



DRILL STEM TEST REPORT

Prepared For: **GeoSouthern Operation II LLC**

1425 Lake Front Circle
The Woods TX 77380

ATTN: Ben Landes

Cress #1-28

28-7s-37w Sherman,KS

Start Date: 2019.09.24 @ 14:42:15

End Date: 2019.09.24 @ 21:22:15

Job Ticket #: 63927 DST #: 1

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

Printed: 2019.09.30 @ 11:13:48



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

GeoSouthern Operation II LLC

28-7s-37w Sherman,KS

1425 Lake Front Circle
The Woods TX 77380

Cress #1-28

Job Ticket: 63927

DST#: 1

ATTN: Ben Landes

Test Start: 2019.09.24 @ 14:42:15

GENERAL INFORMATION:

Formation: **Toronto- Top Lansing**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:31:15

Time Test Ended: 21:22:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Mike Roberts

Unit No: 81

Interval: 4163.00 ft (KB) To 4260.00 ft (KB) (TVD)

Reference Elevations: 3425.00 ft (KB)

Total Depth: 4260.00 ft (KB) (TVD)

3420.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8521

Inside

Press@RunDepth: 250.90 psig @ 4235.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.09.24

End Date:

2019.09.24

Last Calib.:

2019.09.24

Start Time: 14:42:15

End Time:

21:22:15

Time On Btm:

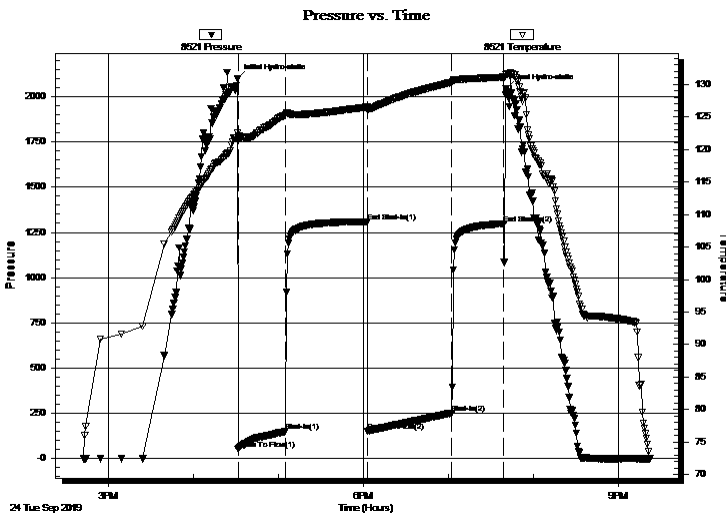
2019.09.24 @ 16:31:00

Time Off Btm:

2019.09.24 @ 19:40:30

TEST COMMENT: IF: Built to 8 1/4" blow
IS: No return blow
FF: Built to 15" blow
FS: No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2097.84	122.47	Initial Hydro-static
1	52.71	121.31	Open To Flow (1)
34	148.98	125.26	Shut-In(1)
92	1309.84	126.49	End Shut-In(1)
92	152.56	126.07	Open To Flow (2)
152	250.90	130.29	Shut-In(2)
188	1298.08	131.08	End Shut-In(2)
190	2042.63	131.45	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
121.00	mcw 20% m 80% w ..(collars)	0.60
124.00	w cm 5% w 95% m	1.74
186.00	w cm 50% w 50% m	2.61

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

GeoSouthern Operation II LLC

28-7s-37w Sherman,KS

1425 Lake Front Circle
The Woods TX 77380

Cress #1-28

Job Ticket: 63927

DST#: 1

ATTN: Ben Landes

Test Start: 2019.09.24 @ 14:42:15

Tool Information

Drill Pipe:	Length: 4032.00 ft	Diameter: 3.80 inches	Volume: 56.56 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 121.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 57.16 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4163.00 ft			Final 65000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	97.00 ft			
Tool Length:	128.00 ft			
Number of Packers:	2	Diameter: 6.88 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4133.00	
Shut In Tool	5.00			4138.00	
Sampler	3.00			4141.00	
Hydraulic tool	5.00			4146.00	
Jars	5.00			4151.00	
Safety Joint	3.00			4154.00	
Packer	5.00			4159.00	31.00 Bottom Of Top Packer
Packer	4.00			4163.00	
Stubb	1.00			4164.00	
Perforations	5.00			4169.00	
Change Over Sub	1.00			4170.00	
Drill Pipe	64.00			4234.00	
Change Over Sub	1.00			4235.00	
Recorder	0.00	8968	Outside	4235.00	
Recorder	0.00	8521	Inside	4235.00	
Perforations	20.00			4255.00	
Bullnose	5.00			4260.00	97.00 Bottom Packers & Anchor
Total Tool Length:	128.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

