

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1251347
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: _____

1251347

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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
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:				

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: 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: <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. <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	Schmidt-Vap 4-26
Doc ID	1251347

All Electric Logs Run

DIL
DUCP
MEL
BHCS

Form	ACO1 - Well Completion
Operator	Murfin Drilling Co., Inc.
Well Name	Schmidt-Vap 4-26
Doc ID	1251347

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
4	4023-4027 LKC F	500g 15% MCA, 1250g 15% NEFE	
4	4034-4039 LKC G	500g 15% MCA, 1250g 15% NEFE	
4	4071-4075 LKC H	500g 15% MCA, 1000g 15% SGA	
4	4109-4112 LKC J	250g 15% MCA, 500g 15% MCA, 1000g 15% SGA	
4	4282-4287 Pawnee	300g 15% MCA	
4	4290-4294 Lwr Pawnee	300g 15% MCA	



DRILL STEM TEST REPORT

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

250 N. Water, Ste 300
Wichita, KS 67202

ATTN: Paul Gunzelman

Schmidt-Vap #4-26

26-4s-31w Rawlins,KS

Start Date: 2015.04.04 @ 06:09:00

End Date: 2015.04.04 @ 15:26:00

Job Ticket #: 62264 DST #: 1

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

Printed: 2015.04.13 @ 10:57:18

Murfin Drlg. Co., Inc.

26-4s-31w Rawlins,KS

Schmidt-Vap #4-26

DST # 1

Toronto - LKC "B"

2015.04.04



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drlg. Co., Inc.

26-4s-31w Rawlins,KS

250 N. Water, Ste 300
Wichita, KS 67202

Schmidt-Vap #4-26

Job Ticket: 62264

DST#: 1

ATTN: Paul Gunzelman

Test Start: 2015.04.04 @ 06:09:00

GENERAL INFORMATION:

Formation: **Toronto - LKC "B"**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 08:35:00
 Tester: Brandon Quintana
 Time Test Ended: 15:26:00
 Unit No: 57
 Interval: **3902.00 ft (KB) To 3986.00 ft (KB) (TVD)**
 Reference Elevations: 2925.00 ft (KB)
 Total Depth: 3986.00 ft (KB) (TVD)
 2920.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Fair
 KB to GR/CF: 5.00 ft

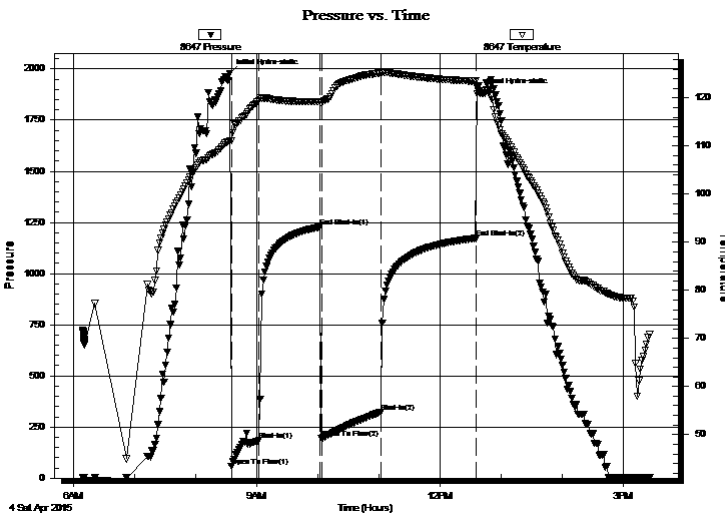
Serial #: 8647

Inside

Press@RunDepth: 323.13 psig @ 3903.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.04.04 End Date: 2015.04.04 Last Calib.: 2015.04.04
 Start Time: 06:09:01 End Time: 15:26:00 Time On Btm: 2015.04.04 @ 08:33:30
 Time Off Btm: 2015.04.04 @ 12:39:30

TEST COMMENT: 30 - IF - Opened w/ surface blow , built to B.o.B in 14 min.
 60 - ISI - Return built to 1/4"
 60 - FF - Blow built to B.o.B in 15 min.
 90 - FSI - Return built to 1 1/4"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1978.58	111.06	Initial Hydro-static
2	57.81	111.05	Open To Flow (1)
29	185.22	119.51	Shut-In(1)
89	1227.64	119.21	End Shut-In(1)
90	193.45	119.06	Open To Flow (2)
149	323.13	125.20	Shut-In(2)
242	1172.31	123.48	End Shut-In(2)
246	1881.97	121.46	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
437.00	MW 80%2, 20%m	3.86
189.00	WOCM 50%m, 40%w , 10%o	2.65
20.00	GO 90%o, 10%g	0.28
0.00	106' 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., Inc.

26-4s-31w Rawlins,KS

250 N. Water, Ste 300
Wichita, KS 67202

Schmidt-Vap #4-26

Job Ticket: 62264

DST#: 1

ATTN: Paul Gunzelman

Test Start: 2015.04.04 @ 06:09:00

Tool Information

Drill Pipe:	Length: 3645.00 ft	Diameter: 3.80 inches	Volume: 51.13 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 248.82 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.82 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3902.00 ft			Final 61000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	84.00 ft			
Tool Length:	112.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3879.00	
Hydraulic tool	5.00			3884.00	
Jars	5.00			3889.00	
Safety Joint	3.00			3892.00	
Packer	5.00			3897.00	28.00 Bottom Of Top Packer
Packer	5.00			3902.00	
Stubb	1.00			3903.00	
Recorder	0.00	8647	Inside	3903.00	
Recorder	0.00	8372	Outside	3903.00	
Perforations	15.00			3918.00	
Change Over Sub	1.00			3919.00	
Drill Pipe	63.00			3982.00	
Change Over Sub	1.00			3983.00	
Bullnose	3.00			3986.00	84.00 Bottom Packers & Anchor

Total Tool Length: 112.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drlg. Co., Inc.

26-4s-31w Rawlins,KS

250 N. Water, Ste 300
Wichita, KS 67202

Schmidt-Vap #4-26

Job Ticket: 62264

DST#: 1

ATTN: Paul Gunzelman

Test Start: 2015.04.04 @ 06:09:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

30 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

70000 ppm

Viscosity: 82.00 sec/qt

Cushion Volume:

bbf

Water Loss: 7.96 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1600.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
437.00	MW 80%2, 20%m	3.863
189.00	WOCM 50%m, 40%w , 10%o	2.651
20.00	GO 90%o, 10%g	0.281
0.00	106' GIP	0.000

Total Length: 646.00 ft

Total Volume: 6.795 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

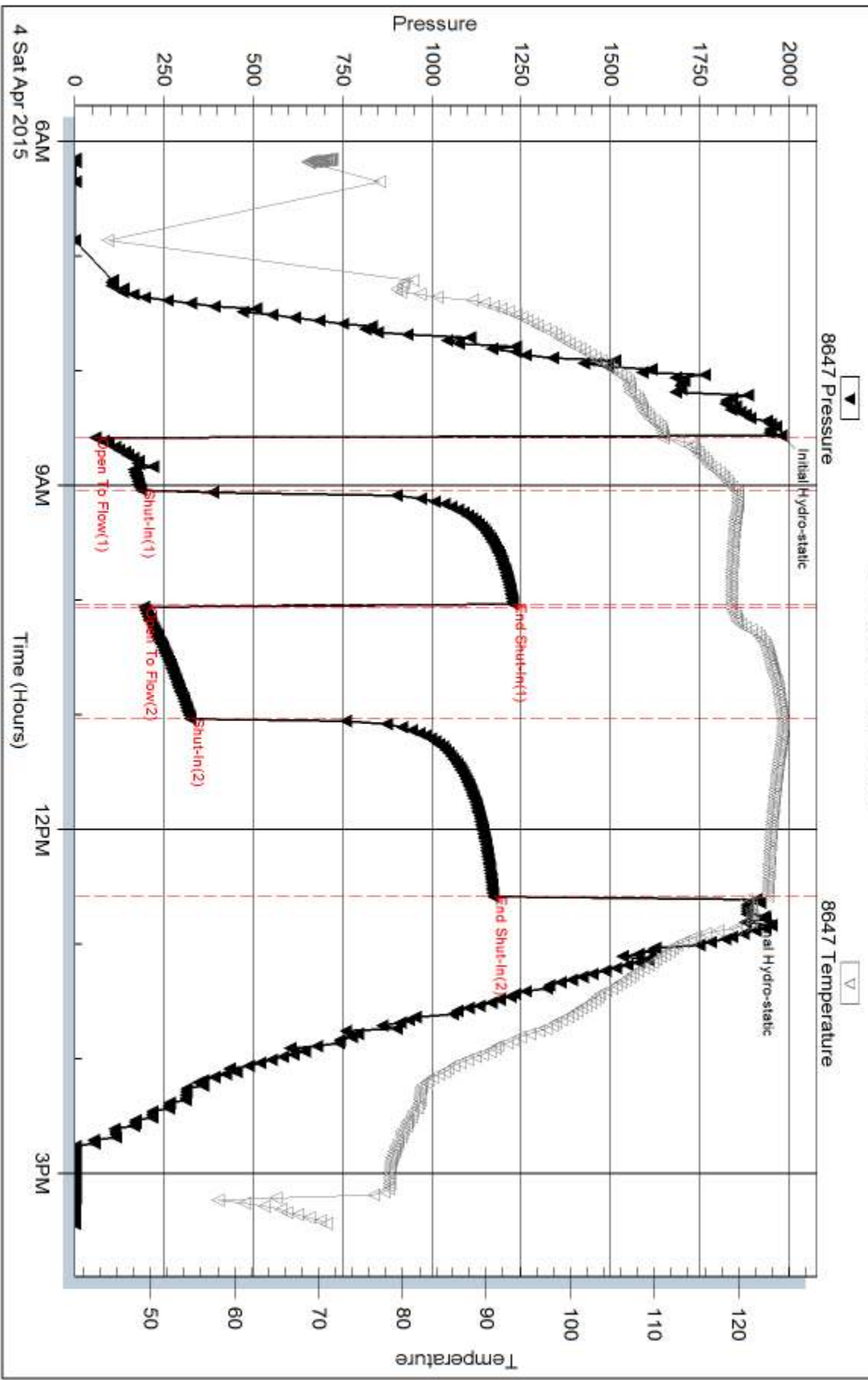
Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity 30 @ 60

RW .128 @ 63F

Pressure vs. Time

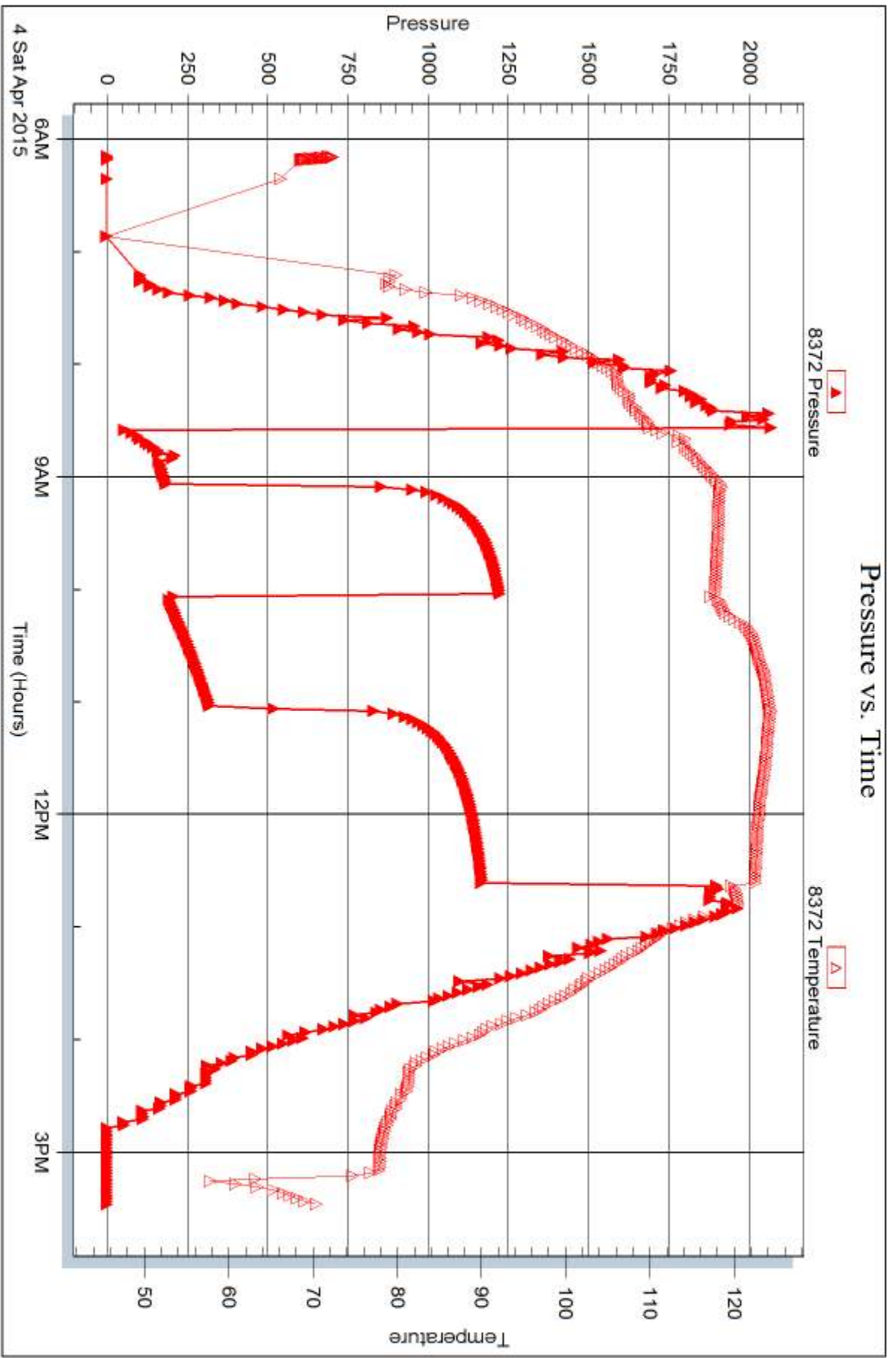


Serial #: 8372

Outside Murfin Dtg. Co., Inc.

Schmidt-Vap #4-26

DST Test Number: 1





DRILL STEM TEST REPORT

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

250 N. Water, Ste 300
Wichita, KS 67202

ATTN: Paul Gunzelman

Schmidt-Vap #4-26

26-4s-31w Rawlins,KS

Start Date: 2015.04.05 @ 02:41:00

End Date: 2015.04.05 @ 10:51:30

Job Ticket #: 62265 DST #: 2

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

Printed: 2015.04.13 @ 10:56:53

Murfin Drlg. Co., Inc. 26-4s-31w Rawlins,KS Schmidt-Vap #4-26 DST # 2 LKC "E-G" 2015.04.05



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drlg. Co., Inc.

