

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](mailto: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	MARY 1-27
Doc ID	1633393

All Electric Logs Run

DUCP
POR
MICRO
SONIC









**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Black Oak Exploration LLC

**27-5s-31w Rawlins KS**

1474 S St Paul ST  
Denver CO 80210+2514

**Mary #1-27**

Job Ticket: 67772

**DST#: 1**

ATTN: Clayton Cammozi

Test Start: 2021.10.09 @ 11:50:00

## GENERAL INFORMATION:

Formation: **Tor-LKC**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:18:47

Time Test Ended: 18:46:27

Test Type: Conventional Bottom Hole (Initial)

Tester: Spencer J Staab

Unit No: 84

Interval: **3924.00 ft (KB) To 3994.00 ft (KB) (TVD)**

Reference Elevations: 2950.00 ft (KB)

Total Depth: 3994.00 ft (KB) (TVD)

2945.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition:

KB to GR/CF: 5.00 ft

**Serial #: 6838**

**Inside**

Press@RunDepth: 45.44 psig @ 3927.00 ft (KB)

Capacity: psig

Start Date: 2021.10.09

End Date:

2021.10.09

Last Calib.:

2021.10.09

Start Time: 11:50:01

End Time:

18:46:27

Time On Btm:

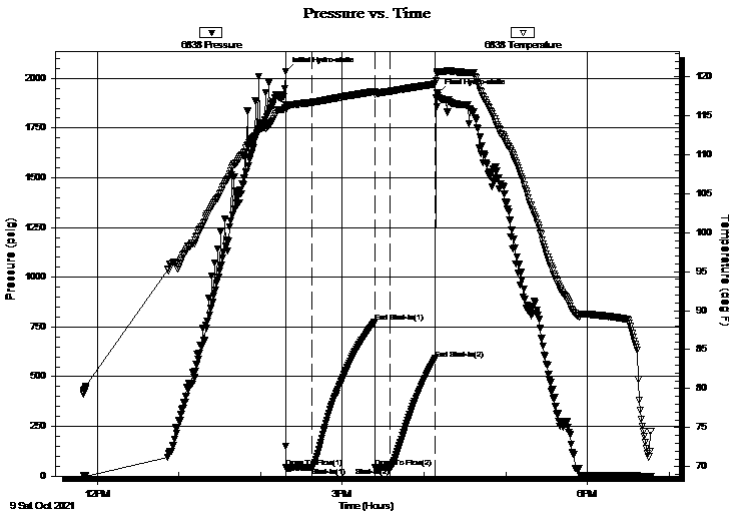
2021.10.09 @ 14:18:32

Time Off Btm:

2021.10.09 @ 16:09:57

**TEST COMMENT:** 20-IF-Slid 8' lost 10' mud Bled off 2.5" Surface Blow  
45-ISI-No Return  
10-FF-No Blow  
30-FSI-No Return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2034.95	116.41	Initial Hydro-static
1	42.97	115.86	Open To Flow (1)
20	44.13	116.71	Shut-In(1)
66	775.51	118.08	End Shut-In(1)
66	45.70	117.78	Open To Flow (2)
77	45.44	118.13	Shut-In(2)
110	590.65	119.08	End Shut-In(2)
112	1924.74	120.60	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
30.00	Mud 100%M	0.15

## Gas Rates

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







**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Black Oak Exploration LLC

**27-5s-31w Rawlins KS**

1474 S St Paul ST  
Denver CO 80210+2514

**Mary #1-27**

Job Ticket: 67772

**DST#: 1**

ATTN: Clayton Cammozi

Test Start: 2021.10.09 @ 11:50:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.80 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	Mud 100%M	0.148

Total Length: 30.00 ft      Total Volume: 0.148 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 4#LCM

