

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

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

Gas DH EOR

OG GSW

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 EOR Conv. to SWD

Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: _____

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 Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

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 Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/Injection:	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) (Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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QUALITY WELL SERVICE, INC.

7059

Federal Tax I.D. # 481187368

Home Office 30060 N. Hwy 281, Pratt, KS 67124

Mailing Address P.O. Box 468

Office 620-727-3410
Fax 620-672-3663

Rich's Cell 620-727-3409
Brady's Cell 620-727-6964

Date	2-9-19	Sec.	16	Twp.	19S	Range	27W	County	LANE	State	Ks	On Location		Finish		
Lease	Bahn	Well No.	1-16			Location						Dighton K1 E to Quantum Rd				
Contractor	Pickrell Drlg Rig #							Owner	S to 100							
Type Job	SURFACE							To Quality Well Service, Inc. You are hereby requested to rent cementing equipment and furnish cement and helper to assist owner or contractor to do work as listed.								
Hole Size	12 1/4			T.D.	220											
Csg.	8 5/8 23"			Depth	220			Charge To	NORSTAR Petroleum Inc							
Tbg. Size				Depth				Street								
Tool				Depth				City				State				
Cement Left in Csg.	25'			Shoe Joint	25'			The above was done to satisfaction and supervision of owner agent or contractor.								
Meas Line				Displace	12 Bbls			Cement Amount Ordered	1655 Common							
EQUIPMENT								2% GEL 3 1/2 CC								
Pumptrk	8	No.	TS						Common	1655x						
Bulktrk	10	No.	JAKE						Poz. Mix							
Bulktrk		No.							Gel.	3x						
Pickup		No.							Calcium	6x						
JOB SERVICES & REMARKS								Hulls								
Rat Hole								Salt								
Mouse Hole								Flowseal								
Centralizers								Kol-Seal								
Baskets								Mud CLR 48								
D/V or Port Collar								CFL-117 or CD110 CAF 38								
Run 5 Jt's 8 5/8 23' set @ 220								Sand								
on Loc Rig Getting to Run 8 5/8 csg								Handling 174								
Csg on Bottom Hook up to csg								Mileage								
Break circ w/ rig								FLOAT EQUIPMENT								
Pump 15 Bbls H2O								Guide Shoe								
Mix Pump 1655x Common								Centralizer								
2% GEL 3 1/2 CC								Baskets								
Disp 12 Bbls								AFU Inserts								
Close valve on csg 200'								Float Shoe								
000 circ thro J03								Latch Down								
circ out to pt								Service Sps								
								LMV 30								
								Pumptrk Charge SURFACE								
Thank you								Mileage 60								
PLEASE CALL AGAIN																
TODAY IS JAKE																
Signature																
								Tax								
								Discount								
								Total Charge								

QUALITY WELL SERVICE, INC.

7065

Federal Tax I.D. # 481187368

Home Office 30060 N. Hwy 281, Pratt, KS 67124

Mailing Address P.O. Box 468

Office 620-727-3410
Fax 620-672-3663

Rich's Cell 620-727-3409
Brady's Cell 620-727-6964

Date	Sec.	Twp.	Range	County	State	On Location	Finish
2-19-19	16	19S	27W	LANE	Ks		
Lease Bohm	Well No. 1-16	Location Dighton, Ks E to Quantum Rd S to 100th Rd					
Contractor Pickzell Dlg Rig #10	Owner 22 E & Sinto			To Quality Well Service, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.			
Type Job PTA	Hole Size 7 7/8			T.D. 4700	Charge To Norstar Petroleum Inc.		
Csg. 4 1/2 P.P.	Depth 2040'			Street			
Tbg. Size	Depth			City State			
Tool	Depth			City State			
Cement Left in Csg.	Shoe Joint			The above was done to satisfaction and supervision of owner agent or contractor.			
Meas Line	Displace			Cement Amount Ordered 270 5x 60/40 4 1/2 GEL			
EQUIPMENT				1/4" CF			
Pumptrk 8 No.	TS			Common 162 5x			
Bulktrk 10 No.	JAKE			Poz. Mix 103 5x			
Bulktrk No.				Gel. 9 5x			
Pickup No.				Calcium			
JOB SERVICES & REMARKS				Hulls			
Rat Hole 30 5x				Salt			
Mouse Hole				Flowseal 67.5 lbs			
Centralizers				Kol-Seal			
Baskets				Mud CLR 48			
D/V or Port Collar				CFL-117 or CD110 CAF 38			
1st Plug 2040' 50 5x 60/40 4 1/2 GEL 1/4" CF				Sand			
Pump H2O				Handling 279 5x			
Mix: Pump 50 5x 60/40 4 1/2 GEL 1/4" CF				Mileage 30'			
Disp H2O				FLOAT EQUIPMENT			
0.50 mjd				Guide Shoe			
2nd Plug 1130' 80 5x 60/40 4 1/2 GEL 1/4" CF				Centralizer			
Pump H2O				Baskets 1 EA Dry Hole Plug			
Mix: Pump 80 5x 60/40 4 1/2 GEL 1/4" CF				AFU Inserts 2 m add NO CHARGE			
Disp H2O				Float Shoe 2 m add CHARGE			
3rd Plug 600' 40 5x 60/40 4 1/2 GEL 1/4" CF				Latch Down			
Pump H2O				SERVICE SVP			
Mix: Pump 40 5x 60/40 4 1/2 GEL 1/4" CF				LMV 30			
Disp H2O				Pumptrk Charge PTA			
4th Plug 270' 50 5x 60/40 4 1/2 GEL 1/4" CF				Mileage 60			
Pump H2O Mix: Pump 50 5x 60/40 4 1/2 GEL 1/4" CF				Tax			
Disp H2O							
X Signature				Total Charge			

QUALITY WELL SERVICE, INC.

Federal Tax I.D. # 481187368
 Home Office 30060 N. Hwy 281, Pratt, KS 67124
 Mailing Address P.O. Box 468

Office 620-727-3410
 Fax 620-672-3663

Rich's Cell 620-727-3409
 Brady's Cell 620-727-6964

Date	2-19-19	Sec.	16	Twp.	193	Range	27W	County	LAPE	State	Ks	On Location		Finish	
Lease	Bahm		Well No.	1-16		Location	Dighton, Ks E to Quantum Rd								
Contractor	Pickrell Dlg 29 # 10						Owner	S to 100th rd 2.2 E Sinto							
Type Job	PTA						To Quality Well Service, Inc. You are hereby requested to rent cementing equipment and furnish cement and helper to assist owner or contractor to do work as listed.								
Hole Size	7 7/8		T.D.	4700'		Csg.	4 1/2 O.P.		Depth	2040'		Charge To	Norsstar Petroleum Inc.		
Tbg. Size			Depth			Street									
Tool			Depth			City			State						
Cement Left in Csg.			Shoe Joint			The above was done to satisfaction and supervision of owner agent or contractor.									
Meas Line			Displace			Cement Amount Ordered									

5" Plug 60' 205x 60/40 4 1/2 FEL 1/4" CF
 Plug R-HOLE 30 60/40 4 1/2 FEL 1/4" CF

Thank you.

PLEASE CALL AGAIN

TOO TJ JAKE



DRILL STEM TEST REPORT

Prepared For: **Norstar Petroleum Inc**

88 Inverness Cir E Unit F104
Englewood CO 80112+5514

ATTN: Brad Rine

Bahm #1-16

16-19S-27W Lane,KS

Start Date: 2019.02.16 @ 12:30:00

End Date: 2019.02.16 @ 19:58:15

Job Ticket #: 57092 DST #: 1

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

Printed: 2019.02.19 @ 09:12:55



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Norstar Petroleum Inc
88 Inverness Cir E Unit F104
Englewood CO 80112+5514
ATTN: Brad Rine

16-19S-27W Lane,KS
Bahm #1-16
Job Ticket: 57092 **DST#: 1**
Test Start: 2019.02.16 @ 12:30:00

Tool Information

Drill Pipe:	Length: 4517.00 ft	Diameter: 3.82 inches	Volume: 64.03 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 74000.00 lb
Depth to Top Packer:	4512.00 ft			Final 74000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	33.00 ft			
Tool Length:	60.00 ft			
Number of Packers:	1	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4486.00	
Shut In Tool	5.00			4491.00	
Hydraulic tool	5.00			4496.00	
Jars	5.00			4501.00	
Safety Joint	2.00			4503.00	
Packer	5.00			4508.00	27.00 Bottom Of Top Packer
Packer	4.00			4512.00	
Stubb	1.00			4513.00	
Recorder	0.00	8018	Inside	4513.00	
Recorder	0.00	8677	Outside	4513.00	
Perforations	29.00			4542.00	
Bullnose	3.00			4545.00	33.00 Bottom Packers & Anchor

Total Tool Length: 60.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Norstar Petroleum Inc