26-4s-31w Rawlins,KS

250 N. Water, Ste 300
Wichita, KS 67202

Schmidt-Vap #4-26

Job Ticket: 62265

DST#: 2

ATTN: Paul Gunzelman

Test Start: 2015.04.05 @ 02:41:00

GENERAL INFORMATION:

Formation: **LKC "E-G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:34:30

Time Test Ended: 10:51:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Quintana

Unit No: 57

Interval: 4006.00 ft (KB) To 4061.00 ft (KB) (TVD)

Reference Elevations: 2925.00 ft (KB)

Total Depth: 4061.00 ft (KB) (TVD)

2920.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8647

Inside

Press@RunDepth: 151.91 psig @ 4007.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.04.05

End Date:

2015.04.05

Last Calib.:

2015.04.05

Start Time:

02:41:01

End Time:

10:51:30

Time On Btm:

2015.04.05 @ 04:33:30

Time Off Btm:

2015.04.05 @ 08:37:30

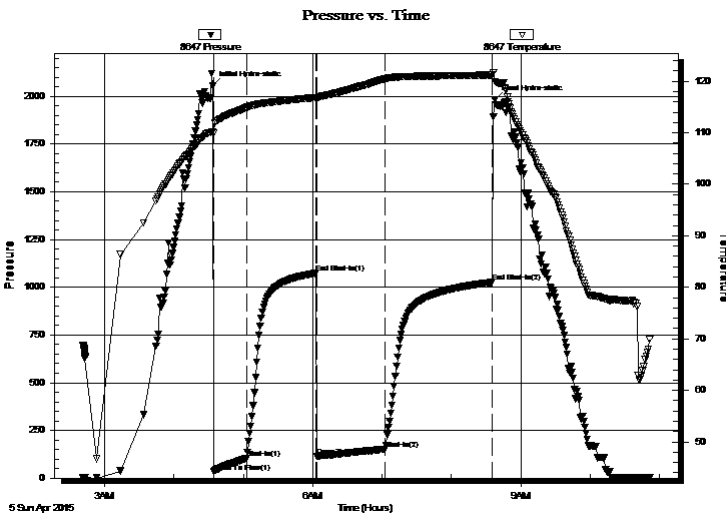
TEST COMMENT: 30 - IF - Opened w/ surface blow , built to B.o.B in 12 min.

60 - ISI - Return built to 1/4"

60 - FF - Blow built to B.o.B in 14 min.

90 - FSI - No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2054.23	110.23	Initial Hydro-static
1	32.36	109.93	Open To Flow (1)
29	102.98	114.86	Shut-In(1)
89	1073.20	116.84	End Shut-In(1)
90	112.53	116.82	Open To Flow (2)
149	151.91	120.46	Shut-In(2)
242	1026.25	121.22	End Shut-In(2)
244	1982.07	119.96	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
229.00	GOCM 40%o, 40%m, 20%g	1.13
83.00	100%oil	0.98

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drlg. Co., Inc.

26-4s-31w Rawlins,KS

250 N. Water, Ste 300
Wichita, KS 67202

Schmidt-Vap #4-26

Job Ticket: 62265

DST#: 2

ATTN: Paul Gunzelman

Test Start: 2015.04.05 @ 02:41:00

Tool Information

Drill Pipe:	Length: 3740.00 ft	Diameter: 3.80 inches	Volume: 52.46 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 248.82 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.82 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	4006.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	55.00 ft			
Tool Length:	83.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3983.00	
Hydraulic tool	5.00			3988.00	
Jars	5.00			3993.00	
Safety Joint	3.00			3996.00	
Packer	5.00			4001.00	28.00 Bottom Of Top Packer
Packer	5.00			4006.00	
Stubb	1.00			4007.00	
Recorder	0.00	8647	Inside	4007.00	
Recorder	0.00	8372	Outside	4007.00	
Perforations	17.00			4024.00	
Change Over Sub	1.00			4025.00	
Drill Pipe	32.00			4057.00	
Change Over Sub	1.00			4058.00	
Bullnose	3.00			4061.00	55.00 Bottom Packers & Anchor

Total Tool Length: 83.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drlg. Co., Inc.

26-4s-31w Rawlins,KS

250 N. Water, Ste 300
Wichita, KS 67202

Schmidt-Vap #4-26

Job Ticket: 62265

DST#: 2

ATTN: Paul Gunzelman

Test Start: 2015.04.05 @ 02:41:00

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: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1400.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
229.00	GOCM 40%o, 40%m, 20%g	1.126
83.00	100%oil	0.984

Total Length: 312.00 ft Total Volume: 2.110 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

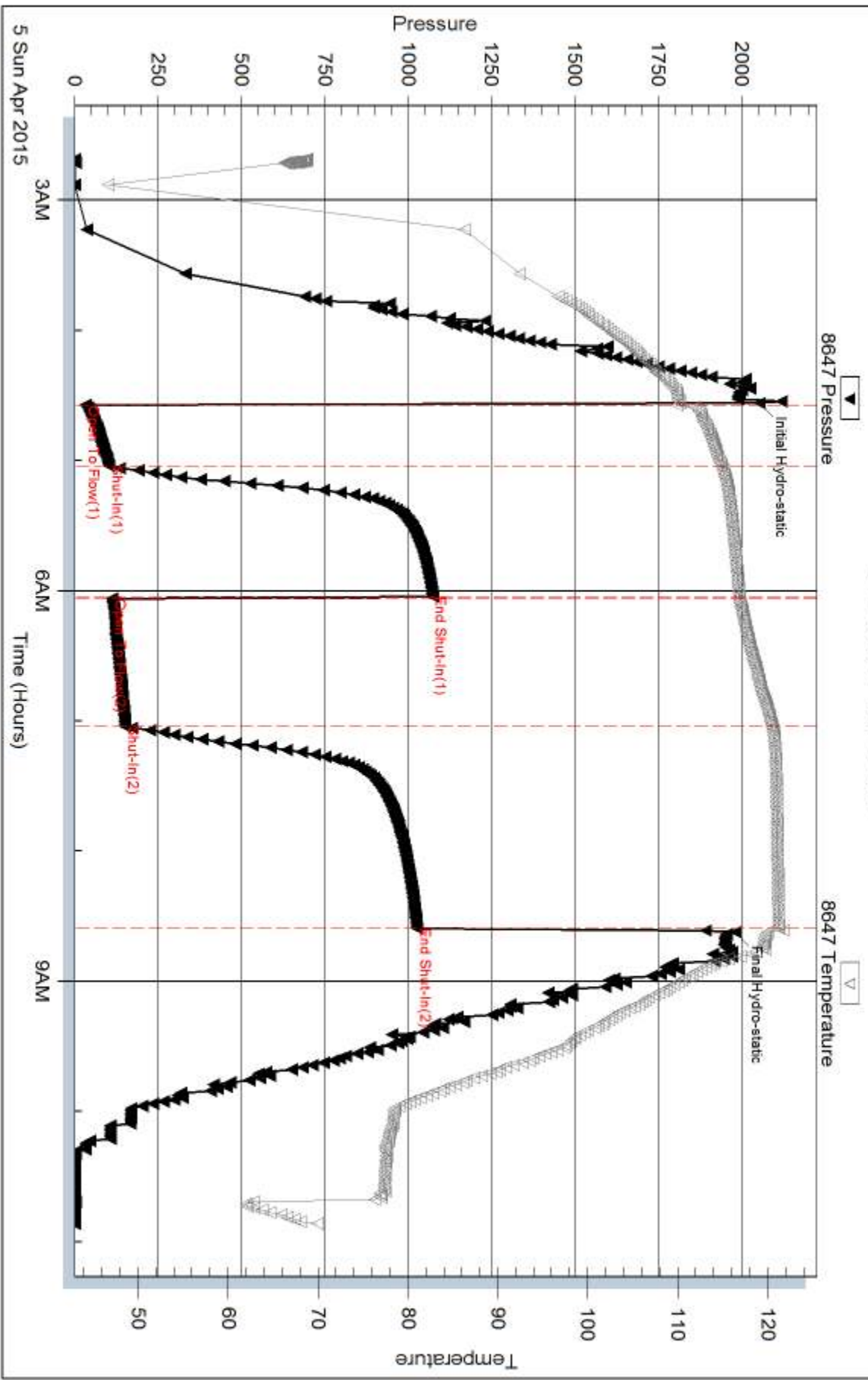
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity 36 @ 62F

Pressure vs. Time

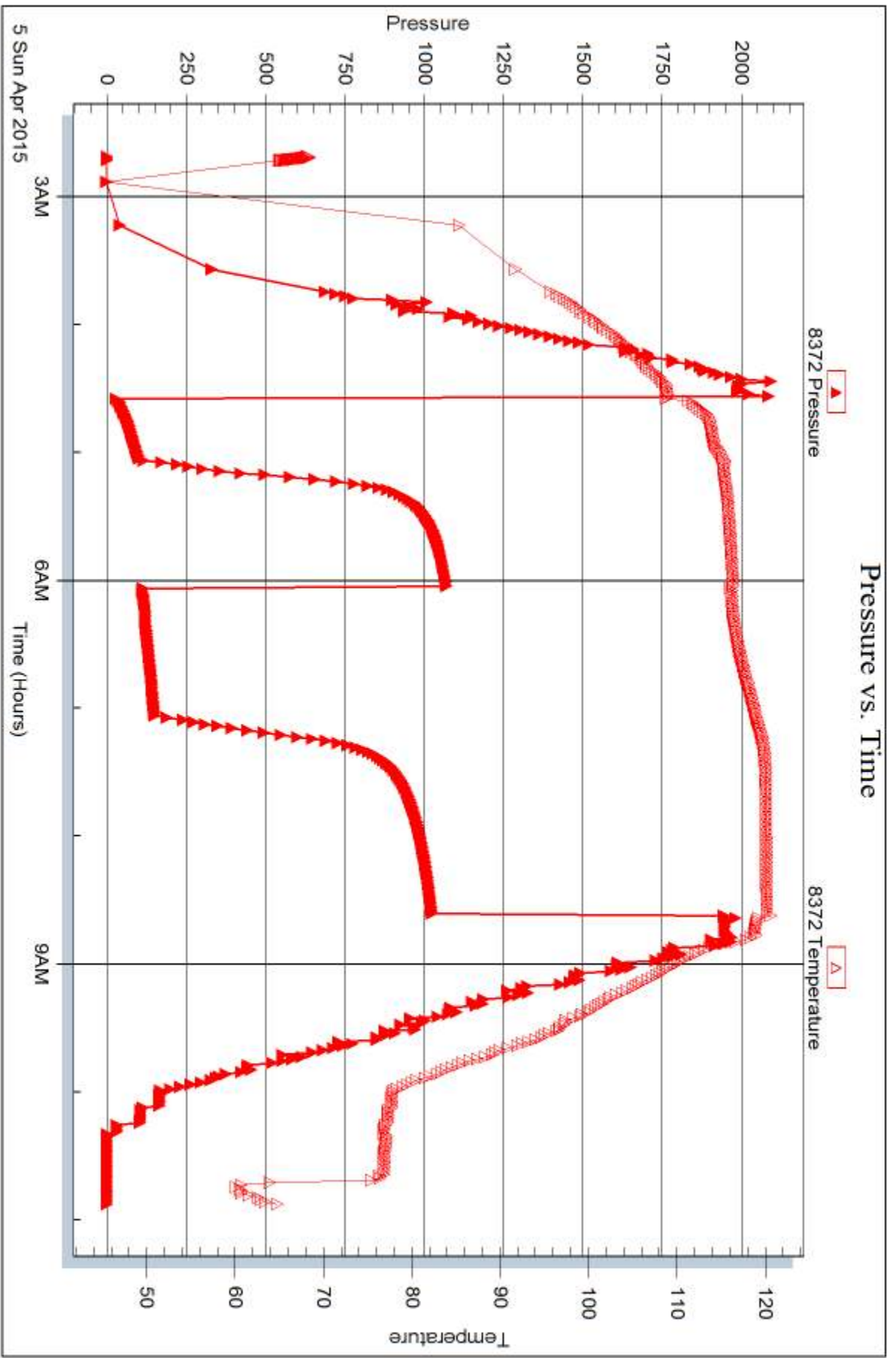


Serial #: 8372

Outside Murfin Dtg. Co., Inc.

Schmidt-Vap #4-26

DST Test Number: 2





DRILL STEM TEST REPORT

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

250 N. Water, Ste 300
Wichita, KS 67202

ATTN: Paul Gunzelman

Schmidt-Vap #4-26

26-4s-31w Rawlins,KS

Start Date: 2015.04.05 @ 19:52:00

End Date: 2015.04.06 @ 04:20:00

Job Ticket #: 62266 DST #: 3

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

Printed: 2015.04.13 @ 10:56:28

Murfin Drlg. Co., Inc.
26-4s-31w Rawlins,KS
Schmidt-Vap #4-26
DST # 3
LKC "H.J."
2015.04.05



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drlg. Co., Inc.

26-4s-31w Rawlins,KS

250 N. Water, Ste 300
Wichita, KS 67202

Schmidt-Vap #4-26

Job Ticket: 62266

DST#: 3

ATTN: Paul Gunzelman

Test Start: 2015.04.05 @ 19:52:00

GENERAL INFORMATION:

Formation: **LKC "H-J"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 21:33:00
 Time Test Ended: 04:20:00
 Interval: **4056.00 ft (KB) To 4117.00 ft (KB) (TVD)**
 Total Depth: 4117.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Brandon Quintana
 Unit No: 57
 Reference Elevations: 2925.00 ft (KB)
 2920.00 ft (CF)
 KB to GR/CF: 5.00 ft

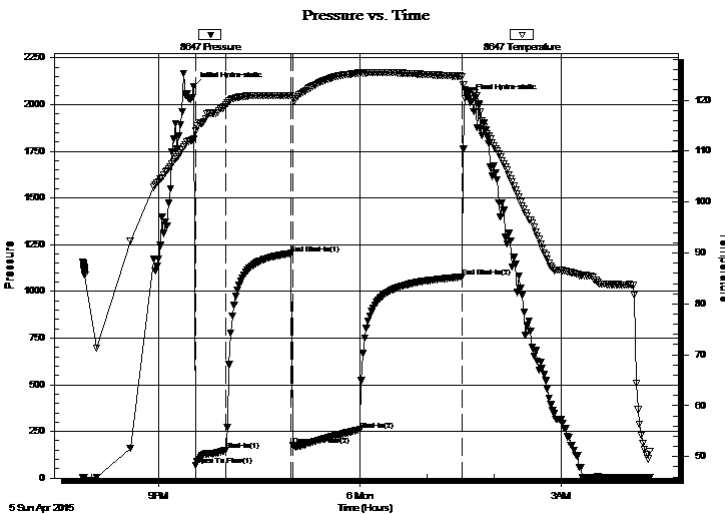
Serial #: 8647

Inside

Press@RunDepth: 258.99 psig @ 4057.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.04.05 End Date: 2015.04.06 Last Calib.: 2015.04.06
 Start Time: 19:52:01 End Time: 04:20:00 Time On Btm: 2015.04.05 @ 21:31:30
 Time Off Btm: 2015.04.06 @ 01:37:30

TEST COMMENT: 30 - IF - Opened w/ surface blow , built to B.o.B in 10 min.
 60 - ISI - Return built to 11" over the 60 min.
 30 - FF - Blow built to B.o.B in 6 min.
 60 - FSI - Return built to 10" over the 90 min.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2098.35	112.35	Initial Hydro-static
2	68.48	113.90	Open To Flow (1)
29	148.89	118.99	Shut-In(1)
87	1203.24	120.85	End Shut-In(1)
89	177.20	120.32	Open To Flow (2)
149	258.99	125.33	Shut-In(2)
240	1077.52	124.67	End Shut-In(2)
246	2031.77	121.71	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
297.00	GOCM 40%g/40%m, 20%o	1.90
356.00	GO 85%o, 15%g	4.99
0.00	1228' 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., Inc.