Serial #: 6838

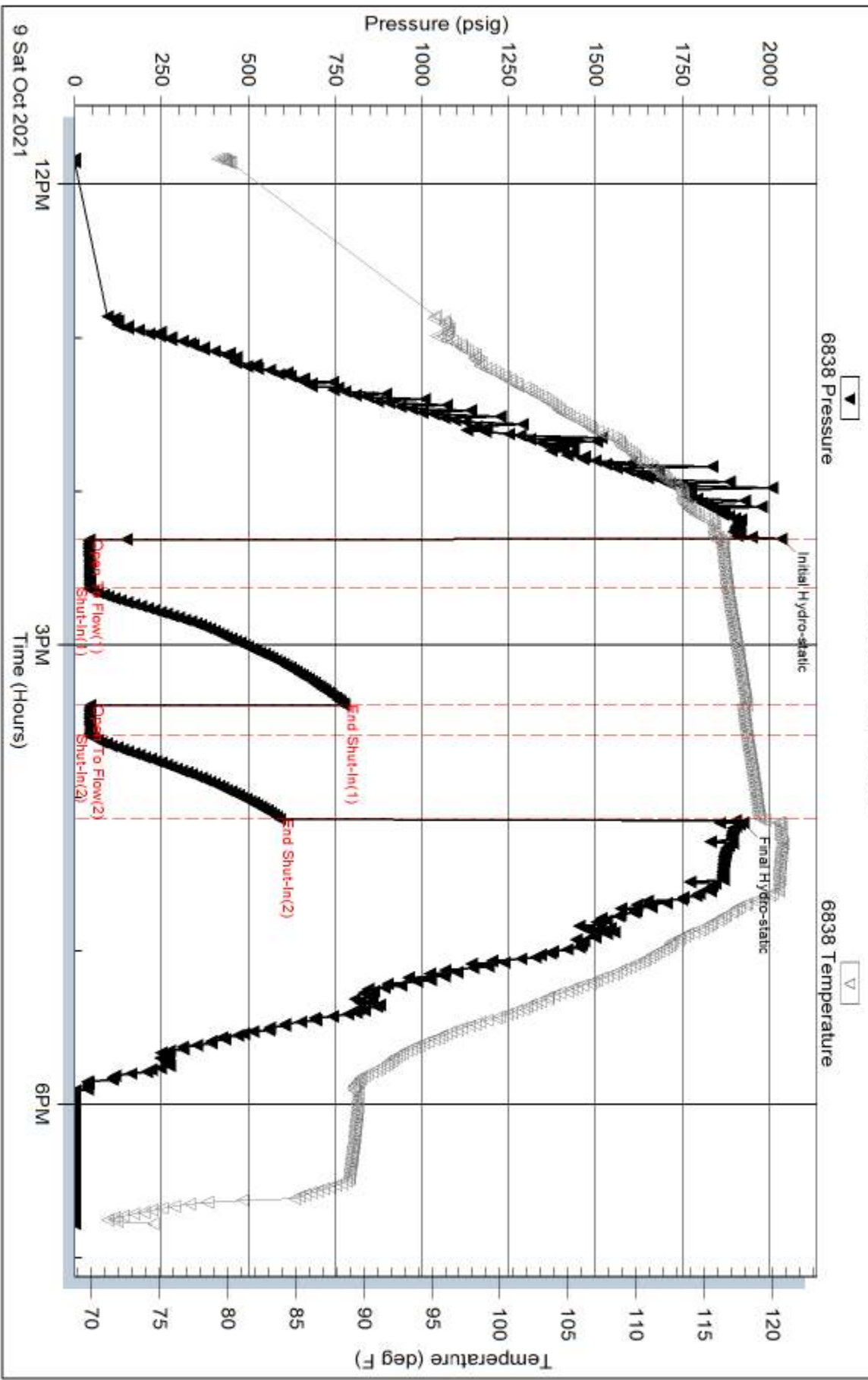
Inside

Black Oak Exploration LLC

Mary #1-27

DST Test Number: 1

### Pressure vs. Time



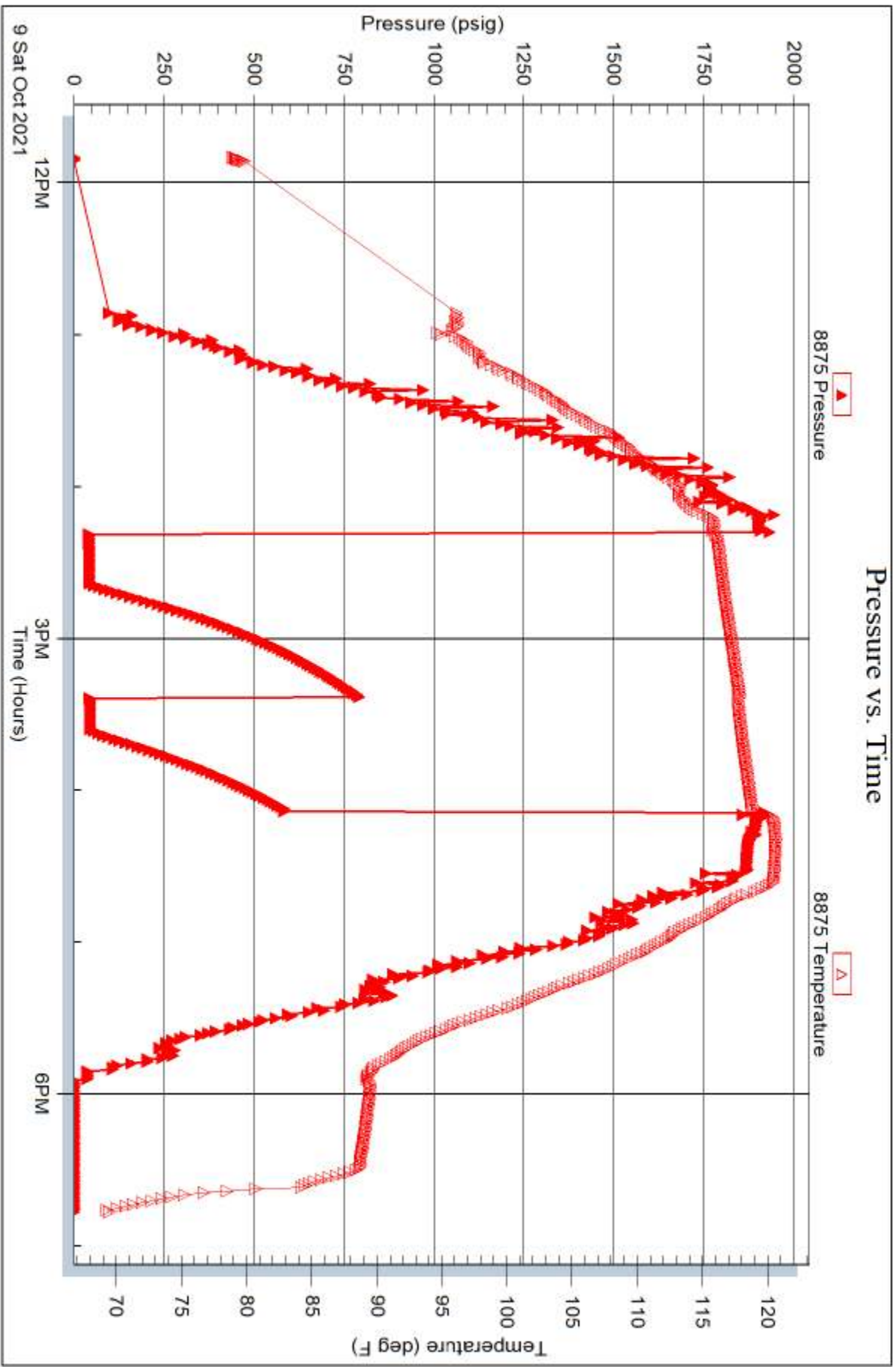
Serial #: 8875

Inside

Black Oak Exploration LLC

Mary #1-27

DST Test Number: 1





**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Black Oak Exploration LLC

**27-5s-31w Rawlins KS**

1474 S St Paul ST  
Denver CO 80210+2514

**Mary #1-27**

Job Ticket: 67773

**DST#: 2**

ATTN: Clayton Cammozi

Test Start: 2021.10.10 @ 04:15:00

## GENERAL INFORMATION:

Formation: **LKC B-D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:16:27

Time Test Ended: 11:24:47

Test Type: Conventional Bottom Hole (Reset)

Tester: Spencer J Staab

Unit No: 84

**Interval: 3990.00 ft (KB) To 4029.00 ft (KB) (TVD)**

Reference Elevations: 2950.00 ft (KB)

Total Depth: 4029.00 ft (KB) (TVD)

2945.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition:

KB to GR/CF: 5.00 ft

**Serial #: 8875**

**Inside**

Press@RunDepth: 300.06 psig @ 3993.00 ft (KB)

Capacity: psig

Start Date: 2021.10.10

End Date:

2021.10.10

Last Calib.:

2021.10.10

Start Time: 04:15:01

End Time:

11:24:47

Time On Btm:

2021.10.10 @ 06:16:07

Time Off Btm:

2021.10.10 @ 09:12:17

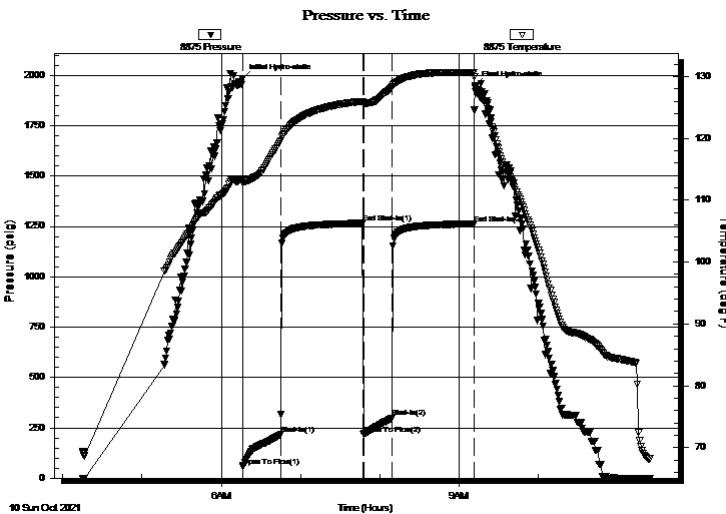
**TEST COMMENT:** 30-IF-Tool slid 5' lost mud blow started @3" BOB 20 mins Built to 19"

60-ISI-No Return

20-FF-BOB 19 mins Built to 13"

60-FSI-No Return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1984.10	113.39	Initial Hydro-static
1	58.19	112.78	Open To Flow (1)
29	217.64	119.66	Shut-In(1)
91	1265.00	125.99	End Shut-In(1)
92	217.51	125.78	Open To Flow (2)
114	300.06	128.34	Shut-In(2)
176	1263.26	130.60	End Shut-In(2)
177	1950.17	128.14	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
350.00	Water 100%W	2.74
150.00	MCW 15%M 85%W	2.13
120.00	Mud 100%M	1.70

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Black Oak Exploration LLC

**27-5s-31w Rawlins KS**

1474 S St Paul ST  
Denver CO 80210+2514

**Mary #1-27**

Job Ticket: 67773

**DST#: 2**

ATTN: Clayton Cammozi

Test Start: 2021.10.10 @ 04:15:00

## 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:

31000 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
350.00	Water 100%W	2.740
150.00	MCW 15%M 85%W	2.126
120.00	Mud 100%M	1.701

Total Length: 620.00 ft      Total Volume: 6.567 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 4#LCM

RW=.244@65F



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Black Oak Exploration LLC

**27-5s-31w Rawlins KS**

1474 S St Paul ST  
Denver CO 80210+2514

**Mary #1-27**

Job Ticket: 67774

**DST#: 3**

ATTN: Clayton Cammozi

Test Start: 2021.10.11 @ 05:15:00

## GENERAL INFORMATION:

Formation: **LKC J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:49:12

Time Test Ended: 11:03:32

Test Type: Conventional Bottom Hole (Reset)

Tester: Spencer J Staab

Unit No: 84

**Interval: 4120.00 ft (KB) To 4150.00 ft (KB) (TVD)**

Reference Elevations: 2950.00 ft (KB)

Total Depth: 4150.00 ft (KB) (TVD)

2945.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 6838**

**Inside**

Press@RunDepth: 22.66 psig @ 4121.00 ft (KB)

Capacity: psig

Start Date: 2021.10.11

End Date:

2021.10.11

Last Calib.: 2021.10.11

Start Time: 05:15:01

End Time:

11:03:32

Time On Btm: 2021.10.11 @ 07:48:52

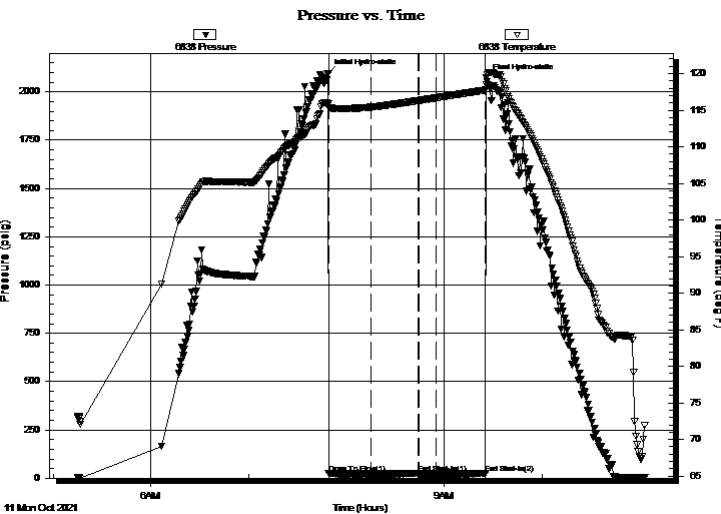
Time Off Btm: 2021.10.11 @ 09:25:47

TEST COMMENT: 25-IF-Weak Surface Died @ 18 mins

30-ISI-No Return

10-FF-No Blow

30-FSI-No Return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2095.84	115.83	Initial Hydro-static
1	25.93	115.35	Open To Flow (1)
26	21.34	115.41	Shut-In(1)
56	24.29	116.31	End Shut-In(1)
56	20.78	116.32	Open To Flow (2)
66	22.66	116.68	Shut-In(2)
97	24.53	117.78	End Shut-In(2)
97	2070.71	118.43	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud 100%M	0.01

\* Recovery from multiple tests

## Gas Rates

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







**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Black Oak Exploration LLC

**27-5s-31w Rawlins KS**

1474 S St Paul ST  
Denver CO 80210+2514

**Mary #1-27**

Job Ticket: 67774

**DST#: 3**

ATTN: Clayton Cammozi

Test Start: 2021.10.11 @ 05:15:00

## 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: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.80 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	Mud 100%M	0.010