16-19S-27W Lane,KS

88 Inverness Cir E Unit F104
Englewood CO 80112+5514

Bahm #1-16

Job Ticket: 57092

DST#: 1

ATTN: Brad Rine

Test Start: 2019.02.16 @ 12:30:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	Mud w/oil spots 100%M	0.028

Total Length: 2.00 ft Total Volume: bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 4#LCM

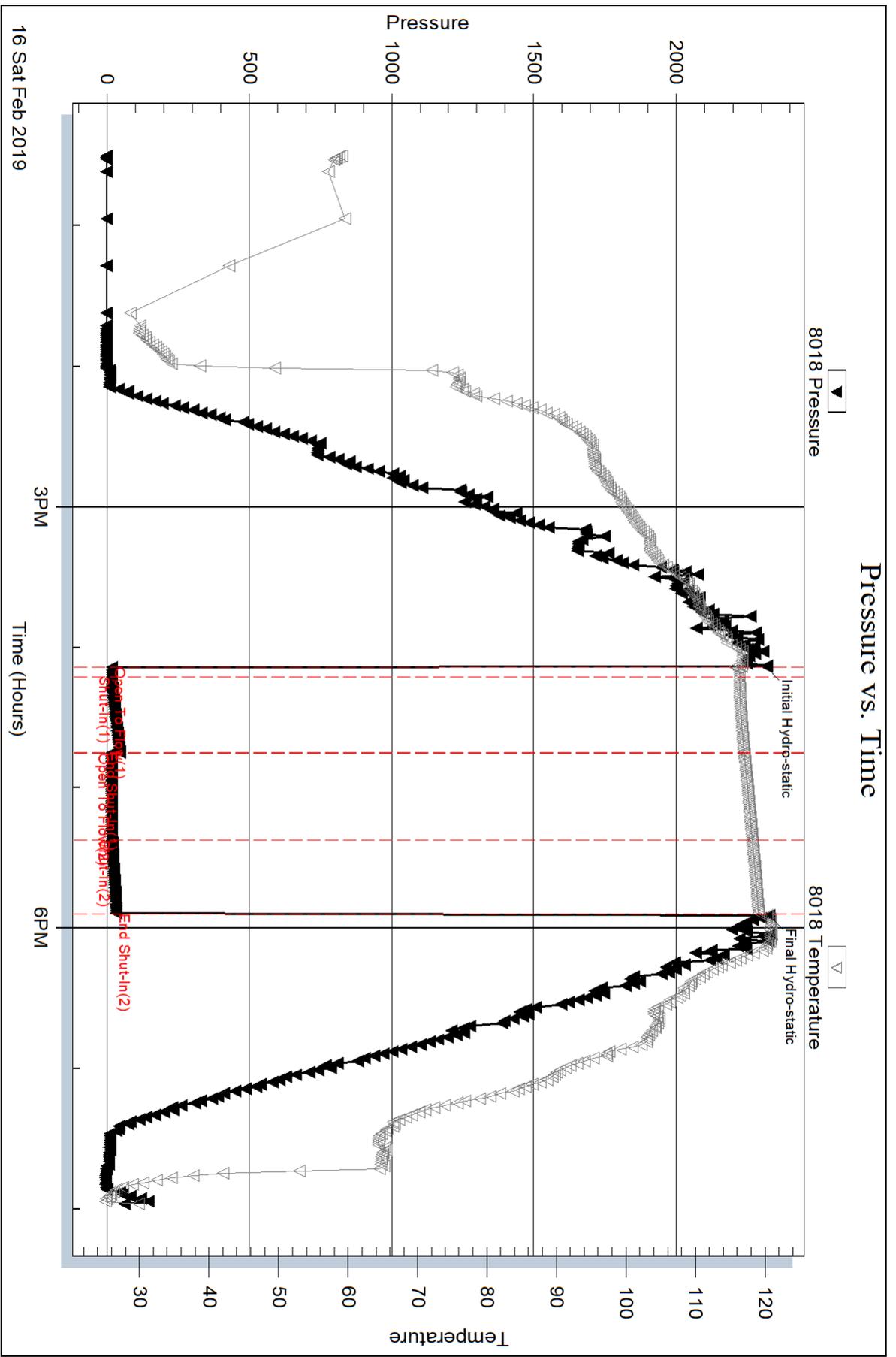
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Inside

Norstar Petroleum Inc

Bahm #1-16

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 57092

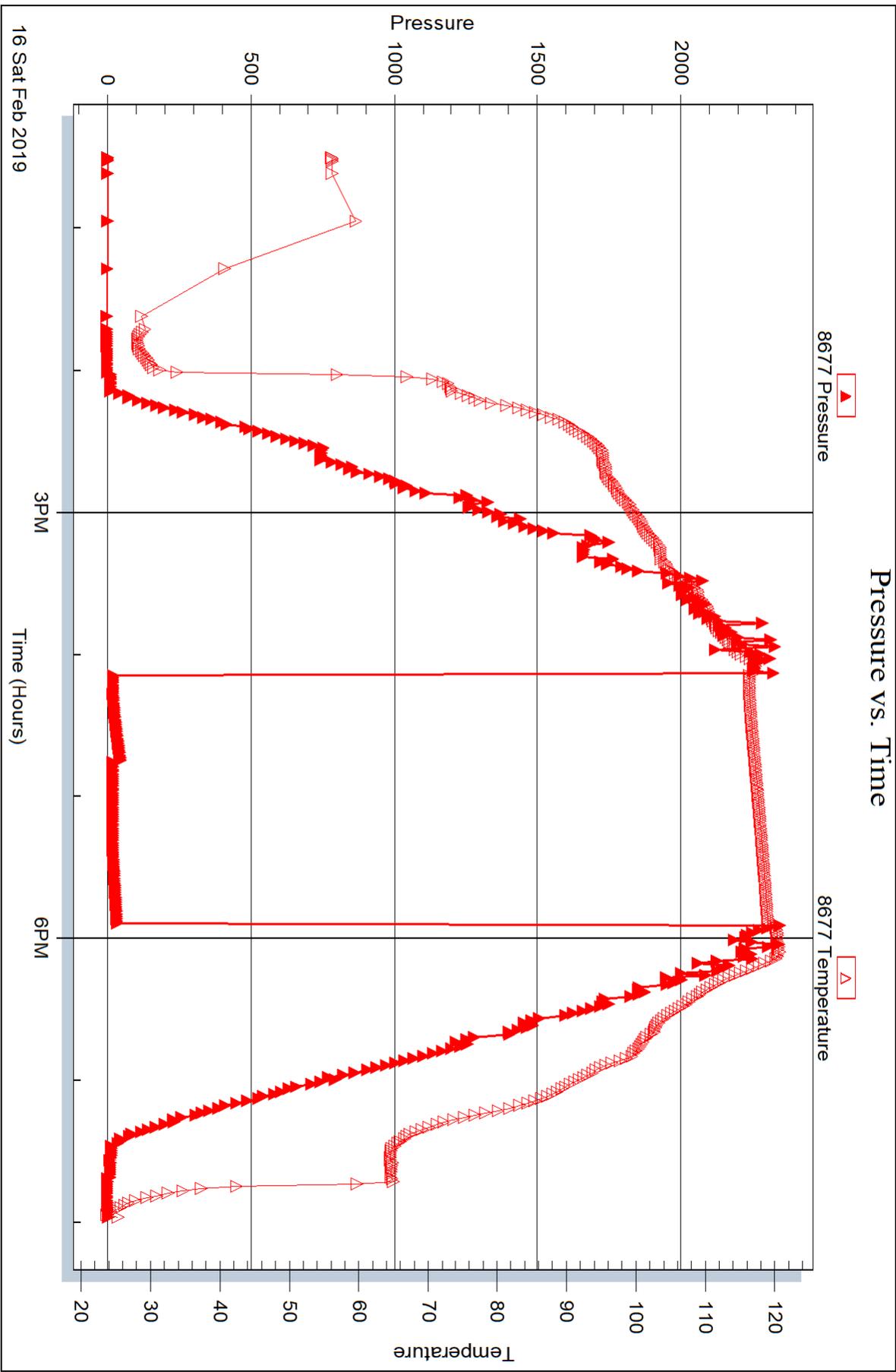
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Serial #: 8677

Outside Norstar Petroleum Inc

Bahm #1-16

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 57092

Printed: 2019.02.19 @ 09:12:56



DRILL STEM TEST REPORT

Prepared For: **Norstar Petroleum Inc**

88 Inverness Cir E Unit F104
Englewood CO 80112+5514

ATTN: Brad Rine

Bahm #1-16

16-19S-27W Lane,KS

Start Date: 2019.02.18 @ 20:21:00

End Date: 2019.02.19 @ 04:19:45

Job Ticket #: 57093 DST #: 2

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

Printed: 2019.02.19 @ 09:12:19



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Norstar Petroleum Inc
 88 Inverness Cir E Unit F104
 Englewood CO 80112+5514
 ATTN: Brad Rine

