

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1236723
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: _____

1236723

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
--	---

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

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Murfin Drilling Co., Inc.
Well Name	Kacirek Trust 3-5
Doc ID	1236723

All Electric Logs Run

DIL
DUCP
MEL
BHCS



DRILL STEM TEST REPORT

Prepared For: **Murfin Drlg. Co., LLC.**

250 N. Water, STE. 300
Wichita, KS 67202

ATTN: Keith Reavis

Kacirek Trust #3-5

5-2s-36w Rawlins,KS

Start Date: 2014.10.05 @ 11:09:00

End Date: 2014.10.05 @ 19:50:30

Job Ticket #: 60729 DST #: 1

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

Printed: 2014.10.10 @ 15:01:17



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drlg. Co., LLC.

5-2s-36w Rawlins,KS

250 N. Water, STE 300
Wichita, KS 67202

Kacirek Trust #3-5

Job Ticket: 60729

DST#: 1

ATTN: Keith Reavis

Test Start: 2014.10.05 @ 11:09:00

GENERAL INFORMATION:

Formation: **Oread**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:14:00

Time Test Ended: 19:50:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Quintana

Unit No: 48

Interval: 4034.00 ft (KB) To 4092.00 ft (KB) (TVD)

Reference Elevations: 3240.00 ft (KB)

Total Depth: 4092.00 ft (KB) (TVD)

3229.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 8372 Outside

Press@RunDepth: 363.59 psig @ 4035.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.10.05

End Date:

2014.10.05

Last Calib.:

2014.10.05

Start Time: 11:09:01

End Time:

19:50:30

Time On Btm:

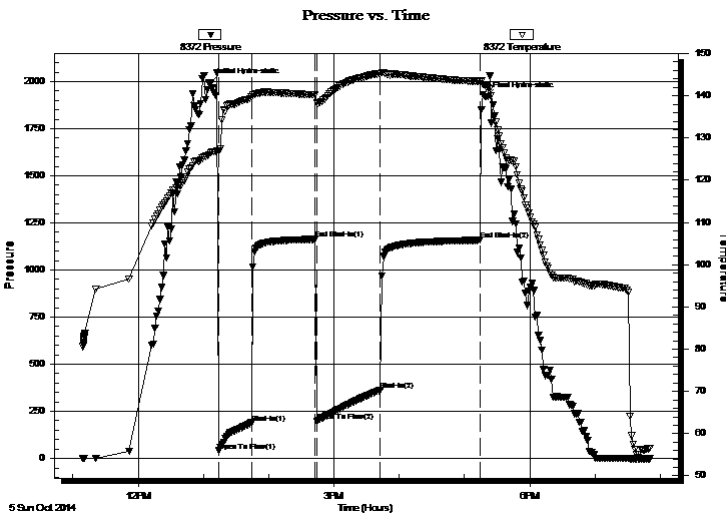
2014.10.05 @ 13:06:30

Time Off Btm:

2014.10.05 @ 17:20:00

TEST COMMENT: 30 - IF - Opened w/ surface blow , B.o.B in 14 min.
60 - ISI - Return built to 1/2", died back to surface
60 - FF - Blow built to B.o.B in 15 min.
90 - FSI - Return built to 3 1/2", died back to 3"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1991.85	126.53	Initial Hydro-static
8	40.69	126.84	Open To Flow (1)
38	189.09	139.72	Shut-In(1)
96	1163.32	140.18	End Shut-In(1)
98	196.46	138.32	Open To Flow (2)
156	363.59	145.25	Shut-In(2)
248	1158.14	143.39	End Shut-In(2)
254	1918.89	142.05	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	MW 90%w , 10%m	0.89
184.00	WOCM 65%w , 30%m, 5%o	2.33
280.00	OCM 80%m,20%o	3.93
122.00	100% FO	1.71

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drlg. Co., LLC.
250 N. Water, STE 300
Wichita, KS 67202
ATTN: Keith Reavis

5-2s-36w Rawlins,KS
Kacirek Trust #3-5
Job Ticket: 60729 **DST#: 1**
Test Start: 2014.10.05 @ 11:09:00

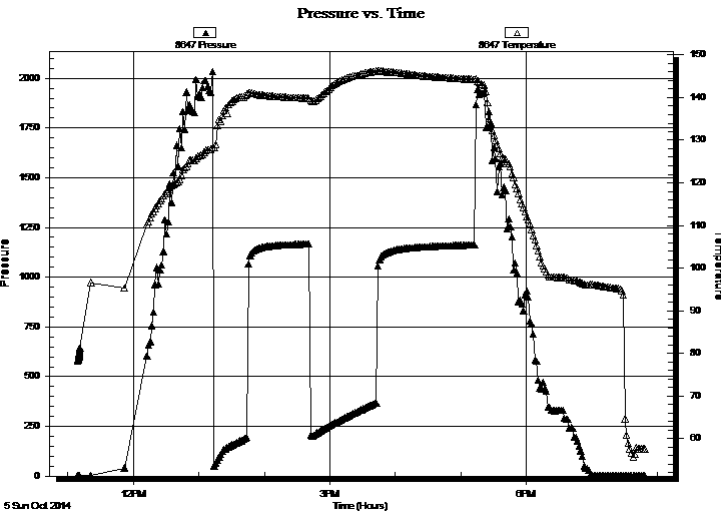
GENERAL INFORMATION:

Formation: Oread		Test Type: Conventional Bottom Hole (Initial)
Deviated: No Whipstock:	ft (KB)	Tester: Brandon Quintana
Time Tool Opened: 13:14:00		Unit No: 48
Time Test Ended: 19:50:30		Reference Elevations: 3240.00 ft (KB)
Interval: 4034.00 ft (KB) To 4092.00 ft (KB) (TVD)		3229.00 ft (CF)
Total Depth: 4092.00 ft (KB) (TVD)		KB to GR/CF: 11.00 ft
Hole Diameter: 7.88 inches	Hole Condition: Fair	

Serial #: 8647 **Inside**

Press@RunDepth: psig @ 4035.00 ft (KB)	Capacity: 8000.00 psig
Start Date: 2014.10.05 End Date: 2014.10.05	Last Calib.: 2014.10.05
Start Time: 11:09:01 End Time: 19:49:00	Time On Btm:
	Time Off Btm:

TEST COMMENT: 30 - IF - Opened w/ surface blow , B.o.B in 14 min.
60 - ISI - Return built to 1/2", died back to surface
60 - FF - Blow built to B.o.B in 15 min.
90 - FSI - Return built to 3 1/2", died back to 3"



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
180.00	MW 90%w , 10%m	0.89
184.00	WOCM 65%w , 30%m, 5%o	2.33
280.00	OCM 80%m,20%o	3.93
122.00	100% FO	1.71

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drlg. Co., LLC.

5-2s-36w Rawlins,KS

250 N. Water, STE 300
Wichita, KS 67202

Kacirek Trust #3-5

Job Ticket: 60729

DST#: 1

ATTN: Keith Reavis

Test Start: 2014.10.05 @ 11:09:00

Tool Information

Drill Pipe:	Length: 3813.00 ft	Diameter: 3.80 inches	Volume: 53.49 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 207.34 ft	Diameter: 2.25 inches	Volume: 1.02 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 54.51 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.34 ft			String Weight: Initial 74000.00 lb
Depth to Top Packer:	4034.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	58.00 ft			
Tool Length:	86.00 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			4007.00	
Shut In Tool	5.00			4012.00	
Hydraulic tool	5.00		Inside	4017.00	
Jars	5.00			4022.00	
Safety Joint	3.00			4025.00	
Packer	5.00			4030.00	28.00 Bottom Of Top Packer
Packer	4.00			4034.00	
Stubb	1.00			4035.00	
Recorder	0.00	8647	Inside	4035.00	
Recorder	0.00	8372	Outside	4035.00	
Perforations	20.00			4055.00	
Change Over Sub	1.00			4056.00	
Drill Pipe	32.00			4088.00	
Change Over Sub	1.00			4089.00	
Bullnose	3.00			4092.00	58.00 Bottom Packers & Anchor

Total Tool Length: 86.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drlg. Co., LLC.

5-2s-36w Rawlins,KS

250 N. Water, STE 300
Wichita, KS 67202

Kacirek Trust #3-5

Job Ticket: 60729

DST#: 1

ATTN: Keith Reavis

Test Start: 2014.10.05 @ 11:09:00

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: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.38 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	MW 90%w , 10%m	0.885
184.00	WOCM 65%w , 30%m, 5%o	2.332
280.00	OCM 80%m,20%o	3.928
122.00	100% FO	1.711

Total Length: 766.00 ft Total Volume: 8.856 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

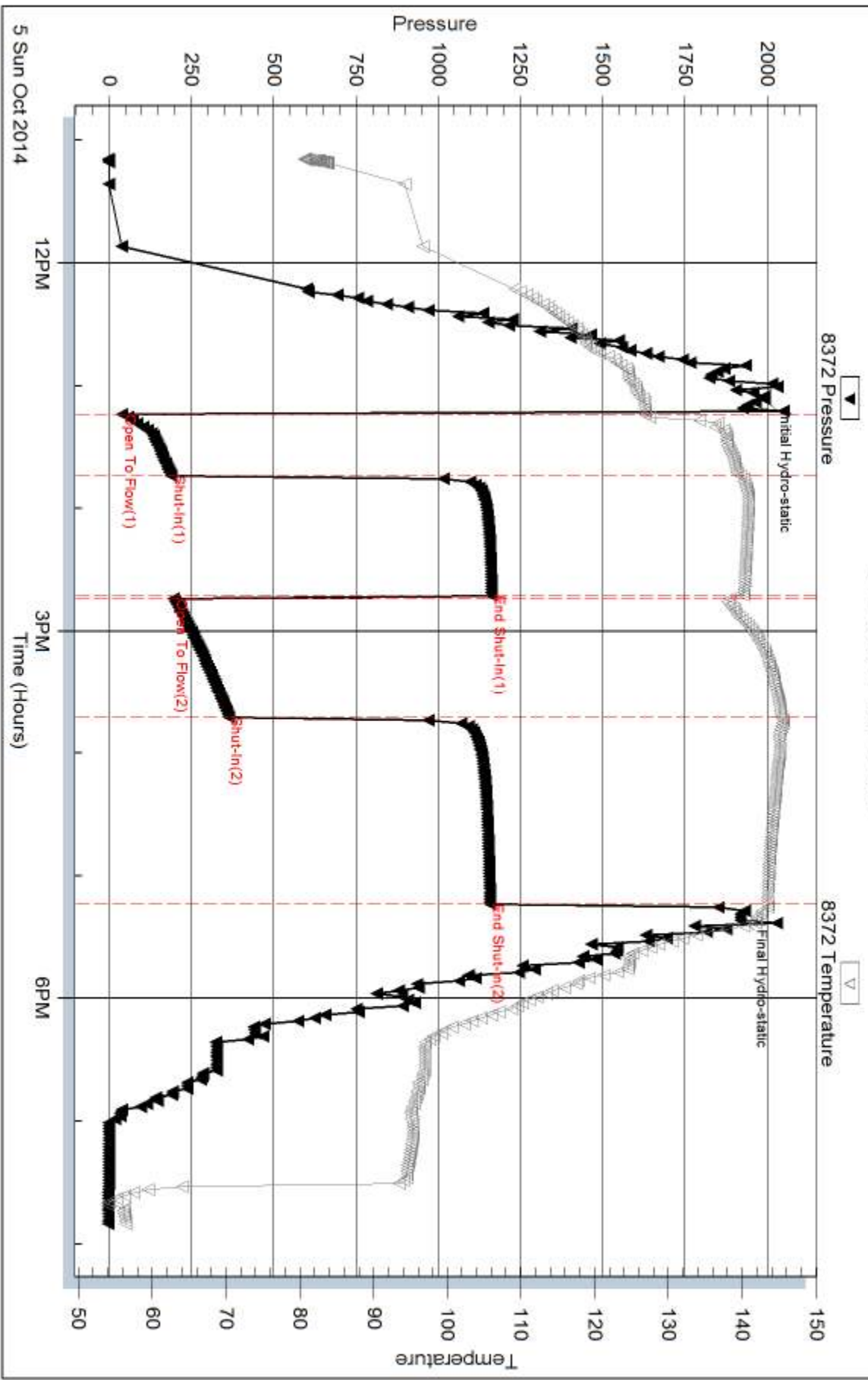
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .15 @ 75 Chlorides 52000ppm

Pressure vs. Time



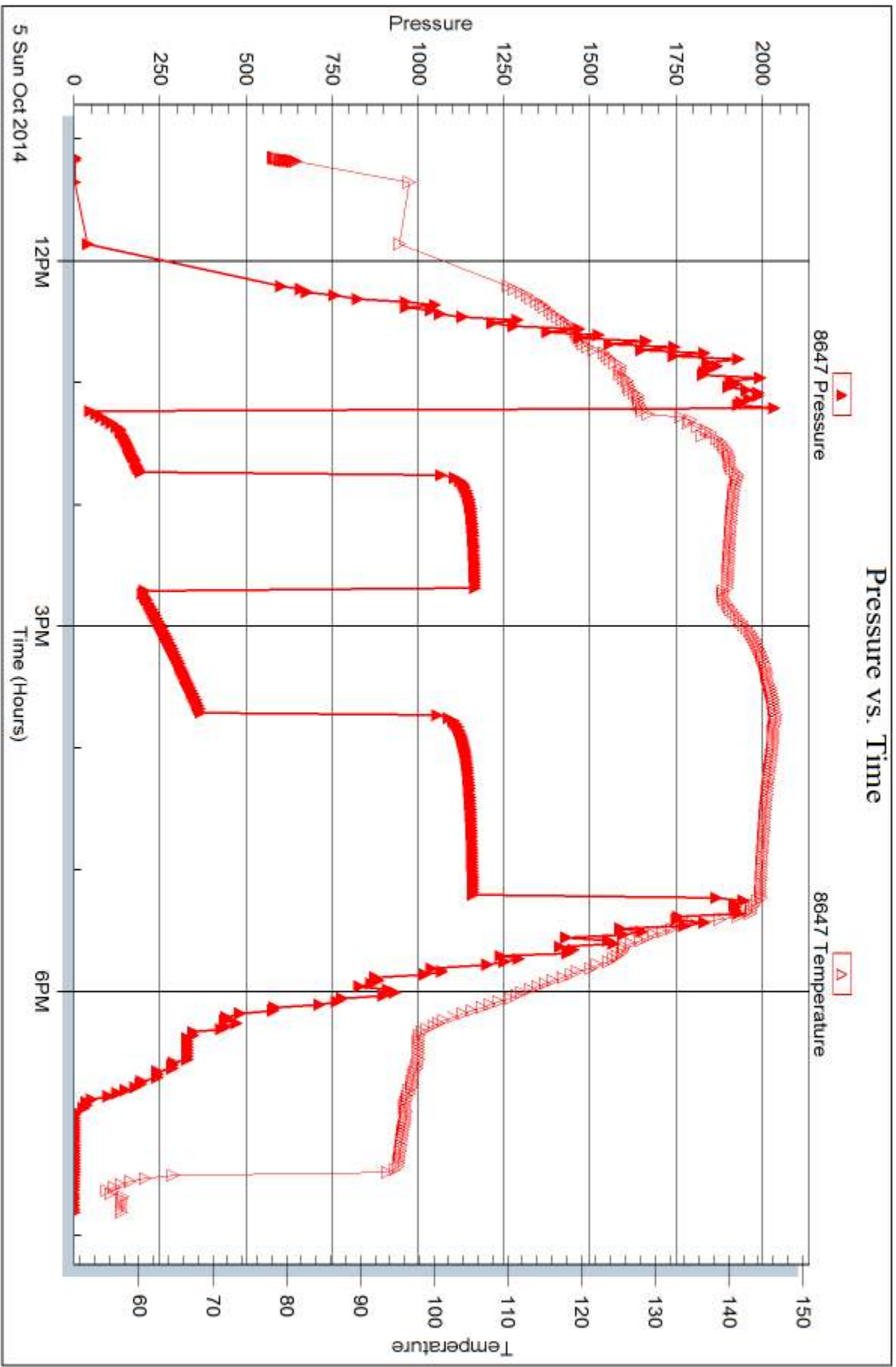
Serial #: 8647

Inside

Murfin Dtg. Co., LLC.