Total Length: 2.00 ft      Total Volume: 0.010 bbl

Num Fluid Samples: 0

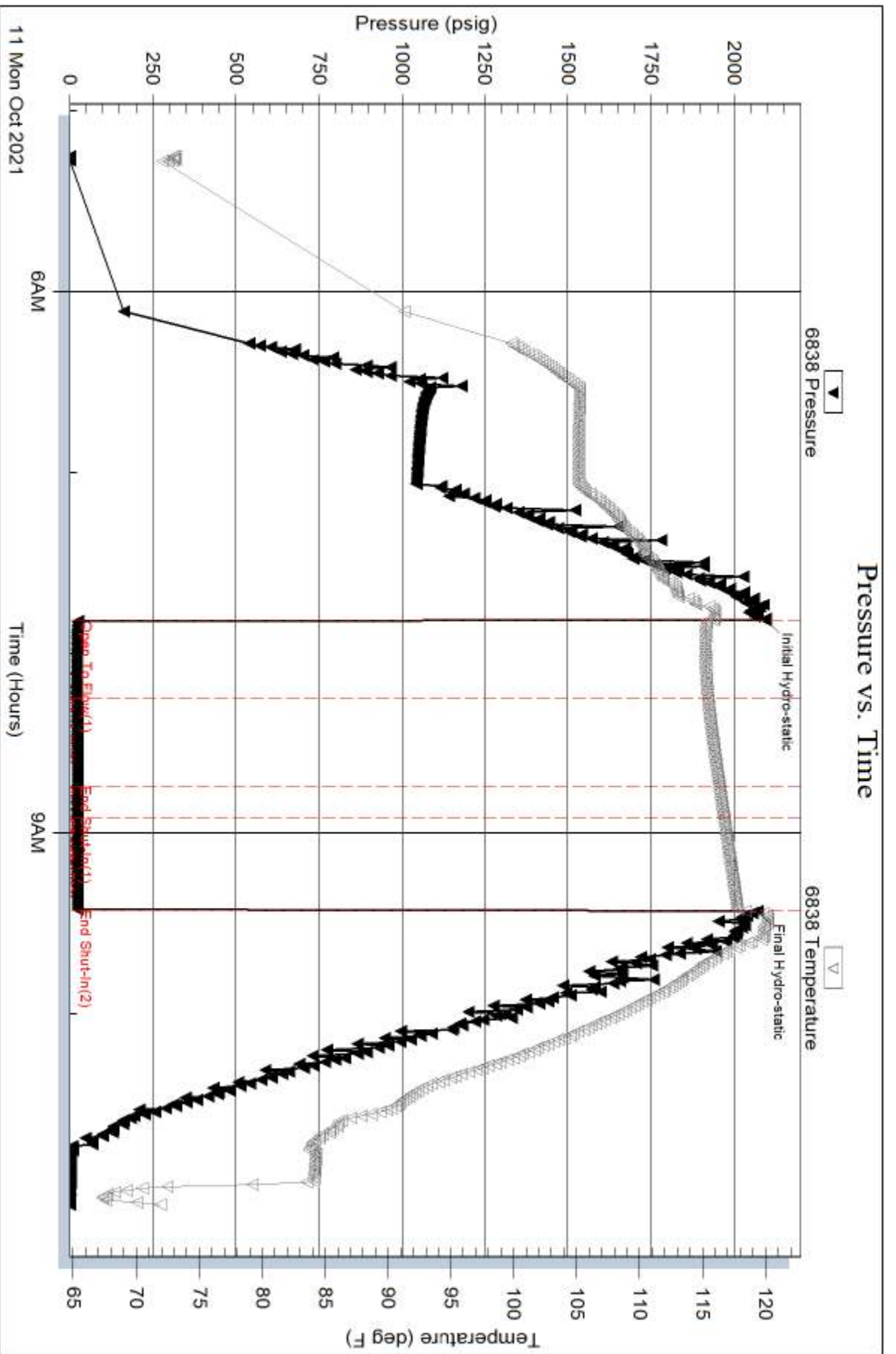
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 4#LCM