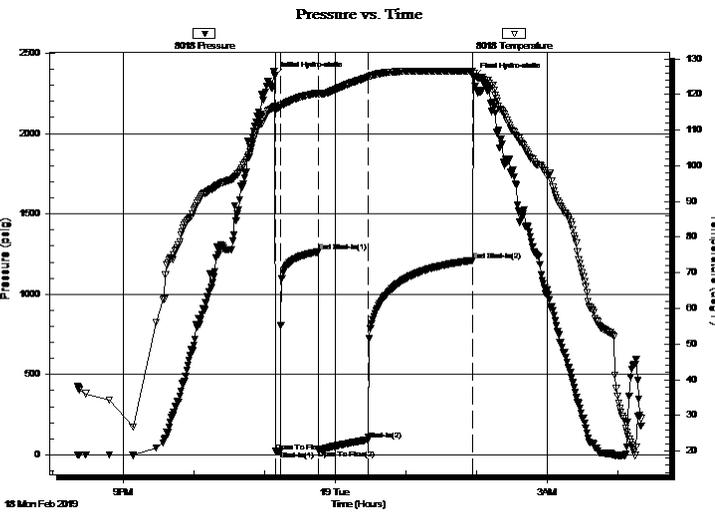
16-19S-27W Lane, KS
Bahm #1-16
 Job Ticket: 57093 **DST#: 2**
 Test Start: 2019.02.18 @ 20:21:00

GENERAL INFORMATION:

Formation: **Cherokee**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 23:09:00
 Tester: Spencer J Staab
 Time Test Ended: 04:19:45
 Unit No: 67
 Interval: **4591.00 ft (KB) To 4633.00 ft (KB) (TVD)**
 Reference Elevations: 2694.00 ft (KB)
 Total Depth: 4700.00 ft (KB) (TVD)
 2687.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Fair
 KB to GR/CF: 7.00 ft

Serial #: 8018 **Inside**
 Press@RunDepth: 94.45 psig @ 4594.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.02.18 End Date: 2019.02.19 Last Calib.: 2019.02.19
 Start Time: 20:21:05 End Time: 04:19:44 Time On Btm: 2019.02.18 @ 23:08:45
 Time Off Btm: 2019.02.19 @ 01:57:45

TEST COMMENT: 5-IF-Weak; Built to 2"
 30-ISI-No Return
 45-FF-BOB 45 mins
 90-FSI-No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2359.36	116.63	Initial Hydro-static
1	21.22	115.51	Open To Flow (1)
5	27.42	116.51	Shut-In(1)
37	1263.56	120.39	End Shut-In(1)
37	30.01	120.06	Open To Flow (2)
79	94.45	124.87	Shut-In(2)
168	1210.74	126.46	End Shut-In(2)
169	2351.27	126.07	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
160.00	WCM w/oil spots 7%W 93%M	2.27

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

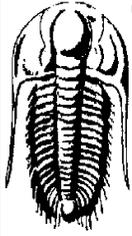
Norstar Petroleum Inc
88 Inverness Cir E Unit F104
Englewood CO 80112+5514
ATTN: Brad Rine

16-19S-27W Lane, KS
Bahm #1-16
Job Ticket: 57093 **DST#: 2**
Test Start: 2019.02.18 @ 20:21:00

Tool Information

Drill Pipe:	Length: 4582.00 ft	Diameter: 3.82 inches	Volume: 64.95 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	81000.00 lb
			<u>Total Volume:</u>	Tool Chased	ft
			- bbl	String Weight: Initial	76000.00 lb
Drill Pipe Above KB:	18.00 ft			Final	78000.00 lb
Depth to Top Packer:	4591.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	110.00 ft				
Tool Length:	137.00 ft				
Number of Packers:	1	Diameter:	6.75 inches		
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4565.00	
Shut In Tool	5.00			4570.00	
Hydraulic tool	5.00			4575.00	
Jars	5.00			4580.00	
Safety Joint	2.00			4582.00	
Packer	5.00			4587.00	27.00 Bottom Of Top Packer
Packer	4.00			4591.00	
Stubb	1.00			4592.00	
Perforations	1.00			4593.00	
change Over Sub	1.00			4594.00	
Recorder	0.00	8018	Inside	4594.00	
Recorder	0.00	8677	Inside	4594.00	
drill Pipe	32.00			4626.00	
Change Over Sub	1.00			4627.00	
Perforations	2.00			4629.00	
Blank Off Sub	1.00			4630.00	
top straddle packer	4.00			4634.00	
packer	0.00			4634.00	
Stubb	1.00			4635.00	
Perforations	3.00			4638.00	
Change Over Sub	1.00			4639.00	
Recorder	0.00	8675	Below	4639.00	
Drill Pipe	62.00			4701.00	110.00 Bottom Packers & Anchor
Total Tool Length:	137.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Norstar Petroleum Inc

16-19S-27W Lane,KS

88 Inverness Cir E Unit F104
Englewood CO 80112+5514

Bahm #1-16

Job Ticket: 57093

DST#: 2

ATTN: Brad Rine

Test Start: 2019.02.18 @ 20:21:00

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:

28000 ppm

Viscosity: 6.20 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5300.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
160.00	WCM w/oil spots 7%W 93%M	2.268

Total Length: 160.00 ft Total Volume: 2.268 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

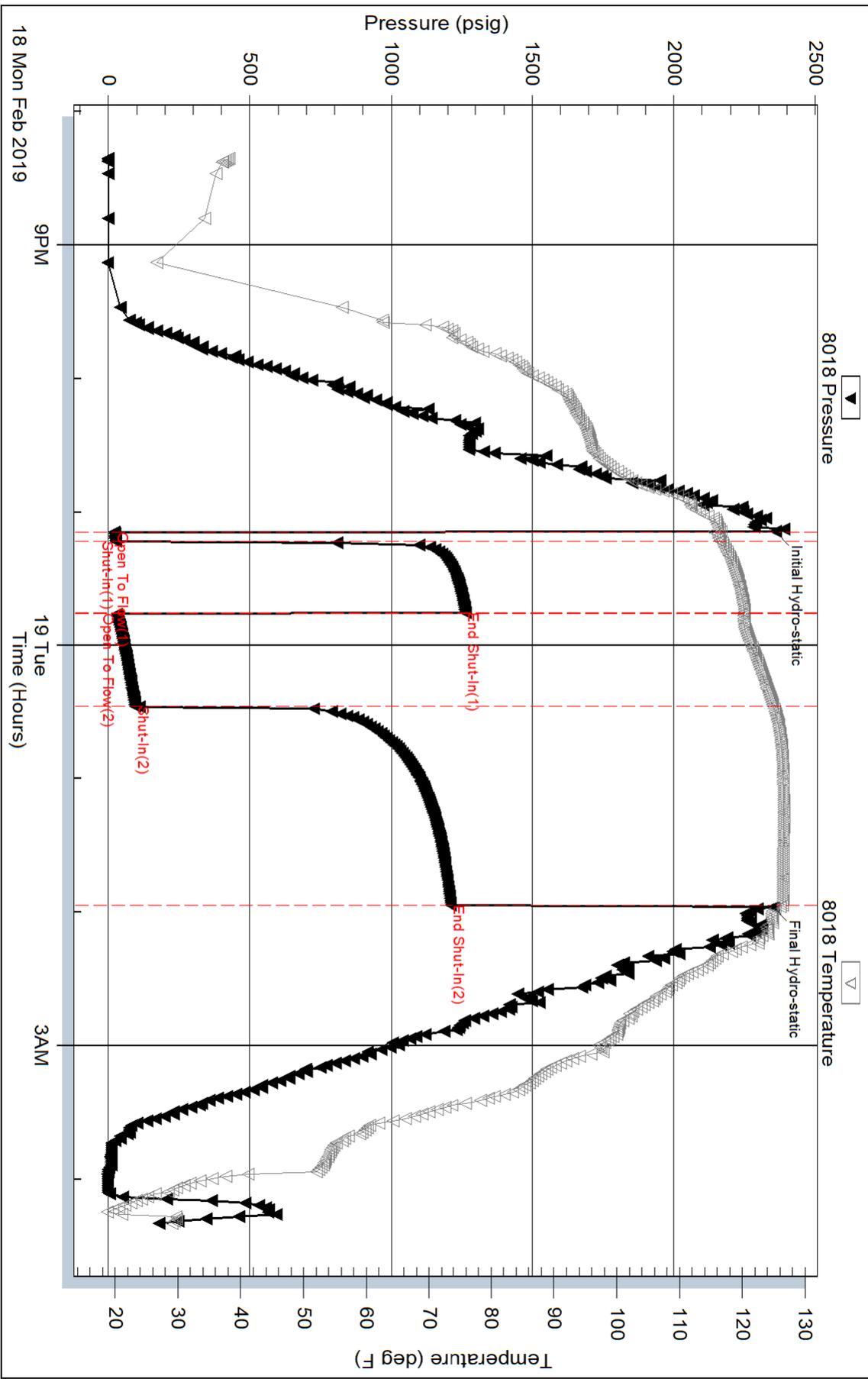
Laboratory Name:

Laboratory Location:

Recovery Comments: 1#LCM

RW=.556@33F

Pressure vs. Time

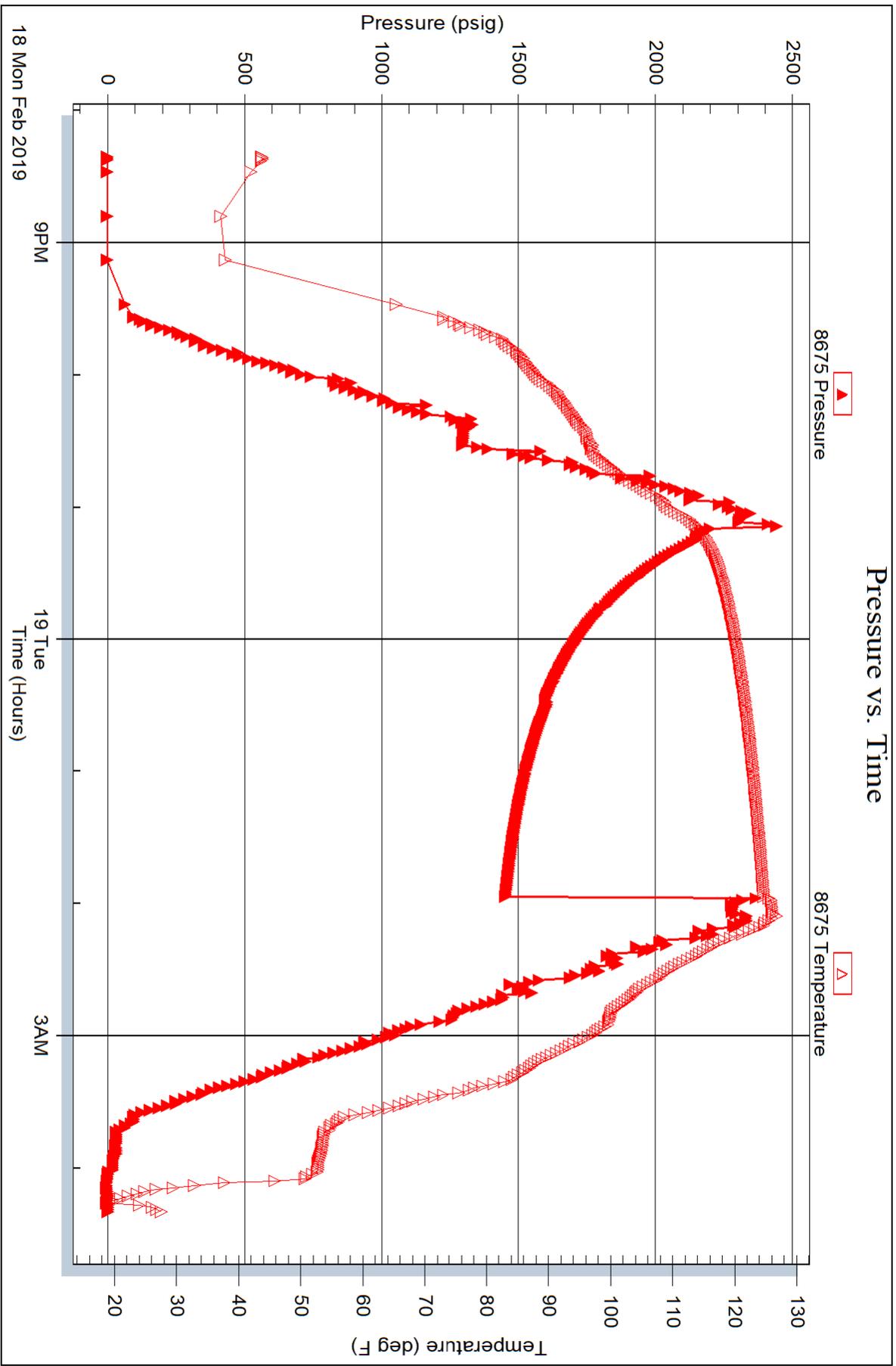


Serial #: 8675

Below (Strat) Petroleum Inc

Bahm #1-16

DST Test Number: 2



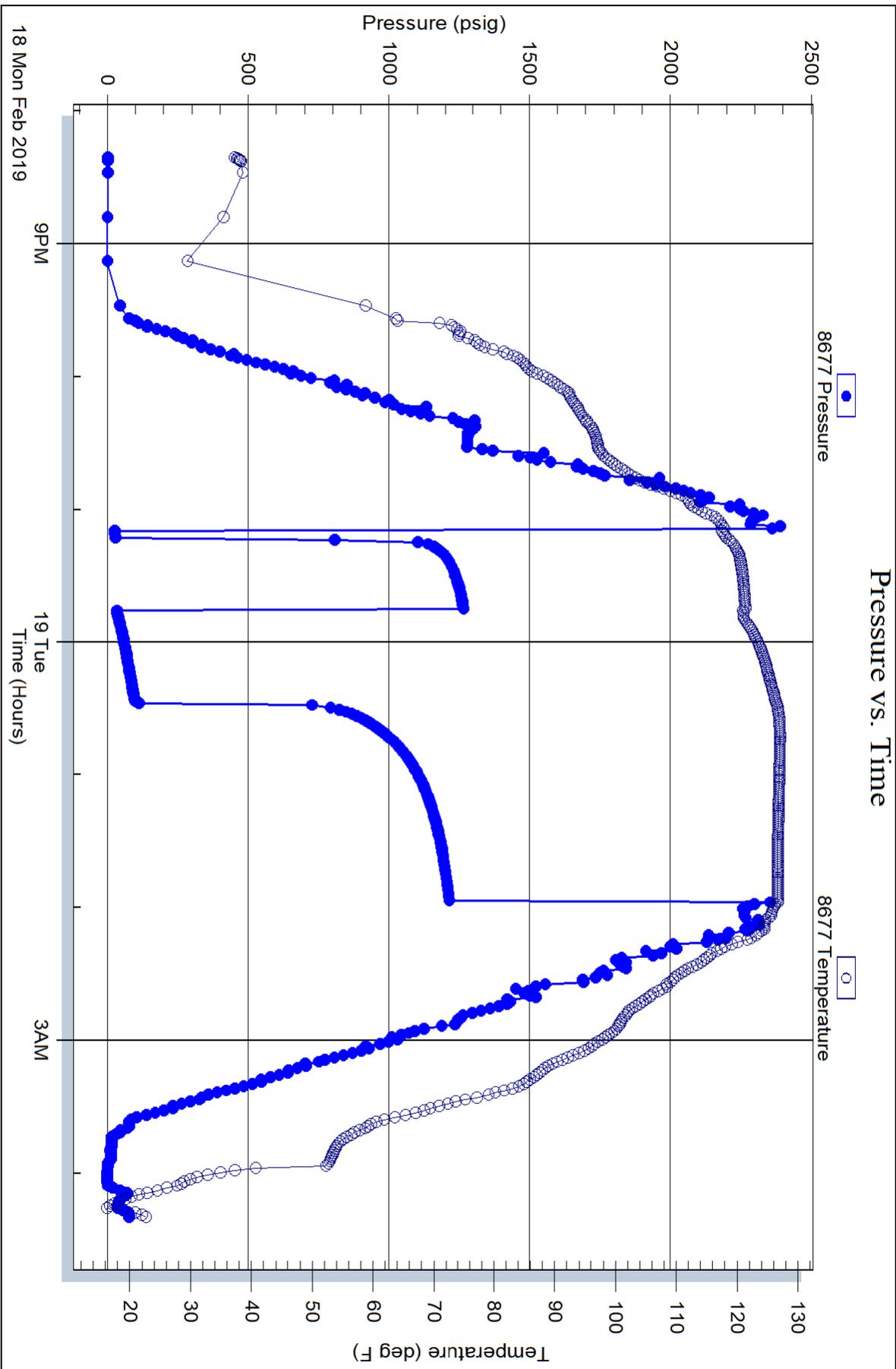
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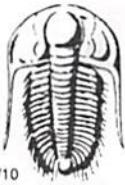
Inside

Norstar Petroleum Inc

Bahm #1-16

DST Test Number: 2





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 57092

Well Name & No. Bahn # 1-16 Test No. 1 Date 02/16/2019
 Company Horstar Petroleum Inc Elevation 2694 KB 2687 GL
 Address 88 Inverness Cir E Unit F104 Englewood Co 80112+594
 Co. Rep / Geo. Brad Rine Rig Picknell #10
 Location: Sec. 16 Twp. 19S Rge. 27W Co. Lane State KS

