



## DRILL STEM TEST REPORT

Prepared For: **Black Oak Exploration LLC**

1474 S St Paul St  
Denver CO 80210

ATTN: Clayton Camozzi

**Goetsch #1-10**

**10-6S-37W Sherman,KS**

Start Date: 2019.06.29 @ 00:00:00

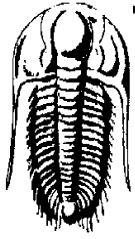
End Date:

Job Ticket #: 64651

DST #: 1

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

Printed: 2019.07.03 @ 15:04:20



# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

Black Oak Exploration LLC

**10-6S-37W Sherman,KS**

1474 S St Paul St  
Denver CO 80210

**Goetsch #1-10**

Job Ticket: 64651

**DST#: 1**

ATTN: Clayton Camozzi

Test Start: 2019.06.29 @ 00:00:00

### GENERAL INFORMATION:

Formation: **Lans H-J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened:

Time Test Ended:

Test Type: Conventional Bottom Hole (Initial)

Tester: Shawn Wheelbarger

Unit No: 76

**Interval: 4430.00 ft (KB) To 4506.00 ft (KB) (TVD)**

Reference Elevations: 3453.00 ft (KB)

Total Depth: 4506.00 ft (KB) (TVD)

3448.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

### Serial #: 8673

Press@RunDepth: psig @ ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.10.29

End Date:

2018.10.29

Last Calib.:

1899.12.30

Start Time: 17:23:34

End Time:

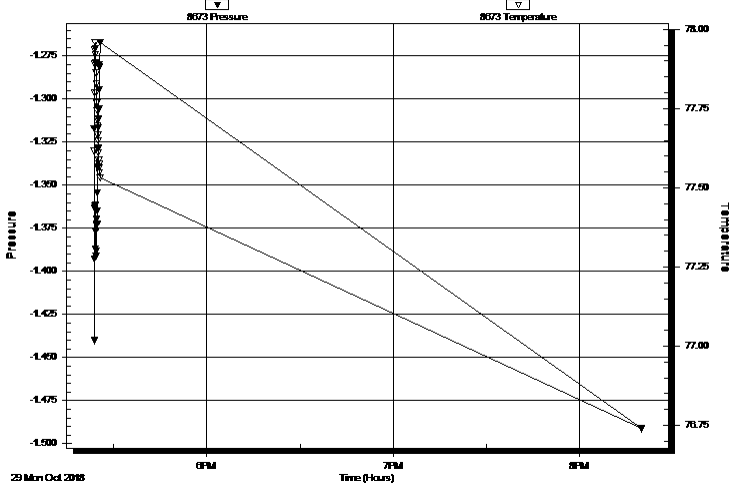
20:19:49

Time On Btm:

Time Off Btm:

**TEST COMMENT:** Geo decided to pull tool after 15 stands because tool was catching so they can condition the hole. No recorders attached.

Pressure vs. Time



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)

### Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Black Oak Exploration LLC

**10-6S-37W Sherman,KS**

1474 S St Paul St  
Denver CO 80210

**Goetsch #1-10**

Job Ticket: 64651

**DST#: 1**

ATTN: Clayton Camozzi

Test Start: 2019.06.29 @ 00:00:00

## Tool Information

Drill Pipe:	Length: 4248.00 ft	Diameter: 3.80 inches	Volume: 59.59 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: lb
		Total Volume: - bbl		Tool Chased: ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial lb
Depth to Top Packer:	4430.00 ft			Final lb
Depth to Bottom Packer:	ft			
Interval between Packers:	76.00 ft			
Tool Length:	104.00 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			4403.00	
Shut In Tool	5.00			4408.00	
Hydraulic tool	5.00		Inside	4413.00	
Jars	5.00			4418.00	
Safety Joint	2.00			4420.00	
Packer	5.00			4425.00	28.00 Bottom Of Top Packer
Packer	5.00			4430.00	
Packer - Shale	0.00			4430.00	
Stubb	1.00			4431.00	
Recorder	0.00	8645	Outside	4431.00	
Recorder	0.00	6731	Inside	4431.00	
Perforations	7.00			4438.00	
Change Over Sub	1.00			4439.00	
Drill Pipe	63.00			4502.00	
Change Over Sub	1.00			4503.00	
Bullnose	3.00			4506.00	76.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>104.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Black Oak Exploration LLC

**10-6S-37W Sherman,KS**

1474 S St Paul St  
Denver CO 80210

**Goetsch #1-10**

Job Ticket: 64651

**DST#: 1**

ATTN: Clayton Camozzi

Test Start: 2019.06.29 @ 00:00:00

### 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: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3200.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

