

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)</i> <i>(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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Form	ACO1 - Well Completion
Operator	Black Oak Exploration, LLC
Well Name	WALKER 1-33
Doc ID	1591813

All Electric Logs Run

DUCP
DIL
MICRO
SONIC



DRILL STEM TEST REPORT

Prepared For: **Black Oak Exploration, LLC**

1474 S ST Paul St
Denver, CO 80210

ATTN: Clayton Camozzi

Walker #1-33

33-3s-32w Rawlins,KS

Start Date: 2021.06.28 @ 15:01:00

End Date: 2021.06.28 @ 20:22:36

Job Ticket #: 67526 DST #: 2

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2021.07.01 @ 09:15:11



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Black Oak Exploration, LLC

33-3s-32w Rawlins,KS

1474 S ST Paul St
Denver, CO 80210

Walker #1-33

Job Ticket: 67526

DST#: 2

ATTN: Clayton Camozzi

Test Start: 2021.06.28 @ 15:01:00

GENERAL INFORMATION:

Formation: **LKC "F - H"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:46:36

Time Test Ended: 20:22:36

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder/ Justin

Unit No: 73

Interval: 4012.00 ft (KB) To 4086.00 ft (KB) (TVD)

Total Depth: 4086.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 3032.00 ft (KB)

3027.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6771

Inside

Press@RunDepth: 21.15 psig @ 4013.00 ft (KB)

Start Date: 2021.06.28

End Date: 2021.06.28

Start Time: 15:01:01

End Time: 20:22:36

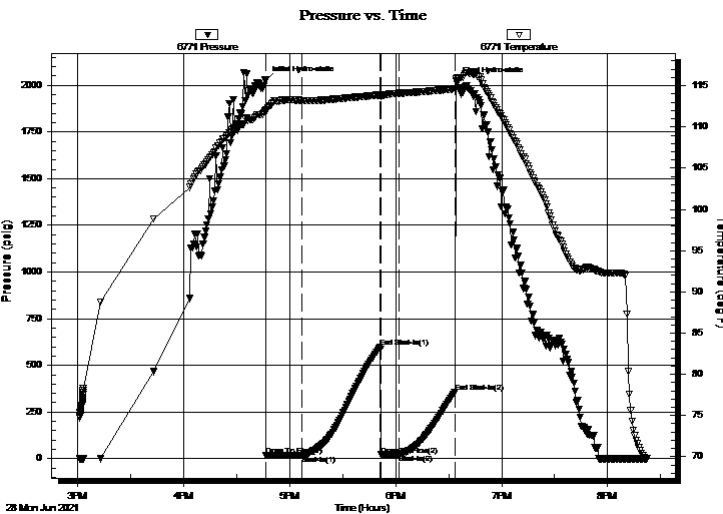
Capacity: 8000.00 psig

Last Calib.: 2021.06.28

Time On Btm: 2021.06.28 @ 16:46:21

Time Off Btm: 2021.06.28 @ 18:34:06

TEST COMMENT: 20 - IF: Blow built to 1/8", died back to weak surface blow
45 - IS: No blow back
10 - FF: No blow
30 - FS: No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2026.51	111.99	Initial Hydro-static
1	17.47	111.81	Open To Flow (1)
21	18.94	113.19	Shut-In(1)
65	598.32	113.88	End Shut-In(1)
66	20.31	113.67	Open To Flow (2)
76	21.15	114.07	Shut-In(2)
107	355.34	114.63	End Shut-In(2)
108	2022.28	115.88	Final Hydro-static

Recovery

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

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Black Oak Exploration, LLC

33-3s-32w Rawlins,KS

1474 S ST Paul St
Denver, CO 80210

Walker #1-33

Job Ticket: 67526

DST#: 2

ATTN: Clayton Camozzi

Test Start: 2021.06.28 @ 15:01:00

Tool Information

Drill Pipe:	Length: 3770.00 ft	Diameter: 3.80 inches	Volume: 52.88 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 234.00 ft	Diameter: 2.25 inches	Volume: 1.15 bbl	Weight to Pull Loose: 84000.00 lb
			<u>Total Volume: 54.03 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	4012.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	74.00 ft			
Tool Length:	103.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3984.00	
Shut In Tool	5.00			3989.00	
Hydraulic tool	5.00			3994.00	
Jars	5.00			3999.00	
Safety Joint	3.00			4002.00	
Packer	5.00			4007.00	29.00 Bottom Of Top Packer
Packer	5.00			4012.00	
Stubb	1.00			4013.00	
Recorder	0.00	6771	Inside	4013.00	
Recorder	0.00	8367	Outside	4013.00	
Perforations	5.00			4018.00	
Change Over Sub	1.00			4019.00	
Drill Pipe	63.00			4082.00	
Change Over Sub	1.00			4083.00	
Bullnose	3.00			4086.00	74.00 Bottom Packers & Anchor

Total Tool Length: 103.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Black Oak Exploration, LLC

33-3s-32w Rawlins,KS

1474 S ST Paul St
Denver, CO 80210

Walker #1-33

Job Ticket: 67526

DST#: 2

ATTN: Clayton Camozzi

Test Start: 2021.06.28 @ 15:01:00

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: 82.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 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 bbl
15.00	Mud 100%	0.074

Total Length: 15.00 ft Total Volume: 0.074 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

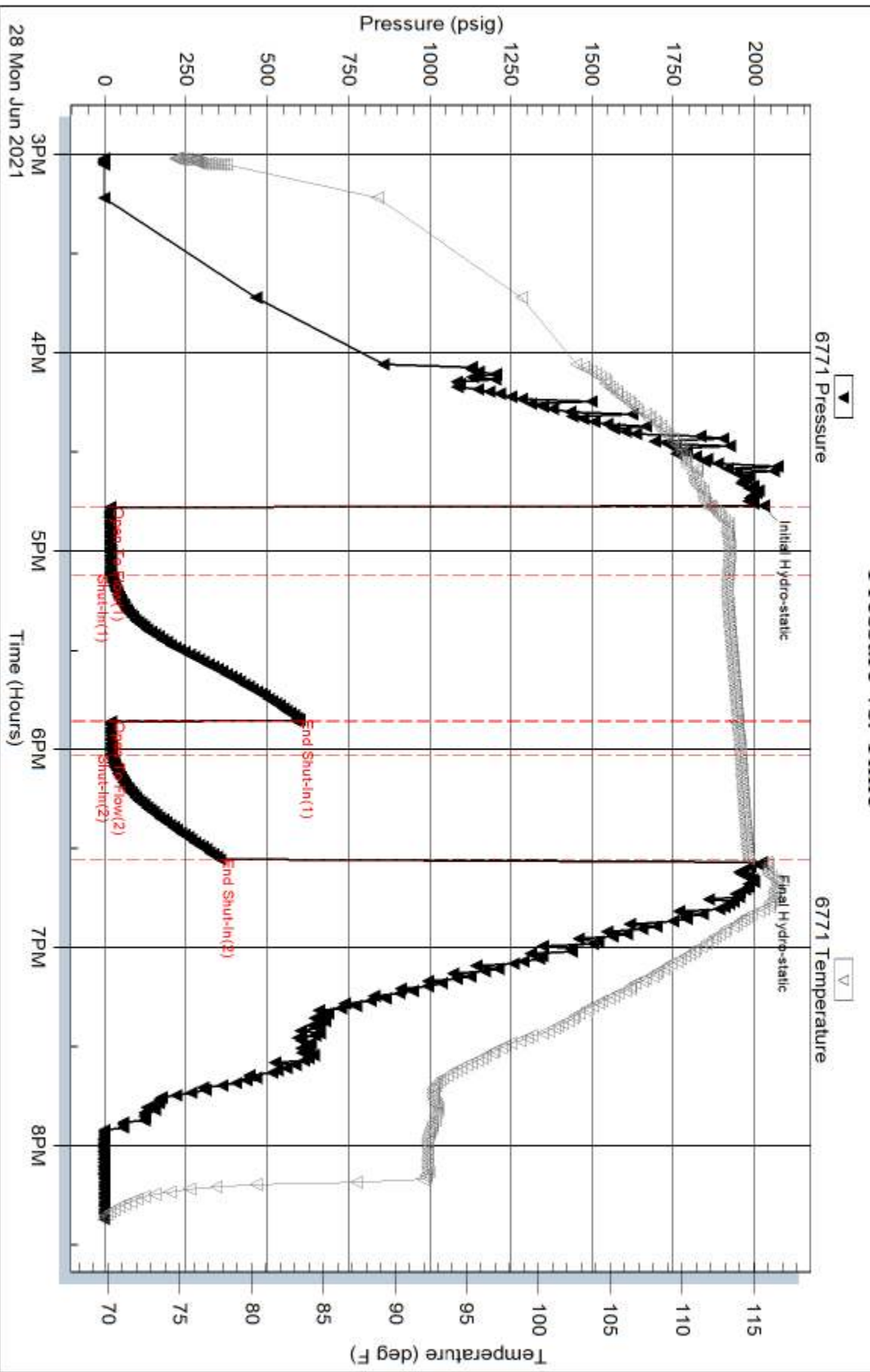
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