GeoSouthern Operation II LLC

28-7s-37w Sherman,KS

1425 Lake Front Circle
The Woods TX 77380

Cress #1-28

Job Ticket: 63927

DST#: 1

ATTN: Ben Landes

Test Start: 2019.09.24 @ 14:42:15

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

25000 ppm

Viscosity: 66.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.13 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
121.00	mcw 20%m 80%w ..(collars)	0.595
124.00	w cm 5%w 95% m	1.739
186.00	w cm 50%w 50%m	2.609

Total Length: 431.00 ft Total Volume: 4.943 bbl

Num Fluid Samples: 0

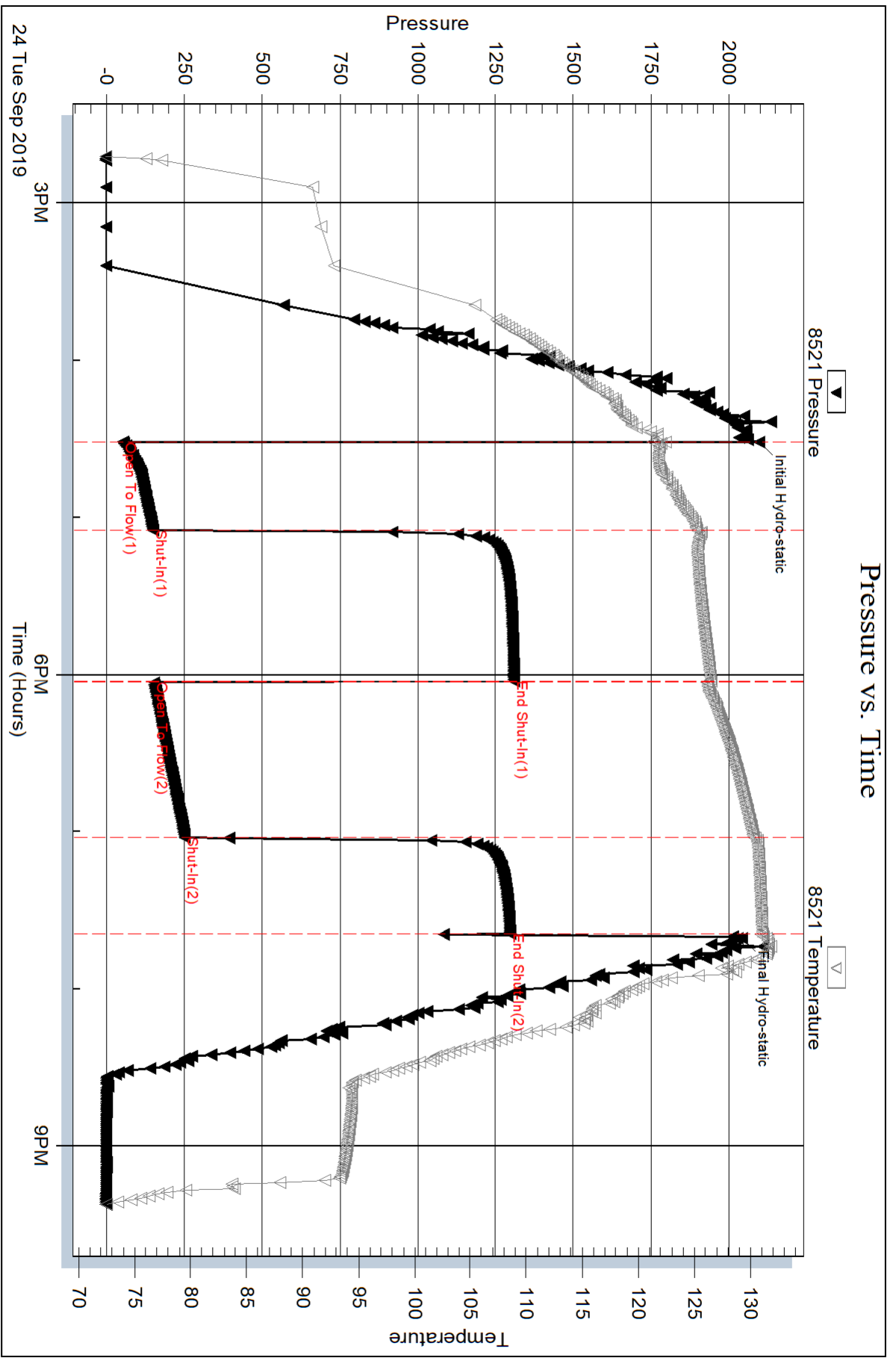
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW= .342@ 60.2= 25,000 ppm