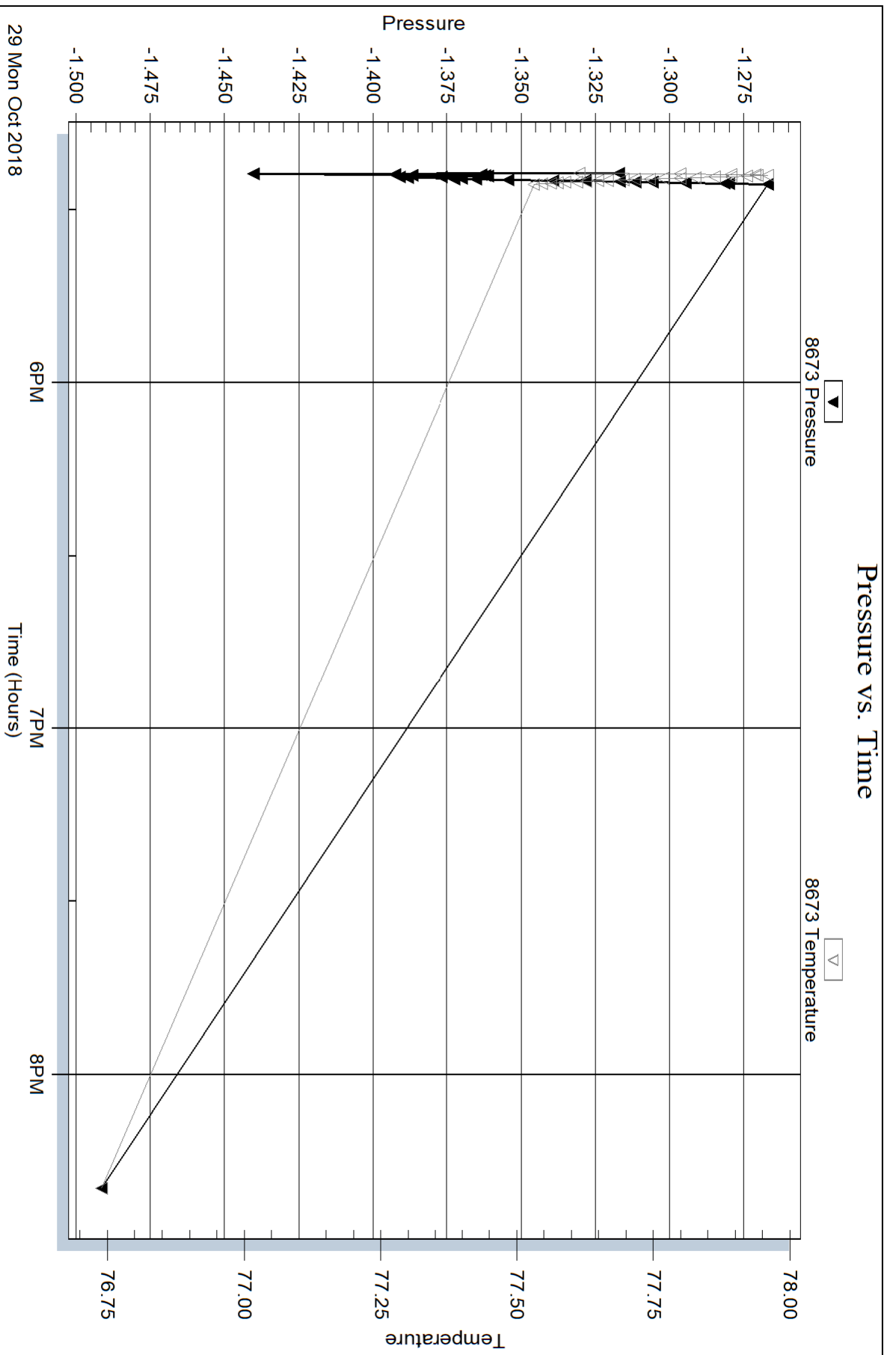
Length ft	Description	Volume bbbl

Total Length:                      ft      Total Volume:                      bbl

Num Fluid Samples: 0                      Num Gas Bombs:      0                      Serial #:

Laboratory Name:                      Laboratory Location:

Recovery Comments:





## DRILL STEM TEST REPORT

Prepared For: **Black Oak Exploration LLC**

1474 S St Paul St  
Denver CO 80210

ATTN: Clayton Camozzi

### **Goetsch #1-10**

#### **10-6S-37W Sherman,KS**

Start Date: 2019.06.30 @ 04:25:00

End Date: 2019.06.30 @ 11:28:09

Job Ticket #: 64652                      DST #: 2

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

Printed: 2019.07.03 @ 14:54:13

Black Oak Exploration LLC  
10-6S-37W Sherman,KS  
Goetsch #1-10  
DST # 2  
LKG H-J  
2019.06.30



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Black Oak Exploration LLC

**10-6S-37W Sherman, KS**

1474 S St Paul St  
Denver CO 80210

**Goetsch #1-10**

Job Ticket: 64652

**DST#: 2**

ATTN: Clayton Camozzi

Test Start: 2019.06.30 @ 04:25:00

## GENERAL INFORMATION:

Formation: **LKC H-J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:27:50

Time Test Ended: 11:28:09

Test Type: Conventional Bottom Hole (Reset)

Tester: Shawn Wheelbarger

Unit No: 76

**Interval: 4430.00 ft (KB) To 4506.00 ft (KB) (TVD)**

Reference Elevations: 3453.00 ft (KB)

Total Depth: 4506.00 ft (KB) (TVD)

3448.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8355 Outside**

Press@RunDepth: 30.69 psig @ 4431.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.06.30

End Date:

2019.06.30

Last Calib.: 2019.06.30

Start Time: 04:25:01

End Time:

11:28:10

Time On Btm: 2019.06.30 @ 06:26:50

Time Off Btm: 2019.06.30 @ 09:05:50

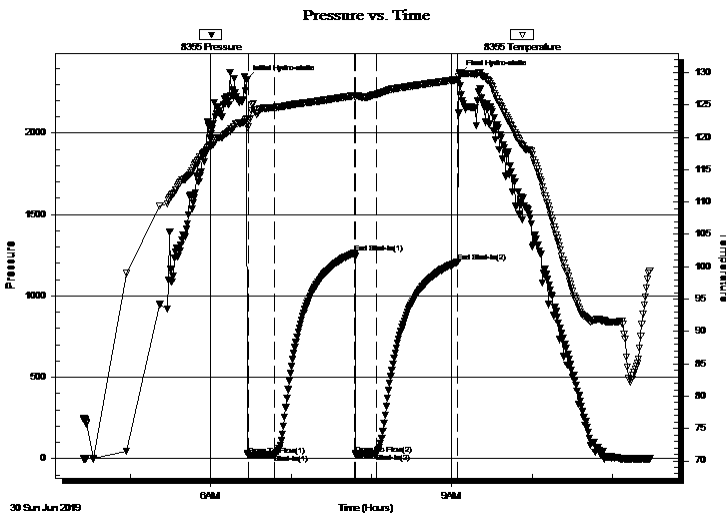
**TEST COMMENT:** 20-IF-1/4" Blow @ open built to 1 1/4"