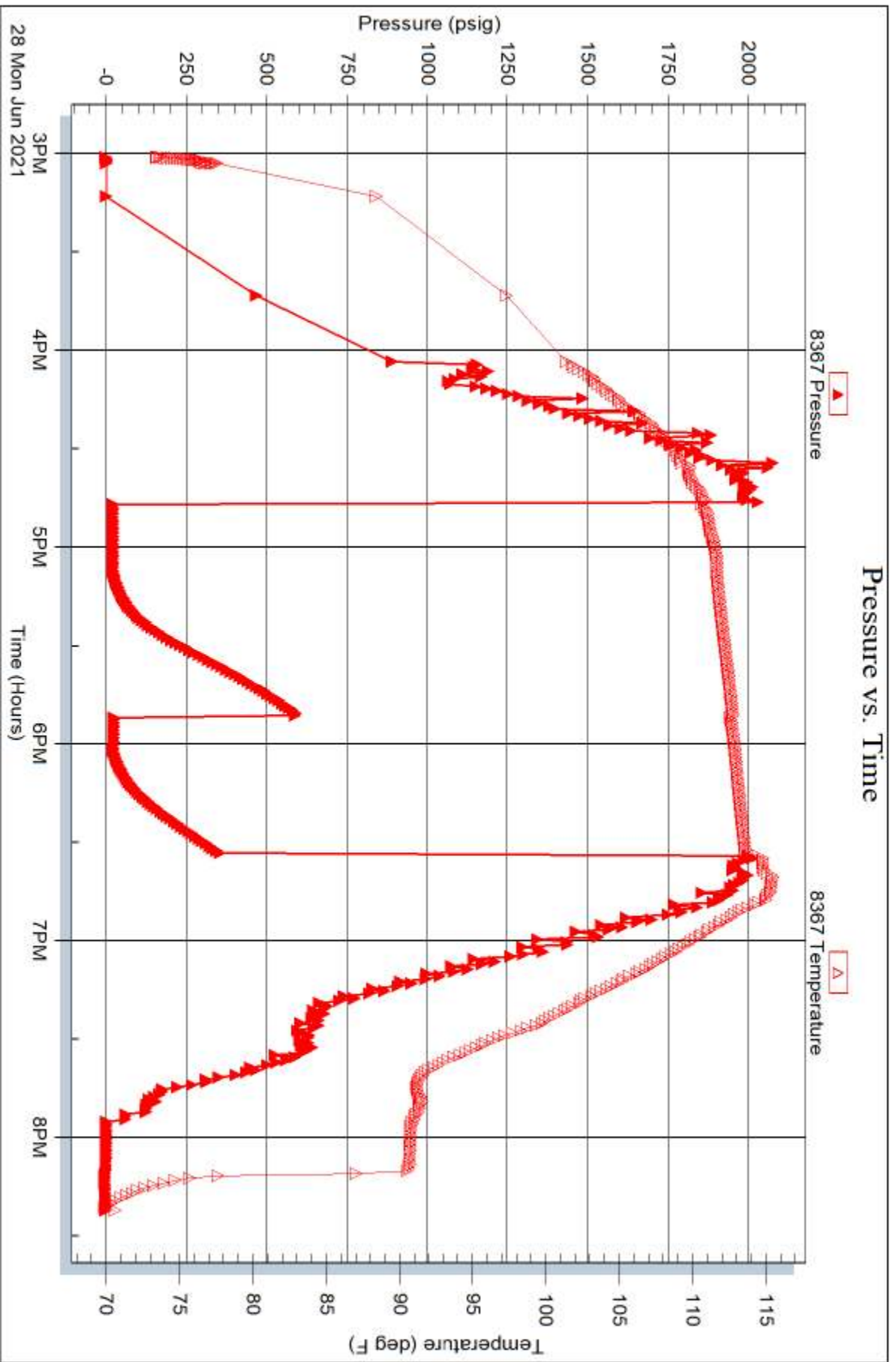


Serial #: 8367

Outside Black Oak Exploration, LLC

Walker #1-33

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Black Oak Exploration, LLC**

1474 S ST Paul St
Denver, CO 80210

ATTN: Clayton Camozzi

Walker #1-33

33-3s-32w Rawlins,KS

Start Date: 2021.06.27 @ 20:26:00

End Date: 2021.06.28 @ 03:50:21

Job Ticket #: 67025 DST #: 1

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2021.07.01 @ 09:16:56



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Black Oak Exploration, LLC

33-3s-32w Rawlins,KS

1474 S ST Paul St
Denver, CO 80210

Walker #1-33

Job Ticket: 67025

DST#: 1

ATTN: Clayton Camozzi

Test Start: 2021.06.27 @ 20:26:00

GENERAL INFORMATION:

Formation: **LKC "D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:24:21

Time Test Ended: 03:50:21

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 73

Interval: 3918.00 ft (KB) To 4016.00 ft (KB) (TVD)

Reference Elevations: 3032.00 ft (KB)

Total Depth: 4016.00 ft (KB) (TVD)

3027.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6771

Inside

Press@RunDepth: 142.37 psig @ 3919.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2021.06.27

End Date:

2021.06.28

Last Calib.:

2021.06.28

Start Time: 20:26:01

End Time:

03:50:21

Time On Btm:

2021.06.27 @ 22:23:51

Time Off Btm:

2021.06.28 @ 01:57:06

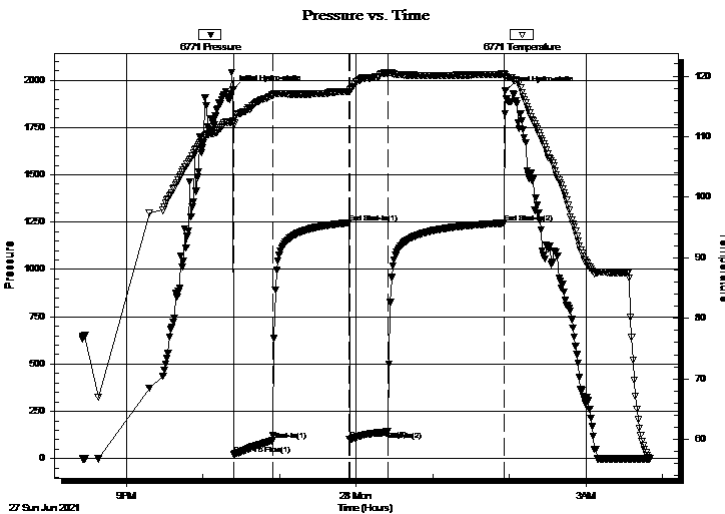
TEST COMMENT: 30 - IF: 1/2" Blow at open, built to 3 1/2"

60 - ISI: No blow back

30 - FF: Blow built to 3 1/4"

90 - FSI: No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1951.19	112.59	Initial Hydro-static
1	22.78	112.30	Open To Flow (1)
31	94.86	116.88	Shut-In(1)
91	1246.35	117.48	End Shut-In(1)
92	100.98	117.69	Open To Flow (2)
121	142.37	120.50	Shut-In(2)
213	1245.11	120.33	End Shut-In(2)
214	1945.19	119.89	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
234.00	MW 54%w, 46%m	1.15
31.00	Mud 100%	0.43

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Black Oak Exploration, LLC

33-3s-32w Rawlins,KS

1474 S ST Paul St
Denver, CO 80210

Walker #1-33

Job Ticket: 67025

DST#: 1

ATTN: Clayton Camozzi

Test Start: 2021.06.27 @ 20:26:00

Tool Information

Drill Pipe:	Length: 3676.00 ft	Diameter: 3.80 inches	Volume: 51.56 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 234.00 ft	Diameter: 2.25 inches	Volume: 1.15 bbl	Weight to Pull Loose: 100000.0 lb
			<u>Total Volume: 52.71 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	3918.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	98.00 ft			
Tool Length:	127.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3890.00	
Shut In Tool	5.00			3895.00	
Hydraulic tool	5.00			3900.00	
Jars	5.00			3905.00	
Safety Joint	3.00			3908.00	
Packer	5.00			3913.00	29.00 Bottom Of Top Packer
Packer	5.00			3918.00	
Stubb	1.00			3919.00	
Recorder	0.00	6771	Inside	3919.00	
Recorder	0.00	8367	Outside	3919.00	
Perforations	29.00			3948.00	
Change Over Sub	1.00			3949.00	
Drill Pipe	63.00			4012.00	
Change Over Sub	1.00			4013.00	
Bullnose	3.00			4016.00	98.00 Bottom Packers & Anchor

Total Tool Length: 127.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Black Oak Exploration, LLC

33-3s-32w Rawlins,KS

1474 S ST Paul St
Denver, CO 80210

Walker #1-33

Job Ticket: 67025

DST#: 1

ATTN: Clayton Camozzi

Test Start: 2021.06.27 @ 20:26:00

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:

58000 ppm

Viscosity: 75.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1300.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
234.00	MW 54%w , 46%m	1.151
31.00	Mud 100%	0.435

