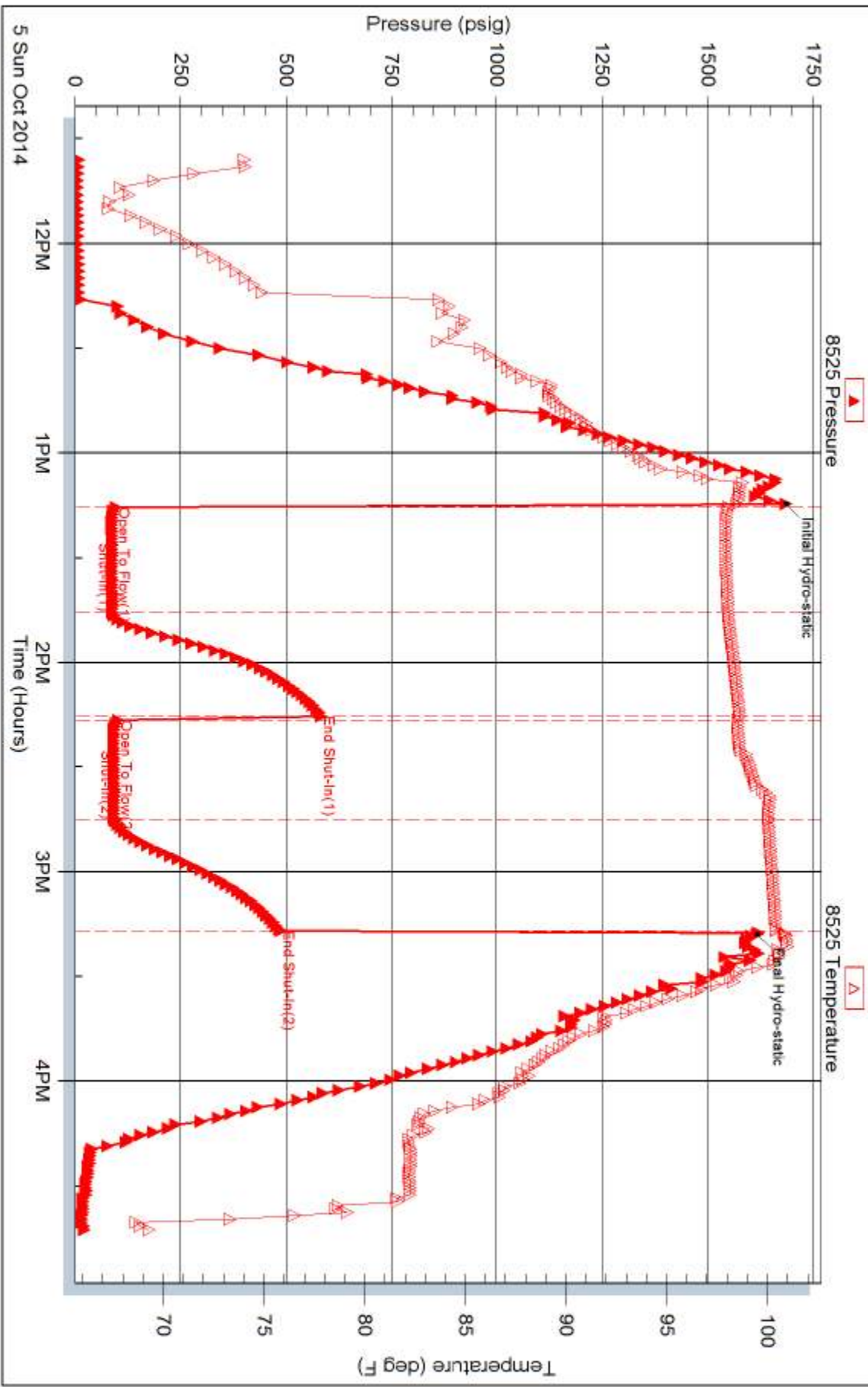
Serial #: 8525

Outside Farmer John O Inc

Leas #1

DST Test Number: 4

Pressure vs. Time





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 60446

4/10

Well Name & No. Leas #1 Test No. 1 Date 10-3-2014
 Company Farmer John O Inc Elevation 1917 KB 1909 GL
 Address 370 W Wichita Ave Russell KS 67665 + 2635
 Co. Rep / Geo. Austin Klamis Rig Discovery Drilling Rig #2
 Location: Sec. 33 Twp. 13 Rge. 15 Co. Gorham State KS