Kacirek Trust #3-5

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 60729

Printed: 2014.10.10 @ 15:01:18



DRILL STEM TEST REPORT

Prepared For: **Murfin Drlg. Co., LLC.**

250 N. Water, STE. 300
Wichita, KS 67202

ATTN: Keith Reavis

Kacirek Trust #3-5

5-2s-36w Rawlins,KS

Start Date: 2014.10.06 @ 12:58:00

End Date: 2014.10.06 @ 21:04:30

Job Ticket #: 60730 DST #: 2

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

Printed: 2014.10.10 @ 15:00:55



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drlg. Co., LLC.

5-2s-36w Rawlins,KS

250 N. Water, STE 300
Wichita, KS 67202

Kacirek Trust #3-5

Job Ticket: 60730

DST#: 2

ATTN: Keith Reavis

Test Start: 2014.10.06 @ 12:58:00

GENERAL INFORMATION:

Formation: **LKC "D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:42:30

Time Test Ended: 21:04:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Quintana

Unit No: 48

Interval: 4196.00 ft (KB) To 4250.00 ft (KB) (TVD)

Reference Elevations: 3240.00 ft (KB)

Total Depth: 4250.00 ft (KB) (TVD)

3229.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 8647

Inside

Press@RunDepth: 343.58 psig @ 4197.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.10.06

End Date:

2014.10.06

Last Calib.:

2014.10.06

Start Time:

12:58:01

End Time:

21:04:30

Time On Btm:

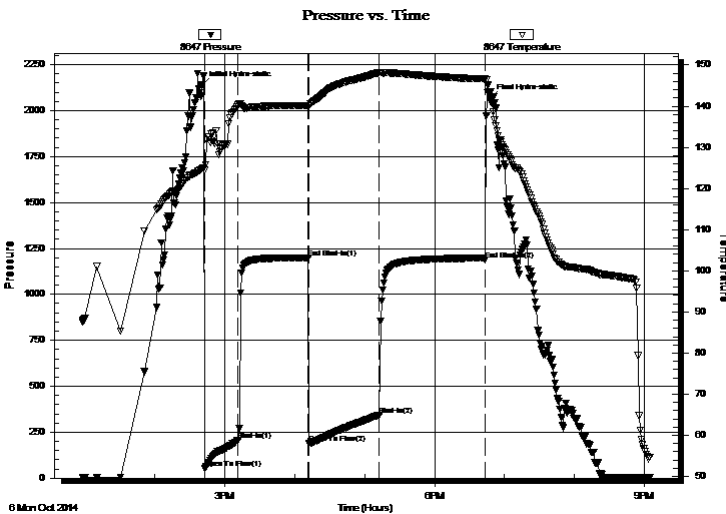
2014.10.06 @ 14:40:30

Time Off Btm:

2014.10.06 @ 18:47:30

TEST COMMENT: 30 - IF - Opened w/ surface blow , B.o.B in 12 min.
60 - ISI - No Return
30 - FF - Blow built to B.o.B in 20 min.
60 - FSI - Return built to 2 1/2"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2137.83	124.75	Initial Hydro-static
2	51.59	124.44	Open To Flow (1)
31	204.79	140.24	Shut-In(1)
91	1199.92	140.17	End Shut-In(1)
92	189.83	140.19	Open To Flow (2)
152	343.58	148.11	Shut-In(2)
243	1188.58	146.58	End Shut-In(2)
247	2062.55	143.43	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
382.00	MCO 90%o, 10%m	3.47
124.00	GWOCM 30%o, 30%m, 30%w, 10%g	1.74
120.00	MCO 90%o, 10%m	1.68
120.00	WOCM 70%w, 20%m, 10%o	1.68

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drlg. Co., LLC.
250 N. Water, STE 300
Wichita, KS 67202

ATTN: Keith Reavis

5-2s-36w Rawlins,KS

Kacirek Trust #3-5
Job Ticket: 60730 **DST#: 2**
Test Start: 2014.10.06 @ 12:58:00

GENERAL INFORMATION:

Formation: **LKC "D"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 14:42:30
Time Test Ended: 21:04:30

Interval: **4196.00 ft (KB) To 4250.00 ft (KB) (TVD)**
Total Depth: 4250.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

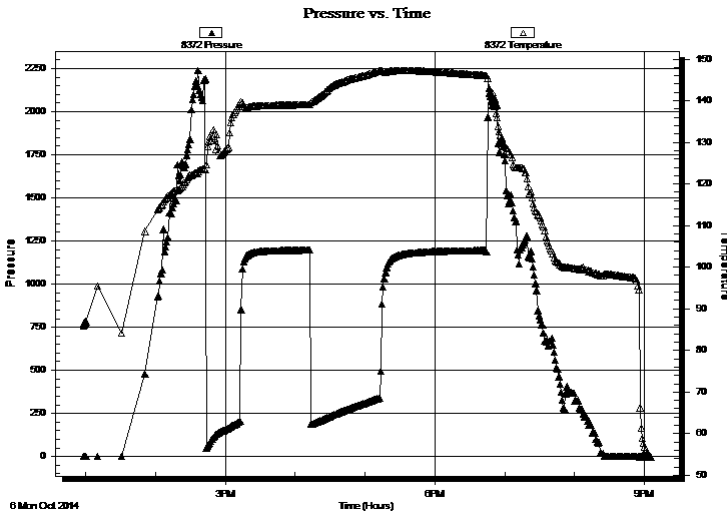
Test Type: Conventional Bottom Hole (Initial)
Tester: Brandon Quintana
Unit No: 48

Reference Elevations: 3240.00 ft (KB)
3229.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8372 Outside

Press@RunDepth: psig @ 4197.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.10.06 End Date: 2014.10.06 Last Calib.: 1899.12.30
Start Time: 12:58:01 End Time: 21:05:30 Time On Btm:
Time Off Btm:

TEST COMMENT: 30 - IF - Opened w/ surface blow , B.o.B in 12 min.
60 - ISI - No Return
30 - FF - Blow built to B.o.B in 20 min.
60 - FSI - Return built to 2 1/2"



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
382.00	MCO 90%o, 10%m	3.47
124.00	GWOCM 30%o, 30%m, 30%w, 10%g	1.74
120.00	MCO 90%o, 10%m	1.68
120.00	WOCM 70%w, 20%m, 10%o	1.68

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drlg. Co., LLC.

5-2s-36w Rawlins,KS

250 N. Water, STE 300
Wichita, KS 67202

Kacirek Trust #3-5

Job Ticket: 60730

DST#: 2

ATTN: Keith Reavis

Test Start: 2014.10.06 @ 12:58:00

Tool Information

Drill Pipe:	Length: 3970.00 ft	Diameter: 3.80 inches	Volume: 55.69 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 207.34 ft	Diameter: 2.25 inches	Volume: 1.02 bbl	Weight to Pull Loose: 90000.00 lb
			<u>Total Volume: 56.71 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.34 ft			String Weight: Initial 76000.00 lb
Depth to Top Packer:	4196.00 ft			Final 78000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	54.00 ft			
Tool Length:	82.00 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			4169.00	
Shut In Tool	5.00			4174.00	
Hydraulic tool	5.00		Inside	4179.00	
Jars	5.00			4184.00	
Safety Joint	3.00			4187.00	
Packer	5.00			4192.00	28.00 Bottom Of Top Packer
Packer	4.00			4196.00	
Stubb	1.00			4197.00	
Recorder	0.00	8647	Inside	4197.00	
Recorder	0.00	8372	Outside	4197.00	
Perforations	17.00			4214.00	
Change Over Sub	1.00			4215.00	
Drill Pipe	31.00			4246.00	
Change Over Sub	1.00			4247.00	
Bullnose	3.00			4250.00	54.00 Bottom Packers & Anchor

Total Tool Length: 82.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drlg. Co., LLC.

5-2s-36w Rawlins,KS

250 N. Water, STE 300
Wichita, KS 67202

Kacirek Trust #3-5

Job Ticket: 60730

DST#: 2

ATTN: Keith Reavis

Test Start: 2014.10.06 @ 12:58:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

24 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

75000 ppm

Viscosity: 66.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
382.00	MCO 90%o, 10%m	3.470
124.00	GWOCM 30%o, 30%m, 30%w, 10%g	1.739
120.00	MCO 90%o, 10%m	1.683
120.00	WOCM 70%w, 20%m, 10%o	1.683

Total Length: 746.00 ft Total Volume: 8.575 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

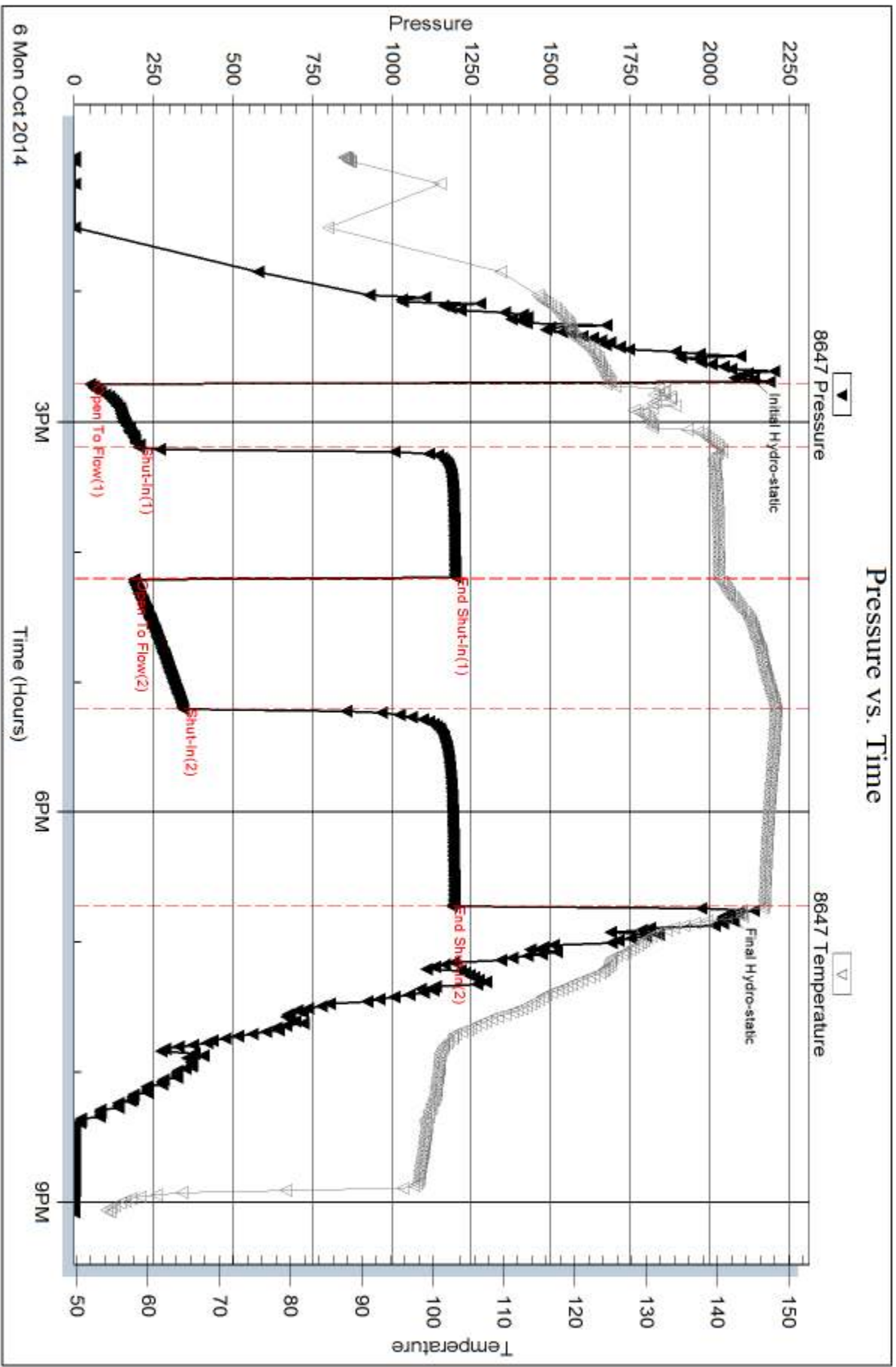
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity 22 @ 85 Corrected = 24