Total Length: 265.00 ft Total Volume: 1.586 bbl

Num Fluid Samples: 0

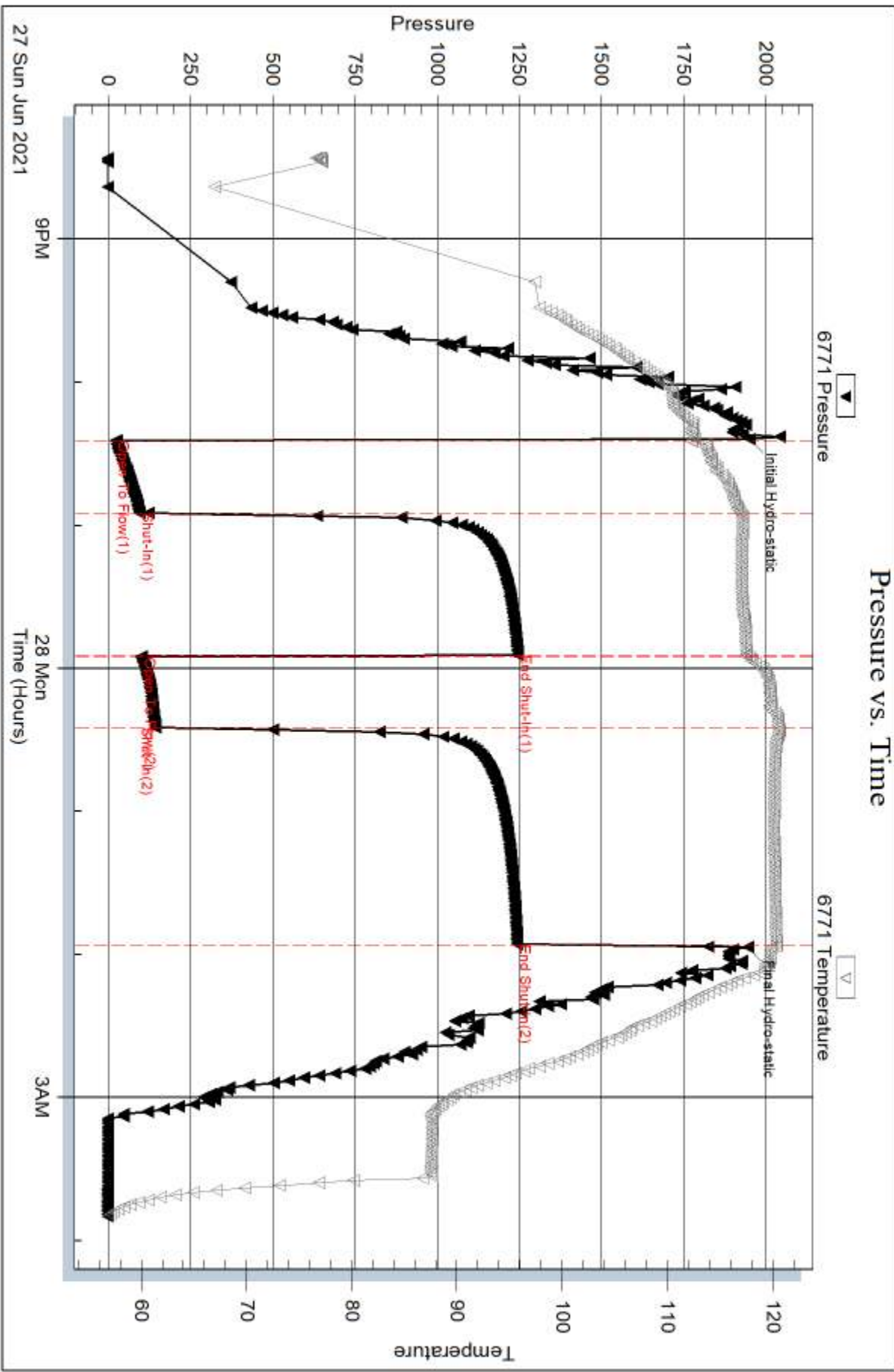
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .169 ohms @ 56.1 deg F Chlorides = 58,000 ppm

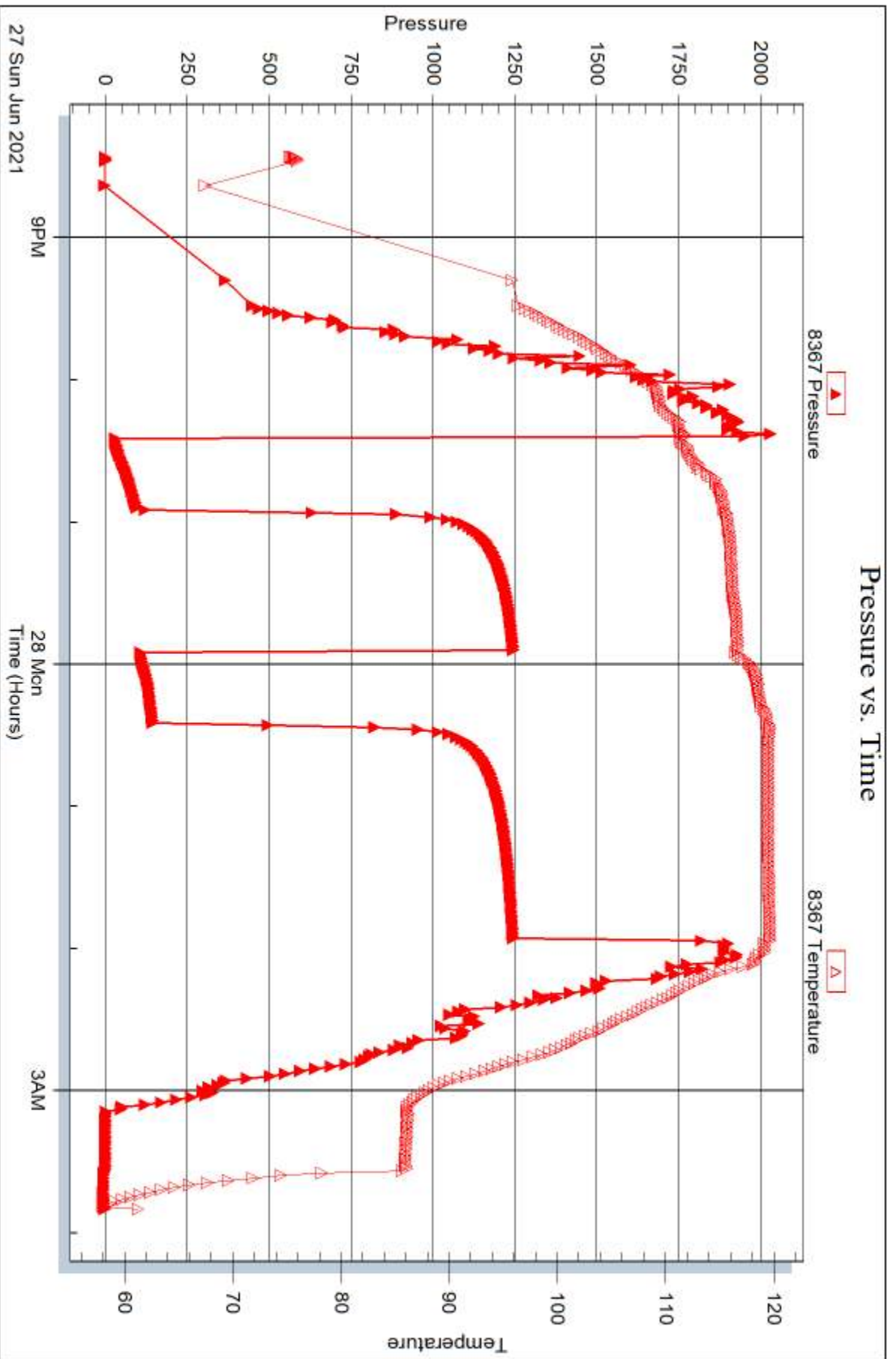


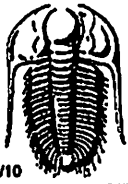
Serial #: 8367

Outside Black Oak Exploration, LLC

Walker #1-33

DST Test Number: 1





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 67025

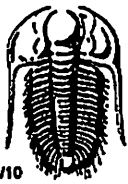
Well Name & No. Walker #1-33 Test No. 1 Date 6-27-21
 Company Black Oak Exploration LLC Elevation 3032 KB 3027 GL
 Address 1474 S ST Paul St Denver CO 80210
 Co. Rep / Geo. Clayton Camozzi Rig Murfin #7
 Location: Sec. 33 Twp 3S Rge. 32W Co. Rawlins State KS

Interval Tested 3918 - 4016 Zone Tested Lans. "D"
 Anchor Length 98 Drill Pipe Run 3676 Mud Wt. 8.8
 Top Packer Depth 3913 Drill Collars Run 234 Vis 75
 Bottom Packer Depth 3918 Wt. Pipe Run - WL 7.2
 Total Depth 4016 Chlorides 1300 ppm System LCM 4
 Blow Description IF: 1/2" Blow at open, built to 3 1/2"
ISI: No blowback
FF: Blow built to 3 1/4"
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>31</u>	<u>Mud</u>				<u>100%</u>
<u>234</u>	<u>mw</u>		<u>54</u>	<u>46</u>	

Rec Total 265 BHT 120 Gravity API RW 169 @ 56.1 ° F Chlorides 58,000 ppm
 (A) Initial Hydrostatic 1951 Test 1300 T-On Location 18:40 6/27
 (B) First Initial Flow 23 Jars 250 T-Started 20:26
 (C) First Final Flow 95 Safety Joint 75 T-Open 22:24
 (D) Initial Shut-In 1246 Circ Sub _____ T-Pulled 1:56
 (E) Second Initial Flow 101 Hourly Standby _____ T-Out 3:45 6/28
 (F) Second Final Flow 142 Mileage 52 RT 65 Comments _____
 (G) Final Shut-In 1245 Sampler _____
 (H) Final Hydrostatic 1945 Straddle _____
 Initial Open 30 Shale Packer _____
 Initial Shut-In 60 Extra Packer _____
 Final Flow 30 Extra Recorder _____
 Final Shut-In 90 Day Standby _____
 Sub Total 1690 Accessibility _____
 Sub Total 1690 EM Tool _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1690
 MP/DST Disc't _____

Approved By _____ Our Representative James Winkler
 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. 67526

Well Name & No. Walker #1-33 Test No. 2 Date 6-28-21
 Company Black Oak Exploration LLC Elevation 3032 KB 3027 GL
 Address 1474 S ST Paul St Denver, CO 80210
 Co. Rep / Geo. Clayton Camozzi Rig Murfin #7
 Location: Sec. 33 Twp 3s Rge. 32w Co. Rawlins State KS

Interval Tested 4012-4086 Zone Tested Lans. "F-H"
 Anchor Length 74 Drill Pipe Run 3770 Mud Wt. 8.9
 Top Packer Depth 4007 Drill Collars Run 234 Vis 82
 Bottom Packer Depth 4012 Wt. Pipe Run - WL 7.2
 Total Depth 4086 Chlorides 1600 ppm System LCM 4
 Blow Description IF: Blow built to 1/8", then died back to weak surface blow
ISI: No blowback
FF: No blow
FSI: No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>Mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 15 BHT 115 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2027 Test 1300 T-On Location 14:35
 (B) First Initial Flow 17 Jars 250 T-Started 15:01
 (C) First Final Flow 19 Safety Joint 75 T-Open 16:46
 (D) Initial Shut-In 598 Circ Sub _____ T-Pulled 18:33
 (E) Second Initial Flow 20 Hourly Standby _____ T-Out 20:20
 (F) Second Final Flow 21 Mileage 52 RT#2 130 Comments tools loaded 13:10
 (G) Final Shut-In 355 Sampler _____ 6/30
 (H) Final Hydrostatic 2022 Straddle _____

Initial Open 20 Shale Packer _____ EM Tool _____
 Initial Shut-In 45 Extra Packer _____ Ruined Shale Packer _____
 Final Flow 10 Extra Recorder _____ Ruined Packer _____
 Final Shut-In 30 Day Standby 1.5d 3h Extra Copies _____
 Sub Total 1755 Accessibility _____ Sub Total 800
 Total 2555 MP/DST Disc't _____

Approved By _____ Our Representative Juanita Winters
 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.