26-4s-31w Rawlins,KS

250 N. Water, Ste 300
Wichita, KS 67202

Schmidt-Vap #4-26

Job Ticket: 62266

DST#: 3

ATTN: Paul Gunzelman

Test Start: 2015.04.05 @ 19:52:00

Tool Information

Drill Pipe:	Length: 3803.00 ft	Diameter: 3.80 inches	Volume: 53.35 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 248.82 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.82 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	4056.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	61.00 ft			
Tool Length:	89.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4033.00	
Hydraulic tool	5.00			4038.00	
Jars	5.00			4043.00	
Safety Joint	3.00			4046.00	
Packer	5.00			4051.00	28.00 Bottom Of Top Packer
Packer	5.00			4056.00	
Stubb	1.00			4057.00	
Recorder	0.00	8647	Inside	4057.00	
Recorder	0.00	8372	Outside	4057.00	
Perforations	23.00			4080.00	
Change Over Sub	1.00			4081.00	
Drill Pipe	32.00			4113.00	
Change Over Sub	1.00			4114.00	
Bullnose	3.00			4117.00	61.00 Bottom Packers & Anchor

Total Tool Length: 89.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drlg. Co., Inc.

26-4s-31w Rawlins,KS

250 N. Water, Ste 300
Wichita, KS 67202

Schmidt-Vap #4-26

Job Ticket: 62266

DST#: 3

ATTN: Paul Gunzelman

Test Start: 2015.04.05 @ 19:52:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

34 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1900.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
297.00	GOCM 40%g/40%m, 20%o	1.899
356.00	GO 85%o, 15%g	4.994
0.00	1228' GIP	0.000

Total Length: 653.00 ft Total Volume: 6.893 bbl

Num Fluid Samples: 0

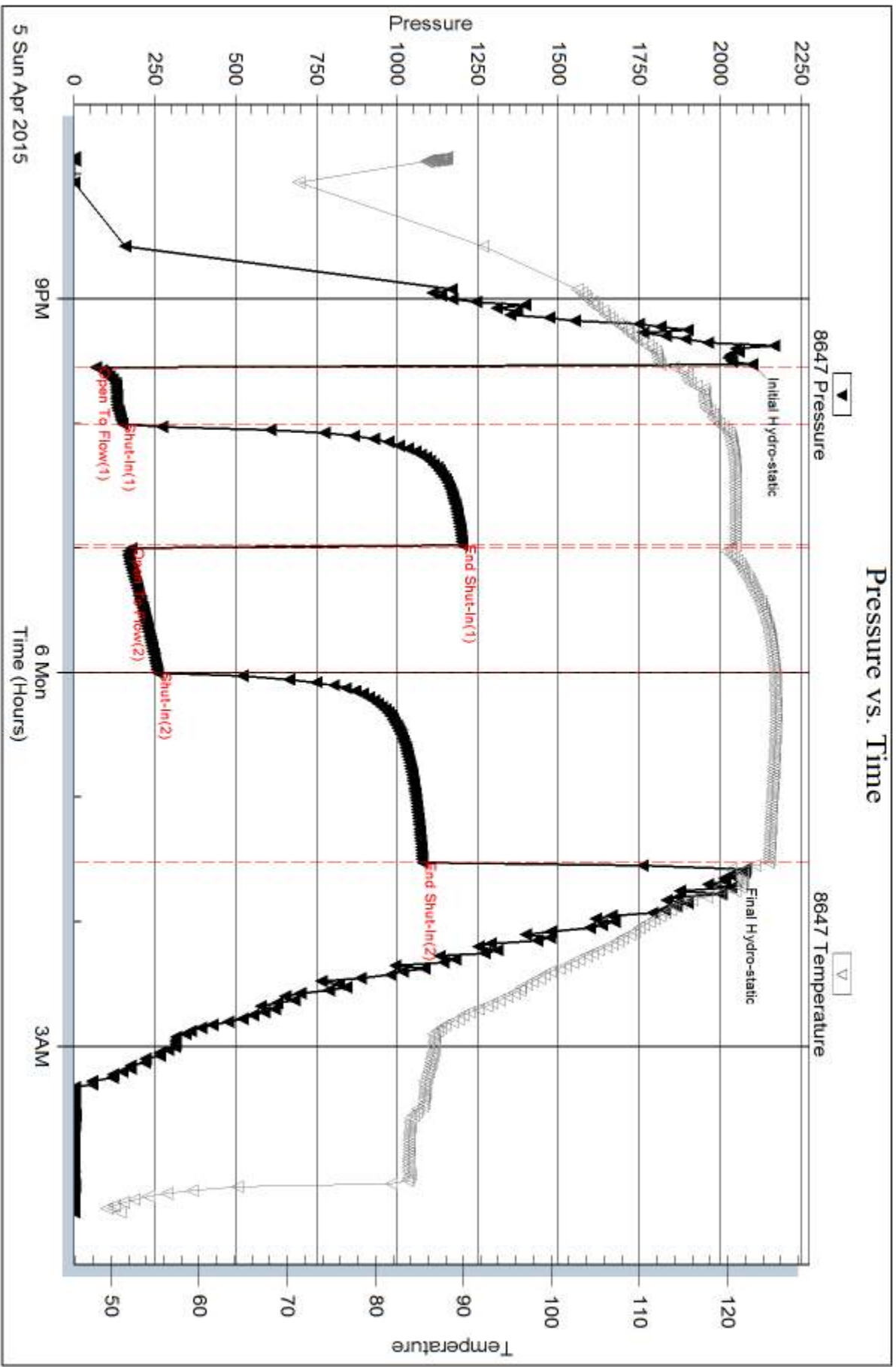
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity 35 @ 50F Corrected = 34

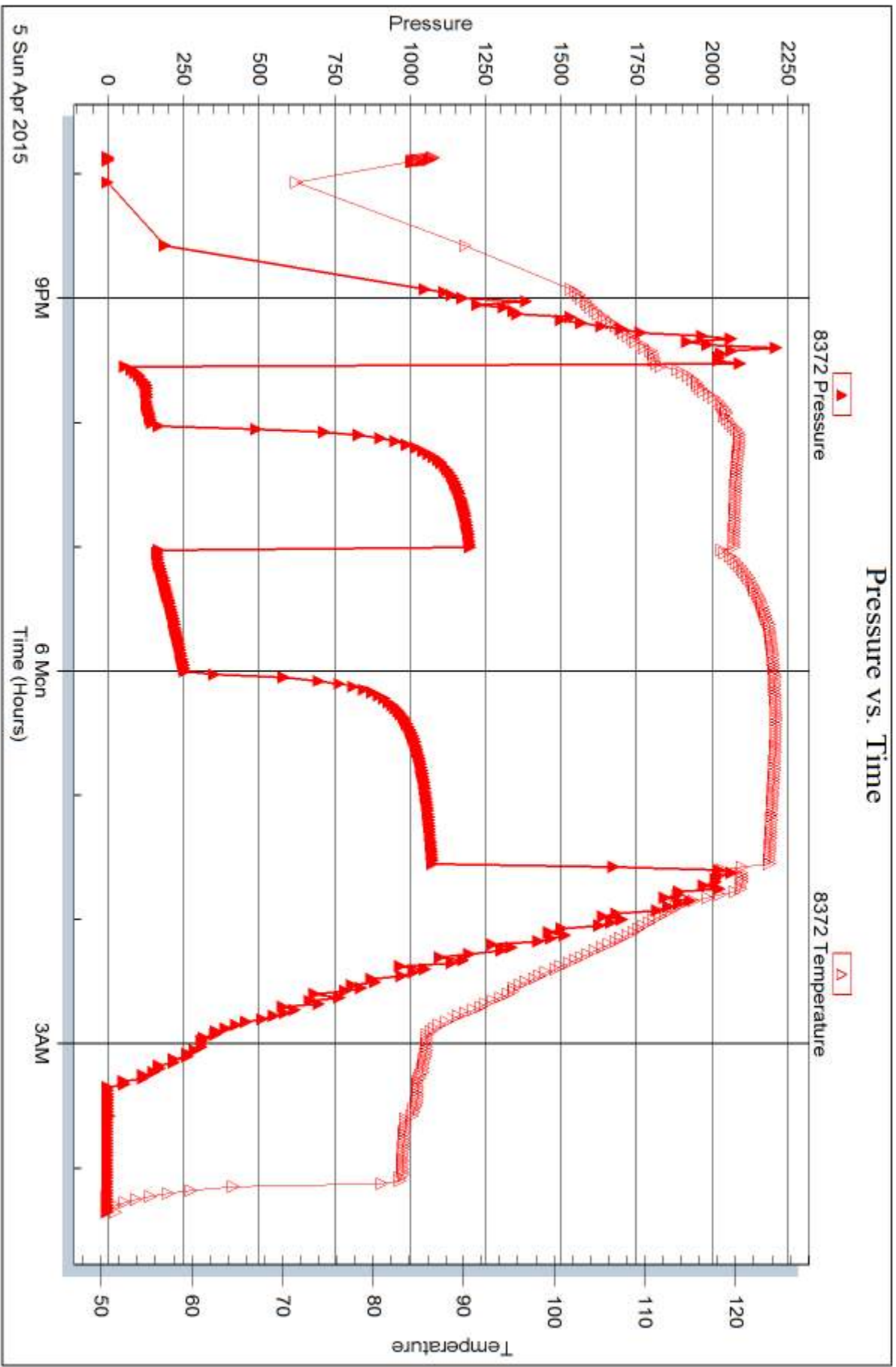


Serial #: 8372

Outside Marfin Dtg. Co., Inc.

Schmidt-Vap #4-26

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 62266

Printed: 2015.04.13 @ 10:56:30



DRILL STEM TEST REPORT

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

250 N. Water, Ste 300
Wichita, KS 67202

ATTN: Paul Gunzelman

Schmidt-Vap #4-26

26-4s-31w Rawlins,KS

Start Date: 2015.04.07 @ 11:19:00

End Date: 2015.04.07 @ 18:25:30

Job Ticket #: 62203 DST #: 4

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

Printed: 2015.04.13 @ 10:55:06

Murfin Drlg. Co., Inc.

26-4s-31w Rawlins,KS

Schmidt-Vap #4-26

DST # 4

Pawnee - Cherokee

2015.04.07



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drlg. Co., Inc.

26-4s-31w Rawlins,KS

250 N. Water, Ste 300
Wichita, KS 67202

Schmidt-Vap #4-26

Job Ticket: 62203

DST#: 4

ATTN: Paul Gunzelman

Test Start: 2015.04.07 @ 11:19:00

GENERAL INFORMATION:

Formation: **Pawnee - Cherokee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:31:30

Time Test Ended: 18:25:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Donovan Baumann

Unit No: 57

Interval: 4248.00 ft (KB) To 4392.00 ft (KB) (TVD)

Reference Elevations: 2925.00 ft (KB)

Total Depth: 4392.00 ft (KB) (TVD)

2920.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8647 Inside

Press@RunDepth: 58.10 psig @ 4249.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.04.07

End Date: 2015.04.07

Last Calib.: 2015.04.07

Start Time: 11:19:01

End Time: 18:25:30

Time On Btm: 2015.04.07 @ 13:31:00

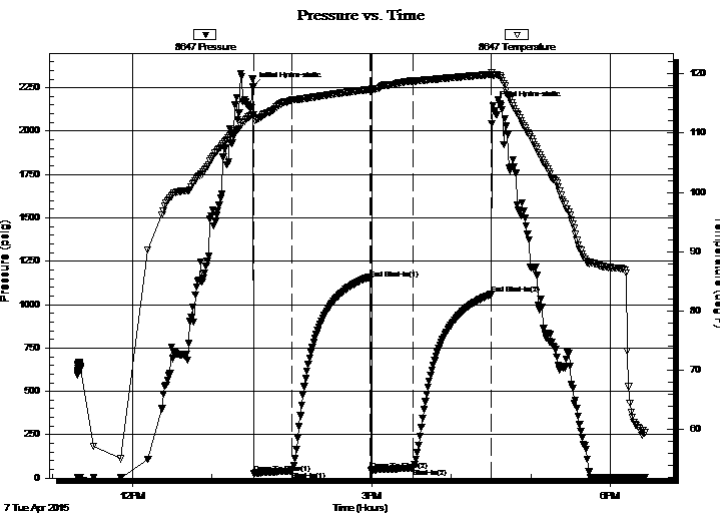
Time Off Btm: 2015.04.07 @ 16:31:30

TEST COMMENT: 30 - IF - Weak surface blow built to 1 3/4". in 30 min.

60 - ISI - No return

30 - FF - Real weak surface blow started 10 min. in & built to 1/8". in 20 min.

60 - FSI - No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2256.47	113.03	Initial Hydro-static
1	27.49	112.50	Open To Flow (1)
29	41.43	115.55	Shut-In(1)
88	1145.22	117.33	End Shut-In(1)
89	46.15	117.34	Open To Flow (2)
120	58.10	118.75	Shut-In(2)
179	1059.29	119.86	End Shut-In(2)
181	2146.50	119.70	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
75.00	OCM - 45o - 55M	0.37

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drlg. Co., Inc.

26-4s-31w Rawlins,KS

250 N. Water, Ste 300
Wichita, KS 67202

Schmidt-Vap #4-26

Job Ticket: 62203

DST#: 4

ATTN: Paul Gunzelman

Test Start: 2015.04.07 @ 11:19:00

GENERAL INFORMATION:

Formation: **Pawnee - Cherokee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:31:30

Time Test Ended: 18:25:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Donovan Baumann

Unit No: 57

Interval: 4248.00 ft (KB) To 4392.00 ft (KB) (TVD)

Reference Elevations: 2925.00 ft (KB)

Total Depth: 4392.00 ft (KB) (TVD)

2920.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8372 Outside

Press@RunDepth: psig @ 4249.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.04.07 End Date: 2015.04.07

Last Calib.: 2015.04.07

Start Time: 11:19:01 End Time: 18:27:00

Time On Btm:

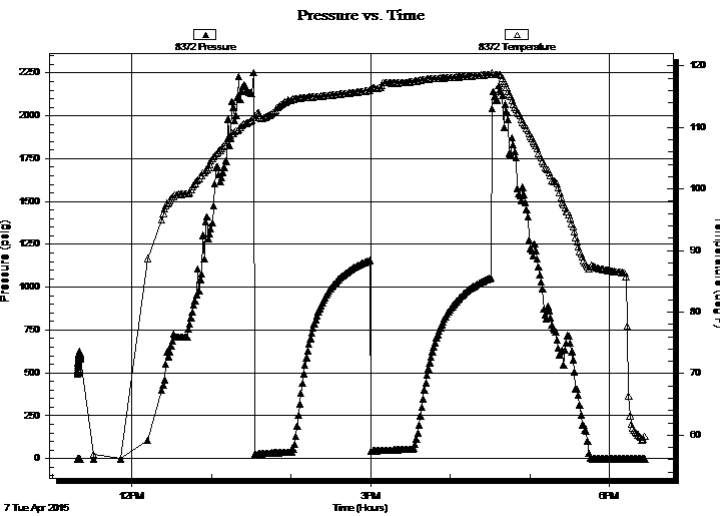
Time Off Btm:

TEST COMMENT: 30 - IF - Weak surface blow built to 1 3/4". in 30 min.

60 - ISI - No return

30 - FF - Real weak surface blow started 10 min. in & built to 1/8". in 20 min.

60 - FSI - No return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
75.00	OCM - 45o - 55M	0.37

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drlg. Co., Inc.