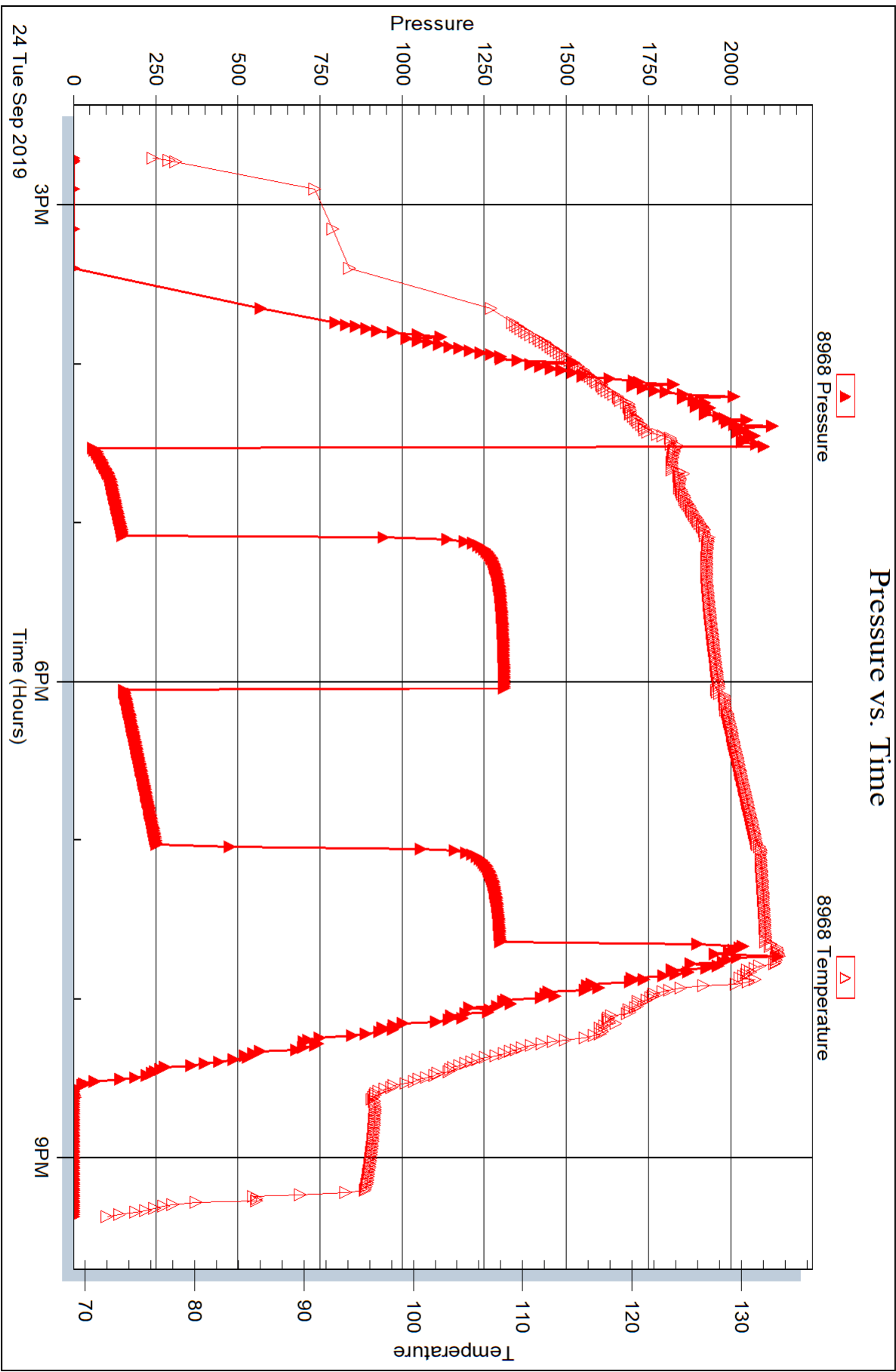


Serial #: 8968

Outside Geosouthern Operation II LLC

Cross #1-28

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **GeoSouthern Operation II LLC**