Black Oak Exploration, LLC

WELL COMPARISON SHEET

Company: Black Oak Exploration, LLC
 1474 S St Paul St
 Denver, CO 80210
 Contact: Clayton Camozzi 303-968-4999 (Cell)

Well: Walker 1-33
 Location: 2350 FSL & 2050 FWL
 Sec. 33 - 3S - 32W
 Rawlins Co., KS
 Wellsite Geologist: Clayton Camozzi Cell: (303) 968-4999

Elevation: 3027' GL 3032' KB
 Field: Wildcat
 API No: 15-153-21264-0000
 Surface Casing: 8 5/8" set @ 266' KB

Drilling Contractor: Murfin Drilling Co Rig #7. Rig Phone (785-443-5616), Tool Pusher Arturo Cabezas (308-443-5616)

Formation	DRILLING WELL				COMPARISON WELL				COMPARISON WELL			
	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log
	Black Oak Exp, Walker 1-33 2350 FSL & 2050 FWL Sec. 33 - 3S - 32W 3032 KB				Chizum Oil, LLC 936 FNL & 2262 FWL Sec. 34 - 3s - 32w 3056 KB				Murfin Drlg Co 2100 FNL & 2000 FWL D&A Sec. 14 - 3s - 32w 2918 KB			
					Producer				Structural Relationship			
									Structural Relationship			
Stone Corral	2760	272	2759	273	2786	270	2	3	2690	228	44	45
Topeka	3757	-725	3777	-745	3796	-740	15	-5	3690	-772	47	27
LeCompton	3857	-825	3878	-846	3896	-840	15	-6	3796	-878	53	32
Heebner	3920	-888	3940	-908	3960	-904	16	-4	3853	-935	47	27
Lansing	3957	-925	3978	-946	3998	-942	17	-4	3898	-980	55	34
Lansing D	3998	-966	4016	-984	4039	-983	17	-1	3940	-1022	56	38
Lansing G	4038	-1006	4062	-1030	4081	-1025	19	-5	3980	-1062	56	32
Lansing J	4122	-1090	4144	-1112	4164	-1108	18	-4	4069	-1151	61	39
BKC	4193	-1161	4216	-1184	4234	-1178	17	-6	4141	-1223	62	39
Pawnee	4300	-1268	4330	-1298	4340	-1284	16	-14	4245	-1327	59	29
Fort Scott	4328	-1296	4368	-1336	4378	-1322	26	-14	4281	-1363	67	27
Cherokee	4354	-1322	4388	-1356	4400	-1344	22	-12	4302	-1384	62	28
Total Depth	4630	-1598	4628	-1596	4640	-1584	-14	-12	4550	-1632	34	36

3' Uphole Correction
 Drill Time Vs E-logs

BLACK OAK



EXPLORATION

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

Well Name: Walker # 1-33
Well Id:
Location: Section 33 - 3S - 32W Rawlins Co, Kansas
License Number: API # 15-153-21264
Spud Date: 6/24/2021
Surface Coordinates: 2350' FSL & 2050 FWL
Region:
Drilling Completed: 6/30/2021

Bottom Hole
Coordinates:
Ground Elevation (ft): 3027' K.B. Elevation (ft): 3032'
Logged Interval (ft): 3700 To: 4630 Total Depth (ft): 4630
Formation: Lansing Kansas City
Type of Drilling Fluid: Chemical Gel/Polymer Fresh Water -Based

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

OPERATOR

Company: BLACK OAK EXPLORATION, LLC
Address: 1474 S St Paul St
Denver CO 80210

GEOLOGIST

Name: Clayton Camozzi
Company: Black Oak Exploration, LLC
Address: 1474 S St Paul St
Denver CO 80210
Cell: 303.968.4999

REMARKS

After Review of the DST Data, E-logs and Geolog, it was determined to Plug and Abandon the Walker 1-33. The samples will be delivered, processed and available for viewing at the KGS Library in Wichita Kansas.

Black Oak Exploration, LLC

WELL COMPARISON SHEET

Company: Black Oak Exploration, LLC
 1474 S St Paul St
 Denver, CO 80210
 Contact: Clayton Camozzi 303-968-4999 (Cell)

Well: Walker 1-33
 Location: 2350 FSL & 2050 FWL
 Sec. 33 - 3S - 32W
 Rawlins Co., KS
 Wellsite Geologist: Clayton Camozzi Cell: (303) 968-4999

Elevation: 3027' GL 3032' KB
 Field: Wildcat
 API No: 15-153-21264-0000
 Surface Casing: 8 5/8" set @ 266' KB

Drilling Contractor: Murfin Drilling Co Rig #7. Rig Phone (785-443-5616), Tool Pusher Arturo Cabezas (308-443-5616)

Formation	DRILLING WELL		
	Sample	Sub-Sea	Log
Stone Corral	2760	272	2759
Topeka	3757	-725	3777
LeCompton	3857	-825	3878
Heebner	3920	-888	3940
Lansing	3957	-925	3978
Lansing D	3998	-966	4016
Lansing G	4038	-1006	4062
Lansing J	4122	-1090	4144
BKC	4193	-1161	4216
Pawnee	4300	-1268	4330
Fort Scott	4328	-1296	4368
Cherokee	4354	-1322	4388
Total Depth	4630	-1598	4628

Formation	COMPARISON WELL		
	Log	Sub-Sea	Relationship
Chizum Oil, LLC	2786	270	2
936 FNL & 2262 FWL	3796	-740	15
3056 KB	3896	-840	15
34 - 3s - 32w	3960	-904	16
3032 KB	3998	-942	17
3032 KB	4039	-983	17
3032 KB	4081	-1025	19
3032 KB	4164	-1108	18
3032 KB	4234	-1178	17
3032 KB	4340	-1284	16
3032 KB	4378	-1322	26
3032 KB	4400	-1344	22
3032 KB	4640	-1584	-14

Formation	COMPARISON WELL		
	Log	Sub-Sea	Relationship
Murfin Drlg Co	2690	228	44
2100 FNL & 2000 FWL D&A	3690	-772	47
2918 KB	3796	-878	53
2918 KB	3853	-935	47
2918 KB	3898	-980	55
2918 KB	3940	-1022	56
2918 KB	3980	-1062	56
2918 KB	4069	-1151	61
2918 KB	4141	-1223	62
2918 KB	4245	-1327	59
2918 KB	4281	-1363	67
2918 KB	4302	-1384	62
2918 KB	4550	-1632	34

3' Uphole Correction
 Drill Time Vs E-logs



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Black Oak Exploration, LLC

33/3s/32w Rawlins KS

1474 S ST Paul St
Denver, CO 80210

Walker #1-33

Job Ticket: 67025

DST#: 1

ATTN: Clayton Camozzi

Test Start: 2021.06.27 @ 20:26:00

GENERAL INFORMATION:

Formation: **Lans. "D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:24:21

Time Test Ended: 03:50:21

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 73

Interval: **3918.00 ft (KB) To 4016.00 ft (KB) (TVD)**

Reference Elevations: 3032.00 ft (KB)

Total Depth: 4016.00 ft (KB) (TVD)

3027.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6771 Inside

Press@RunDepth: 142.37 psig @ 3919.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2021.06.27

End Date:

2021.06.28

Last Calib.:

2021.06.28

Start Time: 20:26:01

End Time:

03:50:21

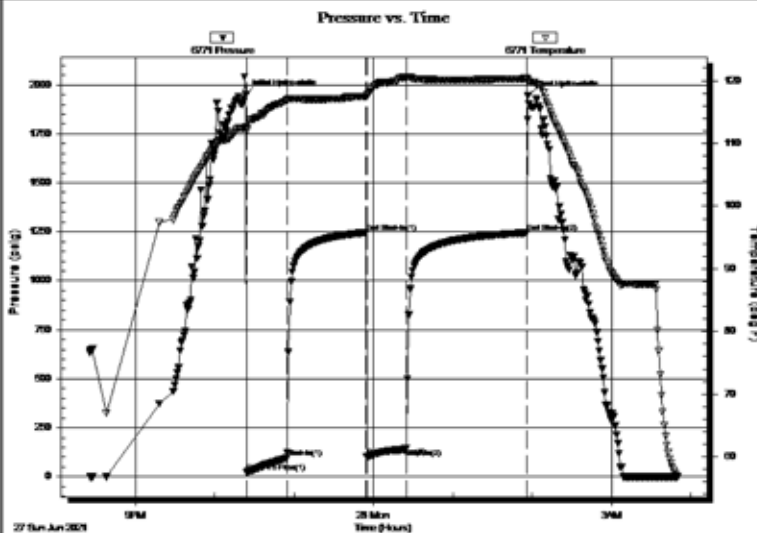
Time On Btm:

2021.06.27 @ 22:23:51

Time Off Btm:

2021.06.28 @ 01:57:06

TEST COMMENT: 30 - IF: 1/2" Blow at open, built to 3 1/2"
60 - IS: No blow back
30 - FF: Blow built to 3 1/4"
90 - FS: No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1951.19	112.59	Initial Hydro-static
1	22.78	112.30	Open To Flow (1)
31	94.86	116.88	Shut-In(1)
91	1246.35	117.48	End Shut-In(1)
92	100.98	117.69	Open To Flow (2)
121	142.37	120.50	Shut-In(2)
213	1245.11	120.33	End Shut-In(2)
214	1945.19	119.89	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
234.00	MW 54%w, 46%m	1.15
31.00	Mud 100%	0.43

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Black Oak Exploration, LLC

33/3s/32w Rawlins KS

1474 S ST Paul St
Denver, CO 80210

Walker #1-33

Job Ticket: 67526

DST#: 2

ATTN: Clayton Camozzi

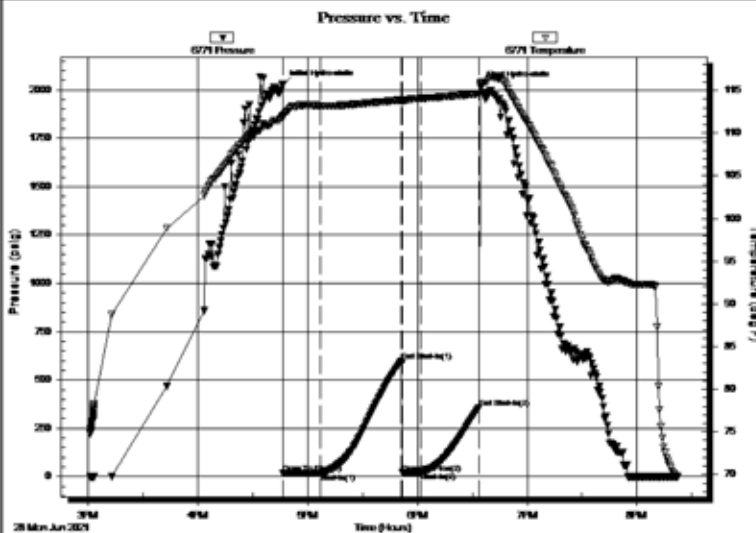
Test Start: 2021.06.28 @ 15:01:00

GENERAL INFORMATION:

Formation: **Lans. "F - H"**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 16:46:36
 Tester: James Winder/ Justin
 Time Test Ended: 20:22:36
 Unit No: 73
 Interval: **4012.00 ft (KB) To 4086.00 ft (KB) (TVD)**
 Reference Elevations: 3032.00 ft (KB)
 Total Depth: 4086.00 ft (KB) (TVD)
 3027.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Fair
 KB to GR/CF: 5.00 ft

Serial #: 6771 Inside
 Press@RunDepth: 21.15 psig @ 4013.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2021.06.28 End Date: 2021.06.28 Last Calib.: 2021.06.28
 Start Time: 15:01:01 End Time: 20:22:36 Time On Btm: 2021.06.28 @ 16:46:21
 Time Off Btm: 2021.06.28 @ 18:34:06

TEST COMMENT: 20 - IF: Blow built to 1/8", died back to weak surface blow
 45 - IS: No blow back
 10 - FF: No blow
 30 - FS: No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2026.51	111.99	Initial Hydro-static
1	17.47	111.81	Open To Flow (1)
21	18.94	113.19	Shut-In(1)
65	598.32	113.88	End Shut-In(1)
66	20.31	113.67	Open To Flow (2)
76	21.15	114.07	Shut-In(2)
107	355.34	114.63	End Shut-In(2)
108	2022.28	115.88	Final Hydro-static

Recovery

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

Gas Rates

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

ROCK TYPES

LITHOLOGY

	Anhy		Amph
	Bent		Belm
	Brec		Bioclst
	Cht		Brach
	Clyst		Bryozoa
	Coal		Cephal
	Congl		Coral
	Dol		Crin
	Gyp		Echin
	Igne		Fish
	Lmst		Foram
	Meta		Fossil
	Mrlst		Gastro
	Salt		Oolite
	Shale		Ostra
	Shcol		Pelec
	Shgy		Pellet
	Sltst		Pisolite
	Ss		Plant
	Till		Strom
	Sltstn		
	Shale		
	Sandylms		
	Lms		
	Gry sh		
	Dtd		
	Dol		
	Carb sh		
	pipesymbol		
	unknown lith		
	Red shale		

MINERAL

	Silty
	Sand
	Dol
	Chlorite
	Anhy
	Arggrn
	Arg
	Bent
	Bit
	Brecfrag
	Calc
	Carb
	Chtdk
	Chtlt
	Dol

STRINGER

	Sh
	Sandylms
	Lms
	Gryslt
	Grysh
	Dol
	Clystn
	Carbsh
	Anhy
	Arg
	Bent
	Coal
	Dol
	Gyp
	Ls
	Mrst
	Sltstrg

Ssstrg

TEXTURE

	Boundst
	Chalky
	Cryxln
	Earthy
	Finexln
	Grainst
	Lithogr
	Microxln
	Mudst
	Packst
	Wackst

OIL SHOW

	Gas show
	Even
	Spotted
	Ques
	Dead

INTERVAL

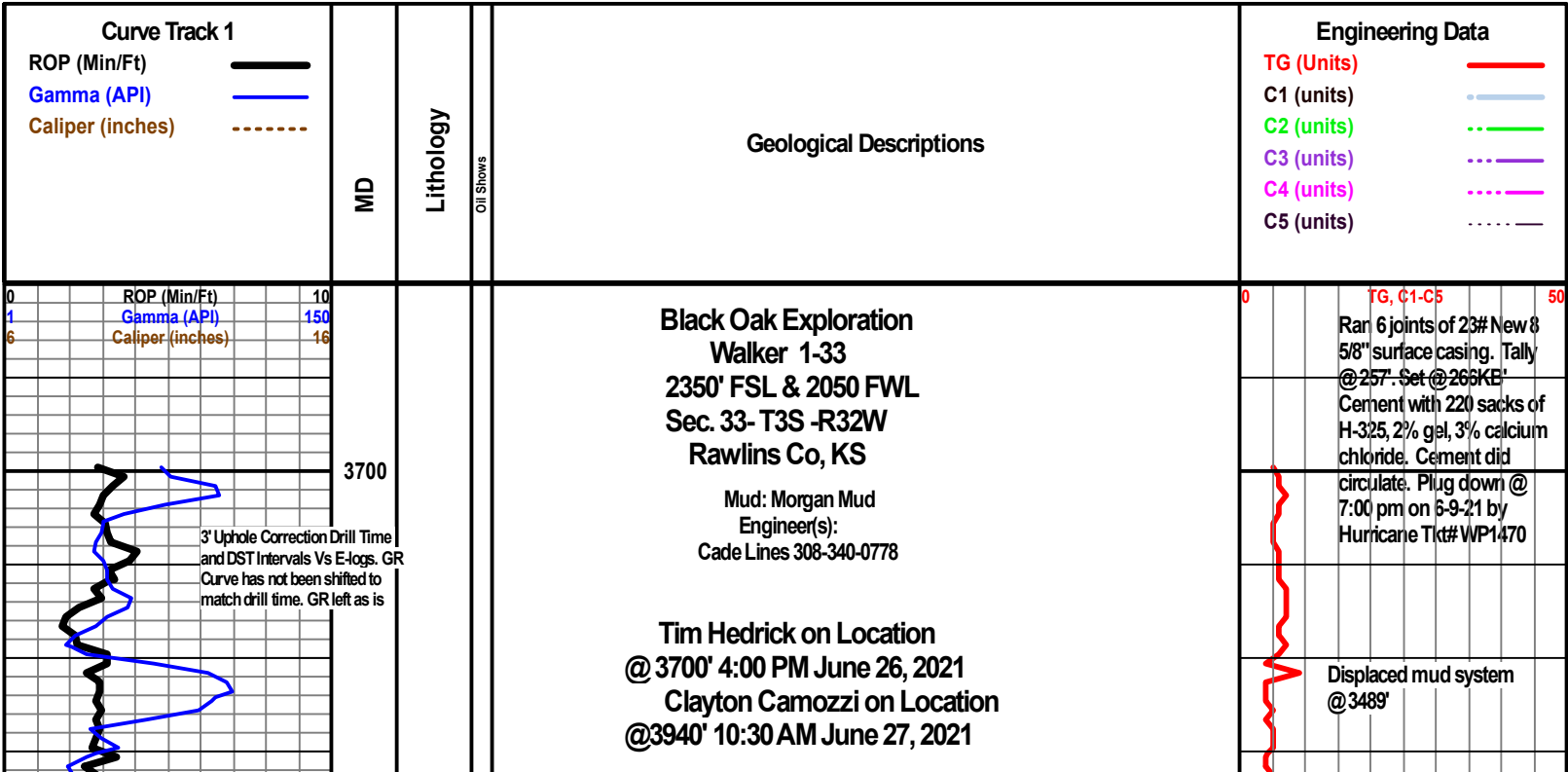
	Dst
	Core
	Dst
	Straddle test tail pipe

EVENT

	Rft
	Sidewall
	Dst
	Open hole
	Perforations

FOSSIL

	Oomoldic
	Fuss
	Algae



Start Wet & Dry Samples @ 3750'