RW .15 @ 65 Chlorides 75000ppm

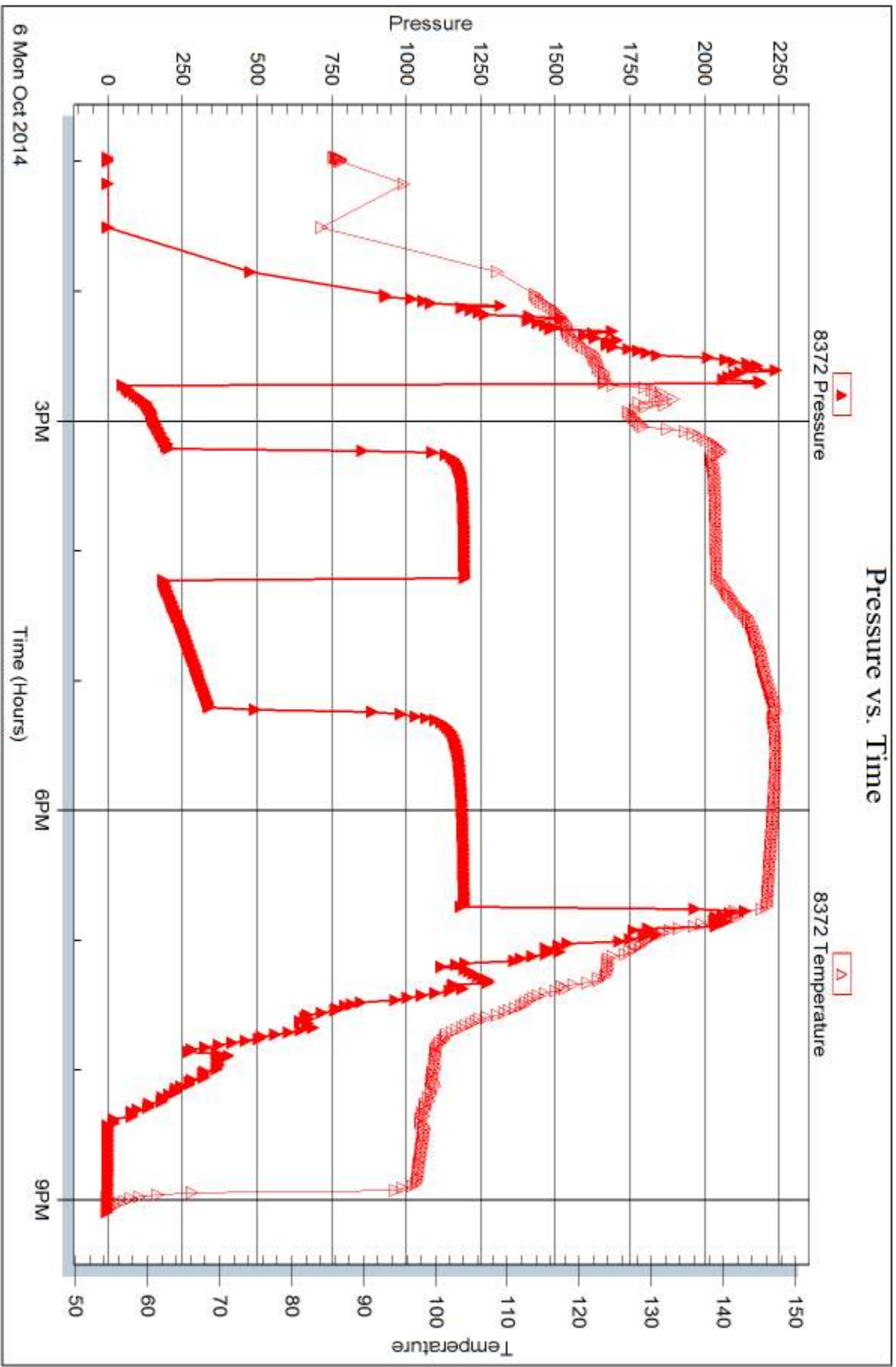


Serial #: 8372

Outside Murfin Dtg. Co., LLC.

Kacirek Trust #3-5

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 60730

Printed: 2014.10.10 @ 15:00:56



DRILL STEM TEST REPORT

Prepared For: **Murfin Drlg. Co., LLC.**

250 N. Water, STE. 300
Wichita, KS 67202

ATTN: Keith Reavis

Kacirek Trust #3-5

5-2s-36w Rawlins,KS

Start Date: 2014.10.07 @ 08:38:00

End Date: 2014.10.07 @ 17:53:00

Job Ticket #: 60731 DST #: 3

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

Printed: 2014.10.10 @ 15:00:33



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drlg. Co., LLC.

5-2s-36w Rawlins,KS

250 N. Water, STE 300
Wichita, KS 67202

Kacirek Trust #3-5

Job Ticket: 60731

DST#: 3

ATTN: Keith Reavis

Test Start: 2014.10.07 @ 08:38:00

GENERAL INFORMATION:

Formation: **LKC "G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:50:30

Time Test Ended: 17:53:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Quintana

Unit No: 48

Interval: 4260.00 ft (KB) To 4310.00 ft (KB) (TVD)

Reference Elevations: 3240.00 ft (KB)

Total Depth: 4310.00 ft (KB) (TVD)

3229.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 8647

Inside

Press@RunDepth: 739.04 psig @ 4261.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.10.07

End Date:

2014.10.07

Last Calib.:

2014.10.07

Start Time:

08:38:01

End Time:

17:53:00

Time On Btm:

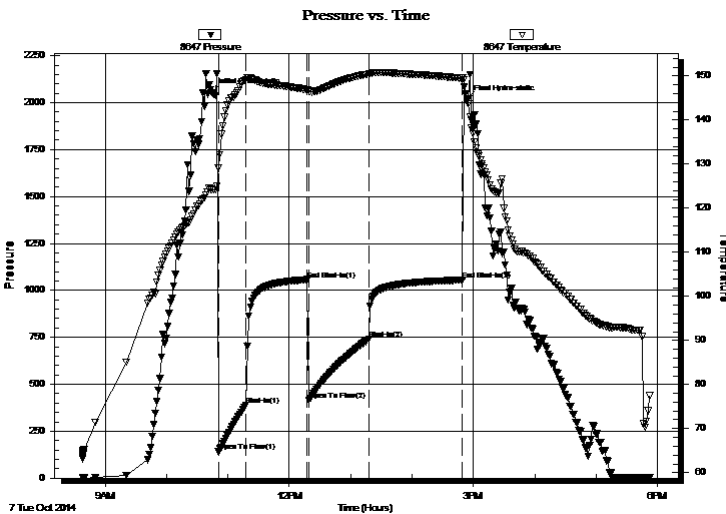
2014.10.07 @ 10:44:30

Time Off Btm:

2014.10.07 @ 14:53:30

TEST COMMENT: 30 - IF - Opened w/ surface blow , built to B.o.B in 3 min.
60 - ISI - No Return
30 - FF - Blow built to B.o.B in 6 min., died back to 6 1/2"
60 - FSI - No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2053.30	124.17	Initial Hydro-static
6	140.78	129.13	Open To Flow (1)
33	389.22	149.18	Shut-In(1)
93	1057.42	146.85	End Shut-In(1)
95	416.06	146.66	Open To Flow (2)
153	739.04	150.42	Shut-In(2)
245	1055.76	149.49	End Shut-In(2)
249	2018.43	144.54	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
364.00	GMCO 55%o, 30%g, 15%m	3.22
1498.00	GO 87%o, 13%g	21.01
0.00	424' GIP	0.00

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drlg. Co., LLC.
250 N. Water, STE 300
Wichita, KS 67202
ATTN: Keith Reavis

5-2s-36w Rawlins,KS
Kacirek Trust #3-5
Job Ticket: 60731 **DST#: 3**
Test Start: 2014.10.07 @ 08:38:00

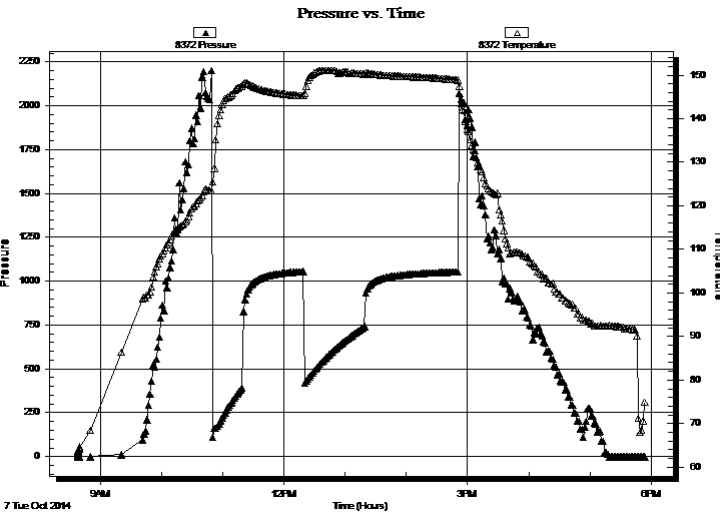
GENERAL INFORMATION:

Formation: **LKC "G"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 10:50:30
Time Test Ended: 17:53:00
Interval: **4260.00 ft (KB) To 4310.00 ft (KB) (TVD)**
Total Depth: 4310.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Initial)
Tester: Brandon Quintana
Unit No: 48
Reference Elevations: 3240.00 ft (KB)
3229.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8372 Outside

Press@RunDepth: psig @ 4261.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.10.07 End Date: 2014.10.07 Last Calib.: 2014.10.07
Start Time: 08:38:01 End Time: 17:54:30 Time On Btm:
Time Off Btm:

TEST COMMENT: 30 - IF - Opened w/ surface blow , built to B.o.B in 3 min.
60 - ISI - No Return
30 - FF - Blow built to B.o.B in 6 min., died back to 6 1/2"
60 - FSI - No Return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
364.00	GMCO 55%o, 30%g, 15%m	3.22
1498.00	GO 87%o, 13%g	21.01
0.00	424' GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drlg. Co., LLC.

5-2s-36w Rawlins,KS

250 N. Water, STE 300
Wichita, KS 67202

Kacirek Trust #3-5

Job Ticket: 60731

DST#: 3

ATTN: Keith Reavis

Test Start: 2014.10.07 @ 08:38:00

Tool Information

Drill Pipe:	Length: 4034.00 ft	Diameter: 3.80 inches	Volume: 56.59 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 207.34 ft	Diameter: 2.25 inches	Volume: 1.02 bbl	Weight to Pull Loose: 90000.00 lb
			<u>Total Volume: 57.61 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.34 ft			String Weight: Initial 78000.00 lb
Depth to Top Packer:	4260.00 ft			Final 88000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	50.00 ft			
Tool Length:	78.00 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			4233.00	
Shut In Tool	5.00			4238.00	
Hydraulic tool	5.00		Inside	4243.00	
Jars	5.00			4248.00	
Safety Joint	3.00			4251.00	
Packer	5.00			4256.00	28.00 Bottom Of Top Packer
Packer	4.00			4260.00	
Stubb	1.00			4261.00	
Recorder	0.00	8647	Inside	4261.00	
Recorder	0.00	8372	Outside	4261.00	
Perforations	12.00			4273.00	
Change Over Sub	1.00			4274.00	
Drill Pipe	32.00			4306.00	
Change Over Sub	1.00			4307.00	
Bullnose	3.00			4310.00	50.00 Bottom Packers & Anchor

Total Tool Length: 78.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drlg. Co., LLC.

5-2s-36w Rawlins,KS

250 N. Water, STE 300
Wichita, KS 67202

Kacirek Trust #3-5

Job Ticket: 60731

DST#: 3

ATTN: Keith Reavis

Test Start: 2014.10.07 @ 08:38:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 66.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.77 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 10.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
364.00	GMCO 55%o, 30%g, 15%m	3.217
1498.00	GO 87%o, 13%g	21.013
0.00	424' GIP	0.000

Total Length: 1862.00 ft Total Volume: 24.230 bbl

Num Fluid Samples: 0

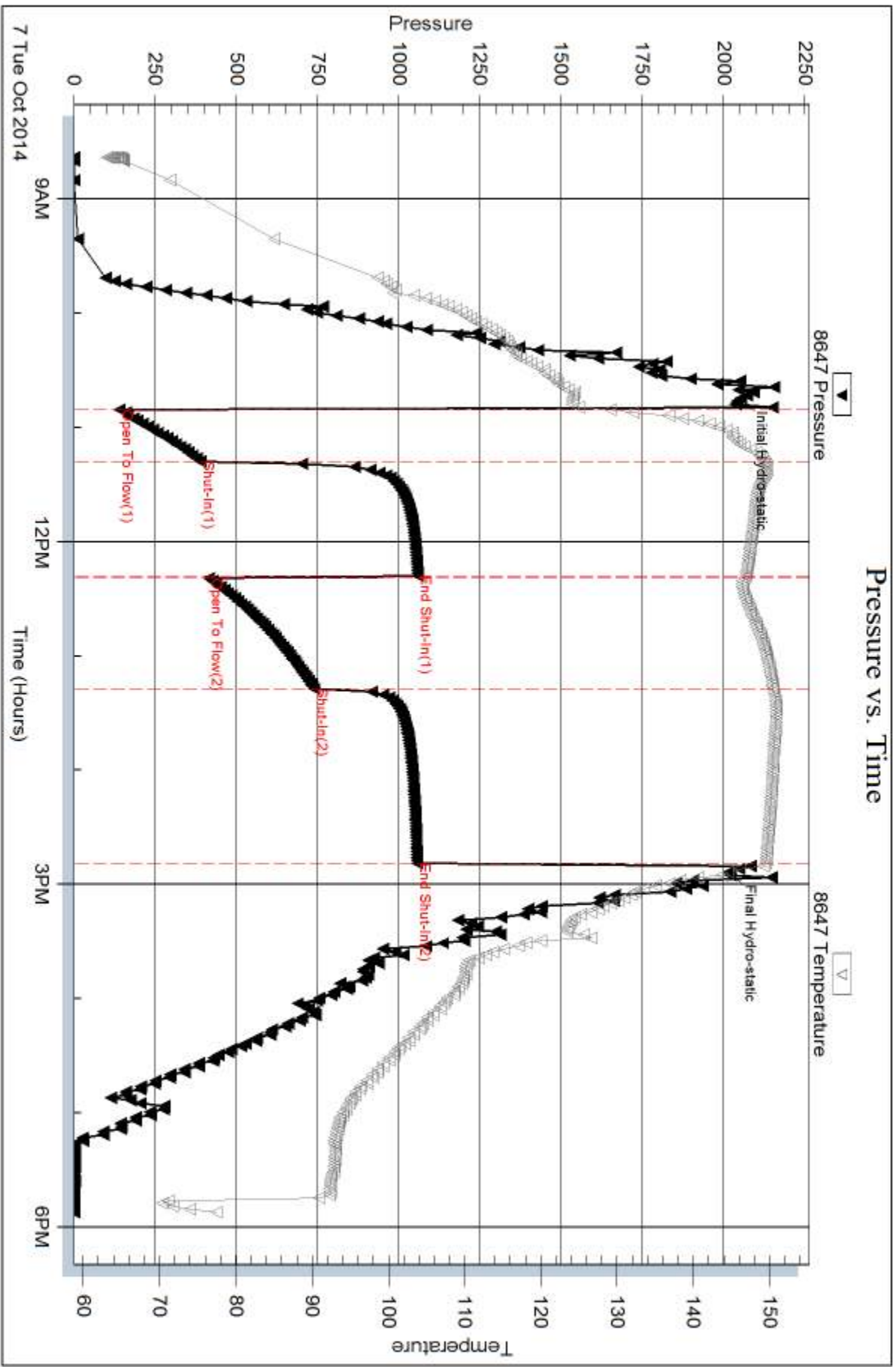
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity 29 @ 90 Corrected = 32