Interval Tested 3050-3112 Zone Tested LKC "A-B"
 Anchor Length 62 Drill Pipe Run 2730 Mud Wt. 9
 Top Packer Depth 3045 Drill Collars Run 30 Vis 54
 Bottom Packer Depth 3050 Wt. Pipe Run 300 WL 8.4
 Total Depth 3112 Chlorides 1800 ppm System LCM 1.5

Blow Description IFP - Weak Building Blow Built
ISIP - NO Blow Back
FFP - Weak Building Blow Built 8 1/2 inches into Bucket
FSIP - NO Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>gas oil mud</u>	<u>1</u>	<u>1</u>	<u>99</u>	<u>99</u>
<u>120</u>	<u>gas oil mud</u>	<u>1</u>	<u>1</u>	<u>100</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 Total 1548 BHT 99 Gravity 1150 API RW 36rt 55.80 @ 36rt 55.80 °F Chlorides 1800 ppm

(A) Initial Hydrostatic 1548 ☒ Test 1150 T-On Location 3:15pm
 (B) First Initial Flow 84 ☐ Jars 4:20pm
 (C) First Final Flow 83 ☐ Safety Joint 5:50pm
 (D) Initial Shut-In 609 ☐ Circ Sub 8:50pm
 (E) Second Initial Flow 117 ☐ Hourly Standby 10:23pm
 (F) Second Final Flow 620 ☒ Mileage 100 RT Great Bend Comments
 (G) Final Shut-In 1493 ☐ Sampler 36rt 55.80
 (H) Final Hydrostatic 1493 ☐ Straddle 36rt 55.80

Initial Open 30 ☐ Shale Packer 30
 Initial Shut-In 30 ☐ Extra Packer 30
 Final Flow 60 ☐ Extra Recorder 60
 Final Shut-In 60 ☐ Day Standby 60
 Sub Total 1205.80 ☐ Accessibility 1205.80

Approved By _____ Our Representative _____
 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. 60447

4/10

Well Name & No. Leas #1 Test No. 2 Date 10-4-2014
 Company Farmer John O Inc Elevation 1917 KB 1909 GL
 Address 370 W Wichita Ave Russell KS 67665-2635
 Co. Rep / Geo. Austin K lems Rig Discovery Drilling Rig #2
 Location: Sec. 33 Twp. 13 Rge. 15 Co. Gorham State KS

Interval Tested 3115-3144 Zone Tested LKC 'C-D'
 Anchor Length 29 Drill Pipe Run 2855 Mud Wt. 9
 Top Packer Depth 3110 Drill Collars Run - Vis 54
 Bottom Packer Depth 3115 Wt. Pipe Run 270 WL 8.4
 Total Depth 3144 Chlorides 1,800 ppm System LCM 1.5

Blow Description IFP - Weak Blow Built 3/4 inch into Bucket in 30 minutes
ISIP - NO Blow Back
FFP - Very weak Surface Blow Did not Build
FSIP - NO Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>net</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 10 BHT 96 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1565
 (B) First Initial Flow 89
 (C) First Final Flow 40
 (D) Initial Shut-In 232
 (E) Second Initial Flow 79
 (F) Second Final Flow 42
 (G) Final Shut-In 182
 (H) Final Hydrostatic 1267

☒ Test 1150
☐ Jars _____
☐ Safety Joint _____
☐ Circ Sub _____
☐ Hourly Standby _____
☒ Mileage 100 RT Grant Bank
☐ Sampler 55.80

T-On Location 5:00 AM
 T-Started 5:15 AM
 T-Open 6:34 AM
 T-Pulled 8:34 AM
 T-Out 10:14 AM

Comments _____
☐ Ruined Shale Packer 320
☒ Ruined Packer Bottom Packer

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

☐ Straddle _____
☐ Shale Packer _____
☐ Extra Packer _____
☐ Extra Recorder _____
☐ Day Standby _____
☐ Accessibility _____

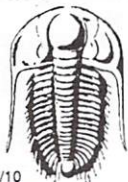
Sub Total 320
 Total 1525.80
 MP/DST Disc't _____