60-ISI-No blow back

15-FF-No blow

60-FSI-No blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2331.31	122.81	Initial Hydro-static
1	20.57	122.29	Open To Flow (1)
21	25.65	124.61	Shut-In(1)
81	1263.50	126.46	End Shut-In(1)
82	28.41	126.09	Open To Flow (2)
97	30.69	126.62	Shut-In(2)
158	1208.47	128.93	End Shut-In(2)
159	2362.53	129.92	Final Hydro-static

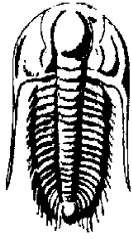
## Recovery

Length (ft)	Description	Volume (bbl)
20.00	GVSOCM 3%G, 4%O, 93%M	0.10

\* Recovery from multiple tests

## Gas Rates

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



# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

Black Oak Exploration LLC

10-6S-37W Sherman, KS

1474 S St Paul St  
Denver CO 80210

Goetsch #1-10

Job Ticket: 64652

DST#: 2

ATTN: Clayton Camozzi

Test Start: 2019.06.30 @ 04:25:00

### GENERAL INFORMATION:

Formation: **LKC H-J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:27:50

Time Test Ended: 11:28:09

Test Type: Conventional Bottom Hole (Reset)

Tester: Shawn Wheelbarger

Unit No: 76

Interval: **4430.00 ft (KB) To 4506.00 ft (KB) (TVD)**

Total Depth: 4506.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 3453.00 ft (KB)

3448.00 ft (CF)

KB to GR/CF: 5.00 ft

### Serial #: 8645

Inside

Press@RunDepth: psig @ 4431.00 ft (KB)

Start Date: 2019.06.30

End Date:

Capacity: 8000.00 psig

Start Time: 04:25:01

End Time:

2019.06.30

11:27:31

Last Calib.:

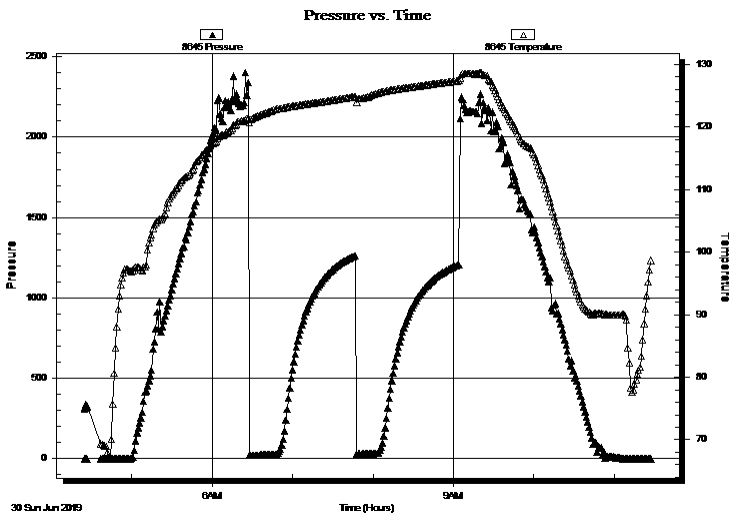
Time On Btm:

Time Off Btm:

1899.12.30

TEST COMMENT: 20-IF-1/4" Blow @ open built to 1 1/4"  
60-ISI-No blow back  
15-FF-No blow  
60-FSI-No blow

### PRESSURE SUMMARY



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

### Recovery

Length (ft)	Description	Volume (bbl)
20.00	GVSOCM 3%G, 4%O, 93%M	0.10

### 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

**10-6S-37W Sherman,KS**

1474 S St Paul St  
Denver CO 80210

**Goetsch #1-10**

Job Ticket: 64652

**DST#: 2**

ATTN: Clayton Camozzi

Test Start: 2019.06.30 @ 04:25:00

## Tool Information

Drill Pipe:	Length: 4248.00 ft	Diameter: 3.80 inches	Volume: 59.59 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: 25000.00 lb
Drill Collar:	Length: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 60.48 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 66000.00 lb
Depth to Top Packer:	4430.00 ft			Final 66000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	76.00 ft			
Tool Length:	104.00 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			4403.00	
Shut In Tool	5.00			4408.00	
Hydraulic tool	5.00		Inside	4413.00	
Jars	5.00			4418.00	
Safety Joint	2.00			4420.00	
Packer	5.00			4425.00	28.00 Bottom Of Top Packer
Packer	5.00			4430.00	
Packer - Shale	0.00			4430.00	
Stubb	1.00			4431.00	
Recorder	0.00	8355	Outside	4431.00	
Recorder	0.00	8645	Inside	4431.00	
Perforations	7.00			4438.00	
Change Over Sub	1.00			4439.00	
Drill Pipe	63.00			4502.00	
Change Over Sub	1.00			4503.00	
Bullnose	3.00			4506.00	76.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>104.00</b>				



**TRILOBITE**  
TESTING, INC.

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Black Oak Exploration LLC

**10-6S-37W Sherman,KS**

1474 S St Paul St  
Denver CO 80210

**Goetsch #1-10**

Job Ticket: 64652

**DST#: 2**

ATTN: Clayton Camozzi

Test Start: 2019.06.30 @ 04:25:00

## 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: 69.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.59 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3600.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	GVSOCM 3%G, 4%O, 93%M	0.098

Total Length: 20.00 ft      Total Volume: 0.098 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