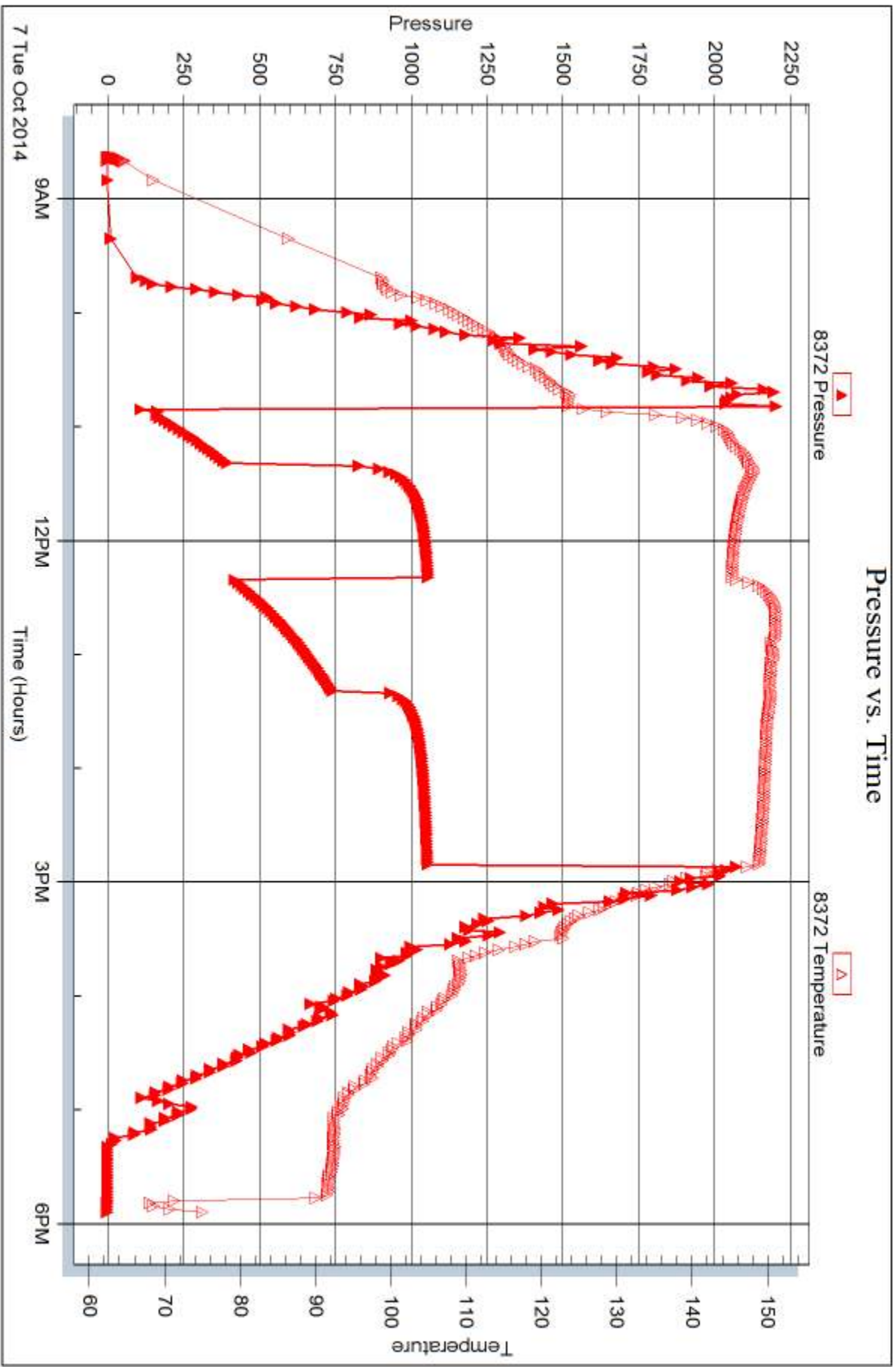


Serial #: 8372

Outside Murfin Dtg. Co., LLC.

Kacirek Trust #3-5

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **Murfin Drlg. Co., LLC.**

250 N. Water, STE. 300
Wichita, KS 67202

ATTN: Keith Reavis

Kacirek Trust #3-5

5-2s-36w Rawlins,KS

Start Date: 2014.10.08 @ 06:39:00

End Date: 2014.10.08 @ 15:12:30

Job Ticket #: 60732 DST #: 4

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

Printed: 2014.10.10 @ 14:58:26



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drlg. Co., LLC.

5-2s-36w Rawlins,KS

250 N. Water, STE 300
Wichita, KS 67202

Kacirek Trust #3-5

Job Ticket: 60732

DST#: 4

ATTN: Keith Reavis

Test Start: 2014.10.08 @ 06:39:00

GENERAL INFORMATION:

Formation: **LKC "H&J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:38:00

Time Test Ended: 15:12:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Quintana

Unit No: 48

Interval: 4308.00 ft (KB) To 4395.00 ft (KB) (TVD)

Reference Elevations: 3240.00 ft (KB)

Total Depth: 4395.00 ft (KB) (TVD)

3229.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 8647

Inside

Press@RunDepth: 299.77 psig @ 4309.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.10.08

End Date:

2014.10.08

Last Calib.:

2014.10.08

Start Time: 06:39:01

End Time:

15:12:30

Time On Btm:

2014.10.08 @ 08:32:00

Time Off Btm:

2014.10.08 @ 12:41:00

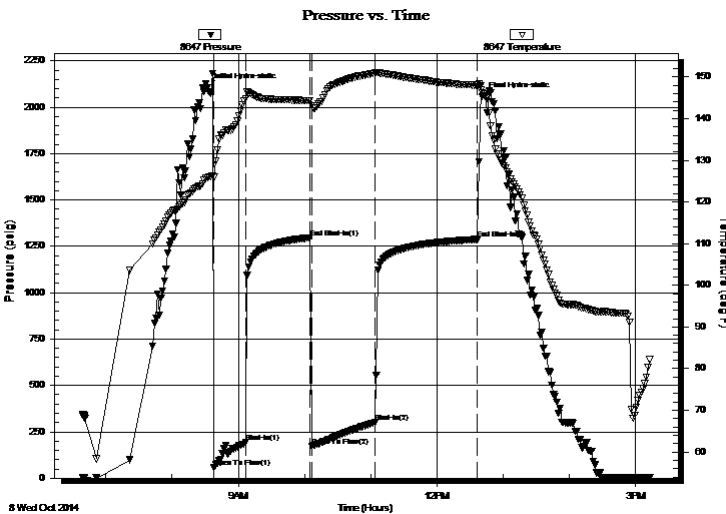
TEST COMMENT: 30 - IF - Opened w/ surface blow , built to B.o.B in 13 min.

60 - ISI - No Return

60 - FF - Blow built to B.o.B in 17 min.

90 - FSI - Return built to 5 1/4"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2104.05	125.86	Initial Hydro-static
6	57.06	125.94	Open To Flow (1)
35	194.57	144.88	Shut-In(1)
93	1296.73	144.28	End Shut-In(1)
95	172.06	143.07	Open To Flow (2)
152	299.77	150.91	Shut-In(2)
245	1287.99	148.03	End Shut-In(2)
249	2058.50	146.23	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
364.00	WOCM 60%w , 25%m, 15%g	3.22
226.00	GMCO 60%o, 30%m, 10%g	3.17
52.00	100%FO	0.73
278.00	278' GIP	3.90

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drlg. Co., LLC.

5-2s-36w Rawlins,KS

250 N. Water, STE 300
Wichita, KS 67202

Kacirek Trust #3-5

Job Ticket: 60732

DST#: 4

ATTN: Keith Reavis

Test Start: 2014.10.08 @ 06:39:00

Tool Information

Drill Pipe:	Length: 4097.00 ft	Diameter: 3.80 inches	Volume: 57.47 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 207.34 ft	Diameter: 2.25 inches	Volume: 1.02 bbl	Weight to Pull Loose: 90000.00 lb
			<u>Total Volume: 58.49 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.34 ft			String Weight: Initial 78000.00 lb
Depth to Top Packer:	4308.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	87.00 ft			
Tool Length:	115.00 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			4281.00	
Shut In Tool	5.00			4286.00	
Hydraulic tool	5.00		Inside	4291.00	
Jars	5.00			4296.00	
Safety Joint	3.00			4299.00	
Packer	5.00			4304.00	28.00 Bottom Of Top Packer
Packer	4.00			4308.00	
Stubb	1.00			4309.00	
Recorder	0.00	8647	Inside	4309.00	
Recorder	0.00	8372	Outside	4309.00	
Perforations	19.00			4328.00	
Change Over Sub	1.00			4329.00	
Drill Pipe	62.00			4391.00	
Change Over Sub	1.00			4392.00	
Bullnose	3.00			4395.00	87.00 Bottom Packers & Anchor

Total Tool Length: 115.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drlg. Co., LLC.

5-2s-36w Rawlins,KS

250 N. Water, STE 300
Wichita, KS 67202

Kacirek Trust #3-5

Job Ticket: 60732

DST#: 4

ATTN: Keith Reavis

Test Start: 2014.10.08 @ 06:39:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

35 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

52000 ppm

Viscosity: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.60 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 900.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
364.00	WOCM 60%w , 25%m, 15%g	3.217
226.00	GMCO 60%o, 30%m, 10%g	3.170
52.00	100%FO	0.729
278.00	278' GIP	3.900

Total Length: 920.00 ft Total Volume: 11.016 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

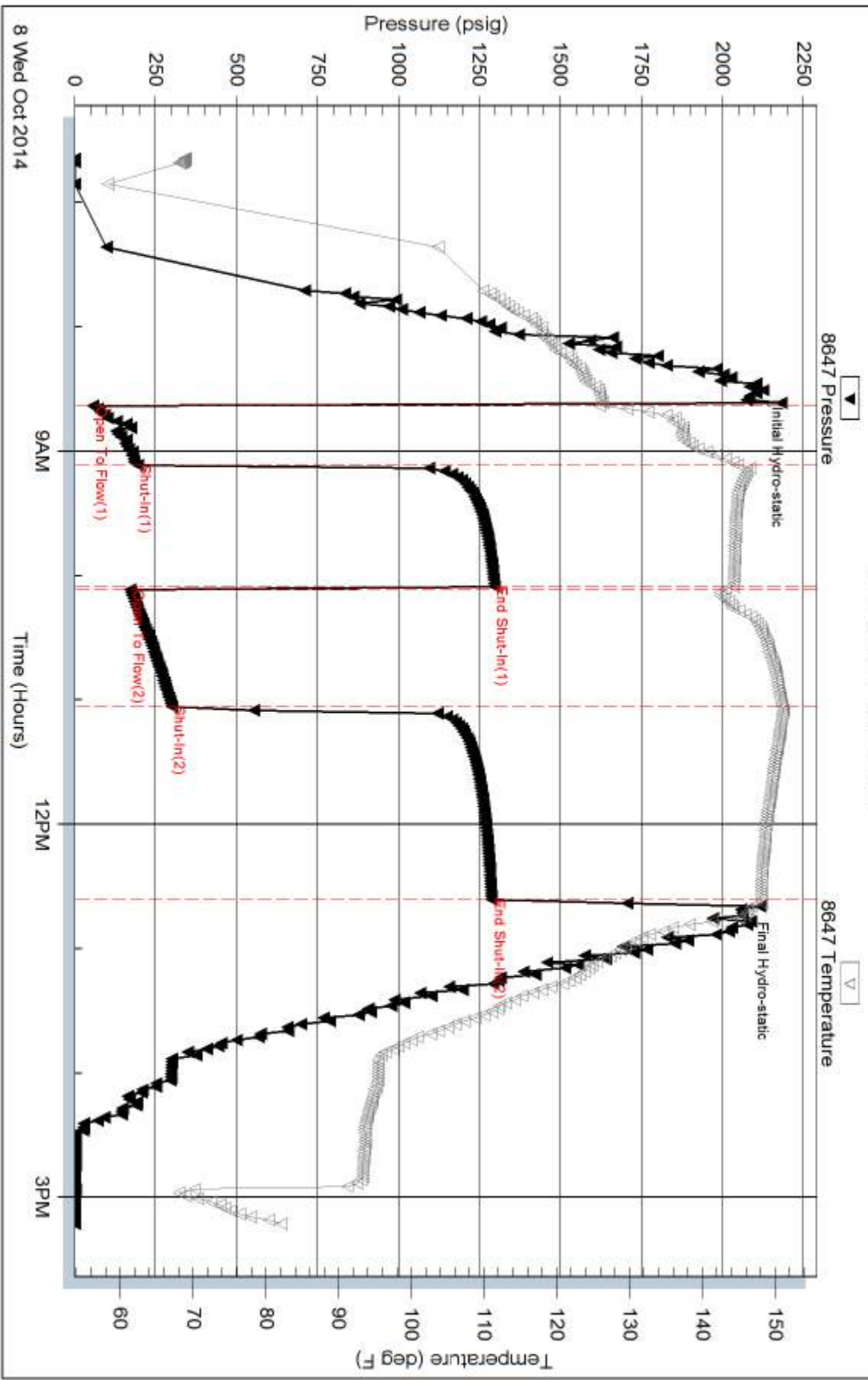
Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity 33 @ 80 Corrected = 35