1425 Lake Front Circle
The Woods TX 77380

ATTN: Ben Landes

Cress #1-28

28-7s-37w Sherman,KS

Start Date: 2019.09.25 @ 18:26:15

End Date: 2019.09.26 @ 00:08:15

Job Ticket #: 63928 DST #: 2

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

Printed: 2019.09.30 @ 11:13:19



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

GeoSouthern Operation II LLC

28-7s-37w Sherman,KS

1425 Lake Front Circle
The Woods TX 77380

Cress #1-28

Job Ticket: 63928

DST#: 2

ATTN: Ben Landes

Test Start: 2019.09.25 @ 18:26:15

GENERAL INFORMATION:

Formation: **LKC K-L**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:15:45

Time Test Ended: 00:08:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 81

Interval: 4444.00 ft (KB) To 4511.00 ft (KB) (TVD)

Reference Elevations: 3425.00 ft (KB)

Total Depth: 4511.00 ft (KB) (TVD)

3420.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8521

Inside

Press@RunDepth: 157.93 psig @ 4486.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.09.25

End Date:

2019.09.26

Last Calib.:

2019.09.26

Start Time:

18:26:15

End Time:

00:08:15

Time On Btm:

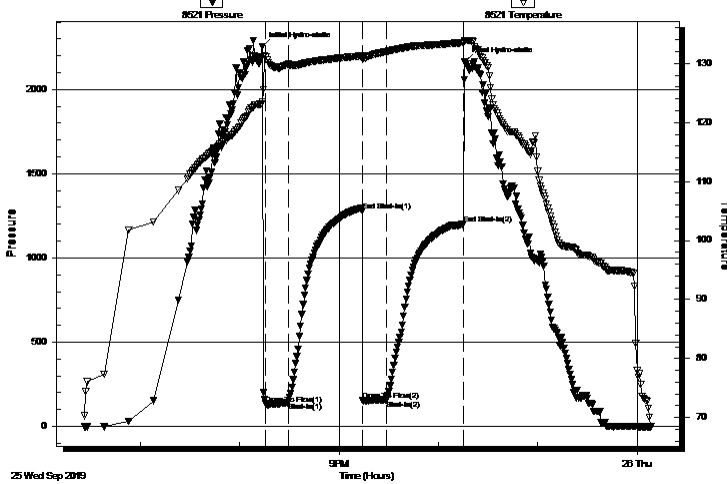
2019.09.25 @ 20:13:30

Time Off Btm:

2019.09.25 @ 22:16:00

TEST COMMENT: IF: Built to 23 1/2" blow BOB in 3 min.
IS: Return blow built to 10 1/2" blow
FF: Built to 13 1/2" blow BOB in 8 min.
FS: Return blow built to 6" blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2253.49	123.43	Initial Hydro-static
3	134.62	131.18	Open To Flow (1)
16	142.36	129.91	Shut-In(1)
61	1280.89	131.27	End Shut-In(1)
61	154.28	130.81	Open To Flow (2)
75	157.93	131.99	Shut-In(2)
122	1201.96	133.52	End Shut-In(2)
123	2167.04	133.85	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
121.00	gcom 10%g 30%o 60%m (Collars)	0.60
94.00	gcom 20%g 30%o 50%m	1.32
104.00	gco 30%g 70%o	1.46

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

GeoSouthern Operation II LLC

28-7s-37w Sherman,KS

1425 Lake Front Circle
The Woods TX 77380

Cress #1-28

Job Ticket: 63928

DST#: 2

ATTN: Ben Landes

Test Start: 2019.09.25 @ 18:26:15

Tool Information

Drill Pipe:	Length: 4309.00 ft	Diameter: 3.80 inches	Volume: 60.44 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 121.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 61.04 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4444.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	67.00 ft			
Tool Length:	98.00 ft			
Number of Packers:	2	Diameter: 6.88 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4414.00	
Shut In Tool	5.00			4419.00	
Sampler	3.00			4422.00	
Hydraulic tool	5.00			4427.00	
Jars	5.00			4432.00	
Safety Joint	3.00			4435.00	
Packer	5.00			4440.00	31.00 Bottom Of Top Packer
Packer	4.00			4444.00	
Stubb	1.00			4445.00	
Perforations	7.00			4452.00	
Change Over Sub	1.00			4453.00	
Drill Pipe	32.00			4485.00	
Change Over Sub	1.00			4486.00	
Recorder	0.00	8968	Outside	4486.00	
Recorder	0.00	8521	Inside	4486.00	
Perforations	20.00			4506.00	
Bullnose	5.00			4511.00	67.00 Bottom Packers & Anchor
Total Tool Length:	98.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