Interval Tested 4512' - 4545' Zone Tested H. Scott
 Anchor Length 33' Drill Pipe Run _____ Mud Wt. 9.4
 Top Packer Depth 4507' Drill Collars Run - Vis 60
 Bottom Packer Depth 4512' Wt. Pipe Run - WL 7.2
 Total Depth 4545' Chlorides 5,000 ppm System LCM 4#

Blow Description 77-9 Weak Surface
75D - No Return
77 - Weak Surface; Died @ 2 min
75D - No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>2'</u>	<u>Mud w/oil spots</u>			<u>100</u>	
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Rec Total 2' BHT 110° Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>2315</u>	<input checked="" type="checkbox"/> Test 1300	T-On Location <u>10:25</u>
(B) First Initial Flow <u>17</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>12:30</u>
(C) First Final Flow <u>17</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>16:05</u>
(D) Initial Shut-In <u>45</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>17:40</u>
(E) Second Initial Flow <u>16</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>19:54</u>
(F) Second Final Flow <u>17</u>	<input checked="" type="checkbox"/> Mileage <u>194R7</u> 76rt	Comments _____
(G) Final Shut-In <u>32</u>	<input type="checkbox"/> Sampler _____	_____
(H) Final Hydrostatic <u>2327</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____

Initial Open 5
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 30

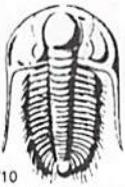
Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Sub Total 1701

Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1701
 MP/DST Disc't _____

Approved By _____ Our Representative Spencer J. Jural Thanks!
 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.

785-259-0056



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 57093

4/10

Well Name & No. Bahm #1-16 Test No. 2 Date 02/18/2019
 Company Norstar Petroleum Inc Elevation 2694 KB 2687 GL
 Address 88 Inverness Cir E Unit 7104 Englewood Co 80112-15514
 Co. Rep / Geo. Brad Rine Rig Pickrell #10
 Location: Sec. 16 Twp. 19S Rge. 27W Co. Lane State Ks

Interval Tested 4591'-4633' Zone Tested Cherokee
 Anchor Length 42' 67' tail Drill Pipe Run 4582' Mud Wt. 9.4
 Top Packer Depth 4591' Drill Collars Run - Vis 60
 Bottom Packer Depth 4633' Wt. Pipe Run - WL 8.8
 Total Depth 4700' Chlorides 5300 ppm System LCM 1#

Blow Description 17-Weak; Built to 2"
1SD- No Return
77- BOB 45 mins
7SD- No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>160'</u>	<u>WCW w/oil spots</u>		<u>7</u>	<u>93</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 160' BHT 126° Gravity - API RW 556 @ 33 ° F Chlorides 23000 ppm

(A) Initial Hydrostatic <u>2359</u>	<input checked="" type="checkbox"/> Test <u>1300</u>	T-On Location <u>17:00</u>
(B) First Initial Flow <u>21</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>20:21</u>
(C) First Final Flow <u>27</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>23:07</u>
(D) Initial Shut-In <u>1263</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>02:00</u> <u>02/19/2019</u>
(E) Second Initial Flow <u>30</u>	<input checked="" type="checkbox"/> Hourly Standby <u>X1</u> 1.25h 100	T-Out <u>04:19</u>
(F) Second Final Flow <u>94</u>	<input checked="" type="checkbox"/> Mileage <u>19427</u> 76	Comments <u>loaded after test</u>
(G) Final Shut-In <u>1210</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2351</u>	<input checked="" type="checkbox"/> Straddle <u>600</u>	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer

Initial Open 5
 Initial Shut-In 30
 Final Flow 45
 Final Shut-In 90

Extra Packer
 Extra Recorder
 Day Standby 46 hrs 1.5d 9h
 Accessibility
 Sub Total 2401

Total 2701
 MP/DST Disc't

Approved By _____ Our Representative Spencer J. Jacob Thanks!

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.

785-259-0056



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

Well Name: Bahm #1-16 - Norstar Petroleum, Inc.
API: 15-101-22620-00-00
Location: NW-NW-SE-NW, Section 16-T19S-R27W
License Number: KCC #31652
Spud Date: February 08, 2019
Surface Coordinates: 1573' FNL & 1643' FWL,
of Section
Bottom Hole Vertical Wellbore
Coordinates:
Ground Elevation (ft): 2687 Ft. K.B. Elevation (ft): 2694 Ft.
Logged Interval (ft): 3700 Ft. To: 4700 Ft. Total Depth (ft): RTD 4700 Ft. LTD 4700 Ft.
Formation: Mississippian at Total Depth
Type of Drilling Fluid: Chemical

Region: Lane County, Kansas
Drilling Completed: February 19, 2019
Results: P & A
Field: Unnamed

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

Operator

Company: Norstar Petroleum, Inc.
Address: 88 Inverness Circle E, Unit F104
Englewood, Colorado 80112-5514

Geologist

Name: M. Bradford Rine
Company: Consulting Geologist, Kansas Lic. #204, Wyo #189, AAPG Cert. #2647
Address: 100 South Main, Suite #320A
Wichita, Kansas 67202

Remarks

Based on sample observations, drill stem test results, and electric log evaluation, it was the decision of the Operator, to plug and abandon the "Bahm #1-16", on February 19, 2019.

Respectfully submitted,
M. Bradford Rine, geologist

Drilling Information

Rig: Pickrell Drilling, Rig # 10
Pump: Emsco D-375 6x14
Drawworks: Unit U15
Collars: 525' 2-1/4 x 6-1/4
Drillpipe: 4-1/2" 16.6# XH
Toolpusher: Mike Kern

Mud: Mudco (Michael Carroll)
Gas Detector: None
Drill Stem Tests: Trilobite (Spencer Staab)
Logs: ELI (Jason Cappellucci)
Water: Pond adjacent location
Company Representatives:
Office: Brady Pfeiffer
Field: None

Daily Drilling Status

Date:	Operations/Depth/Comments
02-06-19	Begin MIRT @ 0'
02-07-19	Continue MIRT @ 0'
02-08-19	Complete MIRT, RU, Spud @ 0'
02-09-19	Waiting on Cement @ 222'
02-10-19	Drilling @ 476'
02-11-19	Drilling @ 1892'
02-12-19	Drilling @ 2870'
02-13-19	Drilling @ 3387'
02-14-19	Drilling @ 3955'
02-15-19	Circulating for Samples @ 4272'
02-16-19	Circulating for Samples @ 4545'
02-17-19	Circulating for Samples @ 4600'
02-18-19	Drilling @ 4681'
02-19-19	TIH to Prepare to P&A @ 4700' RTD Complete plugging at 8:00 PM

		Results: D & A		(Well A)	Oil	(Well B)	D & A			
		Norstar Petroleum, Inc.		Norstar Petroleum, Inc.		Gypsy Exploration, LLC				
		Bahm #1-16		Hineman Unit #1-16		Whipple "B" #16-1				
		1573' FNL & 1643' FWL		1222' FSL & 1086' FEL		2301' FSL & 2309' FEL				
		Sec. 16-T19S-R27W		Sec. 16-T19S-R27W		Sec. 16-T19S-R27W				
		KB	2694	KB	2709	KB	2715	Well A	Well B	
Formations	Sample	E-Log	Datum	E-Log	Datum	E-Log	Datum	Comparison(s)		
Anhydrite	2026	2024	670	2037	672	2040	675	-2	-5	
B/Anhydrite	2055	2053	641	2070	639	2072	643	2	-2	
Heebner Sh.	3955	3955	-1261	3975	-1266	3973	-1258	5	-3	
Toronto	3971	3973	-1279	3992	-1283	3989	-1274	4	-5	
Lansing	3995	3995	-1301	4016	-1307	4014	-1299	6	-2	
Muncie Creek Sh	4165	4167	-1473	4184	-1475	4181	-1466	2	-7	
Stark Sh.	4260	4264	-1570	4277	-1568	4282	-1567	-2	-3	
Marmaton	4377	4374	-1680	4393	-1684	4394	-1679	4	-1	
Ft. Scott	4517	4518	-1824	4533	-1824	4534	-1819	0	-5	
Cherokee Sh.	4541	4542	-1848	4555	-1846	4556	-1841	-2	-7	
Cherokee Sd.	4600	4600	-1906	4605	-1896	4606	-1891	-10	-15	
Mississippian	4647	4648	-1954	4646	-1937	4641	-1926	-17	-28	
Total Depth	4700	4700	-2006	4722	-2013	4748	-2033	7	27	

Casing Record, Bit Record, Deviation Surveys

CASING:

Conductor: None

Surface: Ran 5 jts new 8-5/8" 23# surface casing, set @ 220'. (Quality) Cement with 165 sx Common, 2% gel, 3%CC. Plug down at 8:00 am, February 09, 2019. Cement did circulate.