Sub Total 1205.80

Approved By _____

Our Representative [Signature]

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 60448

4/10

Well Name & No. Leas #1 Test No. 3 Date 10-24-2014
 Company Farmer John O Inc Elevation 1917 KB 1909 GL
 Address 370 W Wichita Ave Russell KS 67665 + 2635
 Co. Rep / Geo. Austin Klam Rig Discovery Drilling #2
 Location: Sec. 33 Twp. 13 Rge. 15 Co. Gorham State KS

Interval Tested 3141 - 3212 Zone Tested LKC E-G
 Anchor Length 71 Drill Pipe Run 2796 Mud Wt. 9.3
 Top Packer Depth 3136 Drill Collars Run 30 Vis 48
 Bottom Packer Depth 3141 Wt. Pipe Run 300 WL 8.8
 Total Depth 3212 Chlorides 3800 ppm System LCM 15

Blow Description IFP - Weak Blow Built 6 inches into Bucket in 30 minutes
ISIP - NO Blow Back
FFP - Weak Blow Built 6 inches into Bucket in 40 minutes
FSIP - NO Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>150</u>	<u>Water mud</u>		<u>25</u>	<u>75</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 _____ BHT 100 Gravity 1150 API RW 1 @ 60 °F Chlorides 52000 ppm

(A) Initial Hydrostatic <u>1607</u>	☒ Test <u>1150</u>	T-On Location <u>7:30pm</u>
(B) First Initial Flow <u>129</u>	☐ Jars _____	T-Started <u>7:50pm</u>
(C) First Final Flow <u>101</u>	☐ Safety Joint _____	T-Open <u>9:05pm</u>
(D) Initial Shut-In <u>494</u>	☐ Circ Sub _____	T-Pulled <u>12:05 AM</u>
(E) Second Initial Flow <u>151</u>	☐ Hourly Standby _____	T-Out <u>1:37 AM</u>
(F) Second Final Flow <u>139</u>	☒ Mileage <u>100 RT Great Bend</u>	Comments _____
(G) Final Shut-In <u>471</u>	☐ Sampler <u>55.80</u>	
(H) Final Hydrostatic <u>1509</u>	☐ Straddle _____	☐ Ruined Shale Packer _____

Initial Open <u>30</u>	☐ Shale Packer _____	☐ Ruined Packer _____
Initial Shut-In <u>30</u>	☐ Extra Packer _____	☐ Extra Copies _____
Final Flow <u>60</u>	☐ Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In <u>60</u>	☐ Day Standby _____	Total <u>1205.80</u>
	☐ Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1205.80</u>	

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 60449

4/10

Well Name & No. Leas #1 Test No. 4 Date 10-5-2014
 Company Farmer John Ofne Elevation 1917 KB 1907 GL
 Address 370 W Wichita Ave Russell KS 67065-12635
 Co. Rep / Geo. Austin Klamis Rig Discovery Drilling Rig #2
 Location: Sec. 33 Twp. 13 Rge. 15 Co. Gorham State KS

Interval Tested 3206-3311 Zone Tested LKC 'H-L'
 Anchor Length 105 Drill Pipe Run 2886 Mud Wt. 9.9
 Top Packer Depth 3201 Drill Collars Run 30 Vis 54
 Bottom Packer Depth 3206 Wt. Pipe Run 300 WL 8.0
 Total Depth 3311 Chlorides 3,800 ppm System LCM 1.5

Blow Description IFP-Weak Blow Built 1 inch sub Bucket in 30 minutes

ISIP-NO Blow Back

FFP-Very Weak Surface Blow

FSIP-NO Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>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 _____ BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1668

(B) First Initial Flow 147

(C) First Final Flow 99

(D) Initial Shut-In 574

(E) Second Initial Flow 152

(F) Second Final Flow 104

(G) Final Shut-In 481

(H) Final Hydrostatic 1549

Initial Open 30

Initial Shut-In 30

Final Flow 30

Final Shut-In 30

☒ Test 1150

☐ Jars _____

☐ Safety Joint _____

☐ Circ Sub _____

☐ Hourly Standby _____

☒ Mileage 100RT Great Bend

☐ Sampler 55.80

☐ Straddle _____

☐ Shale Packer _____

☐ Extra Packer _____

☐ Extra Recorder _____

☐ Day Standby _____

☐ Accessibility _____

Sub Total 1205.80

T-On Location 11:00 AM

T-Started 11:35 AM

T-Open 1:14 PM

T-Pulled 3:14 PM

T-Out _____

Comments _____

☐ Ruined Shale Packer _____

☐ Ruined Packer _____

☐ Extra Copies _____

Sub Total 1205.80

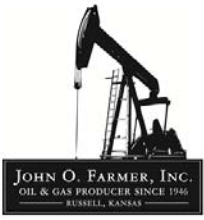
Total _____

MP/DST Disc't _____

Approved By _____

Our Representative [Signature]