Topeka 3757' (- 725')

LS- CREAM LT TAN, HARD DENSE TO BRITTLE, FINE TO VERY FINE CRYSTALLINE, SOME IMBEDDED RED SHALE IN PART, SMALL CALCITE CRYSTALS IN PART, POSSIBLE FRACTURE POROSITY, LIGHT YELLOW MINERAL FLUORESCENCE, NO VISIBKE CUT

LS- CREAM LT TAN- HD DENSE TO TRACE BRITTLE, FINE CRYSTALLINE TO VRY FINE CRYSTALLINE, SMALL VERAGATED CALCITE CRYSTALS IMBEDDED IN PART, FOSS FRAGS IMBEDDED IN PART, BRIGHTYELLOW MINERAL FLUORESCENCE, NO VIS POROSITY, NO VISIBLE CUT

LIMESTONE- HARD DENSE FINE TO VERY FINE CRYSTALLINE OR MICROCRYSTALLINE THRUOUT, SMALL CALCITE CRYSTALS IMBEDDED SCATTERED THRUOUT, TRACE GLAUCONITE IN PART, SOFT WHITE CHALK IN PART, LIGHT BRIGHTYELLO MINERAL FLUORESCENCE IN OART, NO VIS POROSITY, NO VISIBLE CUT

SHALE- RED VERY SOFT GUMMY TEXTURE THRUOUT, VERY SILTY TO SANDY THRUOUT

LIMESTONE OFF WHITE CREAM HARD TO BRITTLE, VERY COARSE SUCROSIC MATRIX, ABDT IMBEDDED SUB ROUND TO ROUND VERY FINE GRAIN QUARTZ, NO FLUORESCENCE, NO VISIBLE POROSITY, NO VIS SHOW

LIMESTONE- CREAM LIGHT TAN TRACE BROWN, HARD DENSE, MED TO FINE CRYSTALLINE, IMBEDDED RED SHALE IN PART, SCATTERED SMALL FOSSIL FRAGMENTS, NO FLUORESCENCE, NO VIS POROSITY, NO VISIBLE CUT

LIMESTONE- HARD TO VERY BRITTLE, MED CRYSTALLINE TO VERY SUB CHALKY, TRACE FOSSIL FRAGS IMBEDDED IN PART, DULL YELLOW MINERAL FLUORESCENCE, TRACE POOR, ICRO PIN POINT POROSITY IN PART, NO VISIBLE SHOW

LeCompton 3857' (-825)

LIMESTONE- OFF WHITE CREAM- HARD DENSE TO BRITTLE IN PART, VERY FINE TO CRYPTO- CRSTALLINE, SCATTERED IMBED SMALL TO MED CALCITE CRYSTALS IN PART, SLIGHT TRACE GLAUCONITE IN PART, LIGHT BRIGHT YELW MINERAL FLUORESCENCE THRUOUT, POOR VISIBLR MICRO PIN POINT POROSITY IN PART, NO VISIBLE SHOW

SHALE- MED HARD TO SOFT- RED GUMMY TO SLIGHTLY SILTY TEXTURE

LIMESTONE- TAN BROWN- HD DENSE TO TRACE BRITTLE IN PART, MEDIUM TO VERY FINE CRYSTALLINE, RE-CRYSTALLINE MATRIX, IMBEDDED RED SHALE IN PART, SMALL CALCITE CRYSTALS IMBED IN PART, NO FLUORESCENCE, NO VISIBLE POROSITY, NO VISIBLE SHOW

LIMESTONE- CREAM REDDISH GRAY TO GREEN- HARD DENSE MOTTLED, MEDIUM CRYSTALLINE, VERY ARGIL TO SHALY WITH RED SHALES AND VERY DARK GRAY SHALES IN PART TO TRACE FIRM GREEN SMOOTH TXT, NO FLUORESCENCE, NO VISIBLE POROSITY, NO VISIBLE SHOW

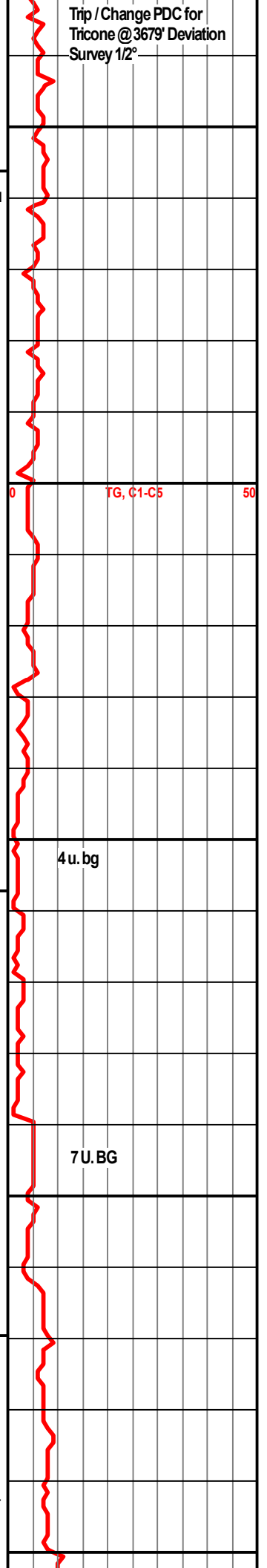
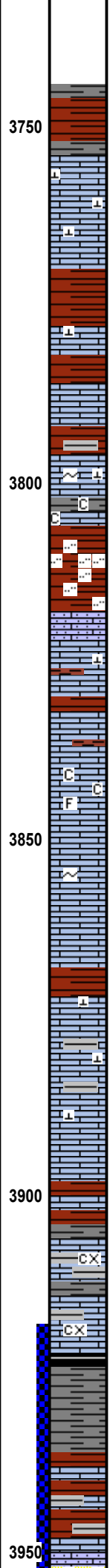
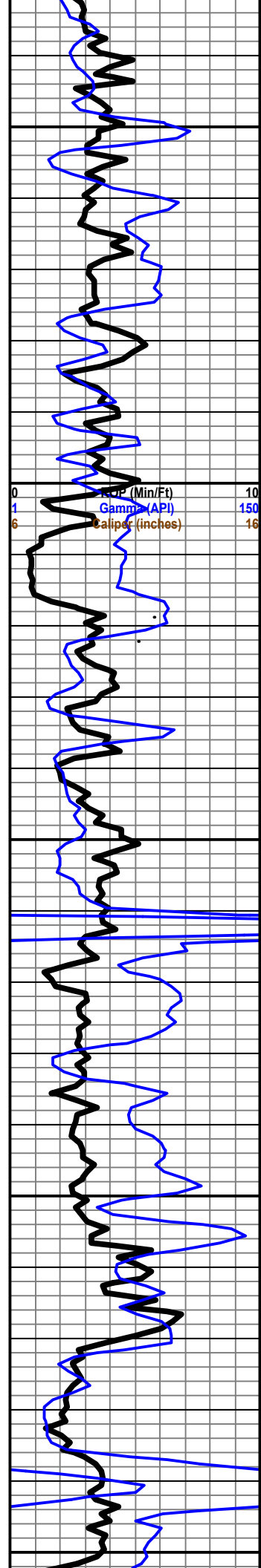
LIMESTONE- DARK TAN TO VERY DARK BROWN, HARD DENSE, VERY FINE TO CRYTPO- CRYSTALLINE, IMBEDD FOSS FRGS IN PART IMBEDDED GREEN AND RED SHALES IN PART, NO FLUORESCENCE, NO VISIBLE POROSITY, NO VISIBLE SHOW

Heebner 3920' (- 888')

SH- BLACK SOFT CARBONACEOUS

SH- GRAY DARK GRAY SOFT GUMMY TEXTURE SLIGHTLY CALCAREOUS

3952-3954' SILTSTONE- OFF WHT TO BLACK, HARD IP TO VERY FRIABLE, VERY VERY FINE GRAIN QUARTZ, ABDT DOS IN 50%, VERY CALCAREOUS TO LIMY CEMENTATION, BLACK SH IMBEDDED IP, NO FLO, NO VISIBLE POROSITY, VERY GOOD SLOW STEAM CUT TO GOOD FLUSH CUT IN 50%, NO ODOR, LIGHT STAIN ON DISH



Lansing 3957' (-925')

3962-3970' LIMESTONE- OFF WHITE CREAM BLACK IN PART, HARD DENSE , MEDIUM TO VERY FINE CRYSTALLINE, SMALL CALCITE CRYSTAL IMBEDDED IP, SCATTERED ABTD DOS THRU, HVY TRACE OF TARRY OIL STN IN ISOLATED VUGS, DULL YELLOW GOLD FLUORESCENCE IN 60%, POOR VISIBLE INTER CRYSTALLINE POROSITY IN PART. POOR FLUSH CUT TO FAIR TO GOOD SLOW STREAM CUT IN 60%, LIGHT OILODOR IN CUP.