26-4s-31w Rawlins,KS

250 N. Water, Ste 300
Wichita, KS 67202

Schmidt-Vap #4-26

Job Ticket: 62203

DST#: 4

ATTN: Paul Gunzelman

Test Start: 2015.04.07 @ 11:19:00

Tool Information

Drill Pipe:	Length: 3992.80 ft	Diameter: 3.80 inches	Volume: 56.01 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 248.82 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose: 68000.00 lb
			<u>Total Volume: 57.23 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.62 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4248.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	144.00 ft			
Tool Length:	172.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4225.00	
Hydraulic tool	5.00			4230.00	
Jars	5.00			4235.00	
Safety Joint	3.00			4238.00	
Packer	5.00			4243.00	28.00 Bottom Of Top Packer
Packer	5.00			4248.00	
Packer - Shale	0.00			4248.00	
Stubb	1.00			4249.00	
Recorder	0.00	8647	Inside	4249.00	
Recorder	0.00	8372	Outside	4249.00	
Perforations	11.00			4260.00	
Change Over Sub	1.00			4261.00	
Drill Pipe	127.00			4388.00	
Change Over Sub	1.00			4389.00	
Bullnose	3.00			4392.00	144.00 Bottom Packers & Anchor

Total Tool Length: 172.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drlg. Co., Inc.

26-4s-31w Rawlins,KS

250 N. Water, Ste 300
Wichita, KS 67202

Schmidt-Vap #4-26

Job Ticket: 62203

DST#: 4

ATTN: Paul Gunzelman

Test Start: 2015.04.07 @ 11:19:00

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: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
75.00	OCM - 45o - 55M	0.369

Total Length: 75.00 ft Total Volume: 0.369 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

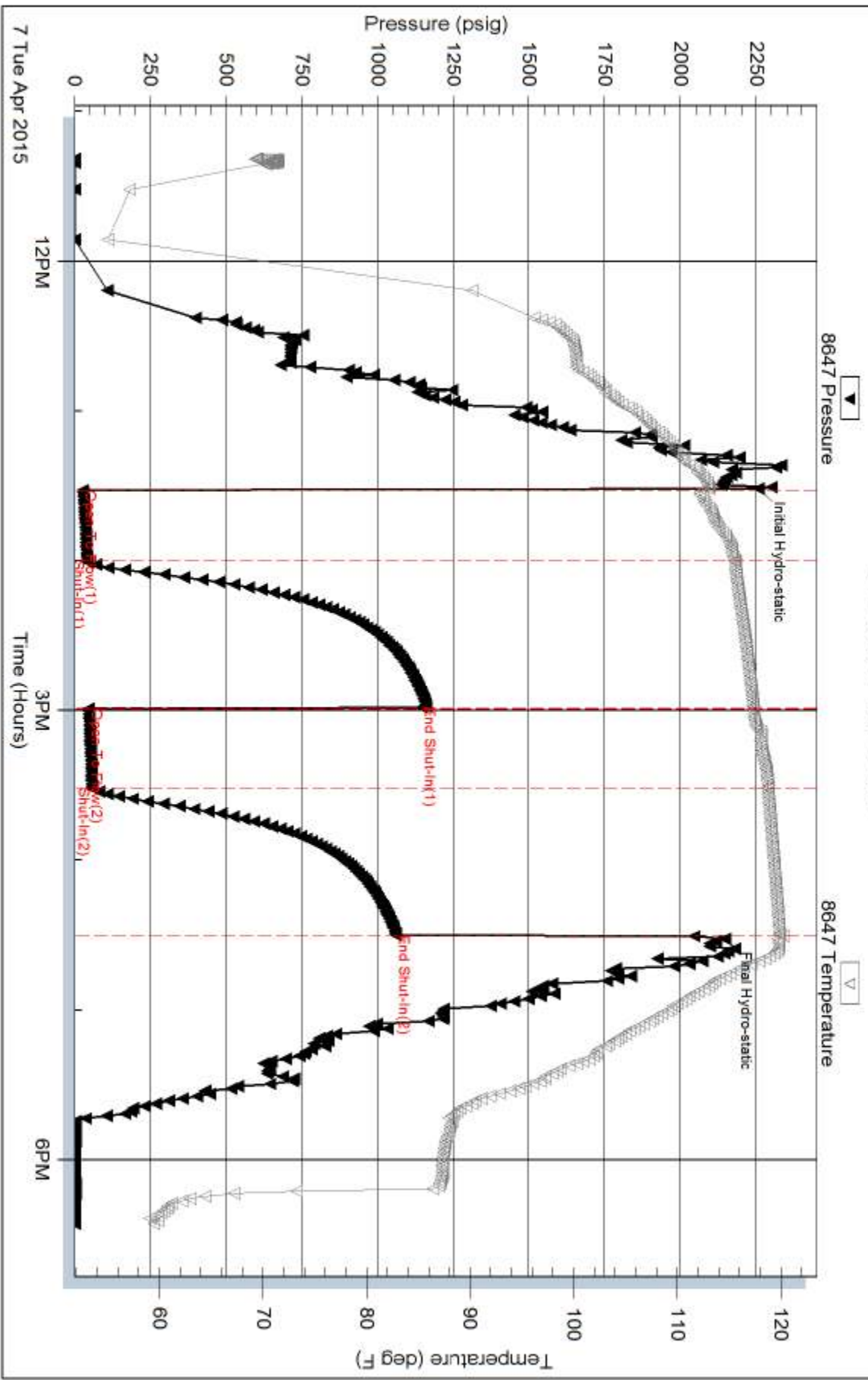
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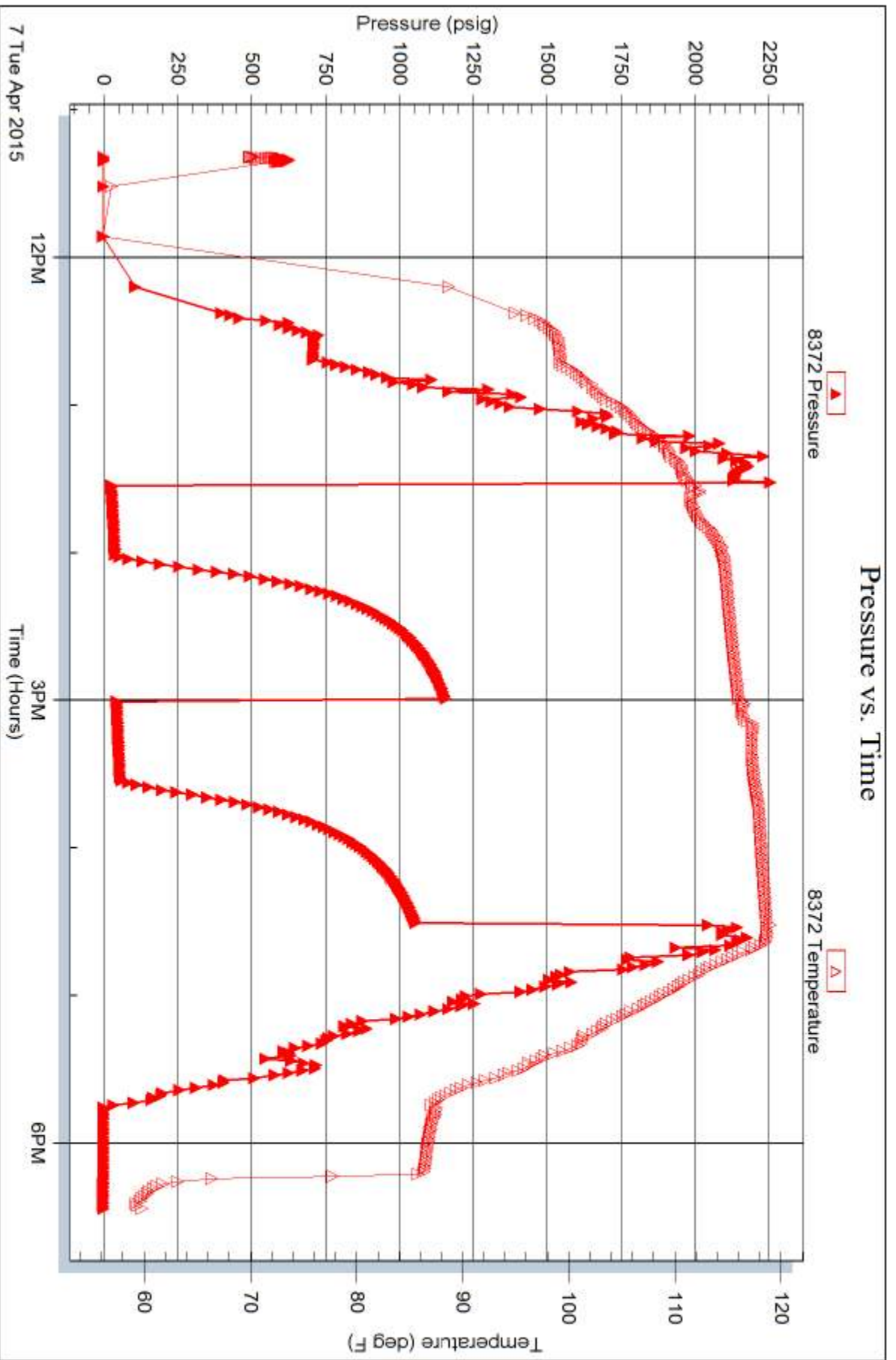
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 62264

Well Name & No. Schmidt-Vap #4-26 Test No. 1 Date 4-4-15
 Company Murfin Drilg. Co., Inc. Elevation 2925 KB 2920 GL
 Address 250 N. Water, STE 300 Wichita, KS 67202
 Co. Rep / Geo. Paul Gunzelman Rig Murfin #7
 Location: Sec. 26 Twp. 4S Rge. 31W Co. Rawlins State KS

Interval Tested 3902-3986 Zone Tested Toronto - LKC "B"
 Anchor Length 84' Drill Pipe Run 3645 Mud Wt. 8.9
 Top Packer Depth 3898 Drill Collars Run 248.82 Vis 82
 Bottom Packer Depth 3902 Wt. Pipe Run — WL 8
 Total Depth 3986 Chlorides 1600 ppm System LCM 5

Blow Description IF - Opened w/ surface blow. built to B.o.B in 14 min.
ISI - Return built to 1/4"
FF - Blow built to B.o.B in 15 min.
FSI - Return built to 1 1/4"

Rec	Feet of	%gas	%oil	%water	%mud
<u>26</u>	<u>60</u>	<u>10</u>	<u>90</u>		
<u>126-189</u>	<u>WOCM</u>		<u>10</u>	<u>40</u>	<u>50</u>
<u>437</u>	<u>MW</u>			<u>80</u>	<u>20</u>
<u>106</u>	<u>GIP</u>	<u>100</u>			

Rec Total 646 BHT 123 Gravity 30 API RW .128 @ 63 °F Chlorides 70,000 ppm

(A) Initial Hydrostatic 1978 Test _____ T-On Location 5:20 AM
 (B) First Initial Flow 57 Jars _____ T-Started 6:09 AM
 (C) First Final Flow 185 Safety Joint _____ T-Open 8:34 AM
 (D) Initial Shut-In 1227 Circ Sub _____ T-Pulled 12:34 PM
 (E) Second Initial Flow 193 Hourly Standby _____ T-Out 3:28 PM
 (F) Second Final Flow 323 Mileage 50 R.T. Comments _____
 (G) Final Shut-In 1172 Sampler _____
 (H) Final Hydrostatic 1881 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total _____
 Total _____
 MP/DST Disc't _____

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

Approved By _____

Our Representative Bud Olt

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 62265

Well Name & No. Schmidt - Vap #4-26 Test No. 2 Date 4-5-15
 Company Murfin Drly. Co., Inc. Elevation 2925 KB 2920 GL
 Address 250 N. Water, STE 300 Wichita, KS 67202
 Co. Rep / Geo. Paul Gunzelman Rig Murfin #7
 Location: Sec. 26 Twp. 4S Rge. 31W Co. Rawlins State KS

Interval Tested 4006-4061 Zone Tested LKC "E-6"
 Anchor Length 55 Drill Pipe Run 3740 Mud Wt. 9.3
 Top Packer Depth 4001 Drill Collars Run 248.82 Vis 55
 Bottom Packer Depth 4006 Wt. Pipe Run — WL 7.2
 Total Depth 4061 Chlorides 1400 ppm System LCM 5

Blow Description IF - Opened w/ surface blow. built to B.o.B in 12min.
ISI - Return built to 1/4"
FF - Blow built to B.o.B in 14 min.
FSI - No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>83</u>	<u>CO</u>		<u>100</u>		
<u>229</u>	<u>60CM</u>	<u>20</u>	<u>40</u>		<u>40</u>
<u>—</u>	<u>—</u>				
<u>—</u>	<u>—</u>				
<u>499</u>	<u>GIP</u>	<u>100</u>			
<u>312</u>	<u>BHT 121</u>	<u>36</u>	<u>API RW</u>	<u>@</u>	<u>° F Chlorides</u>

(A) Initial Hydrostatic <u>2054</u>	<input checked="" type="checkbox"/> Test	T-On Location <u>2:24 AM</u>
(B) First Initial Flow <u>32</u>	<input checked="" type="checkbox"/> Jars	T-Started <u>2:41 AM</u>
(C) First Final Flow <u>102</u>	<input checked="" type="checkbox"/> Safety Joint	T-Open <u>4:34 AM</u>
(D) Initial Shut-In <u>1073</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>8:34 AM</u>
(E) Second Initial Flow <u>112</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>10:53 AM</u>
(F) Second Final Flow <u>151</u>	<input checked="" type="checkbox"/> Mileage <u>50 RT</u>	Comments
(G) Final Shut-In <u>1026</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1982</u>	<input type="checkbox"/> Straddle	
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Shale Packer
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Packer
Final Flow <u>60</u>	<input type="checkbox"/> Extra Recorder	<input type="checkbox"/> Extra Copies
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby	Sub Total
	<input type="checkbox"/> Accessibility	Total
	Sub Total	MP/DST Disc't

Approved By _____

Our Representative Bud Cat

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. 62266

4/10

Well Name & No. Schmidt-Vap #4-26 Test No. 3 Date 4-5-15
 Company Murfin Drlg. Co., Inc. Elevation 2925 KB 2920 GL
 Address 250 N. Water, STE 300 Wichita, KS 67202
 Co. Rep / Geo. Paul Gunzelman Rig Murfin #7
 Location: Sec. 26 Twp. 4S Rge. 31W Co. Rawlins State KS

Interval Tested 4056-4117 Zone Tested LKC "H-3"
 Anchor Length 61' Drill Pipe Run 3803 Mud Wt. 9.4
 Top Packer Depth 4051 Drill Collars Run 248.82 Vis 59
 Bottom Packer Depth 4056 Wt. Pipe Run - WL 7.2
 Total Depth 4117 Chlorides 1900 ppm System LCM 4
 Blow Description IF - Opened w/ surface blow, built to B.o.B in 10 min.
ISI - Return built to 11" over the 60 min.
FF - Blow built to B.o.B in 6 min.
FSI - Return built to 10" over the 90 min.