RW .13 @ 80F Chlorides 52000ppm

Pressure vs. Time

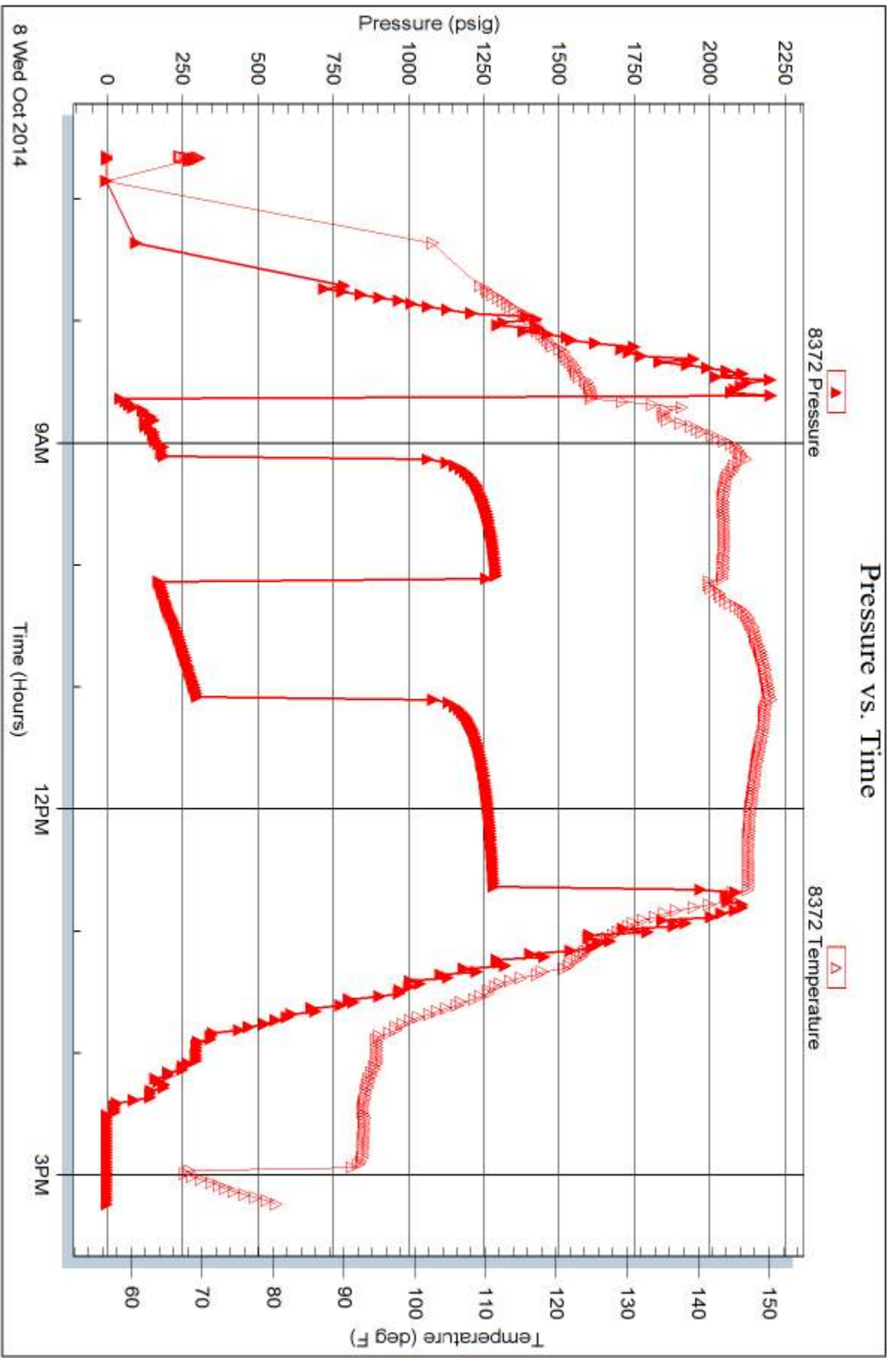


Serial #: 8372

Outside Murfin Drtg. Co., LLC.

Kacirek Trust #3-5

DST Test Number: 4



Triobite Testing, Inc

Ref. No: 60732

Printed: 2014.10.10 @ 14:58:27



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **60729**

Well Name & No. Kacirek Trust #3-5 Test No. 1 Date 10-5-14
 Company Murfin Drlg Co., INC. Elevation 3240 KB 3229 GL
 Address 250 N. Water, STE 300 Wichita, KS. 67202
 Co. Rep / Geo. Keith Reavis Rig Murfin #2
 Location: Sec. 5 Twp. 2S Rge. 36W Co. Rawlins State Ks.

Interval Tested 4034-4092 Zone Tested Oread
 Anchor Length 58' Drill Pipe Run 3813 Mud Wt. 8.9
 Top Packer Depth 4029 Drill Collars Run 207.34 Vis 57
 Bottom Packer Depth 4034 Wt. Pipe Run — WL 8.4
 Total Depth 4092 Chlorides 600 ppm System LCM 8

Blow Description IF - Opened w/ surface blow, B.o.B in 14 min.
ISI - Return built to 1/2", died back to surface
FF - Blow built to B.o.B in 15 min.
FSI - Return built to 3 1/2", died back to 3"

Rec	Feet of	%gas	%oil	%water	%mud
<u>122</u>	<u>Fo</u>	<u>100</u>			
<u>280</u>	<u>OCM</u>	<u>20</u>			<u>80</u>
<u>184</u>	<u>WOCM</u>	<u>5</u>		<u>65</u>	<u>30</u>
<u>180</u>	<u>MW</u>			<u>90</u>	<u>10</u>
<u>180</u>					

Rec Total 766 BHT 143 Gravity — API RW .15 @ 75 °F Chlorides 52,000 ppm

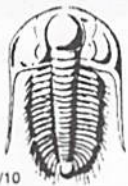
(A) Initial Hydrostatic 1991 Test 1250 T-On Location 10:45 AM
 (B) First Initial Flow 40 Jars 250 T-Started 11:09 AM
 (C) First Final Flow 189 Safety Joint 75 T-Open 1:15 PM
 (D) Initial Shut-In 1163 Circ Sub _____ T-Pulled 5:15 PM
 (E) Second Initial Flow 196 Hourly Standby _____ T-Out 8:51 PM
 (F) Second Final Flow 363 Mileage 113 R.T. 175.15 Comments _____
 (G) Final Shut-In 1158 Sampler _____
 (H) Final Hydrostatic 1918 Straddle _____
 Shale Packer _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Initial Open 30
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 90

Sub Total 1750.15

Sub Total 0
 Total 1750.15
 MP/DST Disc't _____

Approved By Keith Reavis Our Representative Bud Oitz



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **60730**

4/10

Well Name & No. Kacirek Trust #3-5 Test No. 2 Date 10-6-14
 Company Murfin Drlg. Co., INC. Elevation 3240 KB 3229 GL
 Address 250 N. Water, STE 300 Wichita, KS 67202
 Co. Rep / Geo. Keith Reavis Rig Murfin #2
 Location: Sec. 5 Twp. 25 Rge. 36W Co. Rawlins State KS

Interval Tested 4196 - 4250 Zone Tested L56 "D"
 Anchor Length 54 Drill Pipe Run 3970 Mud Wt. 9.3
 Top Packer Depth 4191 Drill Collars Run 207.34 Vis 66
 Bottom Packer Depth 4196 Wt. Pipe Run - WL 8.8
 Total Depth 4250 Chlorides 1000 ppm System LCM 10
 Blow Description IF - Opened w/ surface blow, B.o.B in 12 min.
ISI - No Return
FF - Blow built to B.o.B in 20 min.
FSI - Return built to 2 1/2"

Rec	Feet of	%gas	%oil	%water	%mud
382	MCO		90		10
124	GWOCM	10	30	30	30
120	MCO		90		10
120	WOCM		10	70	20

Rec Total 746 BHT 146 Gravity 24.2 API RW .15 @ 1065F Chlorides 75000 ppm

(A) Initial Hydrostatic 2137 Test 1250 T-On Location 12:50 PM
 (B) First Initial Flow 51 Jars 250 T-Started 12:58 PM
 (C) First Final Flow 204 Safety Joint 75 T-Open 2:44 PM
 (D) Initial Shut-In 1199 Circ Sub _____ T-Pulled 6:44 PM
 (E) Second Initial Flow 189 Hourly Standby _____ T-Out 9:06 PM
 (F) Second Final Flow 343 Mileage 113 R.T. 175.15 Comments _____
 (G) Final Shut-In 1188 Sampler _____
 (H) Final Hydrostatic 2062 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1750.15
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1750.15

Approved By Keith Reavis

Our Representative Bud O. ...

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. **60731**

4/10

Well Name & No. Kacirek Trust #3-5 Test No. 3 Date 10-7-14
 Company Murfin Drlg. Co., Inc. Elevation 3240 KB 3229 GL
 Address 250 N. Water, STE 300 Wichita, KS 67202
 Co. Rep / Geo. Keith Reavis Rig Murfin #2
 Location: Sec. 5 Twp. 2S Rge. 36W Co. Rawlins State KS

Interval Tested 4260 - 4310 Zone Tested LSG "G"
 Anchor Length 50 Drill Pipe Run 4034 Mud Wt. 9.3
 Top Packer Depth 4255 Drill Collars Run 207.34 Vis 66
 Bottom Packer Depth 4260 Wt. Pipe Run — WL 8.8
 Total Depth 4310 Chlorides 1000 ppm System LCM 10
 Blow Description IF- Opened w/ surface blow, built to B.O.B in 3 min.
ISI- No Return
FF- Blow, built to B.O.B in 6 min., died back to 6 1/2"
FSI- No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>1498</u>	<u>60</u>	<u>13</u>	<u>87</u>		
<u>364</u>	<u>Gmco</u>	<u>30</u>	<u>55</u>		<u>15</u>
<u>424</u>	<u>Gas</u>	<u>100</u>			

Rec Total 1862 BHT 149 Gravity 32 API RW @ °F Chlorides ppm
 (A) Initial Hydrostatic 2053 Test 1250 T-On Location 8:30 AM
 (B) First Initial Flow 140 Jars 250 T-Started 8:38 AM
 (C) First Final Flow 389 Safety Joint 75 T-Open 10:51 AM
 (D) Initial Shut-In 1057 Circ Sub _____ T-Pulled 2:51 PM
 (E) Second Initial Flow 416 Hourly Standby _____ T-Out 5:56 PM
 (F) Second Final Flow 739 Mileage 113 R.T. 175.15 Comments _____
 (G) Final Shut-In 1055 Sampler _____
 (H) Final Hydrostatic 2018 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 30 Extra Recorder _____ Sub Total 0
 Initial Shut-In 60 Day Standby _____ Total 1750.15
 Final Flow 60 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 90 Sub Total 1750.15

Approved By *Keith Reavis* Our Representative *Bud Ait*

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. **60732**

Well Name & No. Kacirek Trust #3-5 Test No. 4 Date 10-8-14
 Company Murfin Drlg. Co., Inc. Elevation 3240 KB 3229 GL
 Address 250 N. Water, STE 300 Wichita, KS 67202
 Co. Rep / Geo. Keith Reavis Rig Murfin #2
 Location: Sec. 5 Twp. Z5 Rge. 36W Co. Rawlins State KS

Interval Tested 4308-4395 Zone Tested LSG "H+J"
 Anchor Length 87 Drill Pipe Run 4097 Mud Wt. 9.2
 Top Packer Depth 4303 Drill Collars Run 207.34 Vis 62
 Bottom Packer Depth 4308 Wt. Pipe Run — WL 7.6
 Total Depth 4395 Chlorides 900 ppm System LCM 10
 Blow Description IF - Opened w/ surface blow, built to B.O.B in 13 min.
ISI - No Return
FF - Blow built to B.O.B in 17 min.
FSI - Return built to 5 1/4"

Rec	Feet of	%gas	%oil	%water	%mud
<u>52'</u>	<u>FO</u>		<u>100%</u>		
<u>226</u>	<u>GMCO</u>	<u>10%</u>	<u>60%</u>		<u>30%</u>
<u>364'</u>	<u>WOCM</u>		<u>15%</u>	<u>60%</u>	<u>25%</u>
<u>278'</u>	<u>GIP</u>	<u>100%</u>			

Rec Total 642 BHT 148 Gravity 35 API RW .13 @ 80 °F Chlorides 52000 ppm
 (A) Initial Hydrostatic 2104 Test 1250 T-On Location 6:24 AM
 (B) First Initial Flow 57 Jars 250 T-Started 6:39 AM
 (C) First Final Flow 194 Safety Joint 75 T-Open 8:38 AM
 (D) Initial Shut-In 1296 Circ Sub _____ T-Pulled 12:38 PM
 (E) Second Initial Flow 172 Hourly Standby _____ T-Out 3:14 PM
 (F) Second Final Flow 299 Mileage 113 R.T. 175.15 Comments _____
 (G) Final Shut-In 1287 Sampler _____ 175.15 Donovan loaded tools 10/10 10:45
 (H) Final Hydrostatic 2058 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby 1d 19.5h 43.5h
 Accessibility _____
 Sub Total 1925.30

Initial Open 30
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 90
 Approved By Keith Reavis Our Representative Bruce O. E.
 Sub Total 800
 Total 2725.30
 MP/DST Disc't _____

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.