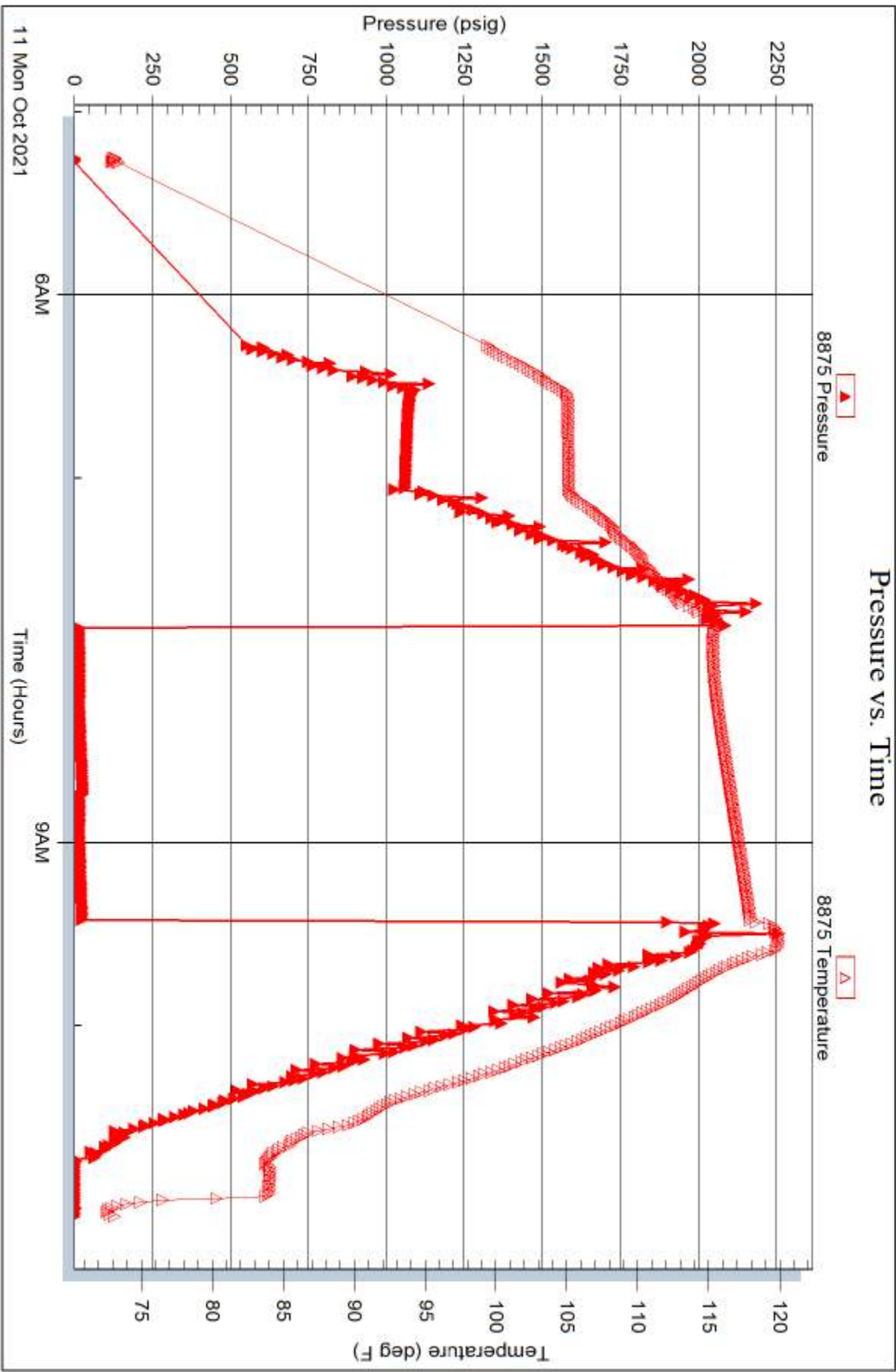
Serial #: 8875

Outside

Black Oak Exploration LLC

Mary #1-27

DST Test Number: 3



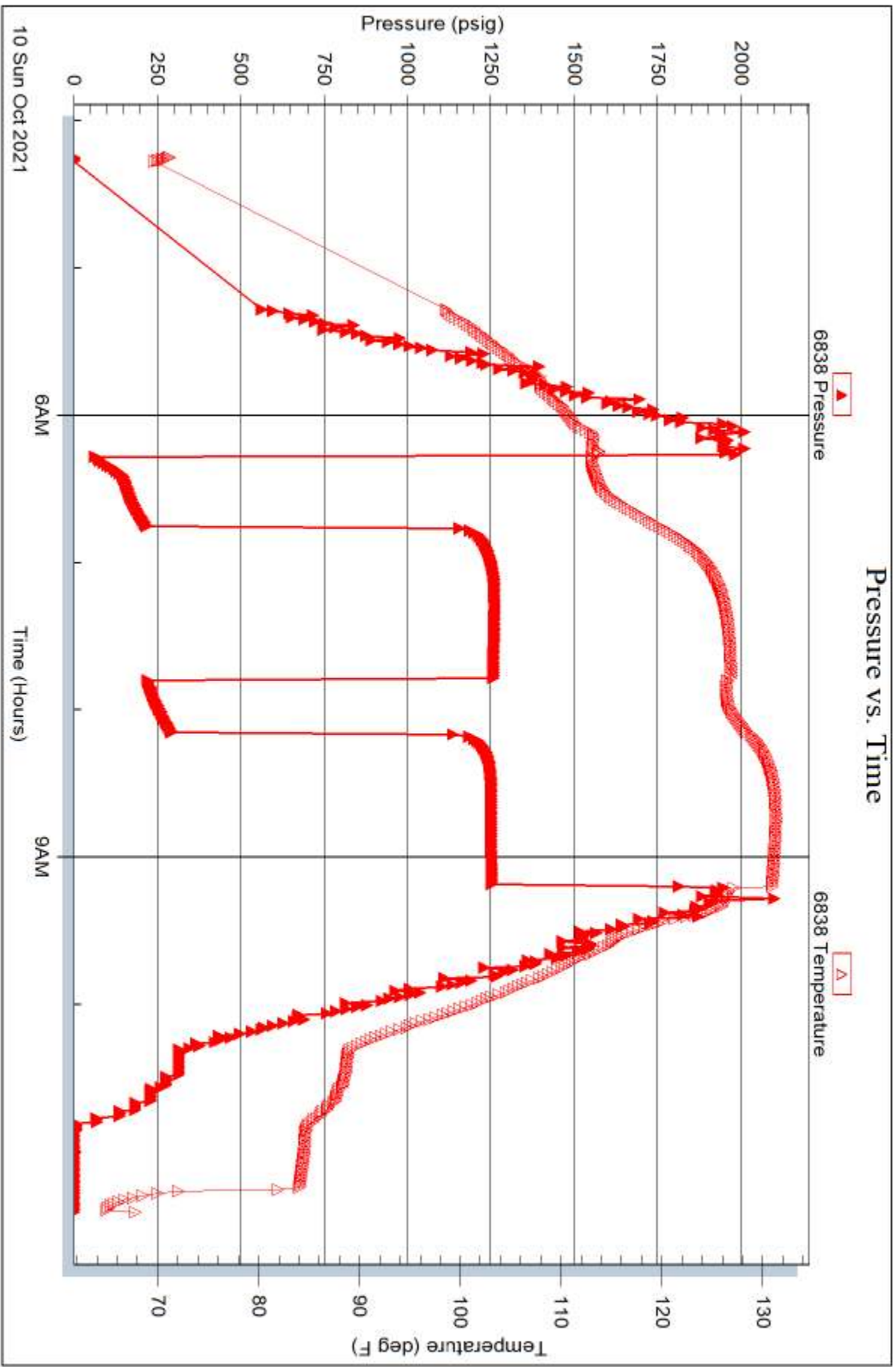
Serial #: 6838

Inside

Black Oak Exploration LLC

Mary #1-27

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 67773

Printed: 2021.10.10 @ 16:18:50

# 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: Mary 1-27  
 Location: 2380 FNL & 2185 FWL  
 Sec. 27 - 5S - 31W  
 Rawlins Co., KS  
 Wellsite Geologist: Clayton Camozzi Cell: (303) 968-4999

Elevation: 2945' GL 2950' KB  
 Field: Wildcat  
 API No: 15-153-21270-0000  
 Surface Casing: 8 5/8" set @ 248' KB

Drilling Contractor: Murfin Drilling Co Rig #7. Rig Phone (785-443-5616), Tool Pusher Arturo Cabezas (308-443-0495)

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, Mary 1-27 2380 FNL & 2185 FWL Sec. 27 - 5S - 31W 2950 KB				Murfin Drlg, Withers 1-26 2280 FNL & 1700 FWL D&A Sec. 26 - 5s - 31w 2945 KB				Murfin Drlg, Erickson 1-21 580 FSL & 680 FEL D&A Sec. 21 - 5s - 31w 2890 KB			
					Structural Relationship				Structural Relationship			
Stone Corral	2638	312	2662	288	2655	290	22	-2	2588	302	10	-14
Topeka	3746	-796	3750	-800	3750	-805	9	5	3674	-784	-12	-16
LeCompton	3858	-908	3863	-913	3861	-916	8	3	3785	-895	-13	-18
Heebner	3925	-975	3925	-975	3924	-979	4	4	3849	-959	-16	-16
Lansing	3972	-1022	3975	-1025	3972	-1027	5	2	3898	-1008	-14	-17
Lansing D	4013	-1063	4013	-1063	4015	-1070	7	7	3935	-1045	-18	-18
Lansing G	4060	-1110	4057	-1107	4060	-1115	5	8	3981	-1091	-19	-16
Lansing J	4132	-1182	4138	-1188	4132	-1187	5	-1	4058	-1168	-14	-20
BKC	4203	-1253	4203	-1253	4199	-1254	1	1	4126	-1236	-17	-17
Pawnee	4314	-1364	4318	-1368	4310	-1365	1	-3	4243	-1353	-11	-15
Fort Scott	4345	-1395	4350	-1400	4340	-1395	0	-5	4274	-1384	-11	-16
Cherokee	4396	-1446	4398	-1448	4390	-1445	-1	-3	4324	-1434	-12	-14
Mississippian	4526	-1576	4527	-1577	4505	-1560	-16	-17	4444	-1554	-22	-23
Total Depth	4600	-1650	4600	-1650	4546	-1601			4538	-1648		

No up or downhole correction

# BLACK OAK



## EXPLORATION

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

Well Name: MARY 1-27  
Well Id:  
Location: Section 27 - 5S - 31W Rawlins Co, Kansas  
License Number: API # 15-153-21270  
Spud Date: 10/05/2021  
Surface Coordinates: 2380' FSL & 2185' FWL  
Region:  
Drilling Completed: 10/12/2021

Bottom Hole  
Coordinates:  
Ground Elevation (ft): 2945' K.B. Elevation (ft): 2950'  
Logged Interval (ft): 3700 To: 4600' Total Depth (ft): 4600'  
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: TIM HEDRICK  
Company: EARTH TECH OGL, INC  
Address: Po BOX 683  
Hooker, okla. 73945  
580-754-0062 Cell

### REMARKS

After review of the E-logs, DST Data, and Geolog it was recommended to P&A the Mary 1-27 well. The samples will be bagged and delivered to the KGS library for processing.

# Black Oak Exploration, LLC

## WELL COMPARISON SHEET

Company: Black Oak Exploration, LLC  
 1474 S St Paul St  
 Denver, CO 80210  
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Drilling Contractor: Murfin Drilling Co Rig #7. Rig Phone (785-443-5616), Tool Pusher Arturo Cabezas (308-443-0495)

No up or downhole  
 correction

Formation	DRILLING WELL		
	Sample	Sub-Sea	Log
Stone Corral	2638	312	2662
Topeka	3746	-796	3750
LeCompton	3858	-908	3863
Heebner	3925	-975	3925
Lansing	3972	-1022	3975
Lansing D	4013	-1063	4013
Lansing G	4060	-1110	4057
Lansing J	4132	-1182	4138
BKC	4203	-1253	4203
Pawnee	4314	-1364	4318
Fort Scott	4345	-1395	4350
Cherokee	4396	-1446	4398
Mississippian	4526	-1576	4527
Total Depth	4600	-1650	4600

Formation	COMPARISON WELL		
	Log	Sub-Sea	Relationship
Murfin Drig, Withers 1-26	2655	290	-2
2280 FNL & 1700 FWL D&A	3750	-805	9
Sec. 26 - 5s - 31w	3861	-916	8
2945 KB	3924	-979	4
	3972	-1027	5
	4015	-1070	7
	4060	-1115	5
	4132	-1187	5
	4199	-1254	1
	4310	-1365	1
	4340	-1395	0
	4390	-1445	-1
	4505	-1560	-16
	4546	-1601	-17

Formation	COMPARISON WELL		
	Log	Sub-Sea	Relationship
Murfin Drig, Erickson 1-21	2588	302	10
580 FSL & 680 FEL D&A	3674	-784	-12
Sec. 21 - 5s - 31w	3785	-895	-13
2890 KB	3849	-959	-16
	3898	-1008	-14
	3935	-1045	-18
	3981	-1091	-19
	4058	-1168	-14
	4126	-1236	-17
	4243	-1353	-11
	4274	-1384	-11
	4324	-1434	-12
	4444	-1554	-22
	4538	-1648	-23



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Black Oak Exploration LLC

**27-5s-31w Rawlins KS**

1474 S St Paul ST  
Denver CO 80210+2514

**Mary #1-27**

Job Ticket: 67772

**DST#: 1**

ATTN: Clayton Cammozi

Test Start: 2021.10.09 @ 11:50:00

## GENERAL INFORMATION:

Formation: **Tor-LKC**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:18:47

Time Test Ended: 18:46:27

Test Type: Conventional Bottom Hole (Initial)

Tester: Spencer J Staab

Unit No: 84

Interval: **3924.00 ft (KB) To 3994.00 ft (KB) (TVD)**

Reference Elevations: 2950.00 ft (KB)

Total Depth: 3994.00 ft (KB) (TVD)

2945.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition:

KB to GR/CF: 5.00 ft

**Serial #: 6838** Inside

Press@RunDepth: 45.44 psig @ 3927.00 ft (KB)

Capacity: psig

Start Date: 2021.10.09

End Date:

2021.10.09

Last Calib.:

2021.10.09

Start Time: 11:50:01

End Time:

18:46:27

Time On Btm:

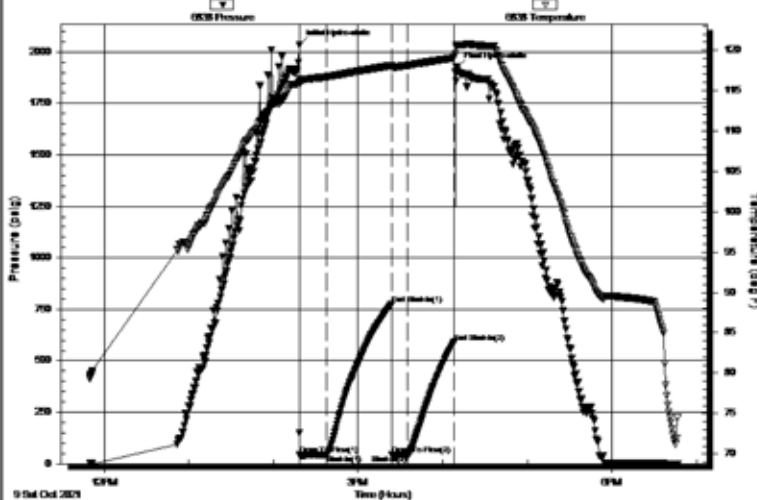
2021.10.09 @ 14:18:32

Time Off Btm:

2021.10.09 @ 16:09:57

**TEST COMMENT:** 20-IF-Slid 8' lost 10' mud Bled off 2.5" Surface Blow  
45-ISI-No Return  
10-FF-No Blow  
30-FSI-No Return

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2034.95	116.41	Initial Hydro-static
1	42.97	115.86	Open To Flow (1)
20	44.13	116.71	Shut-In(1)
66	775.51	118.08	End Shut-In(1)
66	45.70	117.78	Open To Flow (2)
77	45.44	118.13	Shut-In(2)
110	590.65	119.08	End Shut-In(2)
112	1924.74	120.60	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
30.00	Mud 100%M	0.15

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Black Oak Exploration LLC

**27-5s-31w Rawlins KS**

1474 S St Paul ST  
Denver CO 80210+2514

**Mary #1-27**

Job Ticket: 67773

**DST#: 2**

ATTN: Clayton Cammozi

Test Start: 2021.10.10 @ 04:15:00

## GENERAL INFORMATION:

Formation: **LKC B-D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:16:27

Time Test Ended: 11:24:47

Test Type: Conventional Bottom Hole (Reset)

Tester: Spencer J Staab

Unit No: 84

**Interval: 3990.00 ft (KB) To 4029.00 ft (KB) (TVD)**

Reference Elevations: 2950.00 ft (KB)

Total Depth: 4029.00 ft (KB) (TVD)

2945.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition:

KB to GR/CF: 5.00 ft

**Serial #: 8875 Inside**

Press@RunDepth: 300.06 psig @ 3993.00 ft (KB)

Capacity: psig

Start Date: 2021.10.10

End Date:

2021.10.10

Last Calib.: 2021.10.10

Start Time: 04:15:01

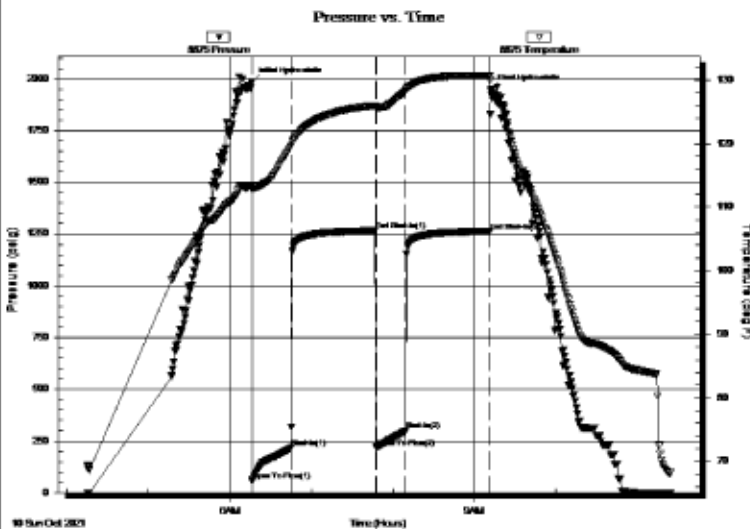
End Time:

11:24:47

Time On Btm: 2021.10.10 @ 06:16:07

Time Off Btm: 2021.10.10 @ 09:12:17

**TEST COMMENT:** 30-IF-Tool slid 5' lost mud blow started @3" BOB 20 mins Built to 19"  
60-ISI-No Return  
20-FF-BOB 19 mins Built to 13"  
60-FSI-No Return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1984.10	113.39	Initial Hydro-static
1	58.19	112.78	Open To Flow (1)
29	217.64	119.66	Shut-In(1)
91	1265.00	125.99	End Shut-In(1)
92	217.51	125.78	Open To Flow (2)
114	300.06	128.34	Shut-In(2)
176	1263.26	130.60	End Shut-In(2)
177	1950.17	128.14	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
350.00	Water 100%W	2.74
150.00	MCW 15%M 85%W	2.13
120.00	Mud 100%M	1.70

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Black Oak Exploration LLC

**27-5s-31w Rawlins KS**

1474 S St Paul ST  
Denver CO 80210+2514

**Mary #1-27**

Job Ticket: 67774

**DST#: 3**

ATTN: Clayton Cammozi

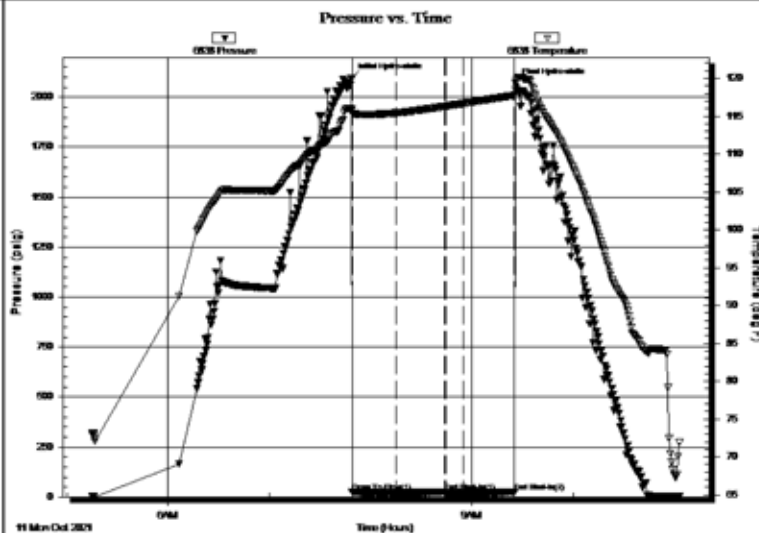
Test Start: 2021.10.11 @ 05:15:00

## GENERAL INFORMATION:

Formation: **LKC J**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 07:49:12  
 Tester: Spencer J Staab  
 Time Test Ended: 11:03:32  
 Unit No: 84  
 Interval: **4120.00 ft (KB) To 4150.00 ft (KB) (TVD)**  
 Reference Elevations: 2950.00 ft (KB)  
 Total Depth: 4150.00 ft (KB) (TVD)  
 2945.00 ft (CF)  
 Hole Diameter: 7.88 inches  
 Hole Condition: Fair  
 KB to GR/CF: 5.00 ft

**Serial #: 6838** Inside  
 Press@RunDepth: 22.66 psig @ 4121.00 ft (KB) Capacity: psig  
 Start Date: 2021.10.11 End Date: 2021.10.11 Last Calib.: 2021.10.11  
 Start Time: 05:15:01 End Time: 11:03:32 Time On Btm: 2021.10.11 @ 07:48:52  
 Time Off Btm: 2021.10.11 @ 09:25:47

TEST COMMENT: 25-IF-Weak Surface Died @ 18 mins  
 30-ISI-No Return  
 10-FF-No Blow  
 30-FSI-No Return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2095.84	115.83	Initial Hydro-static
1	25.93	115.35	Open To Flow (1)
26	21.34	115.41	Shut-In(1)
56	24.29	116.31	End Shut-In(1)
56	20.78	116.32	Open To Flow (2)
66	22.66	116.68	Shut-In(2)
97	24.53	117.78	End Shut-In(2)
97	2070.71	118.43	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud 100%M	0.01

## Gas Rates

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

# ROCK TYPES

## LITHOLOGY

- Anhy
- Bent
- Brec
- Cht
- Clyst
- Coal
- Congl
- Dol
- Gyp
- Igne
- Lmst
- Meta
- Mrlst
- Salt
- Shale
- Shcol
- Shgy
- Sltst
- Ss
- Till
- Sltstn
- Shale
- Sandylms
- Lms
- Gry sh
- Dtd
- Dol
- Carb sh
- pipesymbol
- unknown lith
- Red shale