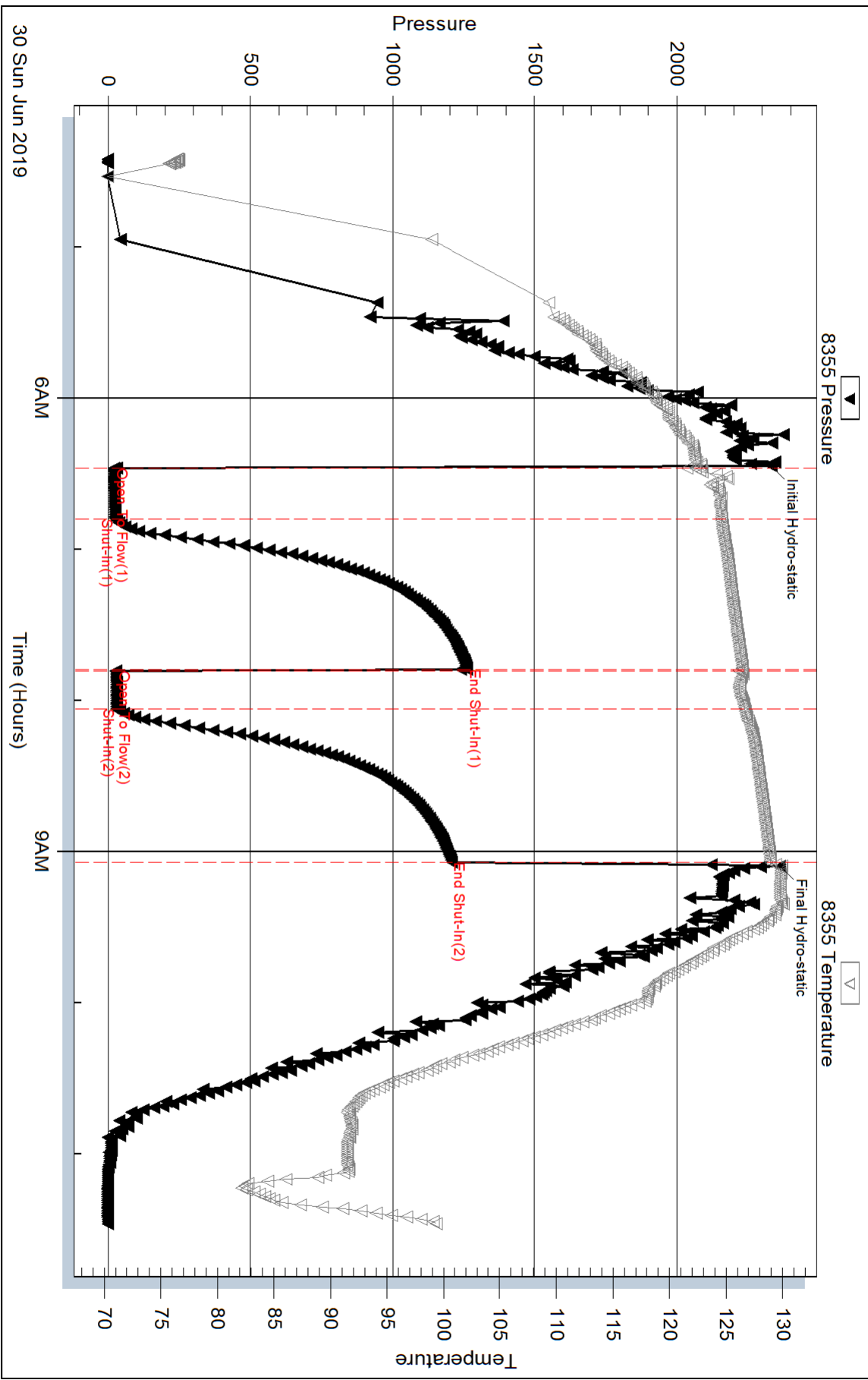
Serial #:

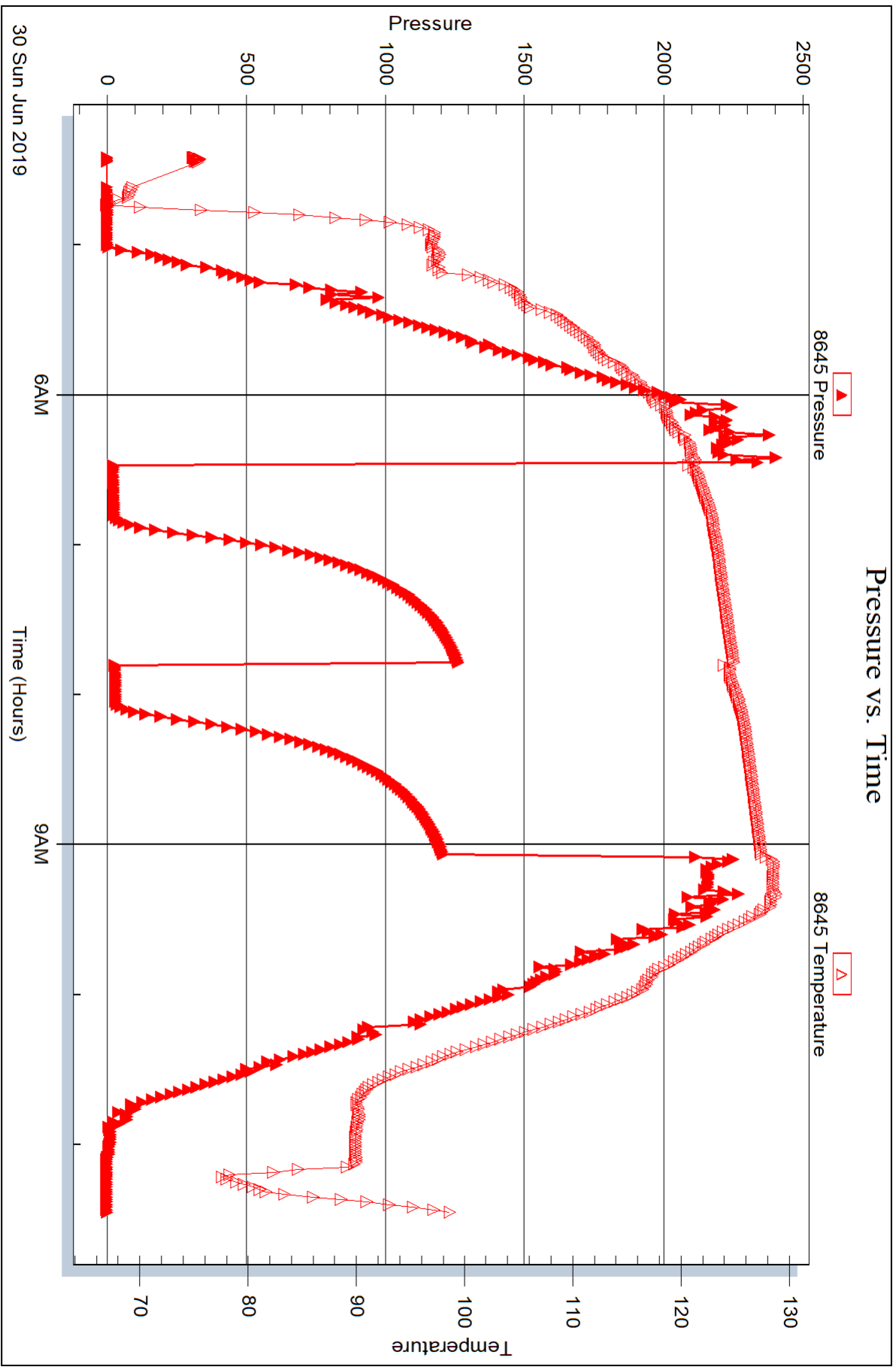
Laboratory Name:

Laboratory Location:

Recovery Comments:

# Pressure vs. Time







## DRILL STEM TEST REPORT

Prepared For: **Black Oak Exploration LLC**

1474 S St Paul St  
Denver CO 80210

ATTN: Clayton Camozzi

### **Goetsch #1-10**

#### **10-6S-37W Sherman,KS**

Start Date: 2019.07.01 @ 18:02:00

End Date: 2019.07.02 @ 01:42:30

Job Ticket #: 64653                      DST #: 3

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

Printed: 2019.07.03 @ 14:56:19



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Black Oak Exploration LLC

**10-6S-37W Sherman,KS**

1474 S St Paul St  
Denver CO 80210

**Goetsch #1-10**

Job Ticket: 64653

**DST#: 3**

ATTN: Clayton Camozzi

Test Start: 2019.07.01 @ 18:02:00

## GENERAL INFORMATION:

Formation: **Cherokee**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 20:53:00  
 Tester: Shawn Wheelbarger  
 Time Test Ended: 01:42:30  
 Unit No: 76  
 Interval: **4696.00 ft (KB) To 4772.00 ft (KB) (TVD)**  
 Reference Elevations: 3453.00 ft (KB)  
 Total Depth: 4772.00 ft (KB) (TVD)  
 3448.00 ft (CF)  
 Hole Diameter: 7.88 inches  
 Hole Condition: Fair  
 KB to GR/CF: 5.00 ft

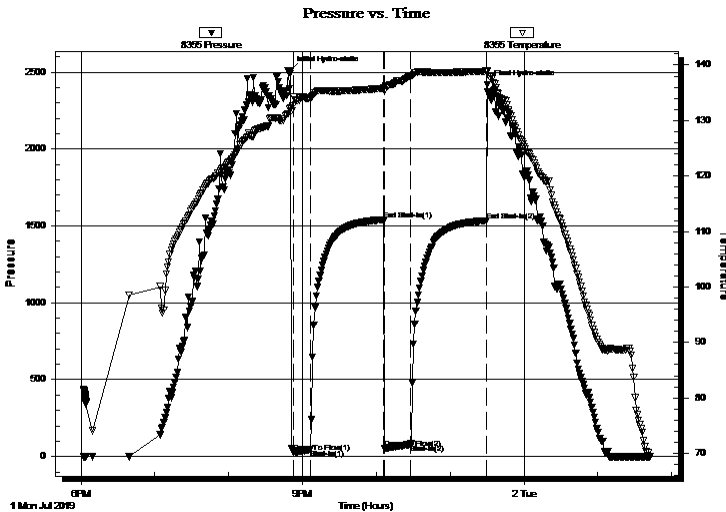
## Serial #: 8355

Inside

Press@RunDepth: 78.40 psig @ 4697.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2019.07.01 End Date: 2019.07.02 Last Calib.: 2019.07.02  
 Start Time: 18:02:01 End Time: 01:42:30 Time On Btm: 2019.07.01 @ 20:50:20  
 Time Off Btm: 2019.07.01 @ 23:30:20

TEST COMMENT: 15-IF-1/2" Blow @ open built to 2 1/4"  
 60-ISI-No blow back  
 20-FF-Surface blow built to 1"  
 60-FSI-No blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2510.82	132.28	Initial Hydro-static
3	26.65	134.29	Open To Flow (1)
16	45.72	134.10	Shut-In(1)
76	1539.80	135.82	End Shut-In(1)
77	51.45	135.31	Open To Flow (2)
98	78.40	137.96	Shut-In(2)
159	1534.11	138.88	End Shut-In(2)
161	2418.64	138.83	Final Hydro-static

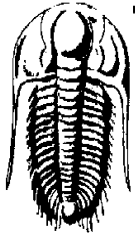
## Recovery

Length (ft)	Description	Volume (bbl)
70.00	SOSM, 100%M,	0.34
60.00	GOSM, 4%G, 96%M	0.30

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Black Oak Exploration LLC

**10-6S-37W Sherman,KS**

1474 S St Paul St  
Denver CO 80210

**Goetsch #1-10**

Job Ticket: 64653

**DST#: 3**

ATTN: Clayton Camozzi

Test Start: 2019.07.01 @ 18:02:00

## GENERAL INFORMATION:

Formation: **Cherokee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:53:00

Time Test Ended: 01:42:30

Interval: **4696.00 ft (KB) To 4772.00 ft (KB) (TVD)**

Total Depth: 4772.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Reset)

Tester: Shawn Wheelbarger

Unit No: 76

Reference Elevations: 3453.00 ft (KB)

3448.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 8645**

**Outside**

Press@RunDepth: psig @ 4697.00 ft (KB)