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AUSTIN B. KLAUS



Cell 785.650.3629
Work 785.483.3145
Ext 225

PO BOX 352
Russell, KS 67665
austin.klaus@johnofarmer.com

Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: Leas #1
Location: Russell County
License Number: API #15-167-24,006-0000
Spud Date: 9/29/14
Surface Coordinates: Section 33 - Township 13 South - Range 15 West
375' FNL & 2,160' FWL
Bottom Hole Coordinates: Vertical well with minimal deviation, same as above
Ground Elevation (ft): 1,909' **K.B. Elevation (ft):** 1,917'
Logged Interval (ft): 2,750' **To:** RTD **Total Depth (ft):** 3,410'
Formation: LKC, Arbuckle
Type of Drilling Fluid: Chemical (Andy's)

Region: Kansas
Drilling Completed: 10/6/14

Printed by STRIP.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: John O. Farmer, Inc.
Address: P.O. Box 352
Russell, KS 67665-0352

Comments

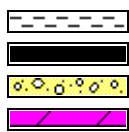
The Leas #1 well was drilled by Discovery Drilling Rig #2 (Tool Pusher: Terry Wickham).

The location for the Leas #1 well was found via 3-D seismic survey. Geologic samples were collected and evaluated from 2,750'-3,410'. Structurally, the Leas #1 ran 4' low to our correlation well, Aley C #1, at the Lansing. Four bottom-hole tests were conducted in the Lansing, all yielding negative results. The Arbuckle horizon was 27' low to the comparison well, 1,185' west of our location. Upon completion of the logging operation, the decision was made to plug and abandon the Leas #1 well on 10/6/14.