## FOSSIL

- Oomoldic
- Fuss
- Algae

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## MINERAL

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

- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom

## STRINGER

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

- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff



Ssstrg

## TEXTURE

- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

## OIL SHOW

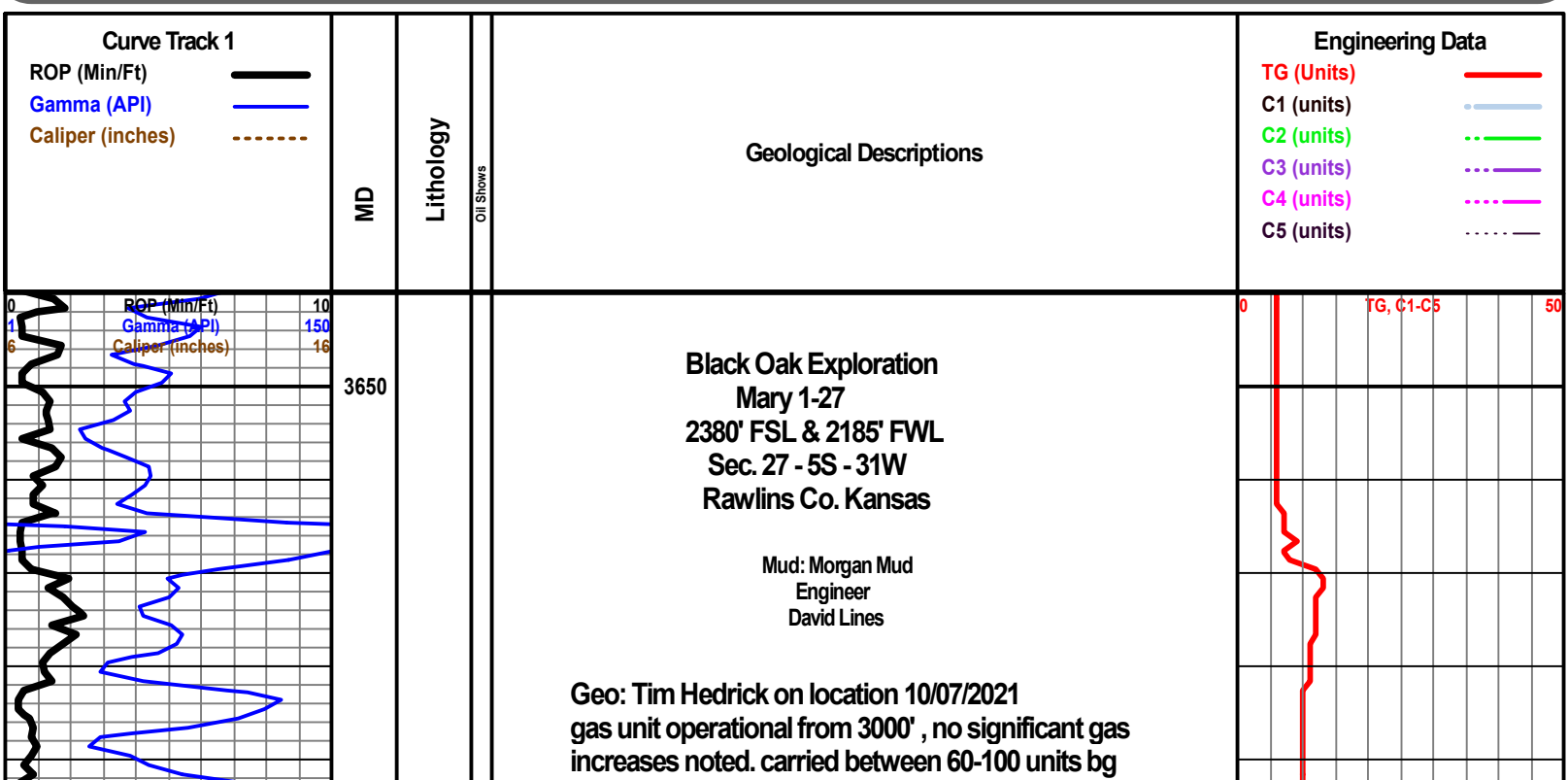
- Gas show
- Even
- Spotted
- Ques
- Dead

## INTERVAL

- Dst
- Core
- Dst
- Straddle test tail pipe

## EVENT

- Rft
- Sidewall
- Dst
- Open hole
- Perforations



gas

start wet and dry samples at 3720'

Shale-light to medium gray, firm blocky smooth texture to slightly calcareous in part

Limestone-cream lt tan, hard dense to brittle in part, very fine crystalline to fairly sucrosic in part, traces of white sub chalky in part, no fluor, no vis porosity, no visible cut or show

**TOPEKA 3746' - 796'**

Shale- red to rusty brown, firm blkly grainy texture to very soft mushy to gummy texture in part

Limestone- off white to cream, hard dense in part, medium to coarse crystalline, grading to firm white chalk with laminated red shale in part, traces of interbedded soft white chalk, dull yellow mineral fluor. no visible cut or show

Shale- light to medium gray, firm blkly smooth texture

Limestone- cream off white, hard dense very fine to trace crypto-crystalline, slightly sub chalky in part, traces interbedded light gray shale n part, dull yellow mineral fluor. no visible porosity, no visible show or cut

Limestone-white off white in part, abundant very soft white chalk to very sucrosic sub chalky in part, bright yellow mineral fluor, no vis porosity, no visible show or cut

Shale-red, frm blkly to soft gummy texture in part, grainy texture in part grading to silty, trace siltstone in part

Limestone- cream light tan, hard dense to trace brittle in part, crypto to very very fine crystalline, re-xln in part, scattered embedded small to medium calcite crystals in part, slight trace soft free chalk, bright yellow mineral fluor ip to dull yellow fluor, no visible porosity, no visible show

Shale- medium to dark gray- firm blocky smooth texture, w/ dissiminated pyrite

Limestone-cream, hard dense, very fine to crypto-crystalline, scattered traces re-crystalline in part, slight trace of veragated medium calcite crystals, trace fossil fragments in part, light bright yellow mineral fluor in part, no visible porosity, no visible show

Shale- black firm carbonaceous looking in part grading to medium to dark gray firm smooth texture

**LeCompton 3858' - 908'**

Limestone-cream to off white, hard to brittle, very sucrosic matrix, slightly sub chalky in part, small calcite crystals embedded thru out, bright yellow fluor thru out, poor to fair scattered inter-crystalline porosity in part, no visible show or cut

Shale- green to rustic brown in part, firm blocky smooth texture in part grading to grainy texture, very silty in part

limestone-cream to light tan, hard dense, very very fine crystalline, tight sucrosic in part, embedded fossil fragments thruout, dull yellow mineral fluor thruout, no visible porosity, no visible show

Limestone -cream to off white in part, hard dense to slightly brittle, fine crystalline to tight sucrosic matrix, scattered fossil fragments in part, slight trace of embedded soft white chalk, yellow mineral fluor, trace of poor pin point porosity in part, no visible show

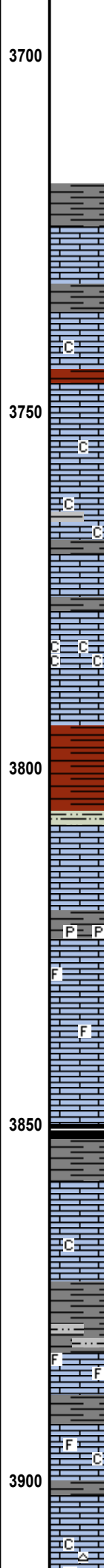
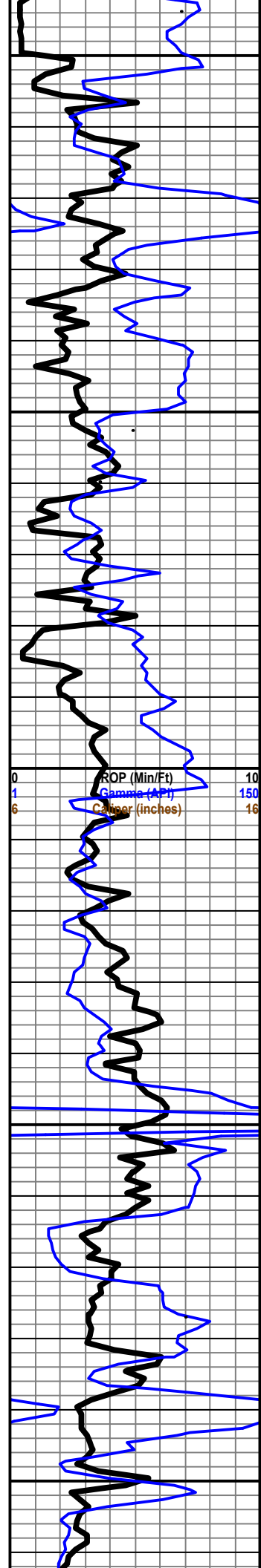
Limestone- off white to cream, hard dense in part to brittle, medium crystalline sucrosic matrix, embedded fossil fragments in part, trace of lt gray chert, scattered embedded soft white chalk. bright yellow fluor thruout, fair

Morgan Ck @ 3700'  
07:50 am 10/08/21  
V/s 73 Wt 8.6  
PV 22 YP 25  
WL 6.4  
Cake 2  
PH 11.5  
CHL 4000 ppm  
CA 10  
Sol 2.2  
LCM: 6  
DMC: \$1700  
CWC: \$12,500

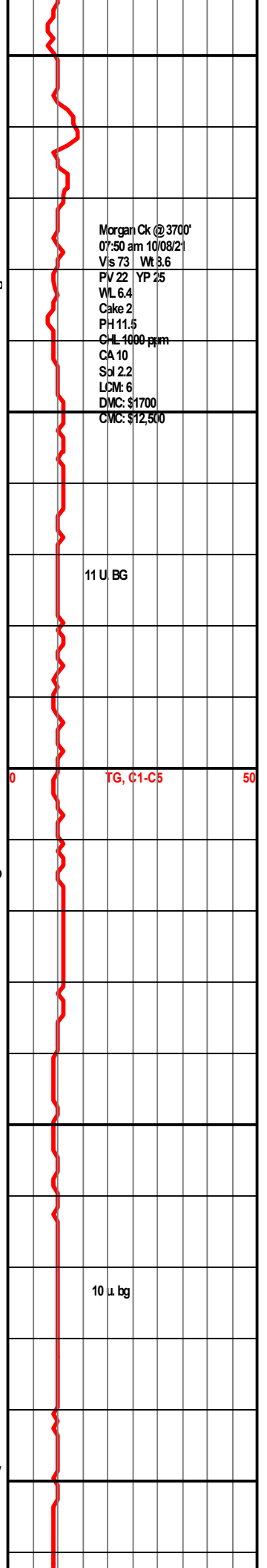
11 U BG

TG, C1-C5 50

10 U bg



Text descriptions of rock layers and their characteristics, including TOPEKA and LeCompton sections.