Start Date: 2019.07.01

End Date:

2019.07.02

Start Time: 18:02:01

End Time:

01:42:01

Capacity: 8000.00 psig

Last Calib.:

2019.07.02

Time On Btm:

Time Off Btm:

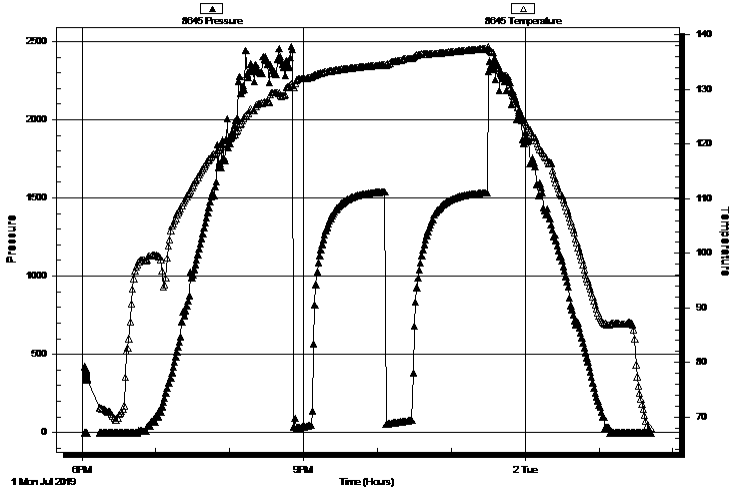
**TEST COMMENT:** 15-IF-1/2" Blow @ open built to 2 1/4"

60-ISI-No blow back

20-FF-Surface blow built to 1"

60-FSI-No blow

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
70.00	SOSM, 100%M,	0.34
60.00	GOSM, 4%G, 96%M	0.30

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

**10-6S-37W Sherman,KS**

1474 S St Paul St  
Denver CO 80210

**Goetsch #1-10**

Job Ticket: 64653

**DST#: 3**

ATTN: Clayton Camozzi

Test Start: 2019.07.01 @ 18:02:00

## Tool Information

Drill Pipe:	Length: 4502.00 ft	Diameter: 3.80 inches	Volume: 63.15 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: 25000.00 lb
Drill Collar:	Length: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 64.04 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 66000.00 lb
Depth to Top Packer:	4696.00 ft			Final 67000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	76.00 ft			
Tool Length:	104.00 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			4669.00	
Shut In Tool	5.00			4674.00	
Hydraulic tool	5.00		Inside	4679.00	
Jars	5.00			4684.00	
Safety Joint	2.00			4686.00	
Packer	5.00			4691.00	28.00 Bottom Of Top Packer
Packer	5.00			4696.00	
Stubb	1.00			4697.00	
Recorder	0.00	8645	Outside	4697.00	
Recorder	0.00	8355	Inside	4697.00	
Perforations	7.00			4704.00	
Change Over Sub	1.00			4705.00	
Drill Pipe	63.00			4768.00	
Change Over Sub	1.00			4769.00	
Bullnose	3.00			4772.00	76.00 Bottom Packers & Anchor

**Total Tool Length: 104.00**





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Black Oak Exploration LLC

**10-6S-37W Sherman,KS**

1474 S St Paul St  
Denver CO 80210

**Goetsch #1-10**

Job Ticket: 64653

**DST#: 3**

ATTN: Clayton Camozzi

Test Start: 2019.07.01 @ 18:02:00

### 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: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
70.00	SOSM, 100%M,	0.344
60.00	GOSM, 4%G, 96%M	0.295

Total Length: 130.00 ft

Total Volume: 0.639 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

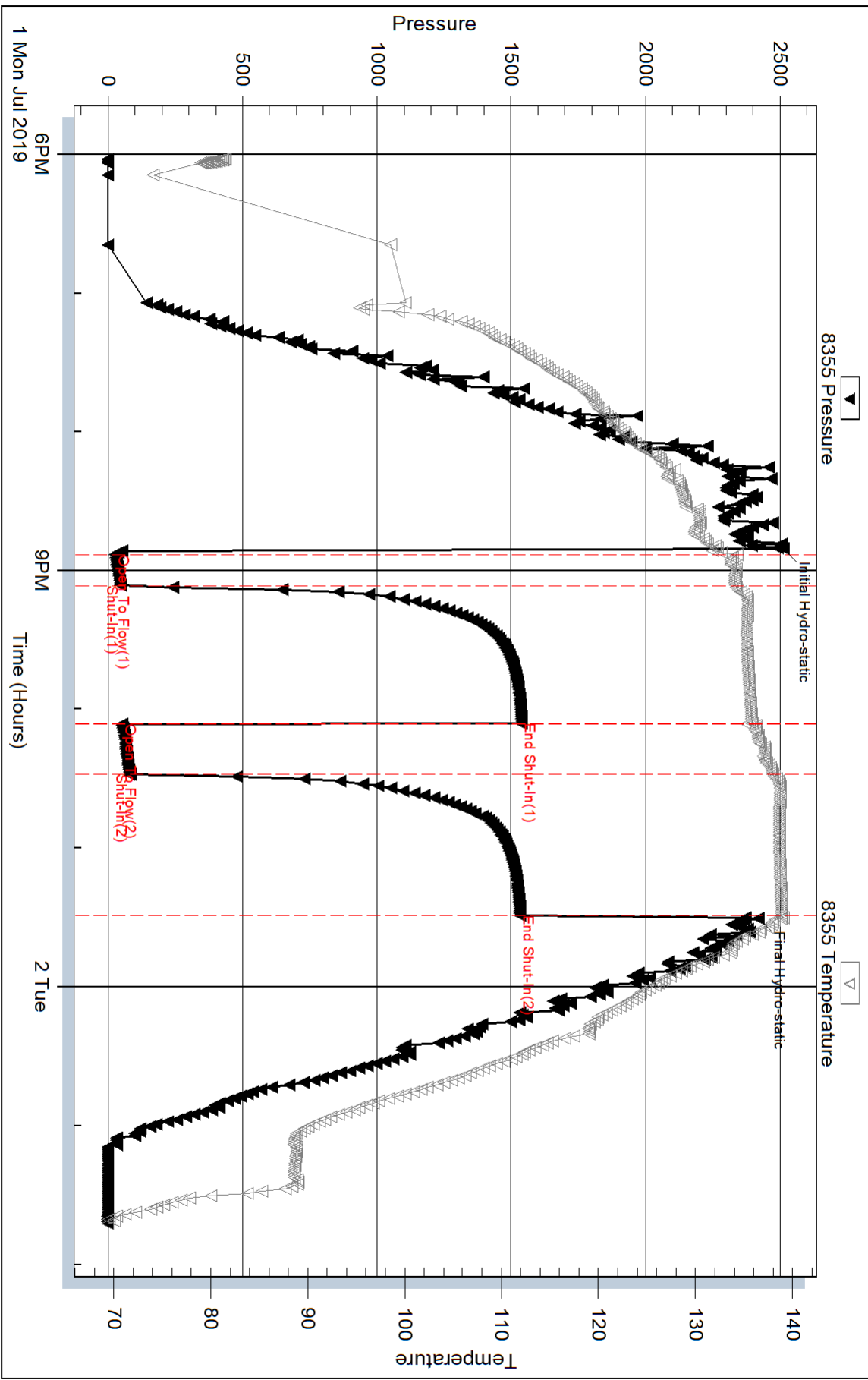
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time