Production: P & A, as follows: (Quality) Cement used: 60/40 POZ with 4% gel and 1/4# flocele per sack. Plug with 50 sx at 2040', 80 sx at 1180', 40 sx at 600', 50 sx at 270', 20 sx at 60' and 30 sx in rahole. Final plug down at 8:00 PM on February 19, 2019.

BITS:

No.	Size	Make	Model	Depth In	Depth Out	Hours
1	12-1/4	JZ	?	0	222	4.00
2	7-7/8	JZ	ENPO	222	4545	102.00
3	7-7/8	JZ	HA20C	4545	4610	4.25
4	7-7/8	JZ	HA41	4610	4700	7.25

DEVIATION SURVEYS:

Deviation:	Depth:	Deviation:	Depth:
1.00*	222'	0.75*	1955'
1.00*	755'	0.75*	2522'
1.50*	1261'	1.50*	4545'
1.25*	1450'	0.25*	4700'

PIPE STRAPS:

Difference: depth:
.25' short 4545'

Remarks:

DST #1: 4512-4545 (Ft. Scott)

Times: 05-30-30-30

Initial Open: Wk Surface Blow thruout

Final Open: V Wk surface blow, died 2 min

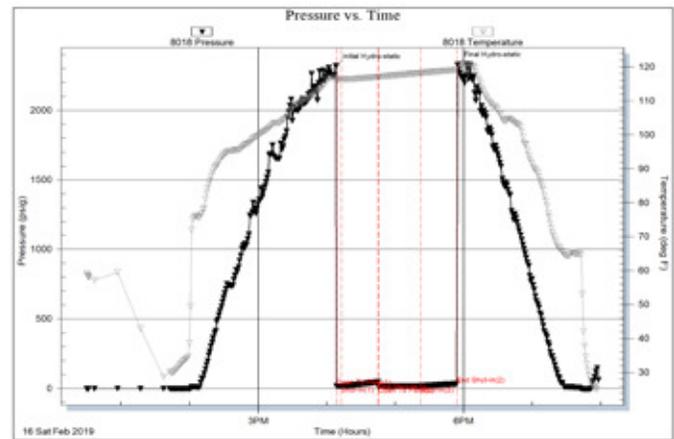
Rec: 2' mud/oil spots

IHP: 2315 FHP: 2327

IFP: 17-17 FFP: 16-17

ISIP: 45 FSIP: 32

BHT: 110°F



DST #2: 4591-4633 (CKE Sd)

***Straddle Test after logs!**

Initial Open: Wk Blow, built to 2" i.b.

Final Open: Stg Blow, b.o.b. 45 min

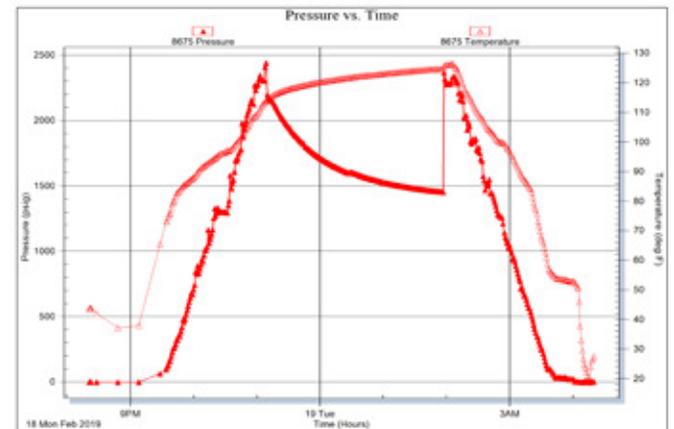
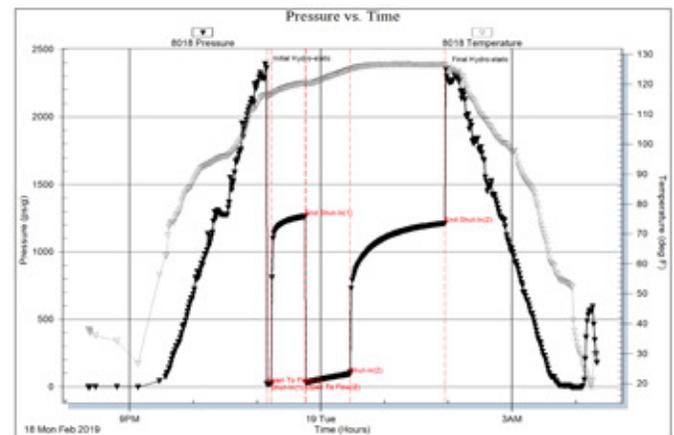
**Rec: 160' WCM with oil spots
(Chlorides of Water 28000 ppm)**

IHP: 2359 FHP: 2351

IFP: 21-27 FFP: 30-94

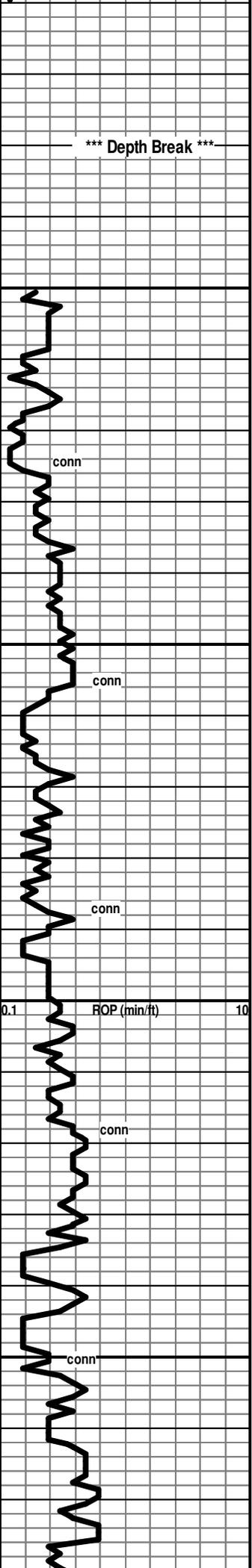
ISIP: 1263 FSIP: 1210

BHT: 126°F



Straddle Packer Verification

* Lost Returns @ 2927',
appr. 30 bbl!

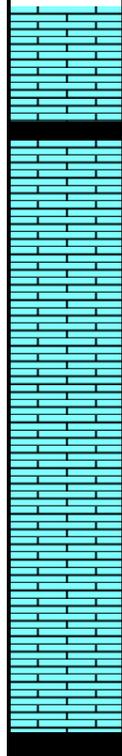


3700

3750

3800

3850



Ls cr-tan, fn xln, dns to pr xln por, foss

Sh black, carb

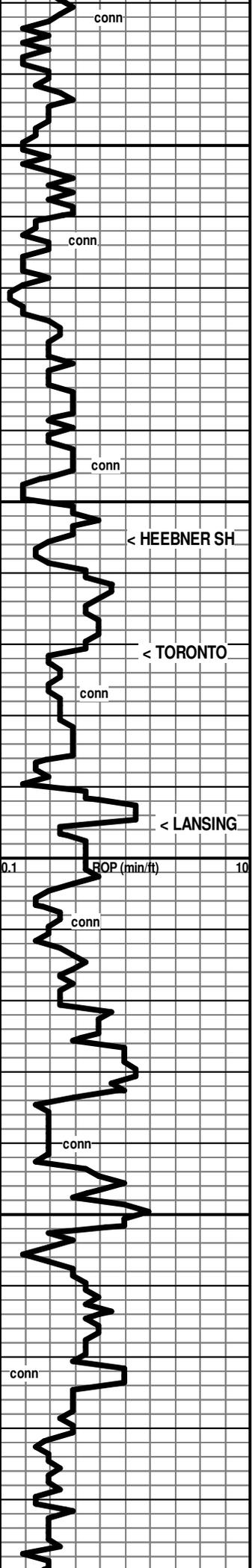
Ls wh-cr, fn xln, chalky & mushy to dns & firm, foss

Ls wh-cr, fn xln, chalky in pt, pr xln por in pt, foss

Ls cr-gy, fn xln, pr-fr xln por, foss

Ls pl gy, fn xln, dns, sli foss

Sh black, carb



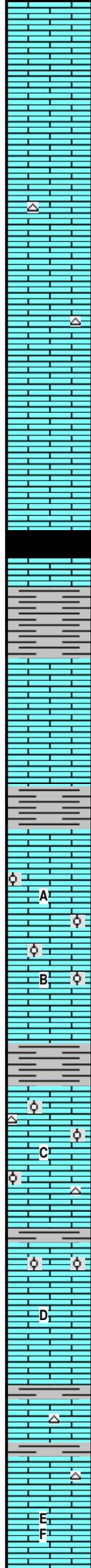
3900

3950

4000

4050

4100



Ls wh-cr, fn xln, chalky & mushy in pt, pr xln por in pt, foss in pt

Ls wh-cr, fn xln, subchalky in pt, pr-fr xln por in pt, foss to abund foss

Ls wh-cr-gy, fn xln, dns in pt, chalky in pt, pr-fr xln por in pt, foss, Rr chart: fresh, vitreous-subgrainy text, subopaq