GeoSouthern Operation II LLC

28-7s-37w Sherman,KS

1425 Lake Front Circle
The Woods TX 77380

Cress #1-28

Job Ticket: 63928

DST#: 2

ATTN: Ben Landes

Test Start: 2019.09.25 @ 18:26:15

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 63.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.94 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
121.00	gcom 10%g 30%o 60%m (Collars)	0.595
94.00	gcom 20%g 30%o 50%m	1.319
104.00	gco 30%g 70%o	1.459

Total Length: 319.00 ft Total Volume: 3.373 bbl

Num Fluid Samples: 0

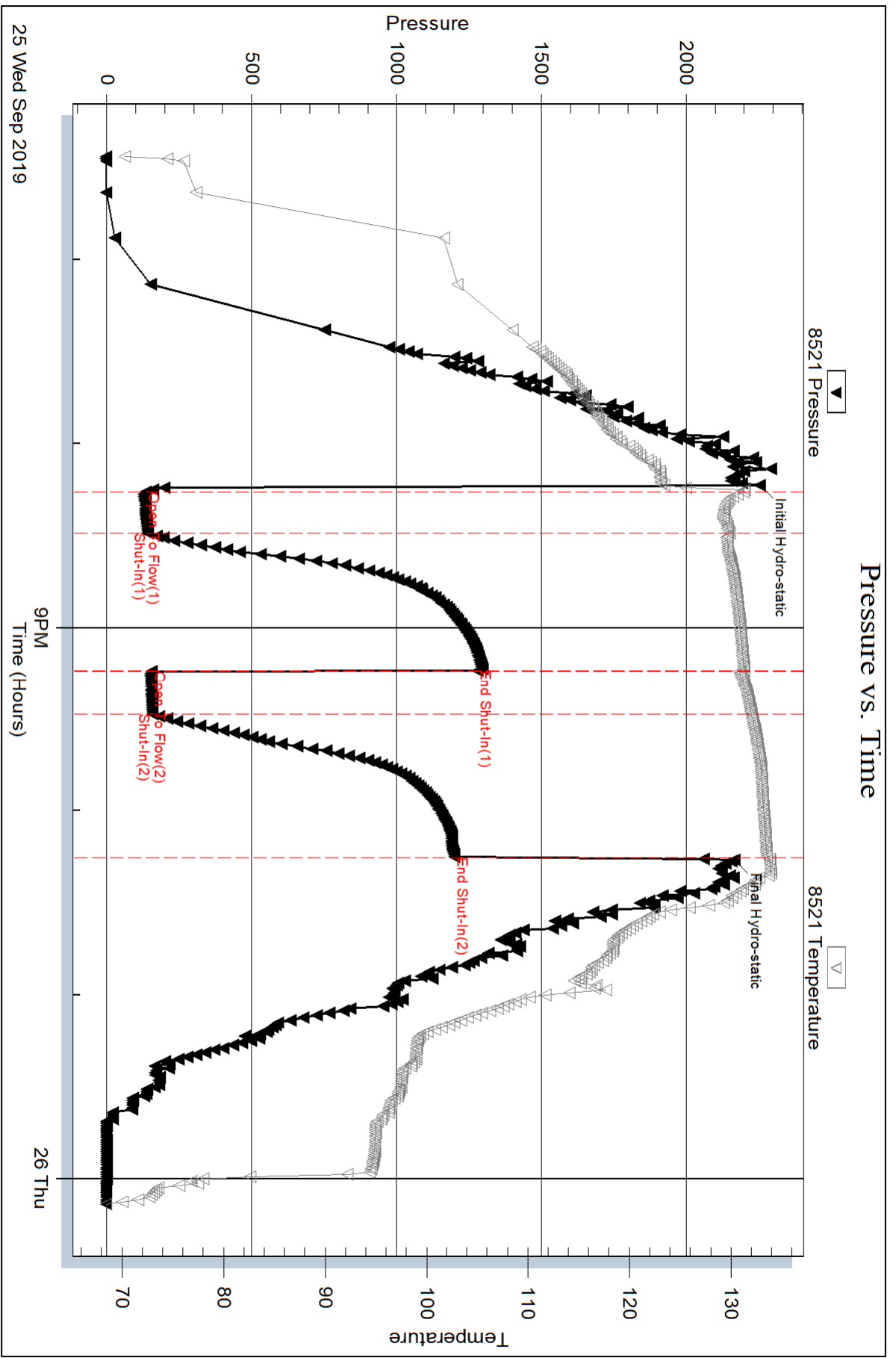
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API= 36 @ 60