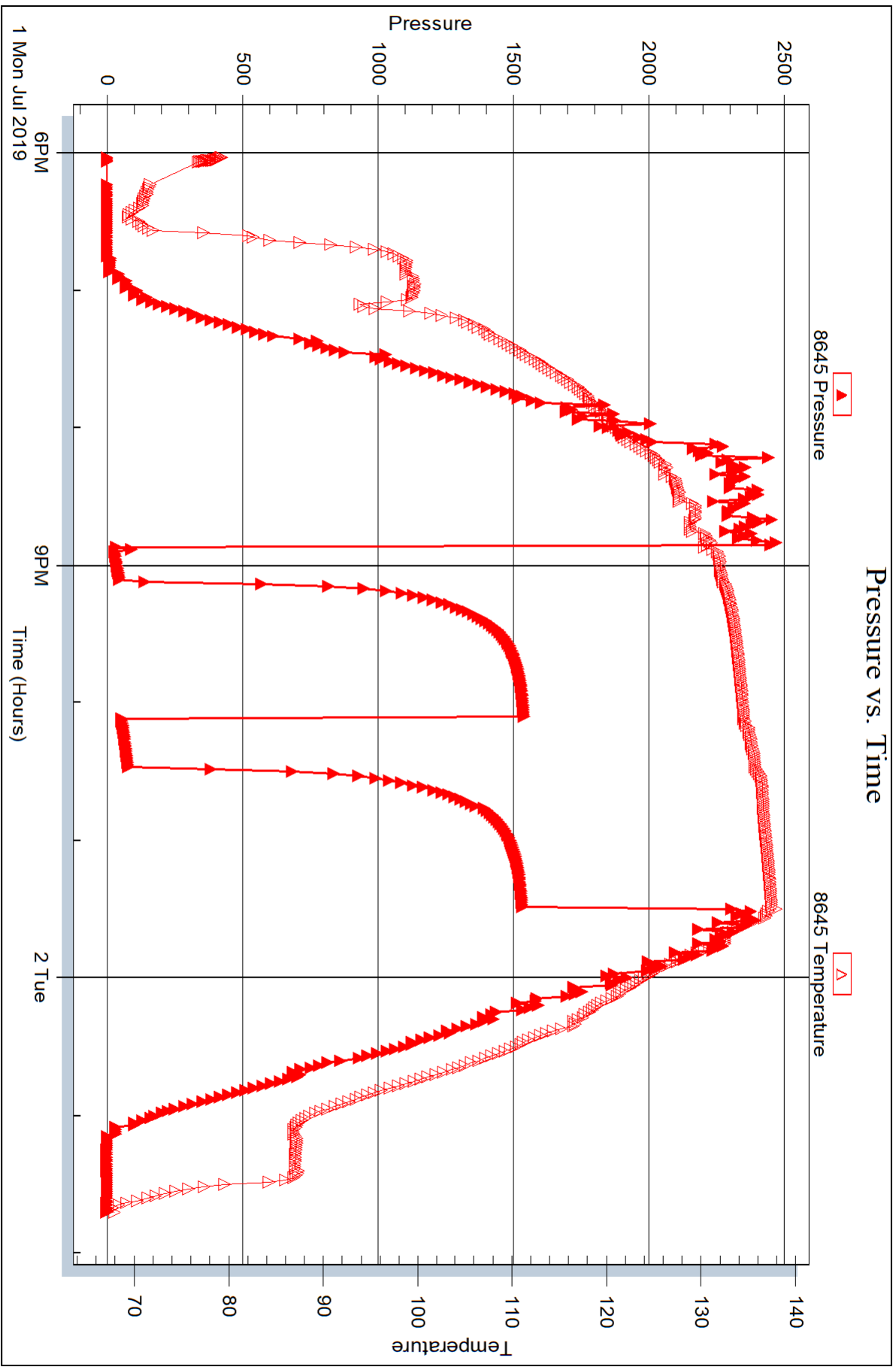


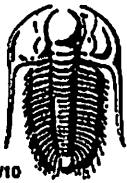
Serial #: 8645

Outside Black Oak Exploration LLC

Goetsch #1-10

DST Test Number: 3





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 64651

Well Name & No. Goetsch #1-10 Test No. 1 Date 6-29-19  
 Company Black Oak Exploration LLC Elevation 3453 KB 3448 GL  
 Address 1474 S St Paul St Denver CO 80210  
 Co. Rep / Geo. Clayton Camozzi Rig Murfin #7  
 Location: Sec. 10 Twp 6S Rge. 37W Co. Sherman State KS