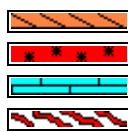
ROCK TYPES



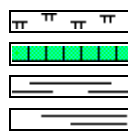
Anhy
Bent
Brec
Cht



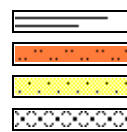
Clyst
Coal
Congl
Dol



Gyp
Igne
Lmst
Meta



Mrlst
Salt
Shale
Shcol



Shgy
Sltst
Ss
Till

OTHER SYMBOLS

POROSITY

☐ Earthy
☐ Fenest
☐ Fracture
☐ Inter
☐ Moldic
☐ Organic
☐ Pinpoint



Vuggy

SORTING

☐ Well
☐ Moderate
☐ Poor

ROUNDING

☐ Rounded
☐ Subrnd
☐ Subang
☐ Angular



Spotted



Ques



Dead

EVENT

☐ Rft
☐ Sidewall

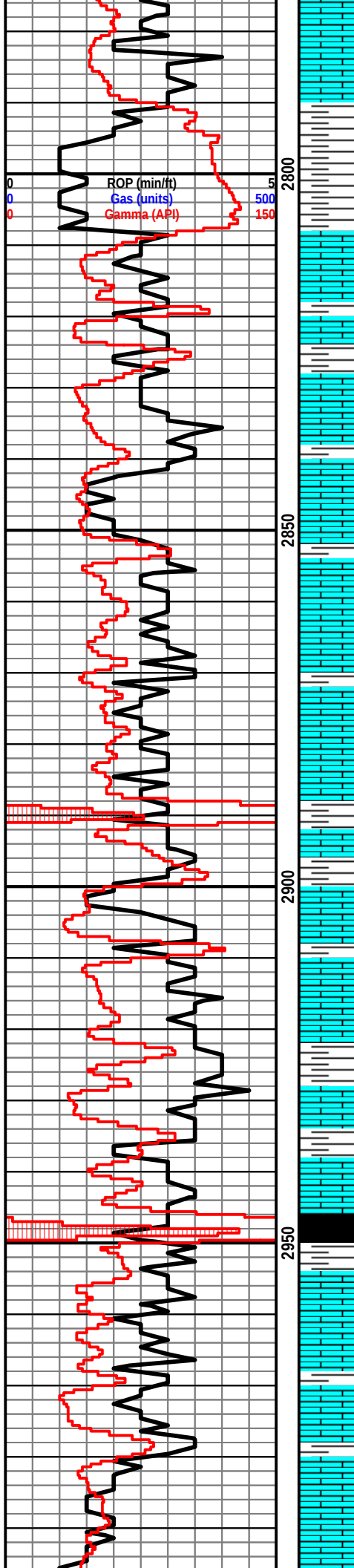
INTERVAL

☐ Core
☐ Dst

OIL SHOW

☐ Even

Curve Track 1				Depth	Lithology	Oil Shows	Geological Descriptions	DST/Mud/Survey
ROP (min/ft)	Gas (units)	Gamma (API)						
0	0	0	ROP (min/ft)	5			The open-hole logging was performed by Mr. M. Beougher with Pioneer Wireline, LLC (Hays, KS). Logs included: Compensated Density/Compensated Neutron, Dual Induction, and Micro Resistivity. Formation tops and datums from the open-hole logs include the following: Anhydrite 966 951 Tarkio Topeka 2808 -891 Heebner 3028 -1111 Lansing 3078 -1161 BKC 3321 -1404 Arbuckle 3352 -1435 RTD LTD 3410 -1493	Tester: Jared Scheck Mud Engineer: Brandon Mendez
0	0	0	Gas (units)	500				
0	0	0	Gamma (API)	150				
			9/29/14 @ 4:00pm Spud					
			9/30/14 @ 7:00am 515' Wait on Cement					
			10/1/14 @ 7:00am 1,580' Drlg					
			10/2/14 @ 7:00am 2,426' Drlg					
			10/3/14 @ 7:00am 3,020' Drlg					
			10/4/14 @ 7:00am 3,144' DST #2					
			10/5/14 @ 7:00am 3,275' Drlg					
							Ls: tan-buff, fn-md xln, scat int xln porosity, scat fossil, NSFO Ls: ala	



Sh: lt gry-drk gry

Sh: lt gry-drk gry

Topeka 2808' (-891)

Ls: tan-gry, fn-md xln, vry DNS, no visible porosity

Ls: ala

Sh: lt gry

Ls: off wh-tan, fn xln, fair int xln & pp vuggy porosity, scat oil st, VSSFO, sl odor

Ls: lt gry-crm, fn xln, scat fossil, no visible porosity, scat chert-off wh, NSFO

Ls: ala

Sh: lt gry-drk gry

Ls: off wh-lt gry, fn xln, vry poor int xln porosity, scat fossil, scat oil st, NSFO

Ls: lt gry-crm, fn xln, scat int xln porosity, scat oil st, chalky, scat chert-off wh, NSFO