Rec	Feet of	%gas	%oil	%water	%mud
<u>356</u>	<u>GO</u>	<u>15</u>	<u>85</u>		
<u>297</u>	<u>GOCM</u>	<u>40</u>	<u>20</u>		<u>40</u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>1228</u>	<u>GIP</u>	<u>100</u>			

Rec Total 653 BHT 124 Gravity 34 API RW @ °F Chlorides ppm

(A) Initial Hydrostatic 2098 Test T-On Location 7:47 PM
 (B) First Initial Flow 68 Jars T-Started 7:52 PM
 (C) First Final Flow 148 Safety Joint T-Open 9:32 PM
 (D) Initial Shut-In 1203 Circ Sub T-Pulled 1:32 AM
 (E) Second Initial Flow 177 Hourly Standby T-Out 4:22 AM
 (F) Second Final Flow 258 Mileage 50 R.T. Comments
 (G) Final Shut-In 1077 Sampler
 (H) Final Hydrostatic 2031 Straddle Ruined Shale Packer
 Shale Packer Ruined Packer
 Extra Packer Extra Copies
 Extra Recorder Sub Total
 Day Standby Total
 Accessibility MP/DST Disc't
 Sub Total

Approved By Our Representative Burd Q. Jr

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 62203

Well Name & No. Schmitt-vap #4-26 Test No. 4 Date 4-7-15
 Company Murfin Drilling Co., Inc Elevation 2925 KB 2920 GL
 Address 250 N. Water STE 300 Wichita, KS, 67202
 Co. Rep / Geo. Paul Gunzelman Rig Murfin #7
 Location: Sec. 26 Twp. 4S Rge. 31W Co. Rawlins State KS

Interval Tested 4248' - 4392' Zone Tested Pawnee - Cherokee
 Anchor Length 144' Drill Pipe Run 3992.80 Mud Wt. 9.3
 Top Packer Depth 4243' Drill Collars Run 248.82 Vis 65
 Bottom Packer Depth 4248' Wt. Pipe Run 0 WL 6
 Total Depth 4392' Chlorides 2000 ppm System LCM #4

Blow Description IF - weak surface blow built to 1 3/4 in. in 30 min.
ISI - No return
FF - Real weak surface blow started 10 min. in & built to 1/8 in. in 20 min.
FSI - No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>75</u>	<u>OCM</u>		<u>45</u>		<u>55</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 75 BHT 120 Gravity — API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic 2256 Test — T-On Location 10:14am
 (B) First Initial Flow 27 Jars — T-Started 11:19am
 (C) First Final Flow 41 Safety Joint — T-Open 1:30pm
 (D) Initial Shut-In 1145 Circ Sub N/C T-Pulled 4:30pm
 (E) Second Initial Flow 46 Hourly Standby — T-Out 6:27pm
 (F) Second Final Flow 58 Mileage 25 RIT Comments —
 (G) Final Shut-In 1059 Sampler —
 (H) Final Hydrostatic 2147 Straddle —
 Shale Packer — Ruined Shale Packer —
 Extra Packer — Ruined Packer —
 Extra Recorder — Extra Copies —
 Day Standby — Sub Total —
 Accessibility — Total —
 Sub Total — MP/DST Disc't —

Approved By — Our Representative Dan Conner

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GEOLOGISTS' REPORT

OPERATOR MURFIN DRILLING COMPANY, INC.

LEASE SCHMIDT-VAP # 4-26

LOCATION 2310 FSL & 2310 FWL

SEC. 26 **TWSP** 4S **RGE** 31W

COUNTY RAWLINS **STATE** KANSAS

FIELD DAISY

CONTRACTOR Murfin Drilling Company

COMMENCED 1 April 2015 **COMPLETED** 8 April 2015

MUD DISPLACED 3200' **MUD TYPE** Chemical

DILLING TIME KEPT FROM 3600 **TO** 4500

SAMPLES SAVED FROM 3630 **TO** 4500

SAMPLES EXAMINED FROM 3630 **TO** 4500

GEOLOGICAL SUPERVISION FROM 3578

GEOLOGIST ON WELL Paul Gunzelman

FORMATION NAME	TOP	DATUM	SAMPLE	ELEVATION
Stone Corral	2672	+253	2675	+250
Base/Anhydrite	2704	+221	2704	+221
Topeka	3738	-813	3738	-813
Heebner Shale	3904	-977	3904	-979
Lansing	3956	-1031	3954	-1029
Stark Shale	4119	-1194	4120	-1195
Base/Kansas City	4170	-1245	4170	-1245
Cherokee	4367	-1443	4367	-1442
Mississippian	4484	-1559	4484	-1559
Total Depth	4502	-1577	4500	-1575