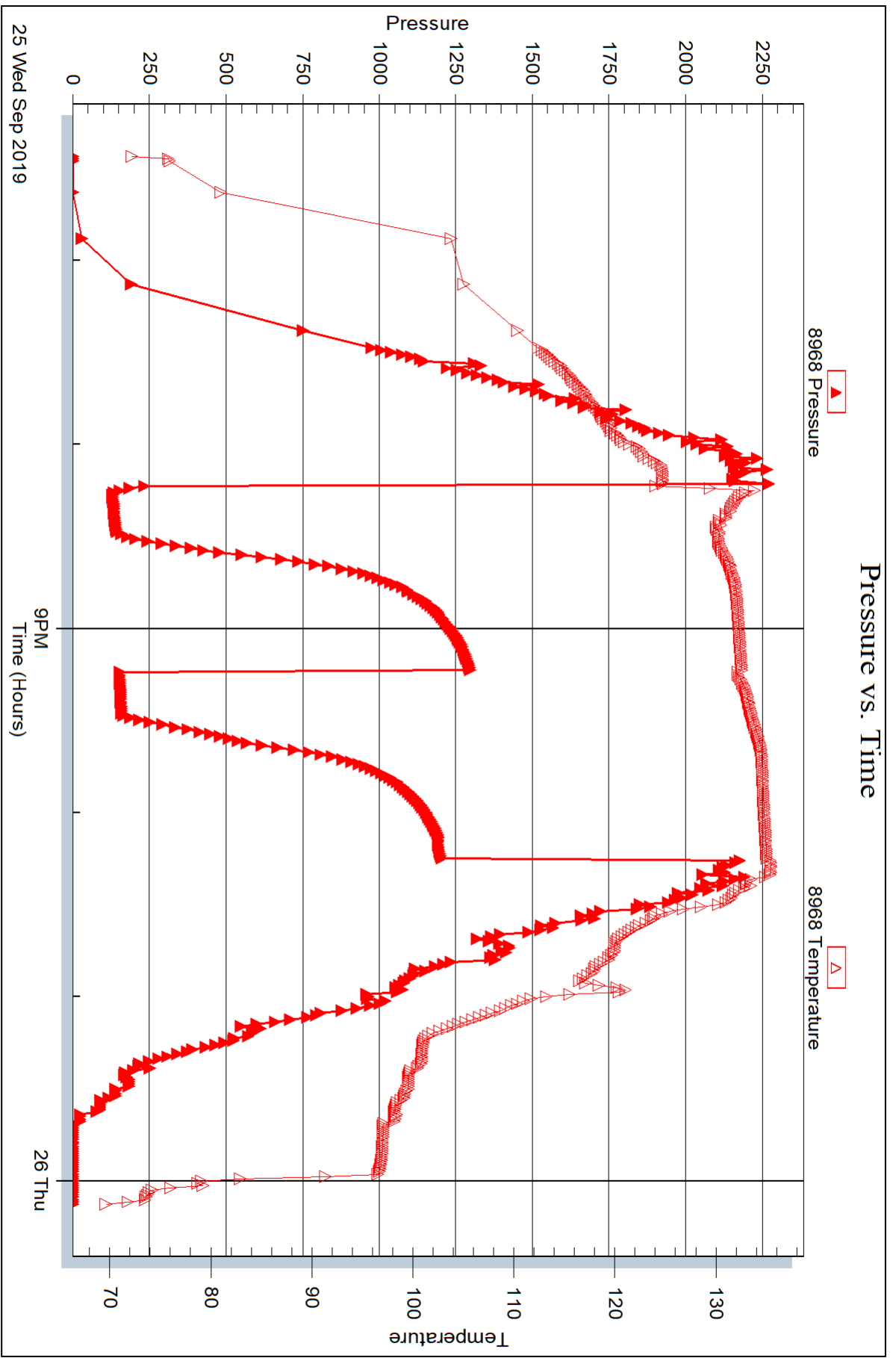


Serial #: 8968

Outside Geosouthern Operation II LLC

Cross #1-28

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 63928

Printed: 2019.09.30 @ 11:13:21



DRILL STEM TEST REPORT

Prepared For: **GeoSouthern Operation II LLC**

1425 Lake Front Circle
The Woods TX 77380

ATTN: Ben Landes

Cress #1-28

28-7s-37w Sherman,KS

Start Date: 2019.09.26 @ 09:21:15

End Date: 2019.09.26 @ 16:33:00

Job Ticket #: 63929 DST #: 3

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

Printed: 2019.09.30 @ 11:12:55



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

GeoSouthern Operation II LLC

28-7s-37w Sherman,KS

1425 Lake Front Circle
The Woods TX 77380

Cress #1-28

ATTN: Ben Landes

Job Ticket: 63929

DST#: 3

Test Start: 2019.09.26 @ 09:21:15

GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:07:15

Time Test Ended: 16:33:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 81

Interval: 4516.00 ft (KB) To 4585.00 ft (KB) (TVD)