Ls: ala

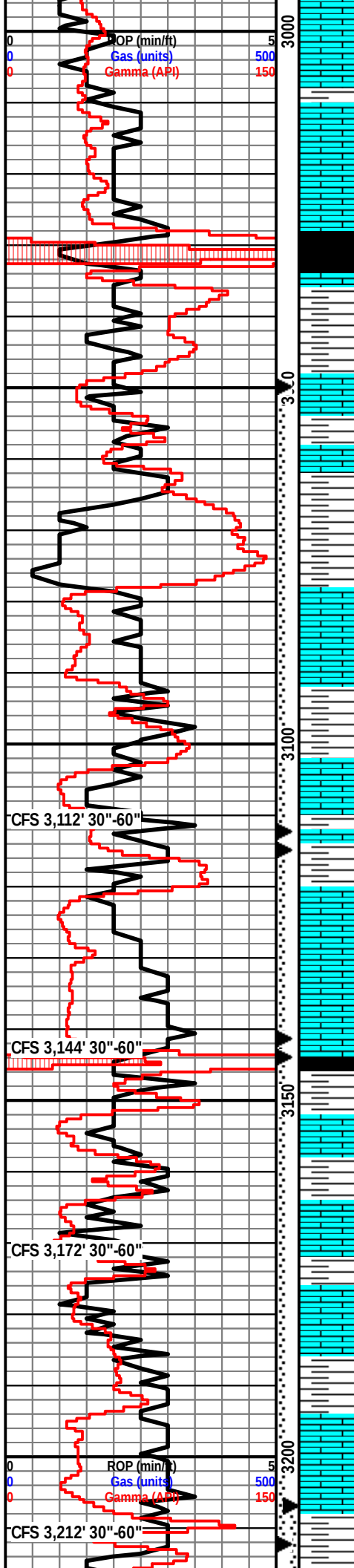
Sh: drk gry-blk

Ls: tan-gry, fn-md xln, poor int xln & vuggy porosity, scat oil st, scat chert-off wh, NSFO, no odor

Ls: ala

Sh: lt gry

Ls: off wh-tan, fn xln, scat int xln & vuggy porosity, scat-fair oil st, SSFO, sl odor, scat



chert-off wh

Sh: lt gry

Ls: tan-lt gry, fn xln, mostly DNS, NSFO

Heebner 3029' (-1112)

Sh: drk gry-blk, carb, fissile

Sh: lt gry-drk gry

Toronto 3047' (-1130)

Ls: off wh-tan, fn-md, poor int xln porosity, scat oil st, VSSFO, sl odor

Ls: off wh-crm, fn xln, mostly DNS, NSFO

Sh: lt gry-drk gry-brn, soft

Lansing 3077' (-1160)

Ls: off wh-tan, fn-md xln, poor-fair int xln porosity, fair oil sat, SSFO, fair odor, scat chert-off wh

Sh: lt gry-drk gry

Ls: off wh-tan, fn-md xln, fair int xln porosity, fair oil sat, SSFO, fair odor

Sh: drk gry

Ls: off wh-tan, fn xln, scat pp vuggy & int xln porosity, scat oil st, SSFO, sl odor

Ls: tan-lt gry, fn-md xln, vry poor int xln porosity, scat oil st, NSFO, no odor

Sh: drk gry-blk

Ls: off wh-tan, fn xln, scat int xln porosity, NSFO

Sh: lt gry-drk gry

Ls: off wh-tan, fn-md xln, fair pp vuggy & int xln porosity, fair oil sat in porosity, SSFO, fair odor

Sh: drk gry

Ls: off wh-tan, fn xln, fossil, fair int xln porosity, scat-fair oil st, SSFO, fair odor

Ls: off wh-tan, fn-md xln, scat int xln porosity, scat oil st, NSFO, no odor, hvy chert-off wh

Sh: drk gry-blk

DST #1 3,050'-3,112' (LKC A-B) 30"-30"-60"-60"

IF: weak blow built to 5.5"

FF: weak blow built to 8.5"

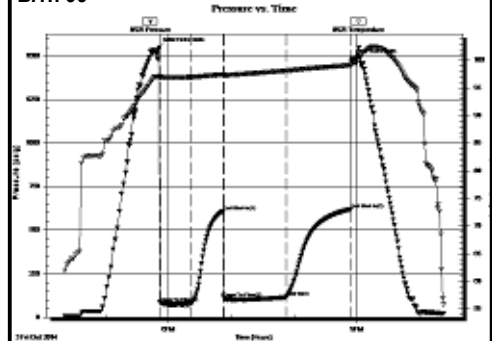
Rec: 150' VSOCM (1% O, 99% M)

FP: 85-83, 112-118#

SIP: 609-620#

HP: 1,548-1,484#

BHT: 99



Wt: 9

Vis: 54

DST #2 3,115'-3,144' (LKC C-D) 30"-30"-30"-30"

IF: weak blow built to .75"

FF: weak surface blow

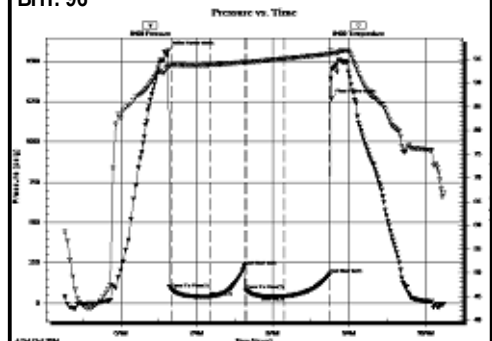
Rec: 10' M

FP: 90-41, 80-43#

SIP: 232-182#

HP: 1,566-1,267#

BHT: 96



Wt: 9.3

Vis: 48

DST #3 3,141'-3,212' (LKC E-G) 30"-30"-60"-60"