FORMATIONS
Dual Induction
Micro-resistivity
Comp. Sonic

ELECTRICAL SURVEYS:
Pioneer Energy Services
Comp. Neutron Density

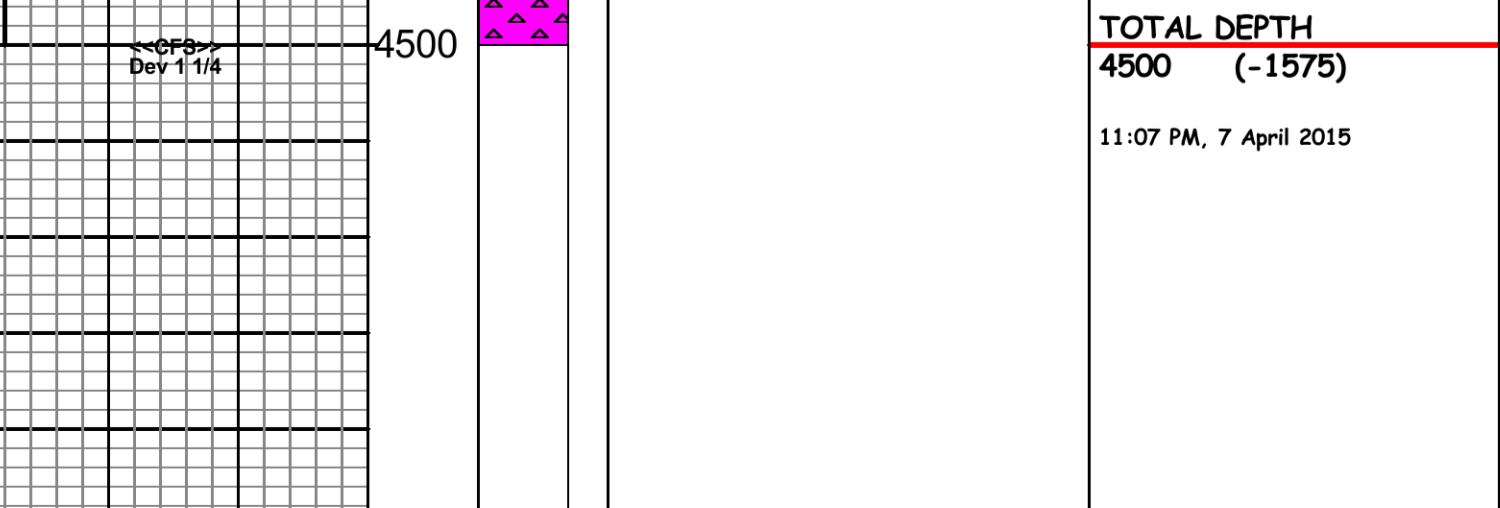
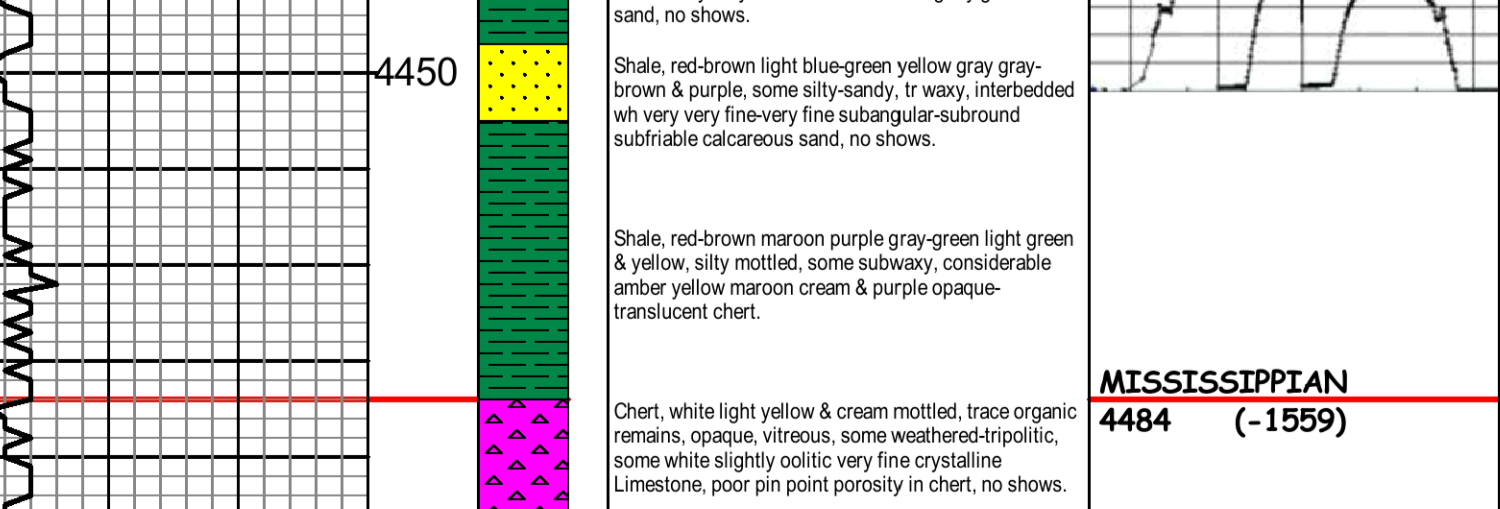
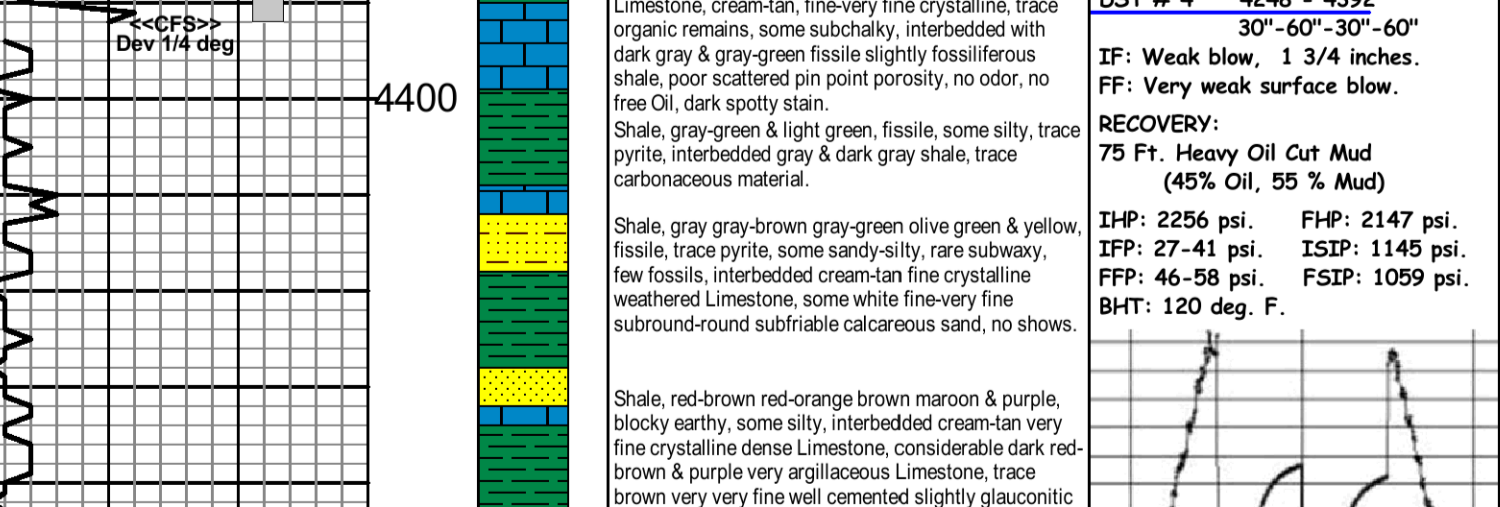
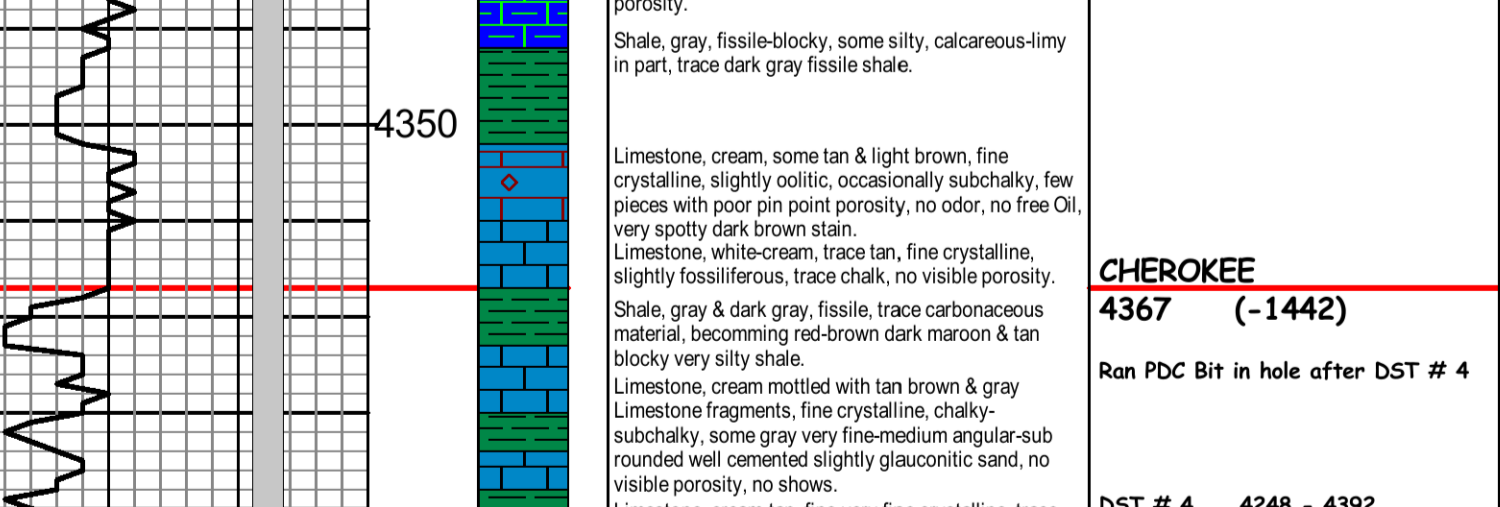
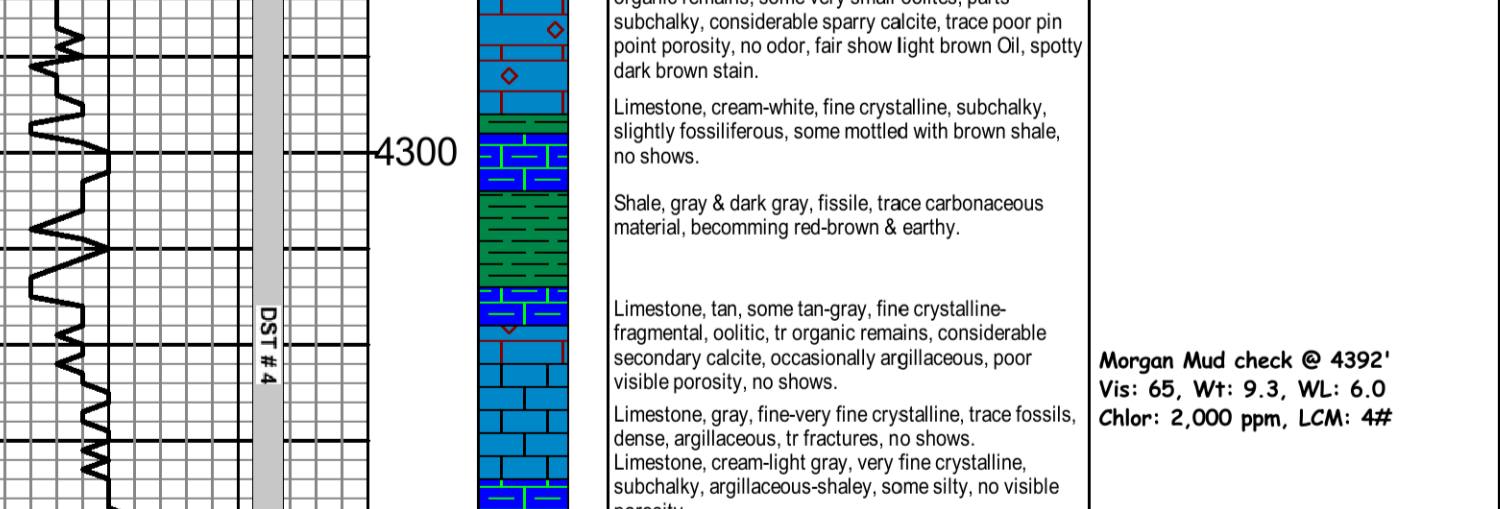
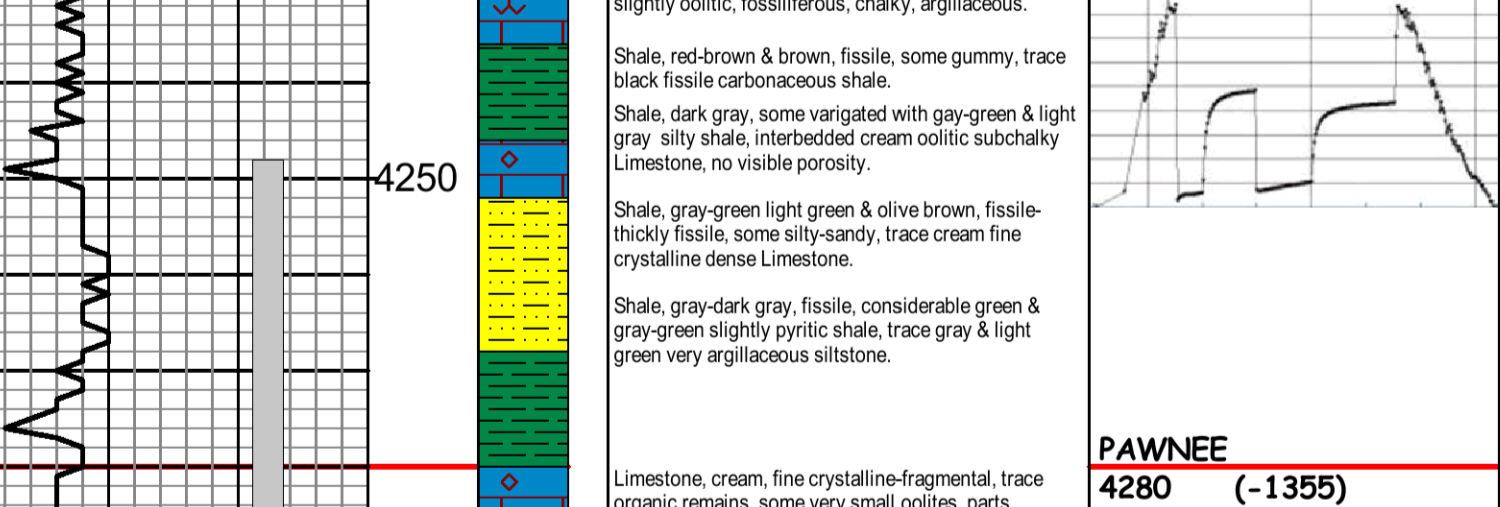
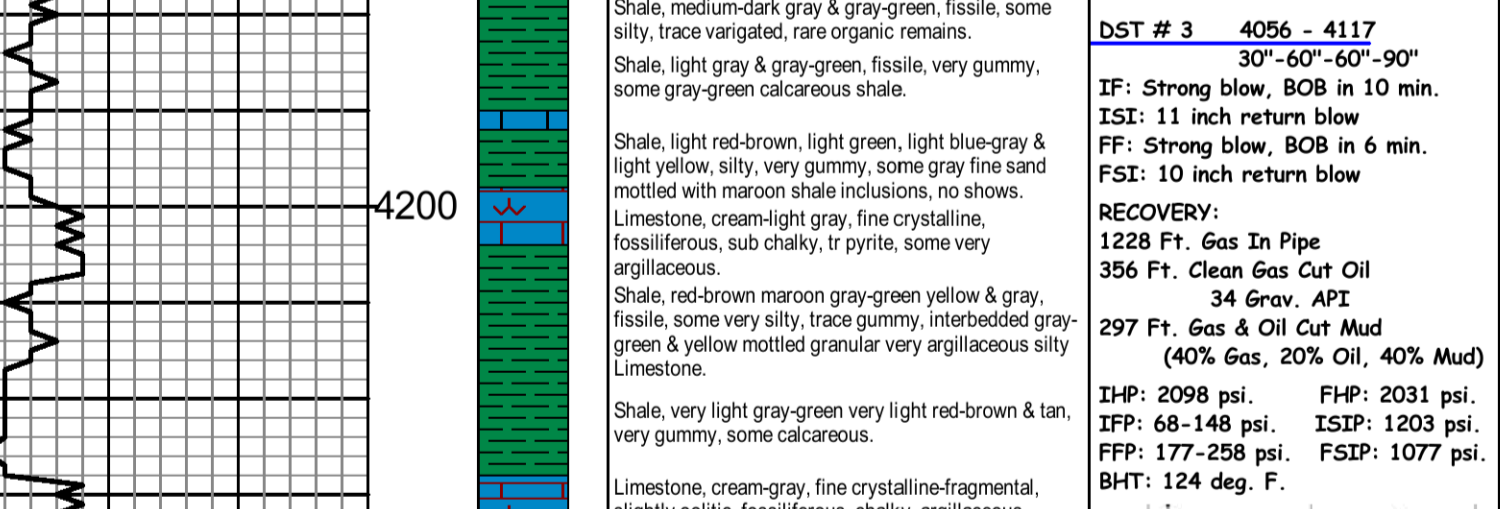
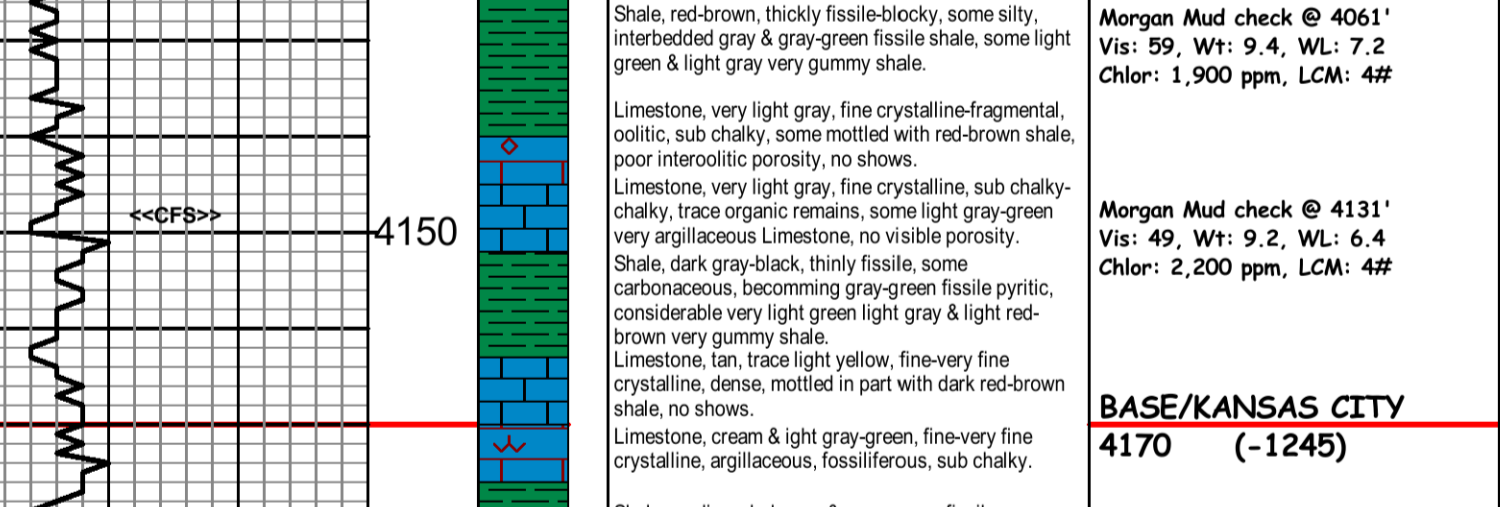
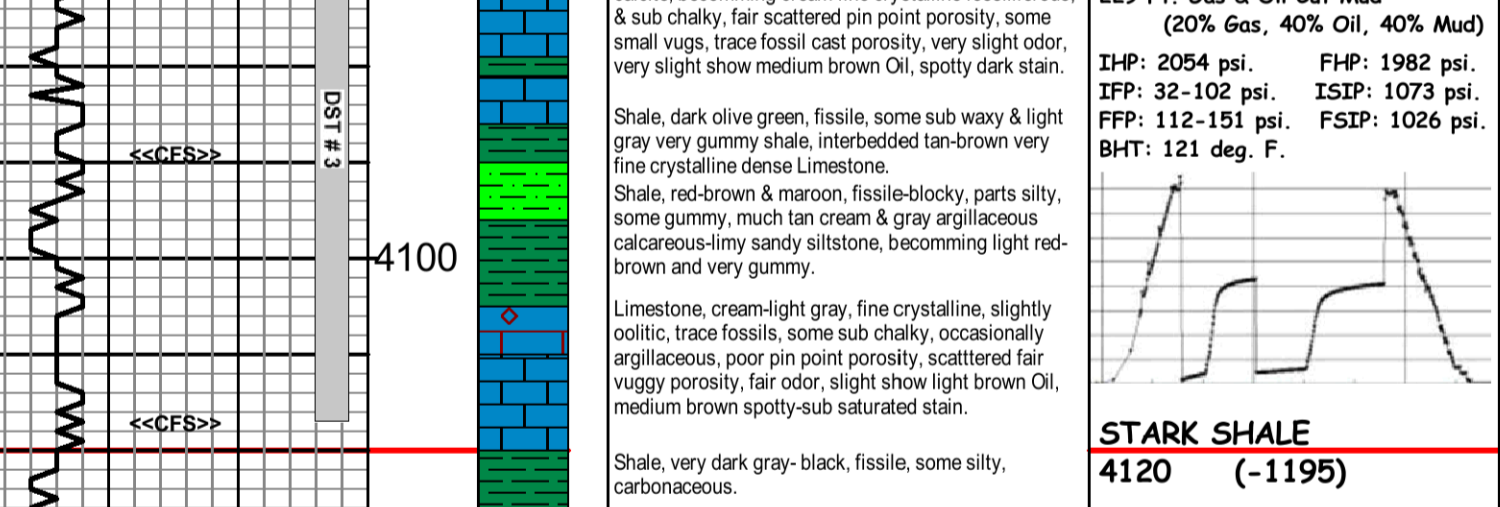