Limestone, light tan to cream, hard dense, subsucrosic to trace sucrosic to trace scattered oolitic, fair to trace good intercrystalline porosity, light brown heavy black tarry to brown stain in 40%, very faint oil odor, yellow fluorescence throughout, excellent flush cut to good slow stream cut, samples slowly bleeding light brown free oil, fair show light brown to heavy black free oil

Lansing D 3998' (-966')

Limestone, light cream, hard dense, microcrystalline to small trace scattered subsucrosic dense calcareous matrix, no visible porosity, no stain, odor, dull yellow fluorescence throughout, no show, interbedded shale red very soft no fluorescence

Limestone, cream to tan to scattered light gray, hard dense, microcrystalline matrix throughout, poor intercrystalline porosity, very small trace light brown pin point stain in 40%, no odor, dull yellow fluorescence, fair flush cut to fair slow stream cut, fair show free oil in tray, very small trace chert, transparent to cream, tripolitic, no visible porosity, 1 piece bleeding light brown free oil, pyrite

Limestone, cream, hard to soft, microcrystalline to recrystalline chalky matrix to imbedded calcite crystals in matrix, poor intercrystalline porosity, spotted light brown to streaky stain in 25%, no odor, yellow fluorescence in 60%, no flush cut to poor slow stream cut, fair show light brown free oil in tray, chalk

Limestone, cream, hard dense to soft, microcrystalline to small trace subsucrosic chalky matrix, poor to no visible intercrystalline porosity, trace light brown spotted stain in 5%, no odor, dull yellow fluorescence, no cuts, no show free oil, shales, light gray to green, soft, splinty to blocky, no fluorescence

Lansing G 4038 (-1006)

Limestone, cream to light tan, hard dense, microcrystalline trace secondary recrystallization, no visible porosity, no stain, no odor, no show free oil.

Limestone, white to cream, hard to soft, microcrystalline to scattered fossiliferous hash, imbedded crinoids and fassulinids in a dense very chalky, matrix, very poor to no visible intercrystalline porosity, black tarry dead oil stain in 20%, no odor, no fluorescence, no cuts, no show free oil, chalk scattered throughout

Shale, black soft, splinty, carbonaceous, no fluorescence

Limestone, white to cream, microcrystalline to scattered subsucrosic chalky matrix to heavy trace recrystalline matrix abundant large calcite crystals in part, poor to no visible porosity to possible fracture porosity, black heavy tarry stain in 60%, no odor, dull yellow fluorescence throughout, very good flush to very good slow stream cut flaky black oil frags when cut, poor show light brown free oil, calcite

Limestone, cream, hard dense, microcrystalline matrix to chalky matrix in part, no visible porosity, no stain, no odor, no fluorescence, no show free oil

Shale, black, soft, splinty, carbonaceous, no fluorescence

Shale, red to gray, soft to very gummy, no fluorescence

Limestone, cream, very hard, microcrystalline to scattered oolitic in very dense matrix, no visible porosity, no stain, no odor, no fluorescence, no show free oil, scattered soft white chalk throughout

Lansing J 4122' (-1090)

Limestone, light gray, very hard, microcrystalline matrix throughout, no visible porosity, no stain, no odor, no fluorescence, no show free oil, trace scattered soft white chalk throughout

Limestone cream to light tan, hard to soft, microcrystalline to scattered cryptocrystalline very dense to chalky matrix, no visible porosity, no stain, no odor, no fluorescence, no show free oil, scattered soft white chalk throughout

Shale, red to gray to scattered light green, very soft to hard, gummy to splinty, small specs pyrite in part, no fluorescence

Limestone, cream, hard dense, microcrystalline to very small trace oolitic in a dense calcareous matrix, poor intercrystalline porosity no no visible porosity to poor interoolitic porosity, light brown spotted stain in 5%, no odor, spotted yellow fluorescence in 15%, no flush cut to poor slow stream cut, fair show light brown free oil in tray, scattered chalk

Shale, red to gray to scattered light green, soft gummy, no fluorescence

Morgan Ck @3995'
10:20 am 6/27/21
Vis 75 Wt 8.8
PV 24 YP 23
WL 7.2
Cake 2
PH 11.5
CHL 1,300 ppm
CA 10
Sol 3.6
LCM: 4#
DMC: \$0
CMC: \$11,098

CFS @4016'

Morgan Ck @4055'
10:00 am 6/28/21
Vis 82 Wt 8.9
PV 25 YP 24
WL 7.2
Cake 2
PH 11.0
CHL 1,600 ppm
CA 10
Sol 4.3
LCM: 4#
DMC: \$0
CMC: \$11,098

CFS @4055'

CFS @4086'

CFS @4162'

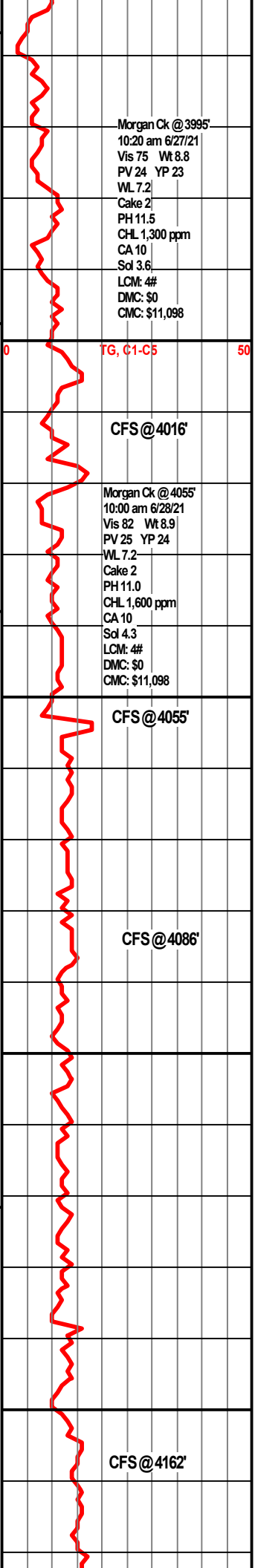
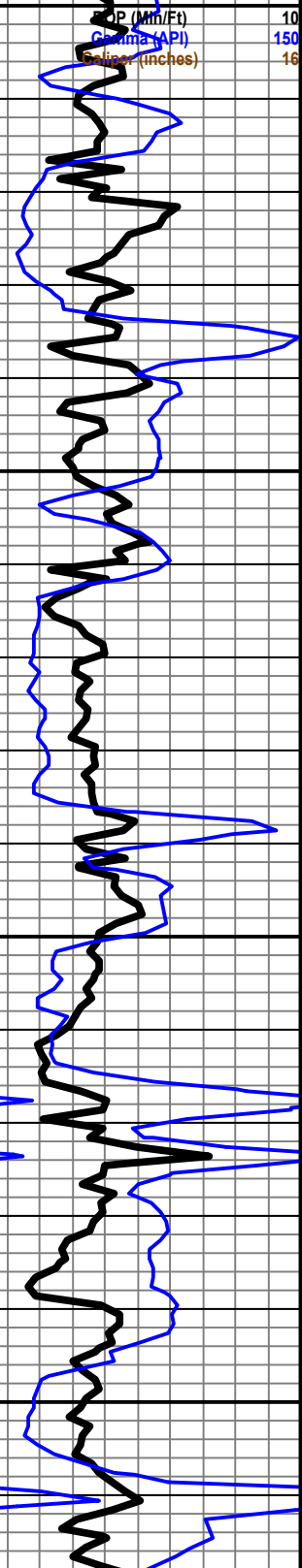
DST #1 3918' - 4016'

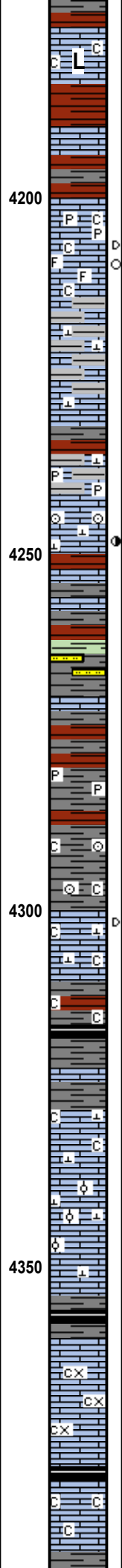
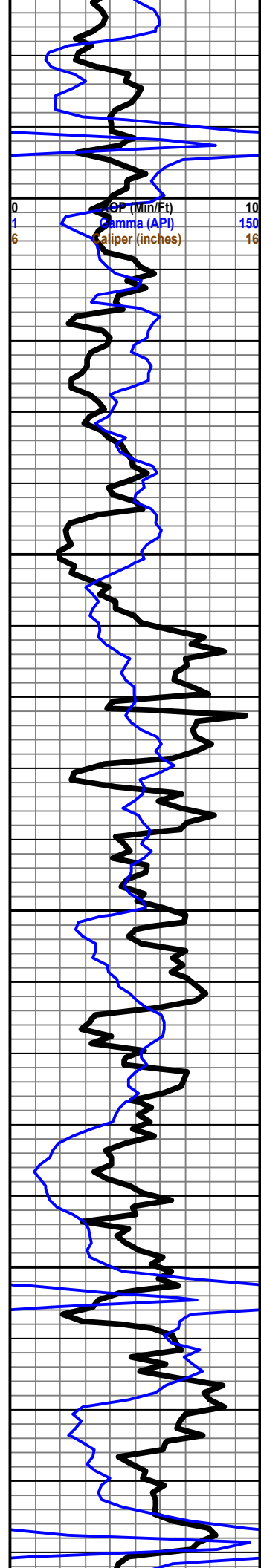
DST #2 4012' - 4086'

4100

4150

SP (Min/Ft) 10
Gamma (API) 150
S-liner (inches) 16





Limestone, cream, hard dense to trace brittle, microcrystalline to very small trace submicroscopic chalky matrix, no visible porosity, no stain, no odor, no fluorescence, no show free oil, scattered soft white chalk

BKC 4193 (-1161)

Shale red to scattered light gray, hard dense, splintery no fluorescence

Limestone cream to light gray, hard to soft, microcrystalline chalky matrix throughout, no visible porosity, no stain, no odor, no fluorescence no show free oil, trace scattered pyrite

Limestone white to cream, microcrystalline chalky matrix to scattered cryptocrystalline, very poor to no visible intercrystalline porosity, no odor, 1 piece head heavy tary black dead oil stain, dull yellow spotted fluorescence in 20%, 1 piece had good flush cut to good slow stream cut, no show free oil, scattered small trace fossil frags

Limestone to Shaly Lime, light gray to cream, hard to soft, cryptocrystalline to microcrystalline with interbedded red shaly matrix to scattered dense recrystalline matrix with calcite veins in part, very poor to no visible intercrystalline porosity, no stain, no odor, no fluorescence, no show free oil.