IF: weak blow built to 6"

FF: weak blow built to 6"

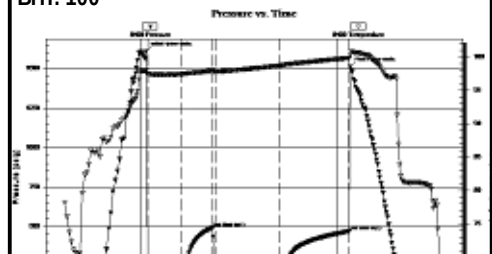
Rec: 150' Watery Mud (25% W, 75% M)

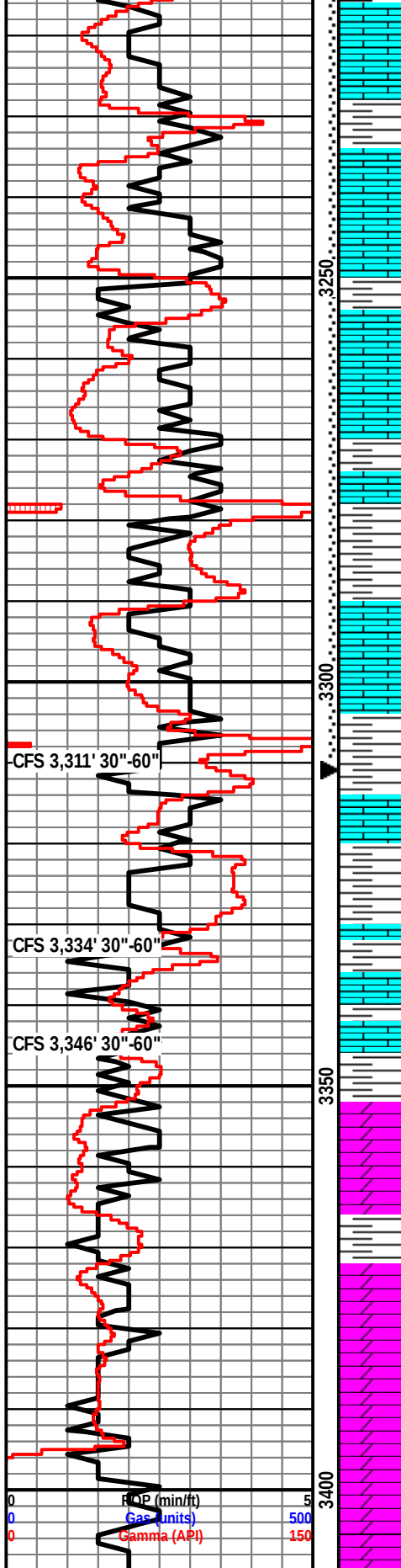
FP: 129-102, 152-139#

SIP: 494-471#

HP: 1,608-1,510#

BHT: 100





Ls: off wh-tan, fn-md xln, scat int xln porosity, mostly DNS, NSFO, hvy chert-off wh, chalky

Sh: lt gry

Ls: off wh-tan, fn-md xln, poor int xln porosity, fair oil sat, SSFO, sl odor, scat fossil

Sh: drk gry-brn

Ls: off wh-lt gry, fn-md xln, scat fossil, poor int xln & pp vuggy porosity, VSSFO, sl odor, scat chert-off wh

Sh: drk gry-brn

Sh: drk gry-blk

Ls: tan-lt gry, fn xln, mostly DNS, no visible porosity, NSFO

Sh: drk gry-brn

Ls: off wh-lt gry, fn xln, mostly DNS, NSFO, no visible porosity

Sh: drk gry-brn-grn

Gorham Sand 3339' (-1422)
 Ss: qtz, off wh, fn-md grn, rnd, poorly sorted, poor int grn porosity, fair oil st, SSFO, sl odor