Ls wh-cr-tan-gy, fn xln, dns in pt, chalky in pt, pr-fr xln por in pt, foss

Ls cr, fn xln, pr-fr xln por, abund pp pores, abund foss

← 3955 (-1261)

Sh black, carb

Ls cr, fn xln, dns, foss

Sh gy-dk gy-pl gm-gm

← 3971 (-1277)

Ls wh-cr-tan, fn xln, pr xln por in pt subchalky in pt, foss

Sh gy-dk gy

← 3995 (-1301)

Ls wh-cr, fn xln, subchalky in pt, abund packed ool, with scatt interool pores, pr xln por, foss

Ls wh-cr-tan, fn xln, pr xln por in pt, dns in pt, abund foss

Sh gy

Ls cr-tan, fn xln, pr xln por in pt, dns in pt, abund packed sm ool with scatt interool pores, foss in pt, chert: fresh, white, foss & ool in pt, opa

Sh gy

Ls wh-cr, fn xln, pr xln por, abund pp pores & interfoss and interool pores

Ls cr-gy, fn xln, dns, sli foss in pt

Ls cr, fn xln, pr xln por to dns, foss, chert: fresh to subgrainy text, gy; incr % of shale in spls

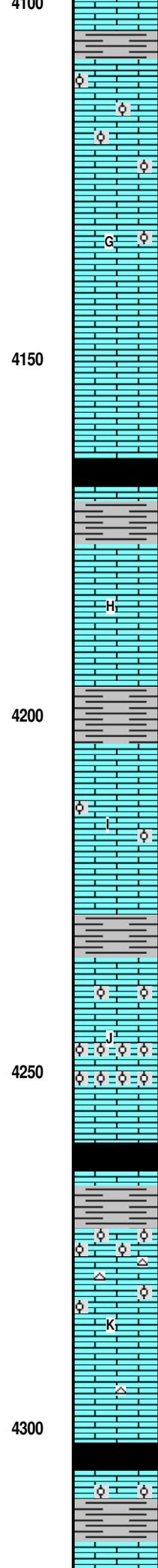
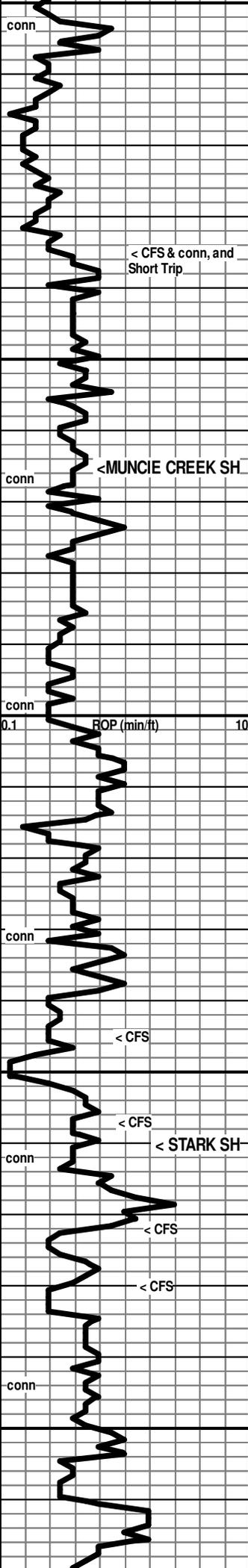
Ls sh-cr-tan, fn xln, pr xln por in pt, chalky in pt, abund foss in pt, more chert as above

7:00 AM, February 14, 2019

Mud Check, Drlg @ 4046':

Vis	Wt	WL	LCM	PV	YP
55	9.1	9.6	2	18	16
Chl	Hd	pH	Solids		
4100	80	9.0	5.5		

* Add Premix!



Sh gy-dk gy-blk

Ls wh-cr-tan, fn xln, abund pr-fr xln por, dns in pt, abund ool & foss with scatt interool pores, chert: fresh, cr, subopaq

Ls wh-cr,fn xln, mostly dns, some pr xln por, some subchalky, foss

Ls cr-tan, fn xln, dns, foss

← 4165 (-1471)

Sh black, carb

Sh gy-grmish

Ls wh-cr-tan, vfn-fn xln, mostly dns, some pr xln por, some chalky, foss in pt

H

Ls wh-cr-tan, vfn-fn xln, mostly dns, some pr xln por, some chalky, scatt transl calcite patches, foss in pt

4200

Sh gy-grmish

Ls wh-cr-tan, fn xln, dns in great pt, subchalky in pt, some pr-fr xln por, foss, Rr ool pcs

I

Ls wh-cr-tan-pl gy, fn xln, dns to prxln por, foss

Sh gy-dk gy-grmish

Ls wh-cr-tan, fn xln, abund dns, some pr xln por, some chalky & mushy pcs, some ool in pt (no oom), foss in pt

J

Ls wh-cr-pl gy, fn xln, pr xln por, some wh chalky & mushy pcs, oom with mix of pr-fr-gd oom por, foss

Ls tan-gy, vfn xln, vitreous text in pt, foss

← 4260 (-1566)

Sh black, carb

Sh gy-grm

Ls cr-tan, fn xln, mostly pr xln por, some fr xln por in patches and pcs, Mod am't of white chalky-mushy pcs, foss to abund foss, ool in pt-mostly well cem, some oom pcs from above J zn?, chert: fresh wh-gy, foss, ool, opaque

[No Odor, Abund Mineral Fluor-no distinguishable hydrocarbon fluor, No Stn, NSO]

K

Ls wh-cr-tan, vfn-fn xln, dns, Chert: fresh, gy, foss

4300

Sh black, carb

Ls wh-cr-tan-brn, vfn-fn xln, mostly dns, some chalky, scatt pr xln por, foss, sometiny ool pcs

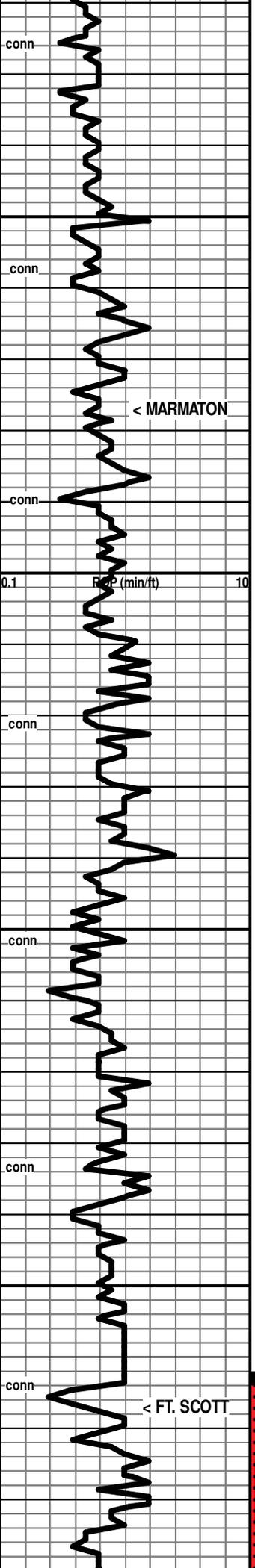
Sh gy

* Short Trip 38 stds @ 4135 ft, to Condition Hole for DSTs!

7:00 AM, February 15, 2019

Mud Check, Drlg @ 4295':

Vis	Wt	WL	LCM	PV	YP
60	9.4	9.2	1	17	18
Chl	Hd	pH	Solids		
5900	80	9.0	7.5		



4350

4400

4450

4500

< MARMATON

< FT. SCOTT

Ls wh-cr, fn xln, mostly pr xln por, some interfoss pores, subchalky in pt, foss to packed foss

Ls wh-cr, fn xln, mostly dns, some chalky, foss to abund foss

Ls wh-cr-tan, vfn-fnxln, dns in pt, chalky in pt, pr xln por in pt, foss, chert: fresh, tan, transl, foss

Sh gy

Ls wh-cr-tan, vfn-fnxln, dns in pt, chalky in pt, pr xln por in pt, foss

Sh gy-dk gy-grmish, mic text in pt, limey in pt

← 4377 (-1683)

Ls wh-cr-tan-brn, fn xln, mostly dns, some chalky to subchalky, foss in pt

Sh black, carb

Sh red-gy-grn, possibly calc in pt-some Ls in spls

Ls wh-cr-tan, fn xln, pr xln por to dns, some subchalky, foss, scatt glauc gm patches

Sh pl grn-dk gm, mic

Ls wh-cr-tan, fn xln, pr xln por to dns, some subchalky, foss

Ls wh-cr-tan, vfn-fn xln, vitreous text in pt, pr xln por to dns, some subchalky, foss