inter-fossil porosity in part to fair to good micro pinpoint porosity in part, no visible show

### Heebner Sh. 3925' - 975'

Shale- Black -soft to firm carbonaceous looking

Shale-green red brown, firm blocky smooth to grainy texture,slightly silty in part, disimerated pyrite in part, grading to siltstone-lt gray greenish tight, no fluor, no visible porosity

Shale- red to reddish brown, firm blocky , very grainy text, silty in part

Limestone-off white to cream to dark brown due to oil stain, hard to brittle, very coarse sucrosic matrix, very oolitic, medium colites some at point matrix, scattered disseminated pyrite, small calcite crystals inter-oolitic, abundant free oil in tray and inter-oolitic, very dull yellow gold fluor in 70%, poor to trace fair inter-oolitic porosity, excellent flush to slow stream cut thruout, light oil odor, abduant free oil in dish

### Lansing 3972' - 1022'

Shale- red, firm blocky smooth texture

Limestone-orm buff, hd to brittle in part , very sucro matrix, traces very very fine crystalline in part. It bright yellow fluor scattered thruout, poor to fair micro pinpoint to poor inter-crystalline porosity in 30% to no porosity in part, light gassy ring cut in 70%

Limestone-cream light tan hard dense very fine to crypto-crystalline, re-crystalline in part, trace of fossil fragments, light bright yellow fluor in 60%, no vis porosity, no visible show

Limestone-cream tan w/ tan to spotted dark brown oil stain scattered thruout, very coarse sucrosic matrix to fine crystalline in part, dos scattered in 50%, fair tan oil stain in 30%, free ang lime grains in tray, small to medium calcite crystals interbedded in part, dull yellow gold fluor thruout, fair visible inter-crystalline porosity in 30%, very poor inter-crystalline porosity thru, excelent flush cut to excellent slow stream cut thruout , fair oil odor

### Lansing "D" 4013' - 1063'

Limestone-cream light tan light brown due to live oil stain in 25%. dos scattered in 70%, hard to very brittle, sucrosic matrix, re-crystalline in part,scattered small colites in part , bright yellow gold fluor thru, poor to fair, traces good visible inter-crystalline porosity in 25% , poor scattered micro vug and micro pinpoint porosity scattered thruout, abundant, opque tan chert, very good flush cut thruout to excel slow streaming cuts thruout, leach on dish, fair odor

Shale- red firm blocky smooth text to green blocky smooth texture to slight trace soft

Limestone- cream light tan to tan due to scattered oil stain in part, dos scattered in 50%, hard to trace brittle in part, crypto-very very fine crystalline, re-crystalline in part, some medium colites emdedded in part, small to medium calcite crystals embedded thruout, dull yellow gold fluor scattered in 60% to no fluor in part, poor visible inter-crystalline porosity in 10% to no visible porosity, good flush cut thruout to very good slow stream cut in 80%, no odor

### Lansing "G" 4060' - 1110'

Limestone-cream buff- hard dense to trace brittle, very tight sucro matrix to crypto-crystalline in part, slight trace soft white chalk embedded in part, dull yellow fluor in 30%, no visible porosity, no visible show

Limestone- white off white cream, veru sucrosic sub-chilly to chilly matrix thruout, abdt soft white free chalk, abdt orange burndt orange re-worked chert,dull yellow mineral fluor scattered in 60% to no fluor. no visible porosity, no show

### Lansing "H" 4094' - 1144'

Limestone- cream off white to white- very sucrosic matrix to sucro sub chalky in part, abdt free firm to soft white chalk thruout, light yellow mineral fluor in 70%, poor to fair inter-crystalline porosity in 10% to no visible porosity, no visible show or cut

Shale- dark gray to black soft carbonaceous, heavy trace green smooth texture in part

Limestone - cream off white, hard dense to brittle in part, crypto-very very fine crystalline, trace of free soft white chalk ip, dull yel fluor, no visible porosity, no visible show

Limestone-cream off white to white, hard dense in part to brittle very tight sucrosic to sucrosic sub chalky in part with abdt free firm to soft white chalk, dull yel fluor thruout, no visible porosity, no visible show

9 u. bg

11 u. total

Morgan Ck @ 3994'

10:15 am 10/09/21

Vis 57 Wt 9.1

PV 18 YP 18

WL 6.8

Cake 2

PH 10.5

CHL 1000 ppm

CA 10

Sol 5.7

LCM: 4

DMC: \$1230

CMC: \$13,730

8 u. bg

10 u. total

CFS @ 3994'

TRIP GAS

15 u.

TRG, C1-C5 50

19 u.

Morgan Ck @ 4029'

10:20 am 10/10/21

Vis 53 Wt 9.2

PV 17 YP 16

WL 6.8

Cake 2

PH 10.5

CHL 1200 ppm

CA 10

Sol 5.7

LCM: 4

DMC: \$0

CMC: \$13,730

20 u.

CFS @ 4029'

19 u.

CFS 4054'

19 u. bg

17 u. bg

15 u. bg

14 u. bg

3950  
DST #1 3924' - 3994'

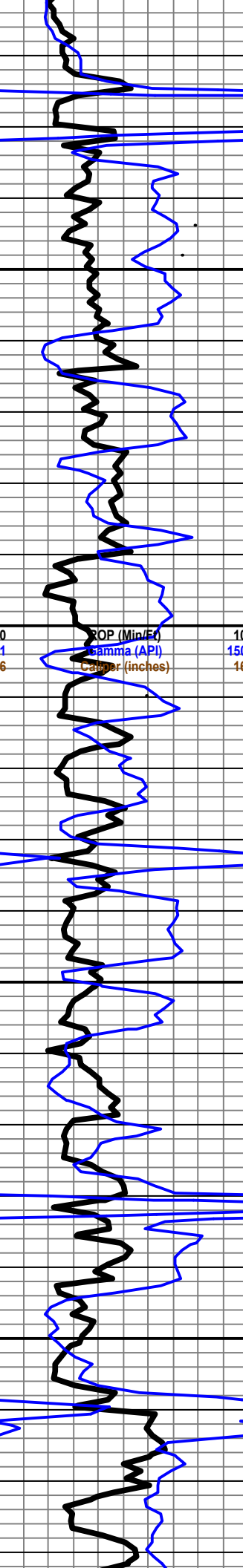
4000  
DST #2 3990' - 4029'

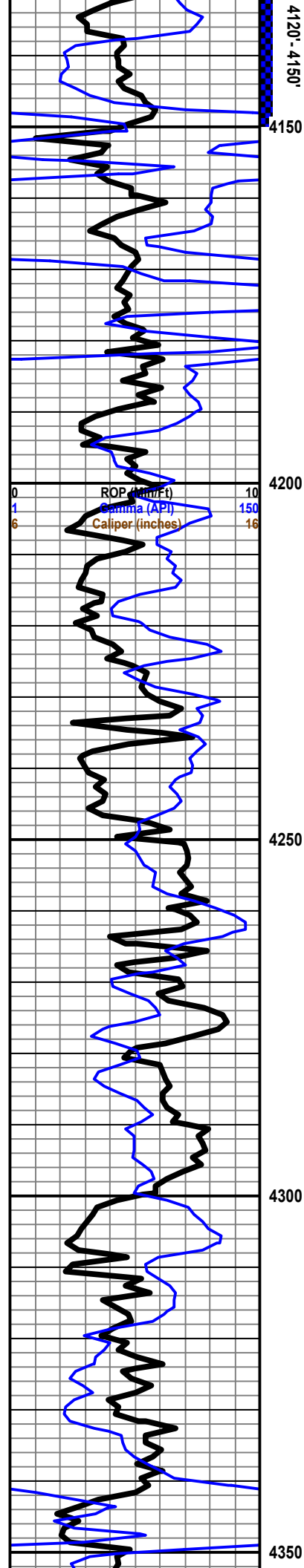
4050

4100

DST #3

ROP (Min/Ft) 10  
Gamma (API) 150  
Casing (inches) 16





Limestone - tan brown to dark brown due to even oil stain in 70%, trace live oil hard dense in part to very brittle, sucrosic in part to very fine crystalline, crypto-xln embed small to medium calcite xls in part, calcite xls on one faces in part with oil stain, bright yellow gold fluor in 60% dull yellow gold fluor in part, poor fair to traces good microvug porosity, poor micro pinpoint porosity in part, possible fractured porosity. excellent flush to very good slow stream cut thruout, no odor

Shale- black soft carbonaceous looking to red and green shales , firm blocky smooth to slightly grainy texture

Limestone- cream light tan, hard dense slight trace brittle in part, very fine to crypto-crystalline to sucrosic in part with trace embed fossil fragments in part, abdt free soft white chalk, bright yellow mineral fluor thruout, no visible porosity, no visible show or cut

Shales- red green grays mott, firm blocky smooth texture to trace of black soft carbonaceous

Limestone- cream off white, hard dense very fine crystalline to sucrosic in part to sucrosic sub chalky in part, traces of free soft white chalk, dull yellow mineral fluor , no vis porosity, no visible show

**BKC 4203' -1253'**

Shale- gray to light gray with reds in part , firm blocky to soft gummy texture

Limestone, cream light tan, hard dense, very fine crystalline to subsucrosic matrix, no visible porosity, no odor, dull yellow fluor, no show

limestone and Shale interbeds, cream tan gray hard dense very tight sucrosic matrix w/ interbedded laminated red and gray shale, firm blk smooth texture, no fluor, no visible porosity, no visible show