OPERATOR

Company: Murfin Drilling Company
 Address: 250 N. Water
 Suite 300
 Wichita, KS 67202
 Contact Geologist: Shauna Gunzelman
 Contact Phone Nbr: 316-267-3241
 Well Name: Kacirek Trust #3-5
 Location: Sec. 5 - T2S - R36W
 API: 15-153-21057-0000
 Pool: _____
 State: Kansas
 Field: Brumm NE
 Country: USA



Scale 1:240 Imperial

Well Name: Kacirek Trust #3-5
 Surface Location: Sec. 5 - T2S - R36W
 Bottom Location:
 API: 15-153-21057-0000
 License Number: 30606
 Spud Date: 10/2/2014
 Region: Rawlins County
 Drilling Completed: 10/9/2014
 Surface Coordinates: 1320' FNL & 1320' FWL
 Bottom Hole Coordinates:
 Ground Elevation: 3229.00ft
 K.B. Elevation: 3240.00ft
 Logged Interval: 3520.00ft
 Total Depth: 4750.00ft
 Formation: Cherokee
 Drilling Fluid Type: Chemical/Fresh Water Gel
 Time: 2:30 PM
 Time: 11:30 PM
 To: 4750.00ft

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude:
 Latitude:
 N/S Co-ord: 1320' FNL
 E/W Co-ord: 1320' FWL

LOGGED BY

Keith Reavis
Consulting Geologist

Company: Keith Reavis, Inc.
 Address: 3420 22nd Street
 Great Bend, KS 67530
 Phone Nbr: 620-617-4091
 Logged By: KLG #136
 Name: Keith Reavis

CONTRACTOR

Contractor: Murfin Drilling Company
 Rig #: Rig #2
 Rig Type: mud rotary
 Spud Date: 10/2/2014
 TD Date: 10/9/2014
 Rig Release:
 Time: 2:30 PM
 Time: 11:30 PM
 Time:

ELEVATIONS

K.B. Elevation: 3240.00ft
 K.B. to Ground: 11.00ft
 Ground Elevation: 3229.00ft

NOTES

Due to positive drill stem testing, it was determined by the operator to set 5 1/2" production casing and further test the Lansing-KC through perforations and stimulation.
 The samples were saved and will be available for review at the Kansas Geological Survey Well Sample Library located in Wichita, KS.
 Respectfully submitted,
 Keith Reavis

Murfin Drilling Company
daily drilling report

DATE	7:00 AM DEPTH	REMARKS
10/03/2014		Geologist Keith Reavis on location @ 1715 hrs, 3506 ft, running bit trip, Repair hydromatic, back on bottom w/button bit, ctch, resume drilling
10/04/2014	3686	drilling ahead, Neva, Red Eagle, Foraker, Stotler, Topeka
10/05/2014	4092	drilling ahead, Topeka, Oread, show in Oread warrants test, short trip, conduct and complete DST #1, successful test, TIH w/bit, resume drilling
10/06/2014	4190	drilling ahead, Lansing, show in D zone warrants test, TOH w/bit, in w/tools, conduct and complete DST #2, successful test, TIH w/bit, ctch
10/07/2014	4310	resume drilling, show in G zone warrants test, conduct and complete DST #3, Successful test, TIH w/bit, resume drilling
10/08/2014	4395	drilling ahead, show in Lansing H and J zones warrant test, TOH for DST #4, conducting and complete DST #4, successful test, TIH w/bit, resume drilling
10/09/2014	4552	drilling ahead, Marmaton, Pawnee, Cherokee, TD 4750' @ 2330 hrs
10/10/2014	4750	short trip, ctch, TOH w/bit, conduct and complete logging operations geologist off location @ 1030 hrs

Murfin Drilling Company
well comparison sheet

DRILLING WELL					COMPARISON WELL				COMPARISON WELL			
MDC - Kacirek Trust #3-5 1320' FNL & 1320' FWL Sec 5-T2S-R36W					MDC - Kacirek Trust #2-5 2310' FSL & 600' FWL Sec 5-T2S-R36W				MDC - Kacirek Trust #1-5 v Sec 5-T2S-R36W			
3240 KB					3241 KB				3252 KB			
					Structural Relationship				Structural Relationship			
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log
Neva	3622	-382	3624	-384	3620	-379	-3	-5	3628	-376	-6	-8
Red Eagle	3687	-447	3687	-447	3683	-442	-5	-5	3691	-439	-8	-8
Foraker	3737	-497	3737	-497	3730	-489	-8	-8	3739	-487	-10	-10
Stotler	3890	-650	3888	-648	3886	-645	-5	-3	3892	-640	-10	-8
Topeka	3956	-716	3953	-713	3953	-712	-4	-1	3957	-705	-11	-8
Oread	4081	-841	4081	-841	4081	-840	-1	-1	4085	-833	-8	-8
Lansing	4169	-929	4171	-931	4167	-926	-3	-5	4170	-918	-11	-13
Lansing D	4235	-995	4231	-991	4228	-987	-8	-4	4230	-978	-17	-13
Stark	4386	-1146	4388	-1148	4386	-1145	-1	-3	4388	-1136	-10	-12
BKC	4440	-1200	4443	-1203	4436	-1195	-5	-8	4438	-1186	-14	-17
Pawnee	4564	-1324	4564	-1324	4564	-1323	-1	-1	4564	-1312	-12	-12
Cherokee	4644	-1404	4640	-1400	4639	-1398	-6	-2	4639	-1397	-17	-13
Mississippian	nr	nr			nr	nr			4859	-1607		
Total Depth	4750	-1510	4750	-1510	4776	-1535	25	25	4935	-1683	173	173

Drill Stem Test #1

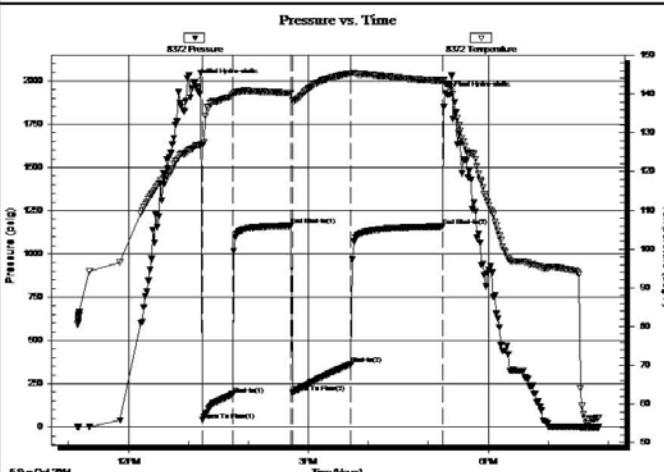
	DRILL STEM TEST REPORT	
	Murfin Drig. Co., LLC	5/2S/36W
	250 N. Water, STE 300 Wichita, KS 67202	Kacirek #3-5 Job Ticket: 60729 DST#: 1 Test Start: 2014.10.05 @ 11:09:00

GENERAL INFORMATION:

Formation: **Oread**
 Deviated: No Whipstock ft (KB)
 Time Tool Opened: 13:14:00
 Time Test Ended: 19:50:30
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Brandon Quintana
 Unit No: 48
 Interval: **4034.00 ft (KB) To 4092.00 ft (KB) (TVD)**
 Total Depth: 4092.00 ft (KB) (TVD)
 Reference Elevations: 3240.00 ft (KB)
 Hole Diameter: 7.88 inches-Hole Condition: Fair
 KB to GR/CF: 3229.00 ft (CF)
 11.00 ft

Serial #: 8372 Outside
 Press@RunDepth: 363.59 psig @ 4035.00 ft (KB)
 Capacity: 8000.00 psig
 Start Date: 2014.10.05 End Date: 2014.10.05 Last Calib.: 2014.10.05
 Start Time: 11:09:01 End Time: 19:50:30 Time On Btm: 2014.10.05 @ 13:06:30
 Time Off Btm: 2014.10.05 @ 17:20:00

TEST COMMENT: 30 - IF - Opened w / surface blow , B.o.B in 14 min.
 60 - ISI - Return built to 1/2", died back to surface
 60 - FF - Blow built to B.o.B in 15 min.
 90 - FSI - Return built to 3 1/2", died back to 3"




Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1991.85	126.53	Initial Hydro-static
8	40.69	126.84	Open To Flow (1)
38	189.09	139.72	Shut-In(1)
96	1163.32	140.18	End Shut-In(1)
98	196.46	138.32	Open To Flow (2)
156	363.59	145.25	Shut-In(2)
248	1158.14	143.39	End Shut-In(2)
254	1918.89	142.05	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bb)
180.00	MW 90%w, 10% m	0.89
184.00	WOCM 65%w, 30% m, 5% o	2.33
280.00	OCM 80% m, 20% o	3.93

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

122.00	100% FO	1.71

Drill Stem Test #2

	DRILL STEM TEST REPORT	
	Murfin Drig. Co., LLC. 250 N. Water, STE 300 Wichita, KS 67202 ATTN: Keith Reavis	5/2S/36W Kacirek #3-5 Job Ticket: 60730 DST#: 2 Test Start: 2014.10.06 @ 12:58:00

GENERAL INFORMATION:

Formation: **LSG "D"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 14:42:30
 Time Test Ended: 21:04:30

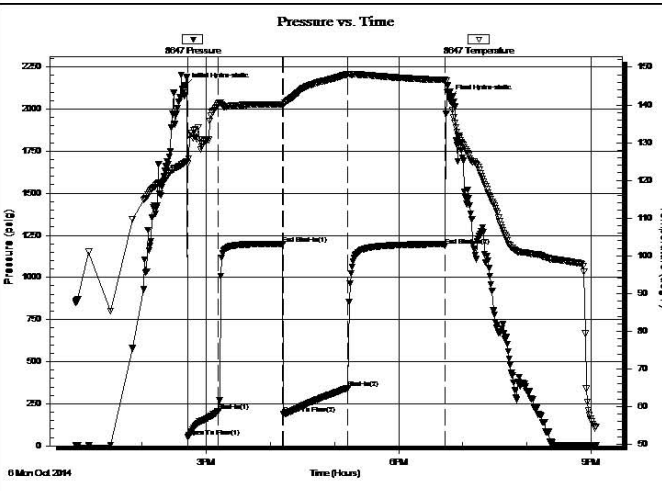
Test Type: Conventional Bottom Hole (Initial)
 Tester: Brandon Quintana
 Unit No: 48

Interval: 4196.00 ft (KB) To 4250.00 ft (KB) (TVD)
 Total Depth: 4250.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Reference Elevations: 3240.00 ft (KB)
 3229.00 ft (CF)
 KB to GR/CF: 11.00 ft


Serial #: 8647 Inside

Press@RunDepth: 343.58 psig @ 4197.00 ft (KB)	Capacity: 8000.00 psig
Start Date: 2014.10.06	Last Calib.: 2014.10.06
Start Time: 12:58:01	Time On Btm: 2014.10.06 @ 14:40:30
End Date: 2014.10.06	Time Off Btm: 2014.10.06 @ 18:47:30
End Time: 21:04:30	

TEST COMMENT: 30 - IF - Opened w / surface blow , B.o.B in 12 min.
 60 - ISI - No Return
 30 - FF - Blow built to B.o.B in 20 min.
 60 - FSI - Return built to 2 1/2"

Pressure vs. Time		PRESSURE SUMMARY																																			
	<table border="1" style="width:100%"> <thead> <tr> <th>Time (Mn.)</th> <th>Pressure (psig)</th> <th>Temp (deg F)</th> <th>Annotation</th> </tr> </thead> <tbody> <tr><td>0</td><td>2137.83</td><td>124.75</td><td>Initial Hydro-static</td></tr> <tr><td>2</td><td>51.59</td><td>124.44</td><td>Open To Flow (1)</td></tr> <tr><td>31</td><td>204.79</td><td>140.24</td><td>Shut-In(1)</td></tr> <tr><td>91</td><td>1199.92</td><td>140.17</td><td>End Shut-In(1)</td></tr> <tr><td>92</td><td>189.83</td><td>140.19</td><td>Open To Flow (2)</td></tr> <tr><td>152</td><td>343.58</td><td>148.11</td><td>Shut-In(2)</td></tr> <tr><td>243</td><td>1188.58</td><td>146.58</td><td>End Shut-In(2)</td></tr> <tr><td>247</td><td>2062.55</td><td>143.43</td><td>Final Hydro-static</td></tr> </tbody> </table>	Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation	0	2137.83	124.75	Initial Hydro-static	2	51.59	124.44	Open To Flow (1)	31	204.79	140.24	Shut-In(1)	91	1199.92	140.17	End Shut-In(1)	92	189.83	140.19	Open To Flow (2)	152	343.58	148.11	Shut-In(2)	243	1188.58	146.58	End Shut-In(2)	247	2062.55	143.43	Final Hydro-static
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Drill Stem Test #3

	DRILL STEM TEST REPORT	
	Murfin Drig. Co., LLC. 250 N. Water, STE 300 Wichita, KS 67202 ATTN: Keith Reavis	5/2S/36W Kacirek #3-5 Job Ticket: 60731 DST#: 3 Test Start: 2014.10.07 @ 08:38:00

GENERAL INFORMATION:

Formation: **LSG "G"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 10:50:30
 Time Test Ended: 17:53:00

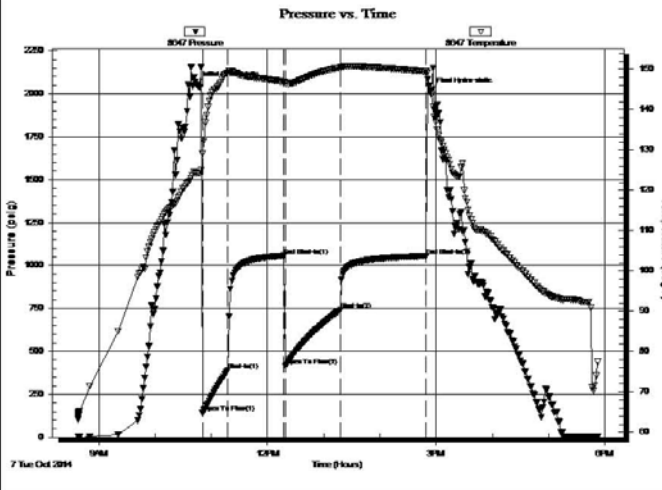
Test Type: Conventional Bottom Hole (Initial)
 Tester: Brandon Quintana
 Unit No: 48

Interval: 4260.00 ft (KB) To 4310.00 ft (KB) (TVD)
 Total Depth: 4310.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Reference Elevations: 3240.00 ft (KB)
 3229.00 ft (CF)
 KB to GR/CF: 11.00 ft


Serial #: 8647 Inside

Press@RunDepth: 739.04 psig @ 4261.00 ft (KB)	Capacity: 8000.00 psig
Start Date: 2014.10.07	Last Calib.: 2014.10.07
Start Time: 08:38:01	Time On Btm: 2014.10.07 @ 10:44:30
End Date: 2014.10.07	Time Off Btm: 2014.10.07 @ 14:53:30
End Time: 17:53:00	

TEST COMMENT: 30 - IF - Opened w / surface blow , built to B.o.B in 3 min.
 60 - ISI - No Return
 30 - FF - Blow built to B.o.B in 6 min., died back to 6 1/2"
 60 - FSI - No Return