Sh gy-grmish- gm

Ls wh-cr, vfn-fn xln, dns to subchalky, Rr scatt foss

Sh gy-black, carb in pt

Ls wh-cr-tan-brn, vfn-fn xln, some softer chalky, much dns, foss in pt

Ls wh-cr-tan-brn, vfn-fn xln, some softer chalky, much dns, foss in greater abund, chert: subfresh, wh-gy, subopaq, foss

Sh black, carb

← 4517 (-1823)

Ls cr, fn xln, pr xln por, scatt pp pores, abund foss-with scatt foss mold pp pores, ool in pt-well cem to some interool pr xln por

Sh gy

Ls cr, fn xln, pr xln por to dns, scatt pp pores, ool in pt with pr interool xln por, foss, chert: fresh, wh-tan, foss, opa-q-transl

Show Description →

Show Description →

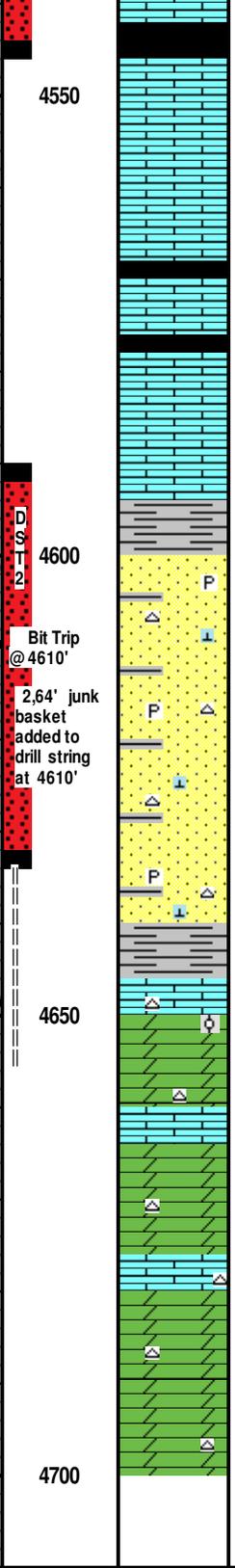
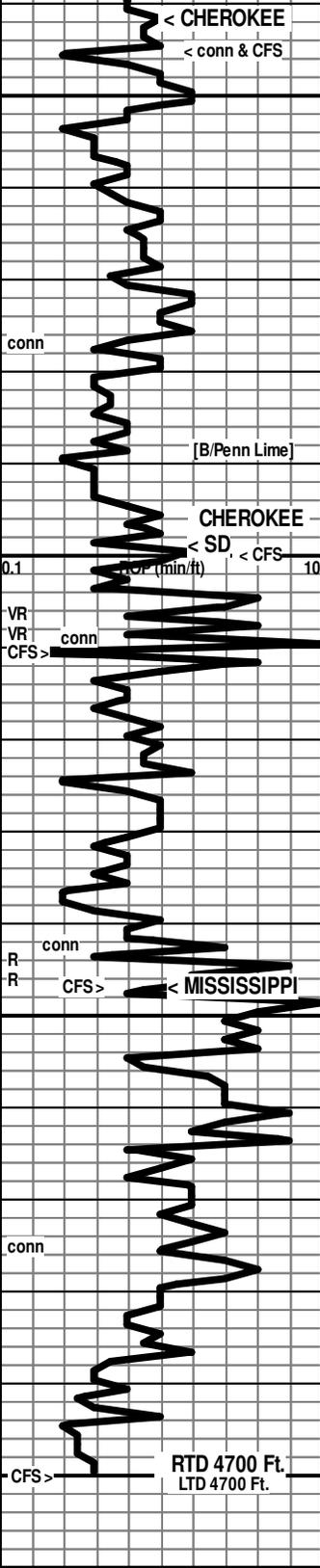
* 4421' Begin losing partial returns. From 4421-4445, lost appr 20-30 bbls. Contact TF and Mud man. Build premix and lower PP!

* Premix added, full returns regained!

DST #1: 4512-4545 (Ft. Scott)
 Times: 05-30-30-30
 Initial Open: Wk Surface Blow thruout
 Final Open: V Wk surface blow, died 2 min
 Rec: 2' mud/oil spots
 IHP: 2315 FHP: 2327
 IFP: 17-17 FFP: 16-17
 ISIP: 45 FSIP: 32
 BHT: 110°F

[Mild Odor, Mod am't pcs with brt fluor, Moderate low % pcs with trace to sli shows of lt brn gassy with patchy-even lt brn strn]

[Fnt Odor, Scatt brt fluor, low % pcs with trace to shows of lt brn gassy FO with spotty-patchy strn]



4541 (-1847)
 Sh black, carb
 Ls wh-cr-tan-gy, vfn-fn xln, some chalky, mostly dns, foss in pt
 Ls cr-tan-gy, vfn-fn xln, mostly dns, foss in pt
 Sh black carb
 Ls cr-tan-gy, vfn-fn xln, dns...mixed with shales gy-black, carb in pt
 Sh black, carb
 Ls wh-cr-tan, vfn-fn xln, some chalky, mostly dns, foss in pt
 Sh red-gy-grn, pyritic in pt, silty in pt, some loose pyrite pcs
 < 4589-4600: Few pcs per tray of Sd glassy-wh, vfn grn (100u +/-), mostly subrd with some quartzitic ang grns, gd sort, small clusters sharp to rd'd, pr-gd fri; abund Ls and shales in spls, tr of fresh chert, loose pyrite pcs
 [No odor, No fluor, NSO]
 < 4600-4610: Incr'd % sd clusters in tray: Sd glassy-wh, fn grn (225u +/-), sd grns sli more coarse than above, mostly subrd with some quartzitic ang-subang grns, fr-gd sort, small clusters sharp to rd'd, pr-gd fri; abund Ls and increased shales in spls, tr of fresh chert, abund loose pyrite pcs
 [No odor, No fluor, NSO]
 4630' spl: 33% Sd glassy-white, fn grn (175u-225u), gd sort, sharp to rd'd clusters, pr-gd fri; 33% Shales: mostly pl grn-grn & gy-dl gy, silty to sdy in pt; 33% Ls: cr-tan, fn xln, dns with scatt subchalky edges, trace of fresh chert
 4640' spl: 50% Sd as above; 30% shales as above; 20% Ls as above
 4647' spl: 50% Sd as above; 30% shales as above; 20% Ls and chert: fresh, cr-gy, subtransl-opaq, spiculitic in pt
 4647' cfs: 40% Sd; 30% shales with yell shale; 30% Ls and chert, Ls wh-cr-tan, vfn to fn xln, dns, some blocky text with pr xln por, foss, some wh chalky, some dolom, chert: fresh to v sli grainy, transl-subtr-opaq, wh-gy, spic in pt
 [No odor, No fluor, NSO]
 4660' spl: 10% Sd as above; 50% Ls Ls and chert, Ls wh-cr-tan, vfn to fn xln, dns, some blocky text with pr xln por, foss, some wh chalky, some dolom, some ool; 40% Shales from CKE
 4670' spl: was much like above with incr in wh pastey-mushy chalky Ls
 4680' spl: Abund cr-gy dolom & dolom ls & limmey dol. vnf-fn grn, silty to subsucrosic to sucr text, pr vis xln por, cherty; still have abund Ls and shale in spls
 [No odor, No fluor, NSO]
 4690' spl: Abund cr-gy dolom & dolom ls & limmey dol. vnf-fn grn, silty to subsucrosic to sucr text, pr vis xln por, cherty; still have abund Ls and shale in spls
 4700' spls: Dol, cr-tan-pl gy, fn xln, pr-fr xln por, scatt to abund pp pores & vugs, subsucr-sucr, chert: fresh, wh-pl gy, subtransl, foss, some spiculitic
 [No odor, No fluor, NSO]

7:00 AM, February 16, 2019

DST #2: 4591-4633 (CKE Sd)
 *Straddle Test after logs!
 Initial Open: Wk Blow, built to 2" i.b.
 Final Open: Stg Blow, b.o.b. 45 min
 Rec: 160' WCM with oil spots
 (Chlorides of Water 28000 ppm)
 IHP: 2359 FHP: 2351
 IFP: 21-27 FFP: 30-94
 ISIP: 1263 FSIP: 1210
 BHT: 126°F

7:00 AM, February 17, 2019

4600 (-1906)

* Due to very rough drilling, rig varied WCM and RPM!

Mud Check, CFS @ 4610':
 Vis Wt WL LCM PV YP
 75 9.5 9.6 2 19 25
 Chl Hd pH Solids
 7100 120 9.6 8.1

Will add Premix after bit
 *Pulled bit, one jet plug all cones were missing of their buttons!

4647 (-1953)

7:00 AM, February 18, 2019

Mud Check, CTCH/RTD @ 4700':
 Vis Wt WL LCM PV YP
 62 9.4 8.8 1 19 19
 Chl Hd pH Solids
 5300 40 9.5 7.5

RTD 4700 Ft. Reached at, 7:30 AM, February 18, 2019!