Interval Tested 4430 - 4506 Zone Tested Lans H-J  
 Anchor Length 76 Drill Pipe Run 4248 Mud Wt. 9.3  
 Top Packer Depth 4425 Drill Collars Run 180 Vis 58  
 Bottom Packer Depth 4430 Wt. Pipe Run - WL 8  
 Total Depth 4506 Chlorides 3200 ppm System LCM 4  
 Blow Description IF Geo decided to pull tool after 15 stands  
ISI because tool was catching so they  
FF can condition the hole.  
FSI

Rec	Feet of	%gas	%oil	%water	%mud

Rec Total \_\_\_\_\_ BHT \_\_\_\_\_ Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic \_\_\_\_\_  Test 500 T-On Location 18:25  
 (B) First Initial Flow \_\_\_\_\_  Jars \_\_\_\_\_ T-Started 20:50  
 (C) First Final Flow \_\_\_\_\_  Safety Joint \_\_\_\_\_ T-Open \_\_\_\_\_  
 (D) Initial Shut-In \_\_\_\_\_  Circ Sub \_\_\_\_\_ T-Pulled \_\_\_\_\_  
 (E) Second Initial Flow \_\_\_\_\_  Hourly Standby \_\_\_\_\_ T-Out 23:20  
 (F) Second Final Flow \_\_\_\_\_  Mileage 139 RT 139 Comments \_\_\_\_\_  
 (G) Final Shut-In \_\_\_\_\_  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic \_\_\_\_\_  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Initial Open \_\_\_\_\_  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Shut-In \_\_\_\_\_  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Flow \_\_\_\_\_  Day Standby \_\_\_\_\_ Total 639  
 Final Shut-In \_\_\_\_\_  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 639

Approved By \_\_\_\_\_ Our Representative Shawn Wheelbarger  
 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.



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## Test Ticket

NO. 64652

Well Name & No. Goetsch #1-10 Test No. 2 Date 6-30-19  
 Company Black Oak Exploration LLC Elevation 3453 KB 3448 GL  
 Address 1474 55th Paul St Denver CO 80210  
 Co. Rep / Geo. Clayton Camozzi Rig Martin #7  
 Location: Sec. 10 Twp 6S Rge. 37W Co. Sherman State KS

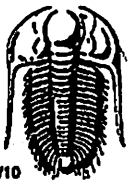
Interval Tested 4430 - 4506 Zone Tested Lans H-1  
 Anchor Length 76 Drill Pipe Run 4248 Mud Wt. 9.3  
 Top Packer Depth 4425 Drill Collars Run 160 Vis 69  
 Bottom Packer Depth 4430 Wt. Pipe Run - WL 7.6  
 Total Depth 4506 Chlorides 3600 ppm System LCM 3  
 Blow Description IF 1/4" Blow @ open built to 1 1/4"  
ISI No blow back  
FF No blow  
ESI No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>GOM</u>	<u>3</u>	<u>4</u>		<u>93</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 20 BHT 130 Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic 2331  Test 1300 T-On Location 18:25 6-29  
 (B) First Initial Flow 21  Jars 250 T-Started 4:25  
 (C) First Final Flow 26  Safety Joint 75 T-Open 6:32  
 (D) Initial Shut-In 1264  Circ Sub \_\_\_\_\_ T-Pulled 9:07  
 (E) Second Initial Flow 28  Hourly Standby \_\_\_\_\_ T-Out 11:25  
 (F) Second Final Flow 31  Mileage 139RT Comments \_\_\_\_\_  
 (G) Final Shut-In 1208  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2363  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer 250  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open 20  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Initial Shut-In 60  Day Standby \_\_\_\_\_ Total 1875  
 Final Flow 15  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 60 Sub Total 1875

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 64653

Well Name & No. Goetsch #1-10 Test No. 3 Date 7-1-19  
 Company Black Oak Exploration LLC Elevation 3453 KB 3448 GL  
 Address 1474 S St Paul St Denver CO 80210  
 Co. Rep / Geo. Clayton Camozzi Rig Murfin #7  
 Location: Sec. 10 Twp 6S Rge. 37W Co. Sherman State KS

Interval Tested 4696-4772 Zone Tested Cherokee  
 Anchor Length 76 Drill Pipe Run 4502 Mud Wt. 9.3  
 Top Packer Depth 4691 Drill Collars Run 150 Vis 54  
 Bottom Packer Depth 4696 Wt. Pipe Run — WL 7.2  
 Total Depth 4772 Chlorides 3500 ppm System LCM 4

Blow Description IF 1/2" Blow @ open built to 2 1/4"  
IST No Blow back  
FF Surface blow built to 1"  
FST No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>70</u>	<u>50SM</u>			<u>100</u>	
<u>60</u>	<u>60SM</u>	<u>4</u>		<u>96</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 130 BHT 139 Gravity — API RW — @ — °F Chlorides — ppm

- (A) Initial Hydrostatic 2511
- (B) First Initial Flow 27
- (C) First Final Flow 46
- (D) Initial Shut-In 1540
- (E) Second Initial Flow 51
- (F) Second Final Flow 78
- (G) Final Shut-In 1534
- (H) Final Hydrostatic 2419

- Test 1300
- Jars 250
- Safety Joint 75
- Circ Sub
- Hourly Standby
- Mileage 139 RT <sup>139</sup>
- Sampler
- Straddle
- Shale Packer
- Extra Packer
- Extra Recorder
- Day Standby
- Accessibility
- Sub Total 1764

T-On Location 15:57  
 T-Started 18:02  
 T-Open 20:51  
 T-Pulled 23:27  
 T-Out 1:39 7-2

Comments \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Sub Total 0  
 Total 1764  
 MP/DST Disc't \_\_\_\_\_

Initial Open 15  
 Initial Shut-In 60  
 Final Flow 20  
 Final Shut-In 60

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