Pressure vs. Time		PRESSURE SUMMARY																																			
	<table border="1" style="width:100%"> <thead> <tr> <th>Time (Mn.)</th> <th>Pressure (psig)</th> <th>Temp (deg F)</th> <th>Annotation</th> </tr> </thead> <tbody> <tr><td>0</td><td>2053.30</td><td>124.17</td><td>Initial Hydro-static</td></tr> <tr><td>6</td><td>140.78</td><td>129.13</td><td>Open To Flow (1)</td></tr> <tr><td>33</td><td>389.22</td><td>149.18</td><td>Shut-In(1)</td></tr> <tr><td>93</td><td>1057.42</td><td>146.85</td><td>End Shut-In(1)</td></tr> <tr><td>95</td><td>416.06</td><td>146.66</td><td>Open To Flow (2)</td></tr> <tr><td>153</td><td>739.04</td><td>150.42</td><td>Shut-In(2)</td></tr> <tr><td>245</td><td>1055.76</td><td>149.49</td><td>End Shut-In(2)</td></tr> <tr><td>249</td><td>2018.43</td><td>144.54</td><td>Final Hydro-static</td></tr> </tbody> </table>	Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation	0	2053.30	124.17	Initial Hydro-static	6	140.78	129.13	Open To Flow (1)	33	389.22	149.18	Shut-In(1)	93	1057.42	146.85	End Shut-In(1)	95	416.06	146.66	Open To Flow (2)	153	739.04	150.42	Shut-In(2)	245	1055.76	149.49	End Shut-In(2)	249	2018.43	144.54	Final Hydro-static
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Drill Stem Test #4

	DRILL STEM TEST REPORT	
	Murfin Drig. Co., LLC. 250 N. Water, STE 300 Wichita, KS 67202 ATTN: Keith Reavis	5/2S/36W Kacirek #3-5 Job Ticket: 60732 DST#: 4 Test Start: 2014.10.08 @ 06:39:00

GENERAL INFORMATION:

Formation: **LSG "H&J"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 08:38:00
 Time Test Ended: 15:12:30

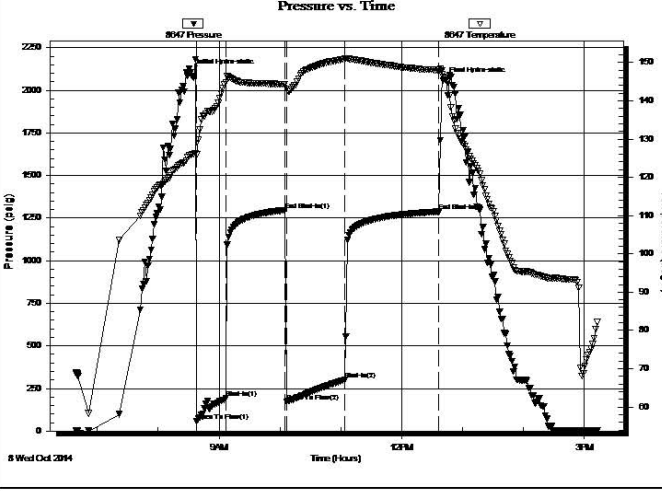
Test Type: Conventional Bottom Hole (Initial)
 Tester: Brandon Quintana
 Unit No: 48

Interval: 4308.00 ft (KB) To 4395.00 ft (KB) (TVD)
 Total Depth: 4395.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Reference Elevations: 3240.00 ft (KB)
 3229.00 ft (CF)
 KB to GR/CF: 11.00 ft












Serial #: 8647 Inside

Press@RunDepth: 299.77 psig @ 4309.00 ft (KB)	Capacity: 8000.00 psig
Start Date: 2014.10.08	Last Calib.: 2014.10.08
Start Time: 06:39:01	Time On Btm: 2014.10.08 @ 08:32:00
End Date: 2014.10.08	Time Off Btm: 2014.10.08 @ 12:41:00
End Time: 15:12:30	

TEST COMMENT: 30 - IF - Opened w / surface blow , built to B.o.B in 13 min.
 60 - ISI - No Return
 60 - FF - Blow built to B.o.B in 17 min.
 90 - FSI - Return built to 5 1/4"

Pressure vs. Time		PRESSURE SUMMARY																																			
	<table border="1" style="width:100%"> <thead> <tr> <th>Time (Mn.)</th> <th>Pressure (psig)</th> <th>Temp (deg F)</th> <th>Annotation</th> </tr> </thead> <tbody> <tr><td>0</td><td>2104.05</td><td>125.86</td><td>Initial Hydro-static</td></tr> <tr><td>6</td><td>57.06</td><td>125.94</td><td>Open To Flow (1)</td></tr> <tr><td>35</td><td>194.57</td><td>144.88</td><td>Shut-In(1)</td></tr> <tr><td>93</td><td>1296.73</td><td>144.28</td><td>End Shut-In(1)</td></tr> <tr><td>95</td><td>172.06</td><td>143.07</td><td>Open To Flow (2)</td></tr> <tr><td>152</td><td>299.77</td><td>150.91</td><td>Shut-In(2)</td></tr> <tr><td>245</td><td>1287.99</td><td>148.03</td><td>End Shut-In(2)</td></tr> <tr><td>249</td><td>2058.50</td><td>146.23</td><td>Final Hydro-static</td></tr> </tbody> </table>	Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation	0	2104.05	125.86	Initial Hydro-static	6	57.06	125.94	Open To Flow (1)	35	194.57	144.88	Shut-In(1)	93	1296.73	144.28	End Shut-In(1)	95	172.06	143.07	Open To Flow (2)	152	299.77	150.91	Shut-In(2)	245	1287.99	148.03	End Shut-In(2)	249	2058.50	146.23	Final Hydro-static
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249	2058.50	146.23	Final Hydro-static																																		
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ROCK TYPES

 Dolprim	 Lmst fw7->	 Carbon Sh	 Ss
 sdy lmst	 shale, grn	 shale, red	 Siltst
 Lmst fw<7	 shale, gry	 Shcol	

ACCESSORIES

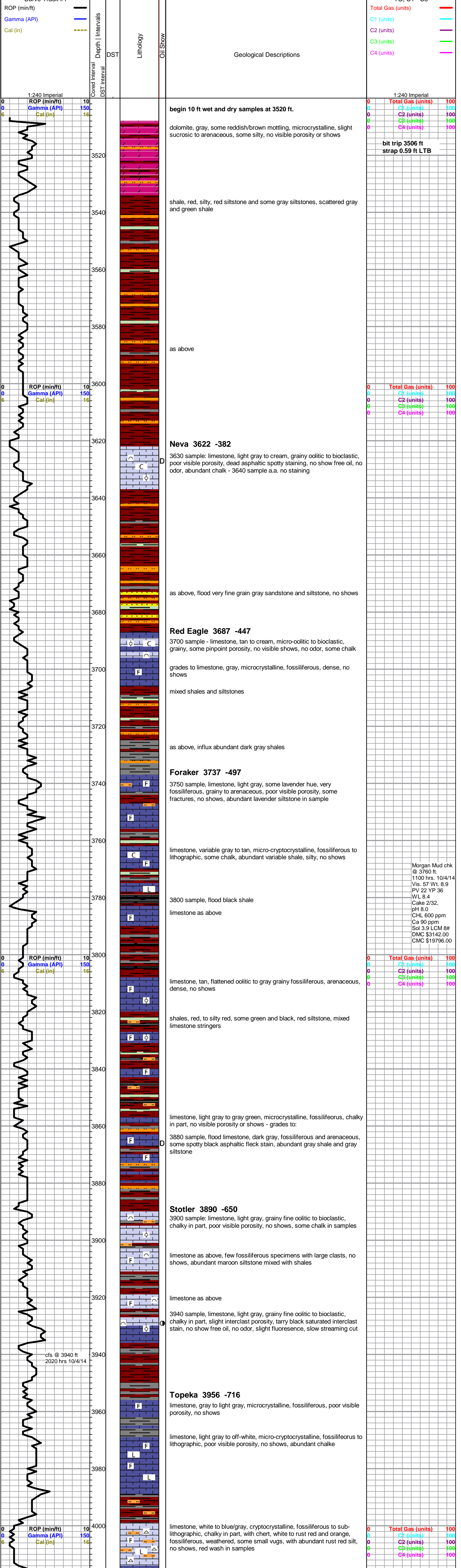
MINERAL	FOSSIL	STRINGER	TEXTURE
----------------	---------------	-----------------	----------------

- ▲ Calcareous
- ▲ Chert, dark
- Silty
- △ Chert White
- Bioclastic or Fragmental
- F Fossils < 20%
- ◇ Oolite
- Limestone
- Sandstone
- Siltstone
- Shale
- Chalky
- CX Cryptocrystalline
- L Lithogr

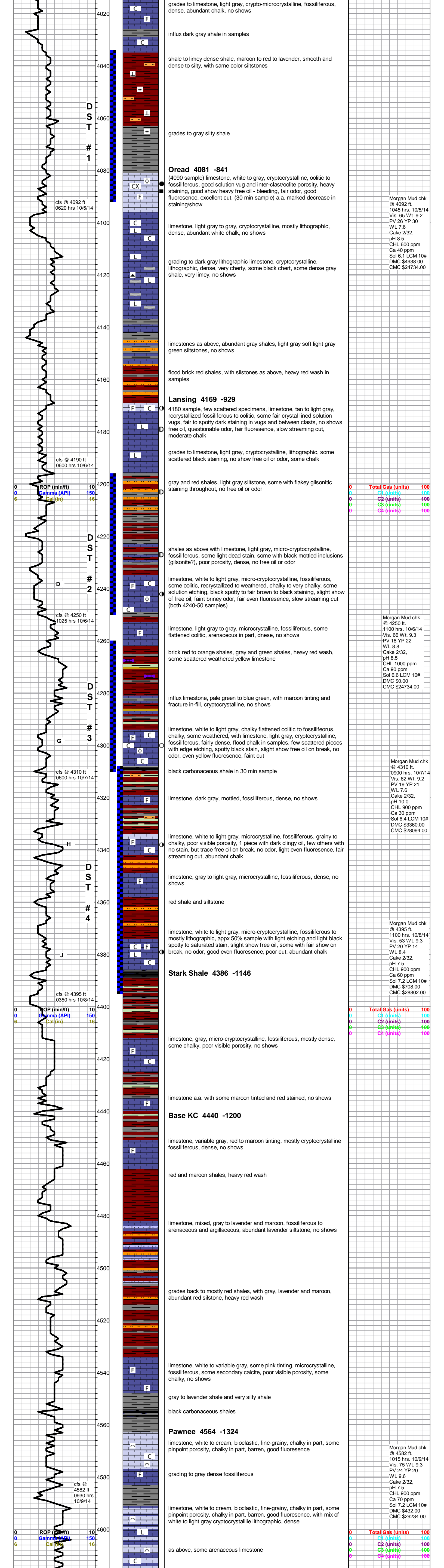
- Oil Show**
- Good Show
 - Fair Show
 - Poor Show
 - Spotted or Trace
 - Questionable Strn
 - D Dead Oil Strn
 - Fluorescence
 - * Gas
- DST**
- DST Int
 - DST alt
 - Core
 - tail pipe

OTHER SYMBOLS

Printed by GEOstrip VC Striplog version 4.0.8.15 (www.grsi.ca)



Morgan Mud chk @ 3760 ft.
 1100 hrs. 10/4/14
 Vis. 57 Wt. 8.9
 PV 22 YP 36
 WL 8.4
 Cake 2/32,
 pH 8.0
 CHL 600 ppm
 Ca 90 ppm
 Sol 3.9 LCM 8#
 DMC \$3142.00
 CMC \$19796.00



grades to limestone, light gray, crypto-microcrystalline, fossiliferous, dense, abundant chalk, no shows

influx dark gray shale in samples

shale to limey dense shale, maroon to red to lavender, smooth and dense to silty, with same color siltstones

grades to gray silty shale

Oread 4081 -841

(4090 sample) limestone, white to gray, cryptocrystalline, oolitic to fossiliferous, good solution vug and inter-clast/oolite porosity, heavy staining, good show heavy free oil - bleeding, fair odor, good fluorescence, excellent cut, (30 min sample) a.a. marked decrease in staining/show

Morgan Mud chk @ 4092 ft.		
1045 hrs. 10/5/14		
Vis. 65 Wt. 9.2		
PV 26 YP 30		
WL 7.6		
Cake 2/32,		
pH 8.5		
CHL 600 ppm		
Ca 40 ppm		
Sol 6.1 LCM 10#		
DMC \$4938.00		
CMC \$24734.00		

limestone, light gray to gray, cryptocrystalline, mostly lithographic, dense, abundant white chalk, no shows

grading to dark gray lithographic limestone, cryptocrystalline, lithographic, dense, very cherty, some black chert, some dense gray shale, very limey, no shows

limestones as above, abundant gray shales, light gray soft light gray green siltstones, no shows

flood brick red shales, with siltstones as above, heavy red wash in samples

Lansing 4169 -929

4180 sample, few scattered specimens, limestone, tan to light gray, recrystallized fossiliferous to oolitic, some fair crystal lined solution vugs, fair to spotty dark staining in vugs and between clasts, no shows free oil, questionable odor, fair fluorescence, slow streaming cut, moderate chalk

grades to limestone, light gray, cryptocrystalline, lithographic, some scattered black staining, no show free oil or odor, some chalk

gray and red shales, light gray siltstone, some with flakey gilsonitic staining throughout, no free oil or odor

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100

shales as above with limestone, light gray, micro-cryptocrystalline, fossiliferous, some light dead stain, some with black mottled inclusions (gilsonite?), poor porosity, dense, no free oil or odor

limestone, white to light gray, micro-cryptocrystalline, fossiliferous, some oolitic, recrystallized to weathered, chalky to very chalky, some solution etching, black spotty to fair brown to black staining, slight show of free oil, faint briny odor, fair even fluorescence, slow streaming cut (both 4240-50 samples)

limestone, light gray to gray, microcrystalline, fossiliferous, some flattened oolitic, arenaceous in part, dense, no shows

brick red to orange shales, gray and green shales, heavy red wash, some scattered weathered yellow limestone

Morgan Mud chk @ 4250 ft.		
1100 hrs. 10/6/14		
Vis. 66 Wt. 9.3		
PV 18 YP 22		
WL 8.8		
Cake 2/32,		
pH 8.5		
CHL 1000 ppm		
Ca 90 ppm		
Sol 6.6 LCM 10#		
DMC \$0.00		
CMC \$24734.00		

influx limestone, pale green to blue green, with maroon tinting and fracture in-fill, cryptocrystalline, no shows

limestone, white to light gray, chalky flattened oolitic to fossiliferous, chalky, some weathered, with limestone, light gray, cryptocrystalline, fossiliferous, fairly dense, flood chalk in samples, few scattered pieces with edge etching, spotty black stain, slight show free oil on break, no odor, even yellow fluorescence, faint cut

black carbonaceous shale in 30 min sample

limestone, dark gray, mottled, fossiliferous, dense, no shows

Morgan Mud chk @ 4310 ft.		
0900 hrs. 10/7/14		
Vis. 62 Wt. 9.2		
PV 19 YP 21		
WL 7.6		
Cake 2/32,		
pH 10.0		
CHL 900 ppm		
Ca 30 ppm		
Sol 6.4 LCM 10#		
DMC \$3360.00		
CMC \$28094.00		

limestone, white to light gray, microcrystalline, fossiliferous, grainy to chalky, poor visible porosity, 1 piece with dark clingy oil, few others with no stain, but trace free oil on break, no odor, light even fluorescence, fair streaming cut, abundant chalk

limestone, gray to light gray, microcrystalline, fossiliferous, dense, no shows

red shale and siltstone

limestone, white to light gray, micro-cryptocrystalline, fossiliferous to mostly lithographic, appx 50% sample with light etching and light black spotty to saturated stain, slight show free oil, some with fair show on break, no odor, good even fluorescence, poor cut, abundant chalk