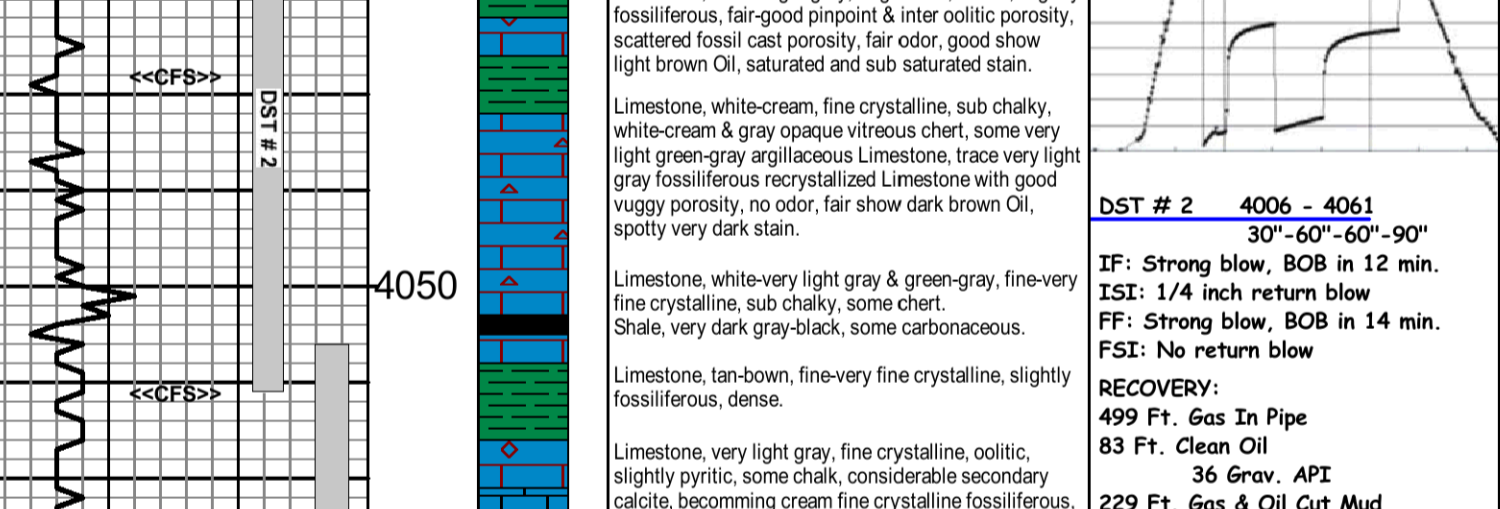
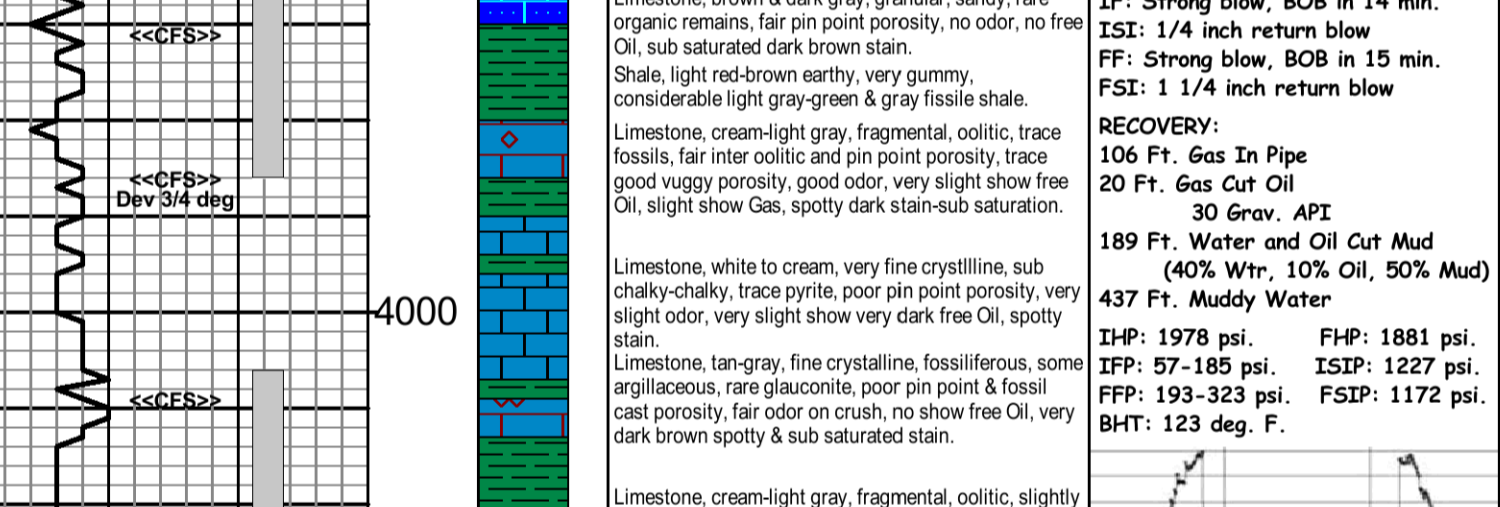
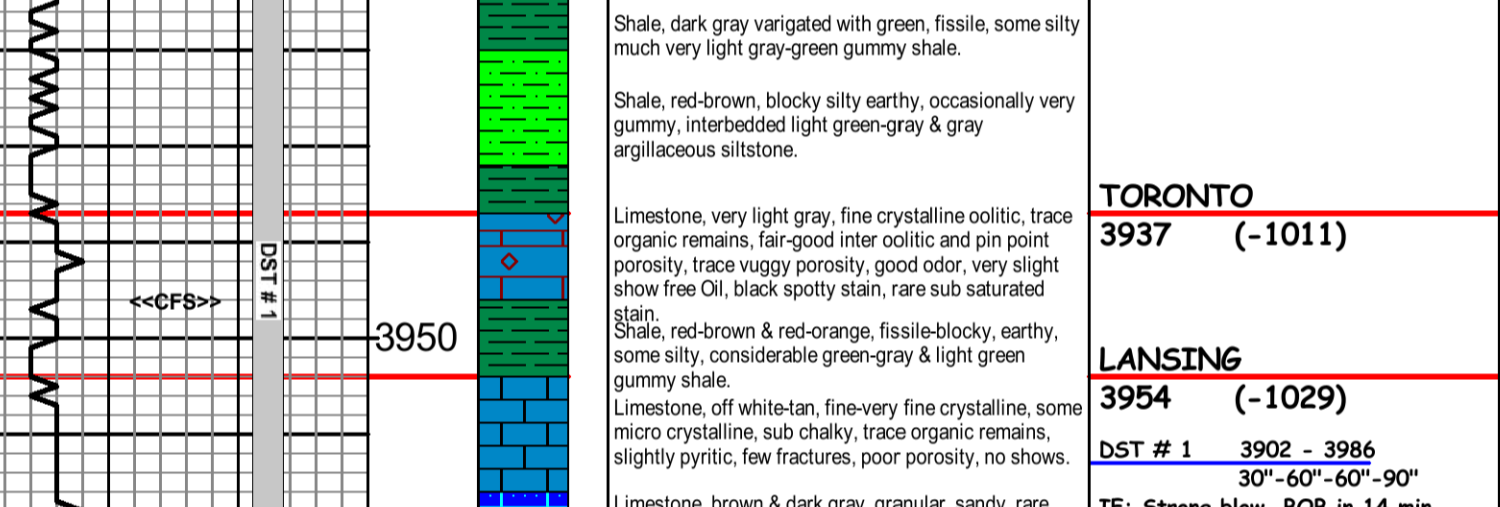
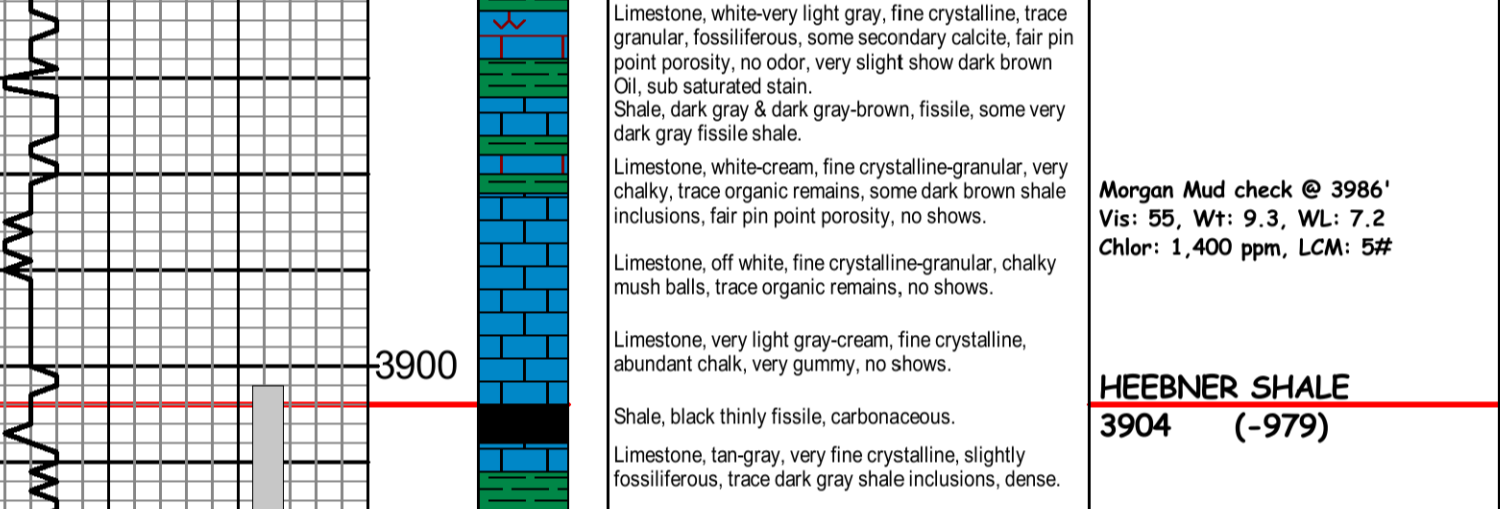
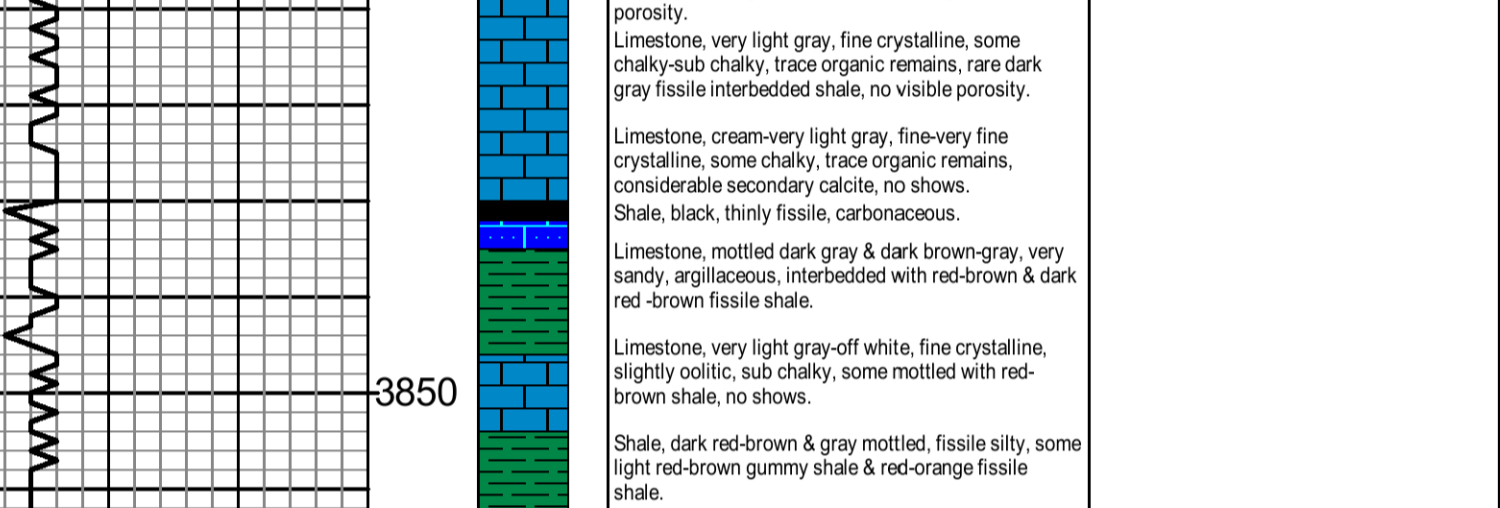
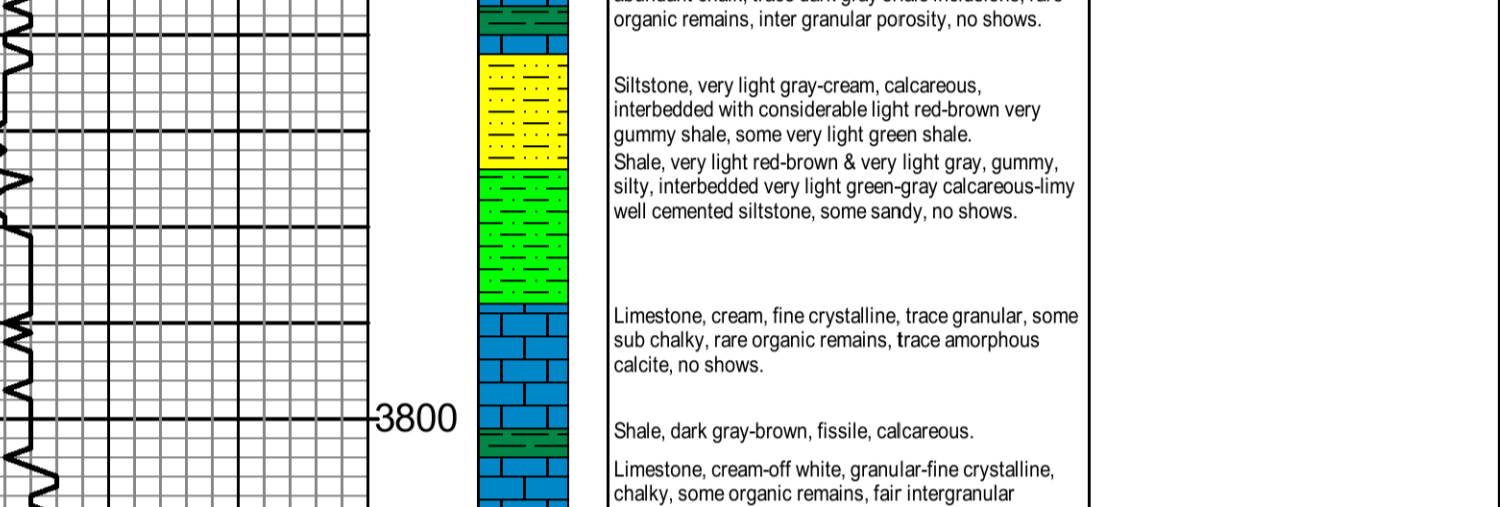
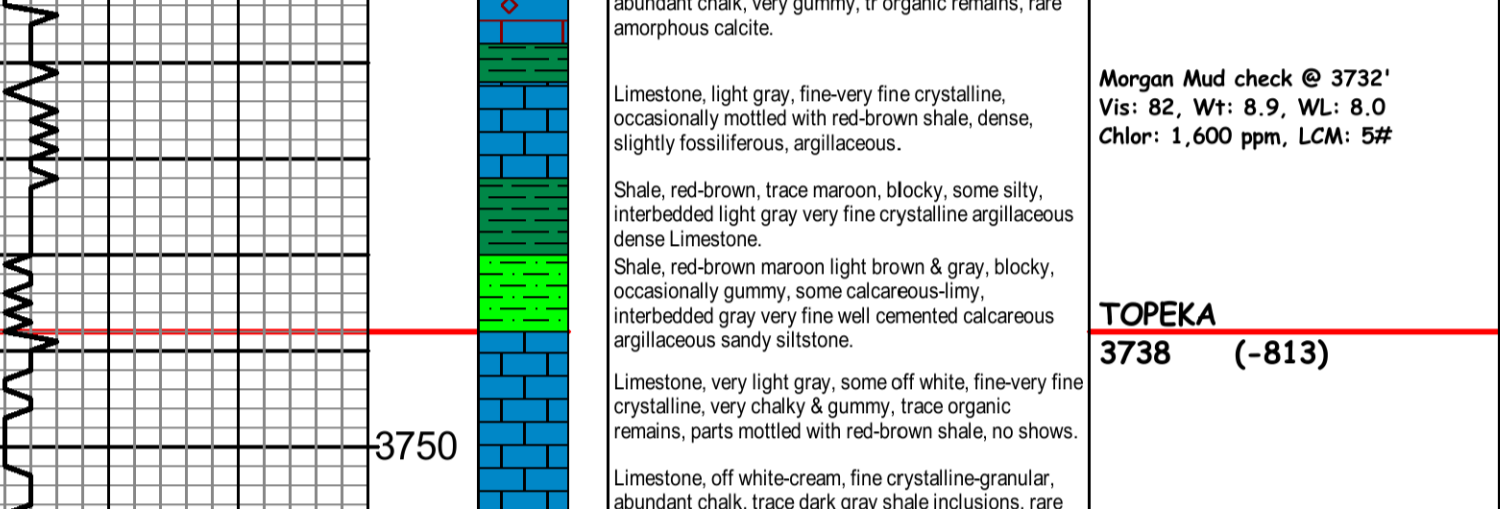
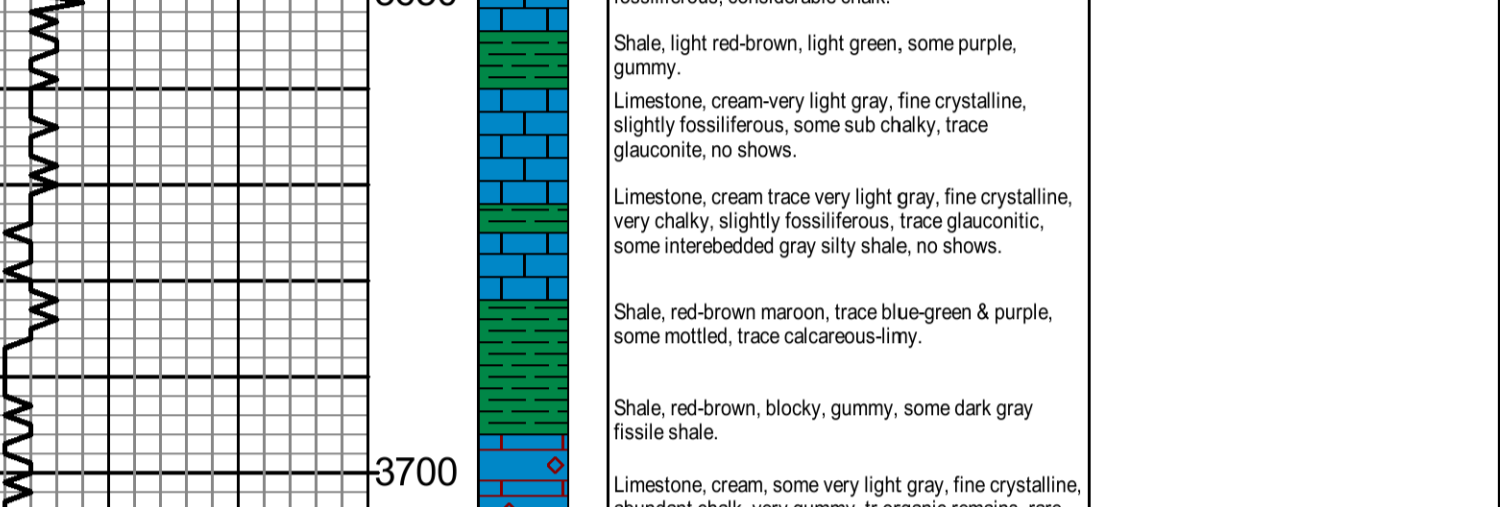
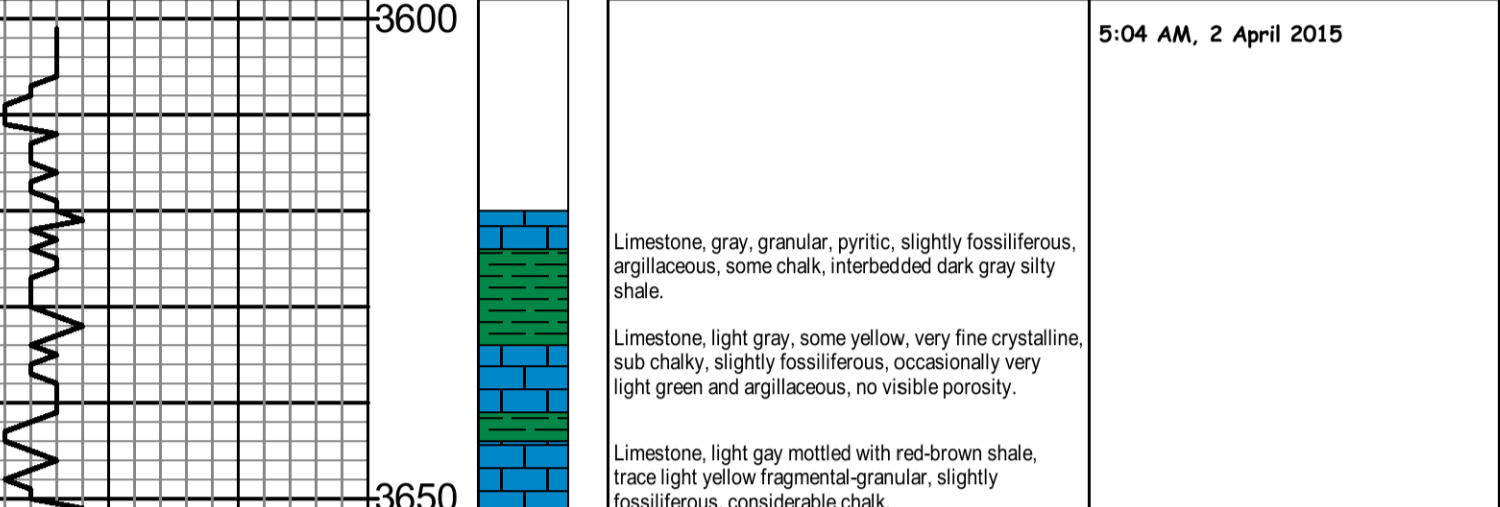
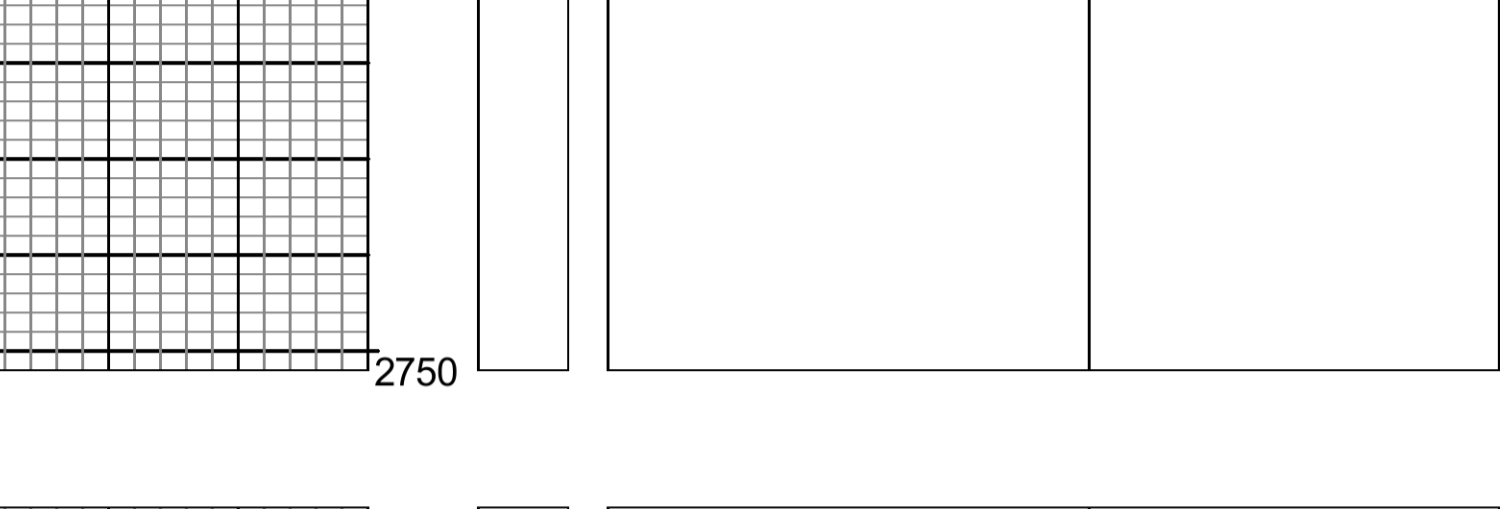
CASING RECORD
Conductor Name
Surface 8 5/8" @ 218
Production 5 1/2" @ 4485'