Reference Elevations: 3425.00 ft (KB)

Total Depth: 4585.00 ft (KB) (TVD)

3420.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8521

Inside

Press@RunDepth: 523.96 psig @ 4556.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.09.26

End Date:

2019.09.26

Last Calib.:

2019.09.26

Start Time:

09:21:15

End Time:

16:33:00

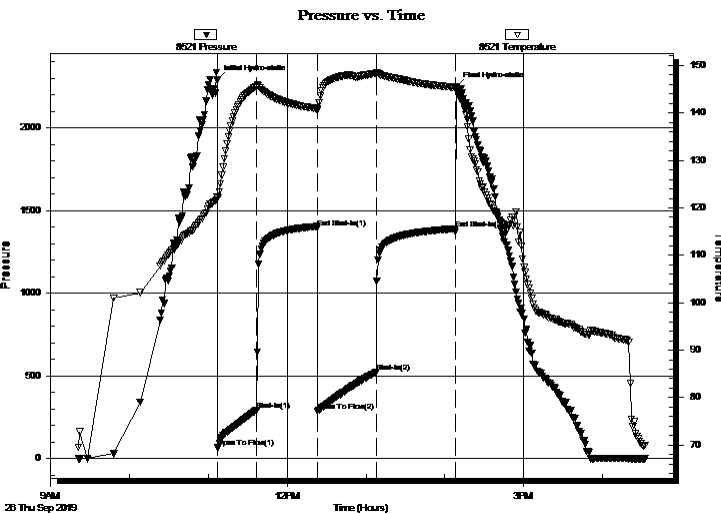
Time On Btm:

2019.09.26 @ 11:06:45

Time Off Btm:

2019.09.26 @ 14:09:00

TEST COMMENT: IF: Built to 36" blow BOB in 10 min.
IS: Return blow built to 2 1/8" blow
FF: Built to 47" blow BOB in 10 min.
FS: Return blow built to weak surface blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2289.76	122.28	Initial Hydro-static
1	65.16	122.14	Open To Flow (1)
31	293.27	145.61	Shut-In(1)
76	1393.28	140.91	End Shut-In(1)
77	285.77	140.49	Open To Flow (2)
121	523.96	148.31	Shut-In(2)
182	1389.92	145.36	End Shut-In(2)
183	2247.37	145.41	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
493.00	sw 100% sw (Collars 121ft)	5.81
372.00	gcow 5%g 15%o 80%w	5.22
134.00	gcow m 5% 15%o 30%w 50%m	1.88
15.00	gco 5%g 95%o	0.21

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

GeoSouthern Operation II LLC

28-7s-37w Sherman,KS

1425 Lake Front Circle
The Woods TX 77380

Cress #1-28

Job Ticket: 63929

DST#: 3

ATTN: Ben Landes

Test Start: 2019.09.26 @ 09:21:15

Tool Information

Drill Pipe:	Length: 4381.00 ft	Diameter: 3.80 inches	Volume: 61.45 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 121.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 62.05 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4516.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	69.00 ft			
Tool Length:	100.00 ft			
Number of Packers:	2	Diameter: 6.88 inches		

Tool Comments:

Tool Description

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

Change Over Sub	1.00			4486.00	
Shut In Tool	5.00			4491.00	
Sampler	3.00			4494.00	
Hydraulic tool	5.00			4499.00	
Jars	5.00			4504.00	
Safety Joint	3.00			4507.00	
Packer	5.00			4512.00	31.00 Bottom Of Top Packer
Packer	4.00			4516.00	
Stubb	1.00			4517.00	
Perforations	5.00			4522.00	
Change Over Sub	1.00			4523.00	
Drill Pipe	32.00			4555.00	
Change Over Sub	1.00			4556.00	
Recorder	0.00	8968	Outside	4556.00	
Recorder	0.00	8521	Inside	4556.00	
Perforations	24.00			4580.00	
Bullnose	5.00			4585.00	69.00 Bottom Packers & Anchor
Total Tool Length:	100.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