Shales- red gray maroon mottled, firm blocky smooth texture very calcareous

shale- gray red -firm blocky smooth texture to very grainy texture silty looking, very calcareous

Limestone-cream light tan lt gray - hard dense sucrosic to sub sucrosic, laminated red and gray shale thruout, with grainy texture, no fluor, no visible porosity, no visible show or cut

Limestone - cream light tan off white in part, hard dense very tight sucrosic matrix to fine crystalline in part, scattered traces embedded fossil fragments in apt, trace firm free white chalk in part, dull yellow fluor, no visible porosity, no visible show or cut

Shale- very light gray , soft gummy texture grading to red gry black , firm blk smooth text to trace splinty

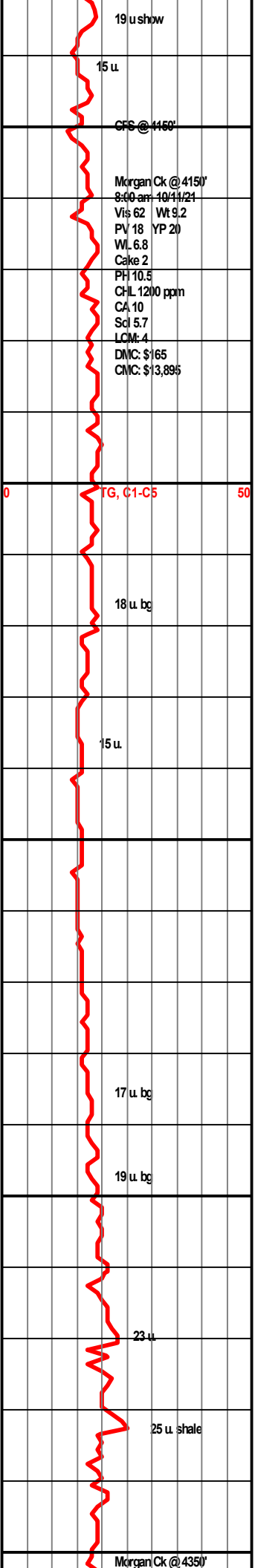
**Pawnee 4314' - 1364'**

Limestone- hard dense to trace brittle in part, very very fine crystalline to sucro sub chalky in part, embedded fossil fragments in part, abundant free soft white chalk, dull yellow mineral fluor in part to no fluor, no visible porosity, no visible show or cut

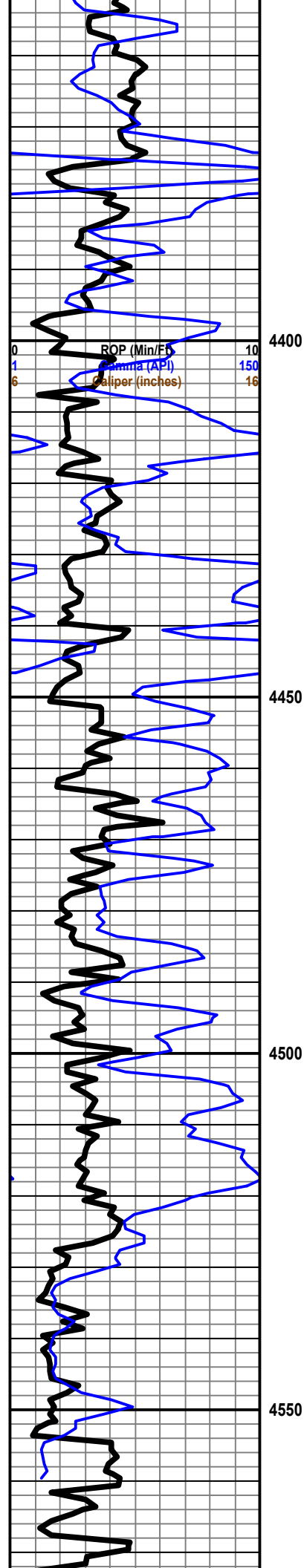
Shale- Gray dark gray , firm blk smooth texture to black carbonaceous looking

**Ft. Scott 4345' - 1395'**

Limestone- cream light tan tan, hd to medium hard, very sucrosic sub chslky matrix, trace of embed fossil fragments in part, no fluor, no vis porosity, no visible show or cut



7:35 am 10/12/21  
 Vis 65 Wt 9.3  
 PV 19 YP 24  
 WL 7.2  
 Cake 2  
 PH 10.5  
 CHL 1100 ppm  
 CA 10  
 Sol 7.1  
 LCM: 5  
 DMC: \$987  
 CMC: \$14,882



Limestone- cream lt tan to off white in part, hard brittle, sucrosic matrix, traces embed fossil fragments, sli sub chslky to free soft to firm white chalk, very dull yellow fluor thruout, no visible porosity, no visible show or cut

Shale- black soft carbonaceous to medium gray firm blkly smooth texture

Limestone- cream light tan tan , hard very dense, crypto to very very fine crystalline, with abundant free soft to firm white chalk, dull yellow mineral fluor, no visible porosity, no visible show or cut

**Cherokee 4396' - 1446'**

Shale -Green to gray firm blkly smooth texture to black soft carbonaceous looking

Limestone - cream lt tan to off white, hard dense to brittle, sucrosic matrix to sucrosic sub chalky ip, trace very very fine crystalline, abundant white free soft to firm chalk, dull yellow mineral fluor. in part, possible poor micro pinoint porosity in part, no visible show or cut

Limestone- cream light tan- hard to soft in part, sucrosic to sucrosic sub chalky, with abdt free soft to firm white chalk, trace of foss fragments in part, no fluor, no visible porosity

sandstone- frosty white- hard tight to friable in part, small to medium angular clear grains, fair to well sort, siliceous cementation, scattered embed glauconite, trace embedded red shale in part, no fluor, poss poor inter-grainular porosity, no cut or show

Shale red brown green gray- mottled firm blocky grainy texture, becoming very silty in part

Limestone- off wht cream, hard dense in part to brittle sucrosic s-chlky matrix, with embedded fine to medium grain quartz sub round to sub angular, no fluor no visible porosity, no visible show or cut

sandstone- off white to clear- hard tight in part to very friable, fine to medium trace of coarse clear to frosty quartz grains, occasional round to sub round clear pebble sized quartz grains, poor sort, siliceous to trace of calcareous cementation, scattered traces of glauconite embedded thruout, no fluor, poss poor to poss good inter-grainular porosity, no visible cut

Shale- red green yellow mottled- firm blocky smooth texture to very silty texture in part, gummy in part with traces free clear pebble sized clear quartz grains occasionaly

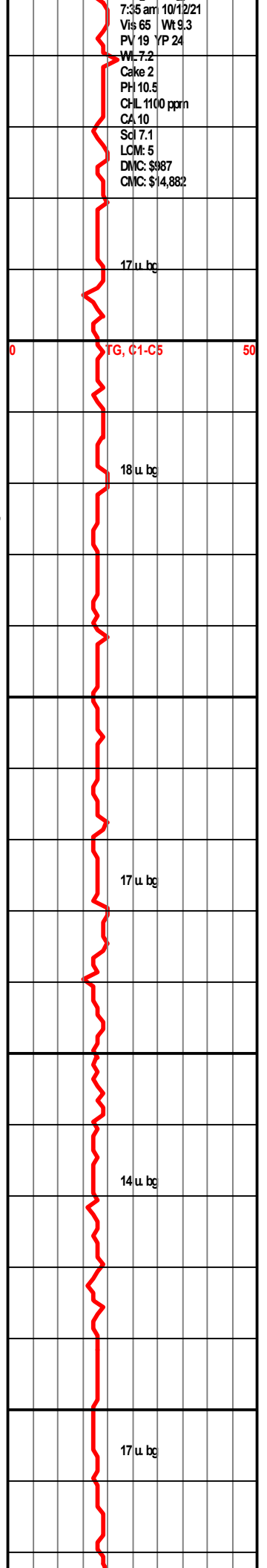
Shale- red green gray mustard mottled- firm blocky smooth texture to very silty texture in part, gummy in part with embed amall to medium quartz grains with pyrite clusters embed, laminated silts andred shales with traces free clear pebble sized clear quartz grains occasionaly

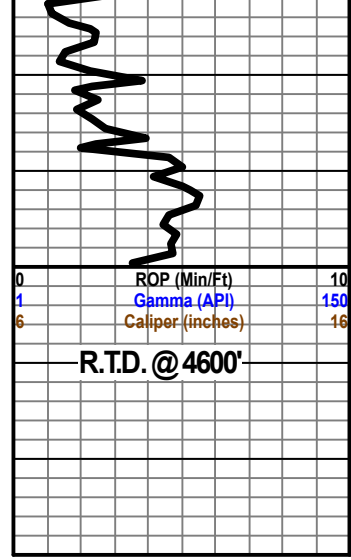
**Mississippi 4526' - 1576'**

Chert - white pink- hard dense, no fluor , no visible porosity, no show

Chert- white translucent, hard dense , no fluor, no visible porosity, no visible show or cut

Limestone- cream off white to white, hard dense crypto-crystalline abundant opque white chert, soft white chalk in part, no fluor, no vis porosity, no show





4600

R.T.D. @ 4600'



Chert- white translucent, hard dense , with limestone in part crypto-crystalline , no fluor, no visible porosity, no visible show or cut

Limestone- white off white- hard dense to brittle very very fine crystalline to sucrosic sub chalky in part, abundant white opque chert, no flo, no visible porosity, no show

RTD @ 4600' at 9:42 pm October 12, 2021

19 u. bg

TG, C1-C5

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