ELEVATIONS
KB 2925 Ft.
GL 2920 Ft.



REMARKS
API 15-193-21122-00-00
Drilling Fluids: Morgan Mud, Inc. (David Lines, engineer)
Drill Stem Testing: Trilobite Testing, Inc. (Brandon Quintana, tester)
Gas Trailer: No Gas Trailer
Reserve Pit Chlorides: 2,800 PPM

DRILL TIME (MIN/FT)	DEPTH	LITHOLOGY	SHOWS	SAMPLE DESCRIPTIONS	REMARKS
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Operator: MURFIN DRILLING COMPANY, INC.
Lease: SCHMIDT-VAP # 4-26
Location: 2310 FSL & 2310 FWL SEC. 26 TWSP 4S RGE 31W
County: RAWLINS State: KANSAS

ALLIED OIL & GAS SERVICES, LLC 064672

Federal Tax I.D. # 20-8651475

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

SERVICE POINT:
Oakley, KY

DATE <u>4-1-15</u>	SEC. <u>26</u>	TWP. <u>4</u>	RANGE <u>31</u>	CALLED OUT	ON LOCATION <u>3:00 pm</u>	JOB START <u>4:00 pm</u>	JOB FINISH <u>4:30 pm</u>
LEASE <u>Schmitt</u>	WELL# <u>4-26</u>	LOCATION <u>Roxford No 1 (W) 2 1/2 (W)</u>			COUNTY <u>Rowan</u>	STATE <u>KY</u>	
OLD OR <u>NEW</u> (Circle one)				LOCATION <u>64, 1E, 1/2S, ESE info</u>			

CONTRACTOR Martin ?

TYPE OF JOB Surface

HOLE SIZE 12 1/4 T.D. 218'

CASING SIZE 8 1/2 DEPTH 218.71'

TUBING SIZE _____ DEPTH _____

DRILL PIPE _____ DEPTH _____

TOOL _____ DEPTH _____

PRES. MAX _____ MINIMUM _____

MEAS. LINE _____ SHOE JOINT _____

CEMENT LEFT IN CSG. 131

PERFS. _____

DISPLACEMENT 18.04

OWNER Same

CEMENT AMOUNT ORDERED 200 sfs com 3% cc

COMMON 200 sfs @ 17.90 3580.00

POZMIX _____ @ _____

GEL _____ @ _____

CHLORIDE 569# @ 1.10 620.90

ASC _____ @ _____

EQUIPMENT

PUMP TRUCK CEMENTER Larve Ewank

422 HELPER Wayne McGibby

BULK TRUCK DRIVER Paul Beaver

373/306

BULK TRUCK DRIVER _____

Material Total @ _____ 4,200.40

(1890.18/45%)

HANDLING 210 sfs @ 2.48 520.80

MILEAGE 96.8 km x 50 x 2.75 1336.00

REMARKS:
mix 200 sfs cement
Displace with water
Cement did circulate
3661 to pit

TOTAL _____

CHARGE TO: Martin

STREET _____

CITY _____ STATE _____ ZIP _____

SERVICE

DEPTH OF JOB _____

PUMP TRUCK CHARGE 1512.25

EXTRA FOOTAGE _____ @ _____

MILEAGE MITH 50 @ 7.70 385.00

MANIFOLD Savage 50 @ 4.40 220.00

MITH 50 @ 4.40 220.00

(1909.82/45%) TOTAL 4,244.05

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 Fred Williams

SIGNATURE [Signature]

SALES TAX (if Any) _____

TOTAL CHARGES 8,444.45

DISCOUNT 3,800.00 (45%) IF PAID IN 30 DAYS

4,644.44 Net.



CONSOLIDATED
Oil Well Services, LLC

REMIT TO
Consolidated Oil Well Services, LLC
Dept:970
P.O.Box 4346
Houston, TX 77210-4346

MAIN OFFICE

P.O.Box 884
Chanute, KS 66720
620/431-9210, 1-800/467-8676
Fax 620/431-0012

Invoice

Invoice#

803929

Invoice Date: 04/09/15

Terms: C.O.D.

Page 1

MURFIN DRILLING

P.O. BOX 288
RUSSELL KS 67665
USA

USED FOR 1C 103

R

SCHMIDT #4-26

VAP

APPROVED JT FH

Part No	Description	Quantity	Unit Price	Discount(%)	Total
5401C	Single Pump	1.000	3,175.0000	20.000	2,540.00
5406	Mileage Charge	45.000	5.2500	20.000	189.00
5407A	Ton Mileage Delivery Charge	1.000	1,925.4000	20.000	1,540.32
1126-0130	Oil Well Cement	200.000	23.7000	20.000	3,792.00
1110A	Kol Seal (50# BAG)	1,000.000	0.5600	20.000	448.00
1104D	CLASS A CEMENT CMD	350.000	27.9200	20.000	7,817.60
1144G-0130	Mud Flush - Oakley	500.000	1.0000	20.000	400.00
4159	Float Shoe AFU 5 1/2	1.000	433.7500	20.000	347.00
4104	Cement Basket 5 1/2	3.000	290.0000	20.000	696.00
4136	Turbolizer 5 1/2	15.000	75.7500	20.000	909.00
4454	5 1/2 Latch Down Plug	1.000	318.2500	20.000	254.60
4314	Reciprocating Scratchers	20.000	82.0000	20.000	1,312.00
Subtotal					25,306.90
Discounted Amount					5,061.38
SubTotal After Discount					20,245.52

Amount Due 26,884.55 If paid after 04/09/15

Tax: 1,262.12

Total: 21,507.64

1C103 Z 7488.0004.1 21,507.64 Cement Prod Co #426

BARTLESVILLE, OK
918/338-0808

EL DORADO, KS
316/322-7022

EUREKA, KS
620/583-7554

PONCA CITY, OK
580/762-2303

OAKLEY, KS
785/672-8822

OTTAWA, KS
785/242-4044

THAYER, KS
620/839-5269

GILLETTE, WY
307/686-4914

CUSHING, OK
918/225-2650

CONSOLIDATED
Oil Well Services, LLC

26006

2534

Invoice # 803929

TICKET NUMBER 47957

LOCATION _____

FOREMAN Cory Davis
Kully G.

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

FIELD TICKET & TREATMENT REPORT
CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY																				
4/8/15	5406	Schmidt # 4-26	24	45	31 W	Rawlins																				
CUSTOMER <u>Murfin</u>			<table border="1"> <thead> <tr> <th>TRUCK #</th> <th>DRIVER</th> <th>TRUCK #</th> <th>DRIVER</th> </tr> </thead> <tbody> <tr> <td>772</td> <td>Jordan</td> <td></td> <td></td> </tr> <tr> <td>530</td> <td>Colin</td> <td></td> <td></td> </tr> <tr> <td>597</td> <td>Keith</td> <td></td> <td></td> </tr> <tr> <td></td> <td>Bill</td> <td></td> <td></td> </tr> </tbody> </table>				TRUCK #	DRIVER	TRUCK #	DRIVER	772	Jordan			530	Colin			597	Keith				Bill		
TRUCK #	DRIVER	TRUCK #	DRIVER																							
772	Jordan																									
530	Colin																									
597	Keith																									
	Bill																									
MAILING ADDRESS _____			Remark: 7 into Y E to curve N 8 miles W 3 miles S, E into																							
CITY _____	STATE _____	ZIP CODE _____																								

JOB TYPE Prediction HOLE SIZE 7 7/8 HOLE DEPTH 4500 CASING SIZE & WEIGHT 5 1/2 15.5
 CASING DEPTH 4484.93 DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT 11.2 / 14.2 SLURRY VOL _____ WATER gal/sk _____ CEMENT LEFT In CASING 20'
 DISPLACEMENT 106 / 109 DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: Saffly meeting - rig up on murfin 7, run casing with float equipment on joints turbo-
 1, 2, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 43, 65. Bucket on 17 44; lib. circulate on joint 54 for 30 min
 1 hour on Bottom. Mid 320 CMD + tail in with 2000 silico. DAWC 5# kcal seal 500 gal mud flush
 15 rounds 15 rot w/late clean pump + lines reback plug + displace. 106 bbl water; lift pressure
 1200. Plug landed at 1800 cement did circulate APPROX 20661 to pit

Thanks
Cory Davis + crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401 C	1	PUMP CHARGE	3,175.00	3,175.00
5406	45 mi	MILEAGE	5.25	236.25
5407A	24.45	Ton Mileage Delivery	1.75	1,925.40
1126	200 sks	QWC	23.70	4,740.00
1107A	1000 #	Kal seal	.56	560.00
11040	350 sks.	CMD	27.92	9,772.00
11440	500 gal	MUD flush	1.00	500.00
4159	1	5 1/2 AFV float shoe (w)	433.75	433.75
4104	3	5 1/2 bucket	290.00	870.00
4136	15	5 1/2 turbolizer	75.95	1,136.25
4454	1	5 1/2 latch down /w plug	318.25	318.25
4314	20	rotating scratchers	82.00	1,640.00
		subtotal		25,306.90
		20% tax		5,061.38
		sub total		20,245.52
		SALES TAX		1,262.12
		ESTIMATED TOTAL		21,507.64

Ravin 3737

AUTHORIZATION _____ TITLE _____ DATE _____

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.

Schmidt-Vap #4-26
 2310' FSL 2310' FWL
 Sec. 26-4S-31W
 2925' KB

Formation	Sample top	Datum	Ref	Log tops	Datum	Ref
Anhydrite	2675	+250	-4	2672	+253	-1
B/Anhydrite	2704	+221	-2	2704	+221	-2
Topeka	3738	-813	-4	3738	-813	-4
Heebner	3904	-979	-5	3902	-977	-3
Lansing	3954	-1029	-3	3955	-1030	-4
Stark	4120	-1195	-2	4120	-1195	-2
BKC	4170	-1245	-5	4170	-1245	-5
Pawnee	4280	-1355	+1	4281	-1356	Flat
Cherokee	4367	-1442	-1	4368	-1443	-2
Mississippi	NR			NR		
RTD	4500					
LTD				4502		