Limestone, cream to light gray, hard, microcrystalline matrix throughout, no visible porosity, no stain, no odor, no fluorescence no show, scattered shale, red to gray, blocky, no fluorescence

Limestone to Shaly Lime, light gray to scattered cream, hard to soft, microcrystalline to trace cryptocrystalline matrix, no visible porosity, no stain, no odor, no fluorescence, no show free oil, scattered pyrite

Limestone cream to tan, hard dense, microcrystalline to trace recrystalline dense matrix calcite crystals in part, poor intercrystalline porosity to no visible porosity, 2 pieces had light black tary dead to light brown stain, no odor, yellow fluorescence in 20%, poor flush cut to poor slow stream cut, poor show light brown free oil in tray, abundant shale, gray, hard, splintery, no fluorescence, trace crinoids

Shale, light gray to brown to green, hard dense, splintery to waxy, imbedded fossil frags, no fluorescence, trace scattered siltstone dense calcareous limy matrix, no porosity no fluorescence, no show

Shale, light gray to scattered red, very hard dense, splintery, no fluorescence, trace scattered pyrite

Shale, gray to scattered red, hard to soft, very gummy to splintery, micaceous no fluorescence, scattered pyrite

Shale, gray to off white, hard to very soft, blocky to very gummy to chalky, trace small crinoids in part, micaceous, no fluorescence

Pawnee 4300 (-1268)

Limestone, cream to light gray, microcrystalline chalky matrix to small trace fossiliferous dense chalky calcareous matrix, no visible porosity, 2 pieces had very small trace black dead oil stain, yellow fluorescence in 5%, no show free oil,

Shale, light gray to green to trace red, soft to hard, splintery to blocky to gummy, scattered splintery, micaceous, chalky, trace pyrite, no fluorescence

Shale, black, soft carbonaceous, no fluorescence

Fort Scott 4328 (-1296)

Limestone, cream, very hard dense, cryptocrystalline matrix with calcite veins scattered throughout, no visible porosity, no stain, no odor, no fluorescence, no show free oil, scattered chalk

Limestone, cream, hard dense microcrystalline to scattered oolitic in a dense calcareous matrix calcite veins in part, no visible porosity, no stain, no odor, dull yellow fluorescence throughout, no cuts, no show free oil

Cherokee 4354 (-1322)

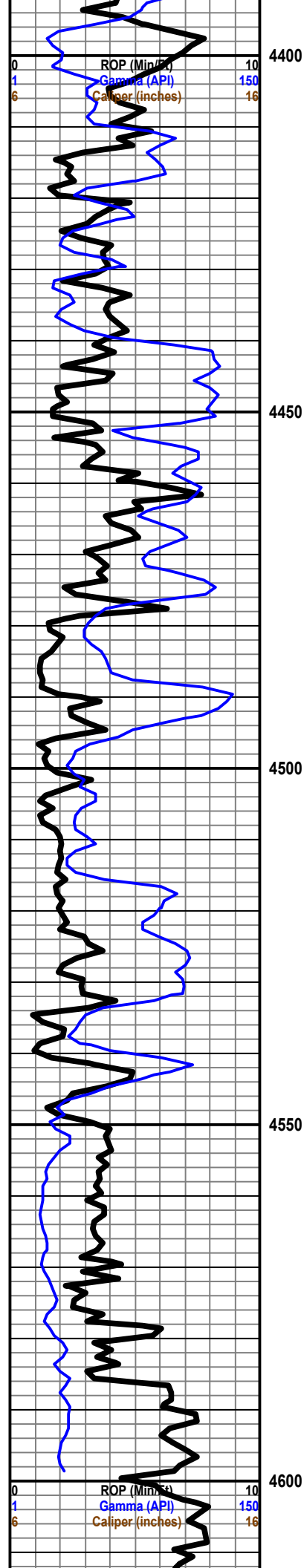
Shale, black, soft, splintery, carbonaceous, no fluorescence

Limestone, gray, very hard dense, cryptocrystalline throughout, no visible porosity, no stain, no odor, no fluorescence, no show free oil

Limestone - As Above

Limestone, gray, very hard dense, cryptocrystalline matrix throughout, no visible porosity, no stain, no odor, no fluorescence, no show free oil, trace scattered chalk, scattered shale, black, soft, splintery carbonaceous

Morgan Ck @ 4196
 7:45 am 6/29/21
 Vis 73 Wt 9.0
 PV 21 YP 27
 WL 7.2
 Cake 2
 PH 11.5
 CHL 1,600 ppm
 CA 10
 Sol 5.0
 LCM: 4#
 DMC: \$410
 CMC: \$11,508



Shale, light gray to dark gray, hard to soft to gummy, splinty, no fluorescence

Limestone, cream, hard dense, microcrystalline to scattered cryptocrystalline with calcite veins in matrix, no visible porosity, no stain, no odor, no fluorescence, no show free oil

Limestone - As Above

Sandstone to limy siltstone, sub round, fair sorted quartz grains in a dense red calcareous matrix, fair intergranular porosity, no stain, no odor, no fluorescence, no show free oil

Limestone, cream, hard dense, microcrystalline to abundant dense recrystalline matrix large calcite veins in part, poor to no visible porosity, no stain, no odor, no fluorescence, no show free oil, trace chert, opaque hard dense

Limestone, cream, hard dense, microcrystalline to abundant dense recrystalline matrix, calcite veins in part, poor to no visible porosity, no stain, no odor, no fluorescence, no show free oil, chalk, Trace shale, gray, hard, waxy, no fluorescence

Shale, light gray to cream to scattered red, very soft, gummy to chalky, no fluorescence

Sandstone, clear, sub round fair sorted small quartz grains in a dense calcareous matrix scattered red possible arkosic matrix lime grains in part, good intergranular porosity, no stain, no odor, no fluorescence, no show free oil, glauconite in part

Limestone, cream to tan, hard dense, microcrystalline to scattered cryptocrystalline trace recrystalline matrix, no visible porosity, no stain, no odor, no fluorescence, no show free oil, scattered chalk

Shale, light gray to scattered red, hard to soft, blocky to scattered splinty, no fluorescence

Shale - As above

Shale to shaly silt, red to scattered light gray, soft, blocky, no fluorescence

Shale to shaly silt to small trace sandstone, red to gray, soft, calcareous shaly matrix, good intergranular porosity, no stain, no fluorescence, no odor, no show free oil

As Above

Sandstone, clear unconsolidated large angular quartz grains scattered throughout,

Chert, opaque to white to cream, hard dense, fractured, no visible porosity, no fluorescence, no show

MISSISSIPPIAN 4547 (-1515)

Chert, opaque to white to cream, hard dense, angular fractured edges to smooth, interbedded red shales in matrix, no visible porosity, no stain, no fluorescence, no show

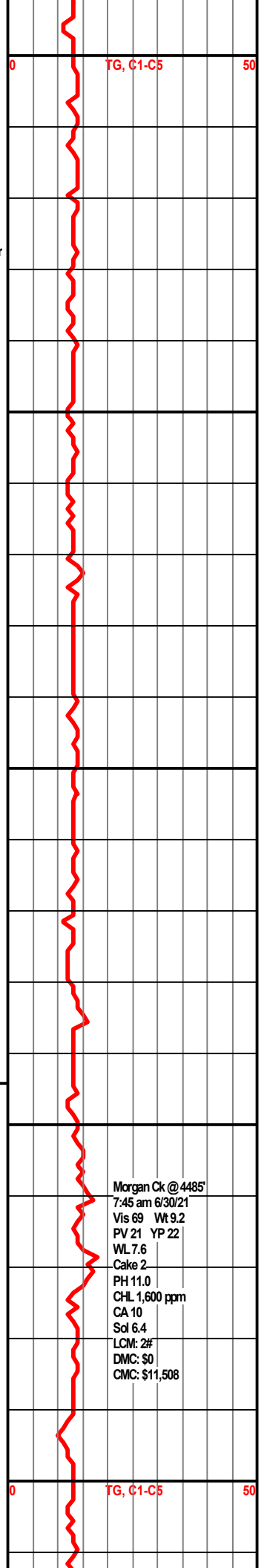
Chert to cherty lime, opaque to cream to light yellow, hard dense, smooth to blocky, no visible porosity, no stain, no odor, no fluorescence, no show

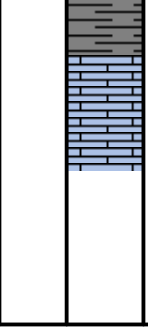
Limestone to cherty lime, white, hard, microcrystalline matrix, no visible porosity, no odor, no stain, no fluorescence, no show free oil

Limestone, cream to white, hard dense, microcrystalline matrix throughout, no visible porosity, no stain, no odor, no show free oil, scattered chert, white opaque dense

Limestone, cream to white to small trace pink in part, hard dense, microcrystalline matrix to chalky matrix, no visible porosity, no stain, no odor, dull yellow mineral fluorescence, no show

Limestone to cherty lime, cream to white to trace pink, hard to soft, microcrystalline matrix to chalky matrix, no visible porosity, no stain, no odor, dull yellow mineral fluorescence, no show, trace scattered shale, gray, hard, splinty, no fluorescence





Shale, gray to maroon, hard, splinty to small trace blocky, very waxy, no fluorescence

Limestone, cream to white to small trace pink, very hard dense, microcrystalline to cryptocrystalline matrix, no visible porosity, no stain, no odor, no fluorescence, no show

TD @ 4630' - 6:20PM CDT