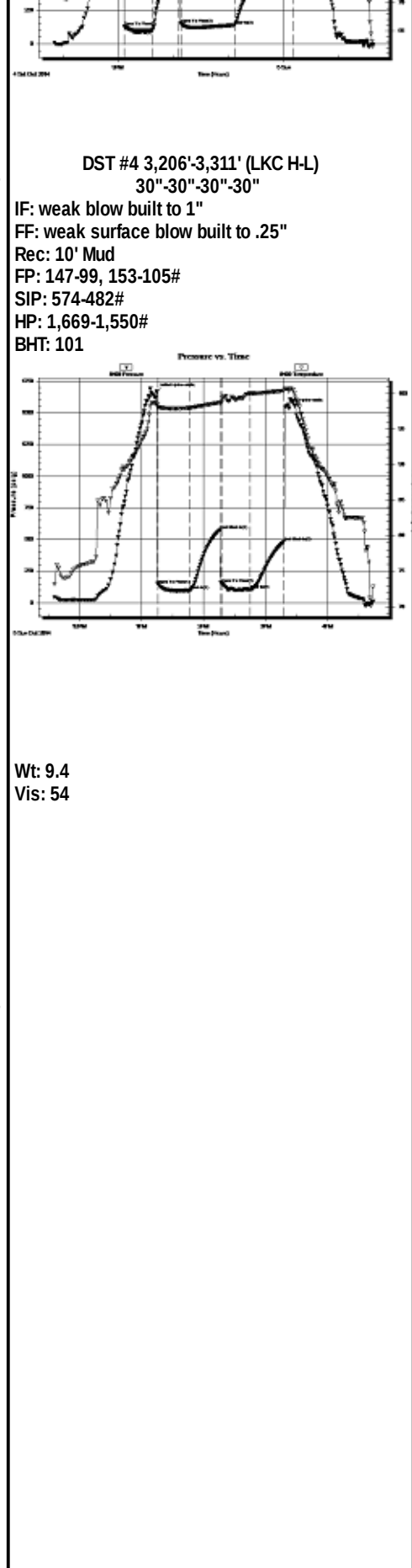
Arbuckle 3350' (-1433)
 Dolo: off wh-tan, vry fn-md xln, poor int xln porosity, fair oil sat, SSFO, fair odor

Dolo: off wh-tan, fn-md xln, fair int xln porosity, mostly barren, NSFO, no odor

Sh: lt gry-drk gry

Dolo: off wh-tan, fn-md xln, poor-fair int xln porosity, lt oil st, SSFO, sl odor, chalky

Dolo: off wh-tan, fn-md xln, poor int xln porosity, mostly barren, NSFO, no odor, hvy chert-off wh





**Discovery
Drilling**

P.O. Box 763 • Hays, KS 67601 • OFFICE (785) 623-2920 • CELLULAR (785) 635-1511

DRILLER'S LOG

Operator: John O. Farmer, Inc. Lic# 5135 Contractor: Discovery Drilling Co., Inc. LIC#31548
370 West Wichita Avenue - P.O. Box 352 PO Box 763
Russell, KS 67665-2635 Hays, KS 67601

Lease: Leas # 1

Location: 375 FNL - 2160 FWL

SW/NE/NE/NW

Section 33/ 13S/ 15W

Russell County, KS

Loggers Total Depth: 3410'

API#15- 167-24,0006-00-00

Rotary Total Depth: 3410'

Elevation: 1909 GL - 1917 KB

Commenced: 9/29/2014

Completed: 10/6/2014

Casing: 8 5/8' @ 515'W/250sks

Status: D & A

DEPTHS & FORMATIONS (All from KB)

Surface, Sand & Shale	<u>0'</u>	Shale	<u>1005'</u>
Dakota Sand	<u>391'</u>	Shale & Lime	<u>1559'</u>
Shale	<u>478'</u>	Shale	<u>2028'</u>
Cedar Hill Sand	<u>540'</u>	Shale & Lime	<u>2427'</u>
Red Bed Shale	<u>711'</u>	Lime & Shale	<u>3036'</u>
Anhydrite	<u>969'</u>	RTD	<u>3410'</u>
Base Anhydrite	<u>1005'</u>		

STATE OF KANSAS)
) ss
 COUNTY OF ELLIS)

Thomas H. Alm of Discovery Drilling states that to the best of his knowledge the above and foregoing is a true and correct log of the above captioned well.

Thomas H. Alm

Subscribed and sworn to before me on 10-13-14

My Commission expires: 8-9-15

(Place stamp or seal below)

Glenna S. Alm
 Notary Public