Stark Shale 4386 -1146

limestone, gray, micro-cryptocrystalline, fossiliferous, mostly dense, some chalky, poor visible porosity, no shows

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100

limestone a.a. with some maroon tinted and red stained, no shows

Base KC 4440 -1200

limestone, variable gray, red to maroon tinting, mostly cryptocrystalline fossiliferous, dense, no shows

red and maroon shales, heavy red wash

limestone, mixed, gray to lavender and maroon, fossiliferous to arenaceous and argillaceous, abundant lavender siltstone, no shows

grades back to mostly red shales, with gray, lavender and maroon, abundant red siltstone, heavy red wash

limestone, white to variable gray, some pink tinting, microcrystalline, fossiliferous, some secondary calcite, poor visible porosity, some chalky, no shows

gray to lavender shale and very silty shale

black carbonaceous shales

Pawnee 4564 -1324

limestone, white to cream, bioclastic, fine-grainy, chalky in part, some pinpoint porosity, chalky in part, barren, good fluorescence

Morgan Mud chk @ 4582 ft.		
1015 hrs. 10/9/14		
Vis. 75 Wt. 9.3		
PV 24 YP 20		
WL 9.6		
Cake 2/32,		
pH 7.5		
CHL 900 ppm		
Ca 70 ppm		
Sol 7.2 LCM 10#		
DMC \$432.00		
CMC \$29234.00		

grading to gray dense fossiliferous

limestone, white to cream, bioclastic, fine-grainy, chalky in part, some pinpoint porosity, chalky in part, barren, good fluorescence, with mix of white to light gray cryptocrystalline lithographic, dense

as above, some arenaceous limestone

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100

ALLIED OIL & GAS SERVICES, LLC 064113

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

SERVICE POINT:

Dakota, KS

DATE <u>10-1-14</u>	SEC. <u>5</u>	TWP. <u>2</u>	RANGE <u>36</u>	CALLED OUT	ON LOCATION <u>6:00 pm</u>	JOB START <u>7:00 pm</u>	JOB FINISH <u>7:30 pm</u>
LEASE <u>Kacimk</u>	WELL# <u>3-5</u>	LOCATION <u>McDonald & 1/2 N, W, rd,</u>			COUNTY <u>Rawlins</u>	STATE <u>KS</u>	
OLD OR <u>NEW</u> (Circle one)				<u>W, N info</u>			

CONTRACTOR Marfin 2
 TYPE OF JOB Surface
 HOLE SIZE 12 1/4 T.D. 263'
 CASING SIZE 8 3/8 DEPTH 263'
 TUBING SIZE DEPTH
 DRILL PIPE DEPTH
 TOOL DEPTH
 PRES. MAX MINIMUM
 MEAS. LINE SHOE JOINT
 CEMENT LEFT IN CSG. 151
 PERFS.
 DISPLACEMENT 15.87 bbl

OWNER Same
 CEMENT
 AMOUNT ORDERED 220 sks Com 3% CC

EQUIPMENT
 PUMP TRUCK CEMENTER Lalane E. White
 # 422 HELPER Wayne McElhugh
 BULK TRUCK
 # 818/287 DRIVER Marco Covarrubias (TAS)
 BULK TRUCK
 # DRIVER

COMMON 220 sks @ 17.70 3938.00
 POZMIX @
 GEL @
 CHLORIDE 620# @ 1.10 682.00
 ASC @
 @
 @
 @
 @
 @
 @
 HANDLING 231 ft³ @ 2.48 572.88
 MILEAGE 10.65 km X 80 X 2.75 2343.00

REMARKS:
Mix 220 sks cement
Displace with water
Cement did circulate
15 sks to pit

TOTAL _____

Thank you
 CHARGE TO: Marfin
 STREET _____
 CITY _____ STATE _____ ZIP _____

SERVICE
 DEPTH OF JOB 263'
 PUMP TRUCK CHARGE 1512.25
 EXTRA FOOTAGE @
 MILEAGE MIFU 80 @ 2.70 216.00
 MANIFOLD Savage @ 275.00
MIFU 80 @ 4.90 352.00
 @
(1984.89 / 35%)
 TOTAL 5671.13

To: Allied Oil & Gas Services, LLC.
 You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PLUG & FLOAT EQUIPMENT
 @
 @
 @
 @
 @
 TOTAL _____

PRINTED NAME Arno Cabero
 SIGNATURE Arno Cabero

SALES TAX (If Any) _____
 TOTAL CHARGES 10,291.13
 DISCOUNT 3,601.89 (35%) IF PAID IN 30 DAYS
6,689.23 Net



P. O. Box 466
 Ness City, KS 67560
 Off: 785-798-2300



Invoice

DATE	INVOICE #
10/10/2014	26575

BILL TO
Murfin Drilling Co Inc PO Box 661 Colby, KS 67701-0661
USED FOR <u>IC 103</u>
APPROVED <u>FH R</u>

- Acidizing
- Cement
- Tool Rental

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#3-5	Kacirek	Rawlins	Company Tools	Oil	Development	5-1/2" LongString	Wayne
PRICE REF.	DESCRIPTION				QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way				150	Miles	6.00	900.00
579D	Pump Charge - Top To Bottom LongString - 4743 Feet				1	Job	2,000.00	2,000.00
221	Liquid KCL (Clayfix)				4	Gallon(s)	25.00	100.00T
281	Mud Flush				500	Gallon(s)	1.25	625.00T
403-5	5 1/2" Cement Basket				3	Each	300.00	900.00T
406-5	5 1/2" Latch Down Plug & Baffle				1	Each	275.00	275.00T
407-5	5 1/2" Insert Float Shoe With Auto Fill				1	Each	375.00	375.00T
409-5	5 1/2" Turbolizer				15	Each	90.00	1,350.00T
413-5	5 1/2" Roto Wall Scratcher				20	Each	40.00	800.00T
419-5	5 1/2" Rotating Head Rental				1	Each	200.00	200.00T
325	Standard Cement				200	Sacks	14.50	2,900.00T
330	Swift Multi-Density Standard (MIDCON II)				300	Sacks	18.50	5,550.00T
276	Flocele				125	Lb(s)	2.50	312.50T
283	Salt				1,000	Lb(s)	0.20	200.00T
284	Calseal				9	Sack(s)	35.00	315.00T
285	CFR-1				150	Lb(s)	4.50	675.00T
290	D-Air				10	Gallon(s)	42.00	420.00T
581D	Service Charge Cement				500	Sacks	2.00	1,000.00
583D	Drayage				3,811.88	Ton Miles	1.00	3,811.88
	Subtotal							22,709.38
	Sales Tax Rawlins County						7.90%	1,184.80
We Appreciate Your Business!						Total		\$23,894.18



Services, Inc.

CHARGE TO: MURRELL DRLE. Co. Inc.
ADDRESS
CITY, STATE, ZIP CODE

TICKET 26575

PAGE 1 OF 2

SERVICE LOCATIONS

1. Ness City, KS WELL PROJECT NO. 3-S LEASE RACERK COUNTY/PARISH RAWLINS STATE KS CITY LOANZON DATE 10-10-14 OWNER SAME

2. TICKET TYPE CONTRACTOR CONTRACTOR Co Tools #2 RIG NAME NO. Development SHIPPED VIA OT DELIVERED TO WELL PERMIT NO. ORDER NO.

3. WELL TYPE Oil WELL CATEGORY Development JOB PURPOSE 5 1/2" LONGSTRINGS WELL LOCATION MURRELL, KS - 8 1/2" W/DR

4. REFERRAL LOCATION INVOICE INSTRUCTIONS

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
		LOC	ACCT	DR							
575		1			MILEAGE #115	150	ME			6.00	900.00
579		1			PUMP GAUSEE - Top to Bottom	1	NOB	47	43	FT	2000.00
221		1			BEARD KCL	4	GM			25.00	100.00
281		1			MUDFLUSH	500	GM			1.25	625.00
403		1			CEMENT BASKETS	3	EA		5 1/2"	300.00	900.00
406		1			LATCH DOWN PUG - BATTLE	1	EA			275.00	275.00
407		1			TURBO FLOOR SHOE w/ AUTO FILL	1	EA			375.00	375.00
409		1			TURBOKIZERS	15	EA			90.00	1350.00
413		1			ROTO W/BL SEPARATORS	20	EA			40.00	800.00
419		1			ROTARODS HEAD RENTAL	1	TOB			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 10-10-14 TIME SIGNED 1:00 A.M. P.M.

SIGNED BY Wade Watson

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

SURVEY

OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?	AGREE	UN-DECIDED	DIS-AGREE
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?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	

PAGE TOTAL 41 TAX 5.66 TOTAL 23,894.18

SWIFT OPERATOR Wade Watson APPROVAL

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

Thank You!

JOB LOG

SWIFT Services, Inc.

DATE 10-10-14 PAGE NO. 1

CUSTOMER MURPHY DRIG. Co. Inc. WELL NO. 3-5 LEASE KACIREK JOB TYPE 5 1/2" LONGSTRING TICKET NO. 26575

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (BE) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	1700							ON LOCATION
	1800							START 5 1/2" CASING IN WELL
								TD - 4750' SET = 4743
								TP - 4743' 5 1/2" 15.5
								ST - 22'
								CENTRALIZERS - 1, 2, 4, 5, 6, 7, 8, 11, 13, 14, 15, 17, 18, 37, 62
								CMT BSKTS - 19, 38, 63
	2010							DROP BALL - CIRCULATE ROTATE
	2115	6	12		✓		500	PUMP 500 GAL MUD FLUSH
	2117	6	20		✓		500	PUMP 20 BBL KCL-FLUSH
	2125		7-5					PLUG RH (30 SKS) MH (20 SKS)
	2130	6 1/4	140		✓		400	MIX CEMENT - 250 SKS SMD = 11.2 PPG
		4 1/4	48		✓		150	200 SKS EA2 = 15.4 PPG
	2200							WASH OUT PUMP - LEAKS
	2200							RELEASE LATCH DOWN PLUG
	2203	7	0		✓			DISPLACE PLUG (1 ST TANK KCL-WATER)
		7	110				1100	
	2220	6	112.4				1750	PLUG DOWN - PSE UP LATCH IN PLUG
	2225						OK	RELEASE PSE - HELD
								CIRCULATE 10 SKS CEMENT TO PZT
								WASH TRUCK
	2300							JOB COMPLETE

THANK YOU
WAYNE, DAVE K., ROB, PRESTON

Kacirek Trust #3-5
 Daily Drilling Report
 Page Two

- 10/8/14 Depth 4395'. Cut 85'. DT: None. CT: 17½ hrs. Dev.: 1° @ 4395'. **DST #3 4260-4310 (LKC G)**: 30-60-30-60. IF: opened w/surf blw, built to BOB in 3mins. FF: blw built to BOB in 6mins, died back to 6½". Rec.: 364'GMCO (55%O, 30%G, 15%M), 1498'GO (87%O, 13%G). HP: 2053-2018. FP: 141/389, 416/739. SIP: 1057-1056. BHT: 149°. **LKC H**: lst, microxln, foss, grainy-chalky, tr FO on break, no odr. **LKC J**: lst, micro-cryptoxln, foss, mostly lithographic, lt blk spty-sat stn, SSFO, no odor. **DST #4 4308-4395' (LKC H-J)**: 30-60-60-90. IF: opened w/surf blw, built to BOB in 13mins. FF: blw built to BOB in 17mins. FSI: return built to 5¼". Rec.: 278'GIP, 52'GO, 226'GMCO (60%O, 30%M, 10%G), 364'WOCM (60%W, 25%M, 15%G). HP: 2104-2059. FP: 57/195, 172/300. SIP: 1297-1288. BHT: 148°
- 10/9/14 Depth 4550'. Cut 155'. DT: None. CT: 11½ hrs. Dev.: None.
- 10/10/14 RTD 4750'. Cut 200'. DT: None. CT: 10hrs. Dev.: 1° @ 4750'. HC @ 11:30PM 10/9. Pioneer started logging @ 5:30AM. LTD: 4750'.
- 10/11/14 RTD: 4750'. CT: 19½ hrs. Pioneer finished logging @ 10:00AM 10/10. Ran 111jts of 5½" prod csg, set @ 4743'. Swift cmt w/450sxs (250SMD, 200EA-2). PD @ 10:30PM 10/10. 30sxs RH, 20sxs MH. Circ 10sxs. RR @ 2:30AM 10/11. FINAL REPORT

		MDCI Kacirek Trust #3-5 1320' FNL 1320'FWL Sec. 5-2S-36W 3240' KB					MDCI Kacirek Trust #1-5 2170' FNL 330'FWL Sec. 5-2S-36W 3252' KB		
Formation	Sample top	Datum	Ref	Log tops	Datum	Ref	Log tops	Datum	
Anhydrite	3150	+88	-16	3139	+101	-3	3148	+104	
B/Anhydrite	3190	+48	-25	3174	+66	-7	3179	+73	
Neva	3622	-382	-2	3624	-384	-4	3628	-380	
Stotler	3890	-650	-10	3888	-648	-8	3892	-640	
Topeka	3956	-716	-11	3953	-713	-8	3957	-705	
Oread	4081	-841	-8	4080	-840	-7	4085	-833	
Lansing	4169	-929	-11	4170	-930	-12	4170	-918	
Stark	4386	-1146	-10	4388	-1148	-12	4388	-1136	
BKC	4440	-1200	-14	4439	-1199	-13	4438	-1186	
Pawnee	4564	-1324	-12	4564	-1324	-12	4564	-1312	
Cherokee	4644	-1404	-17	4640	-1400	-13	4639	-1387	
Mississippi				NR			4859	-1607	
RTD	4750						4945		
LTD				4750			4935		