GeoSouthern Operation II LLC

28-7s-37w Sherman,KS

1425 Lake Front Circle
The Woods TX 77380

Cress #1-28

Job Ticket: 63929

DST#: 3

ATTN: Ben Landes

Test Start: 2019.09.26 @ 09:21:15

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

25000 ppm

Viscosity: 63.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.95 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
493.00	sw 100% sw (Collars 121ft)	5.813
372.00	gcow 5%g 15%o 80%w	5.218
134.00	gcow m 5% 15%o 30%w 50%m	1.880
15.00	gco 5%g 95%o	0.210

Total Length: 1014.00 ft Total Volume: 13.121 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

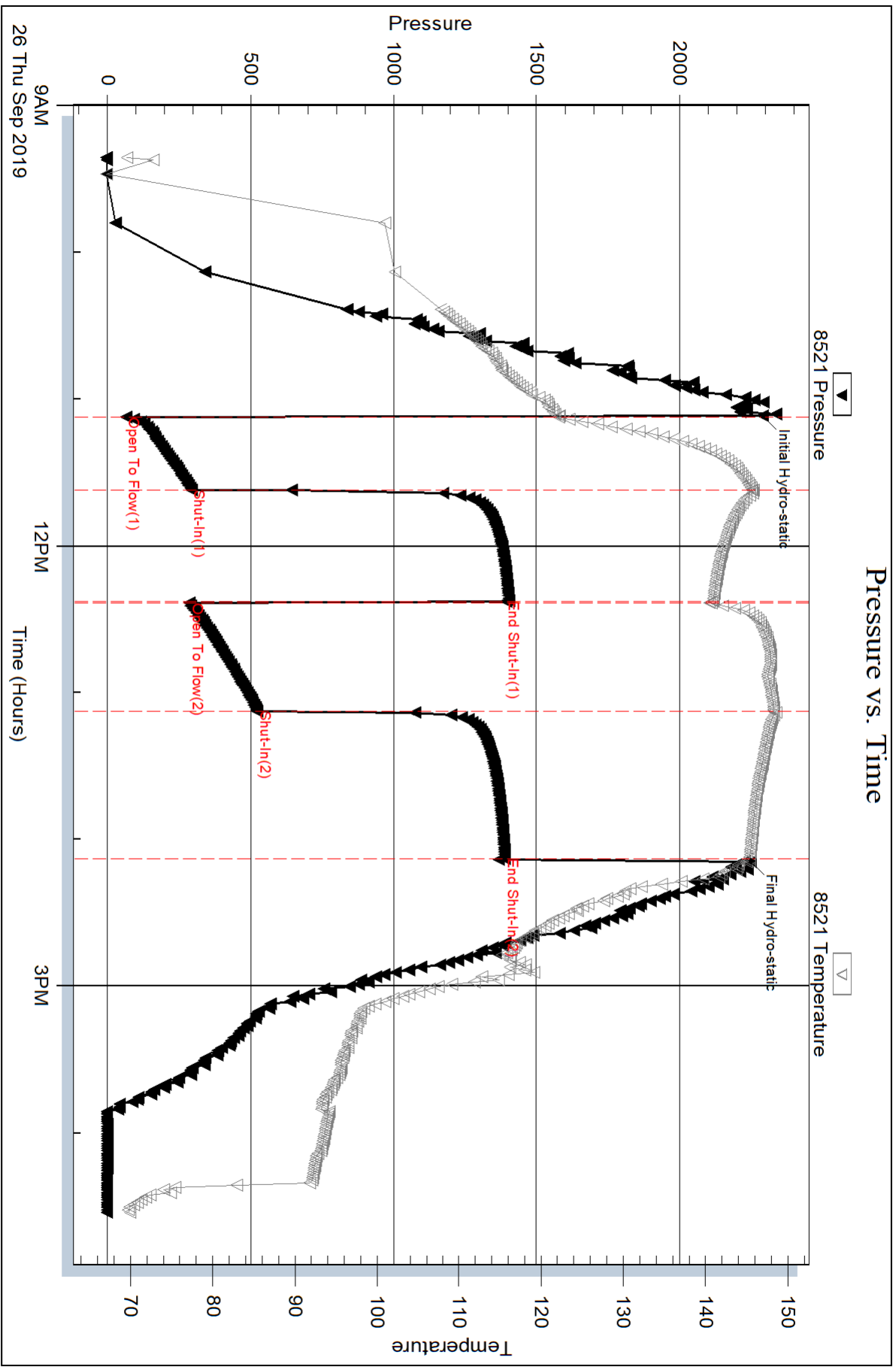
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API=35@ 70 corrected to 36

RW=.231 @ 72.2= 25,000 ppm

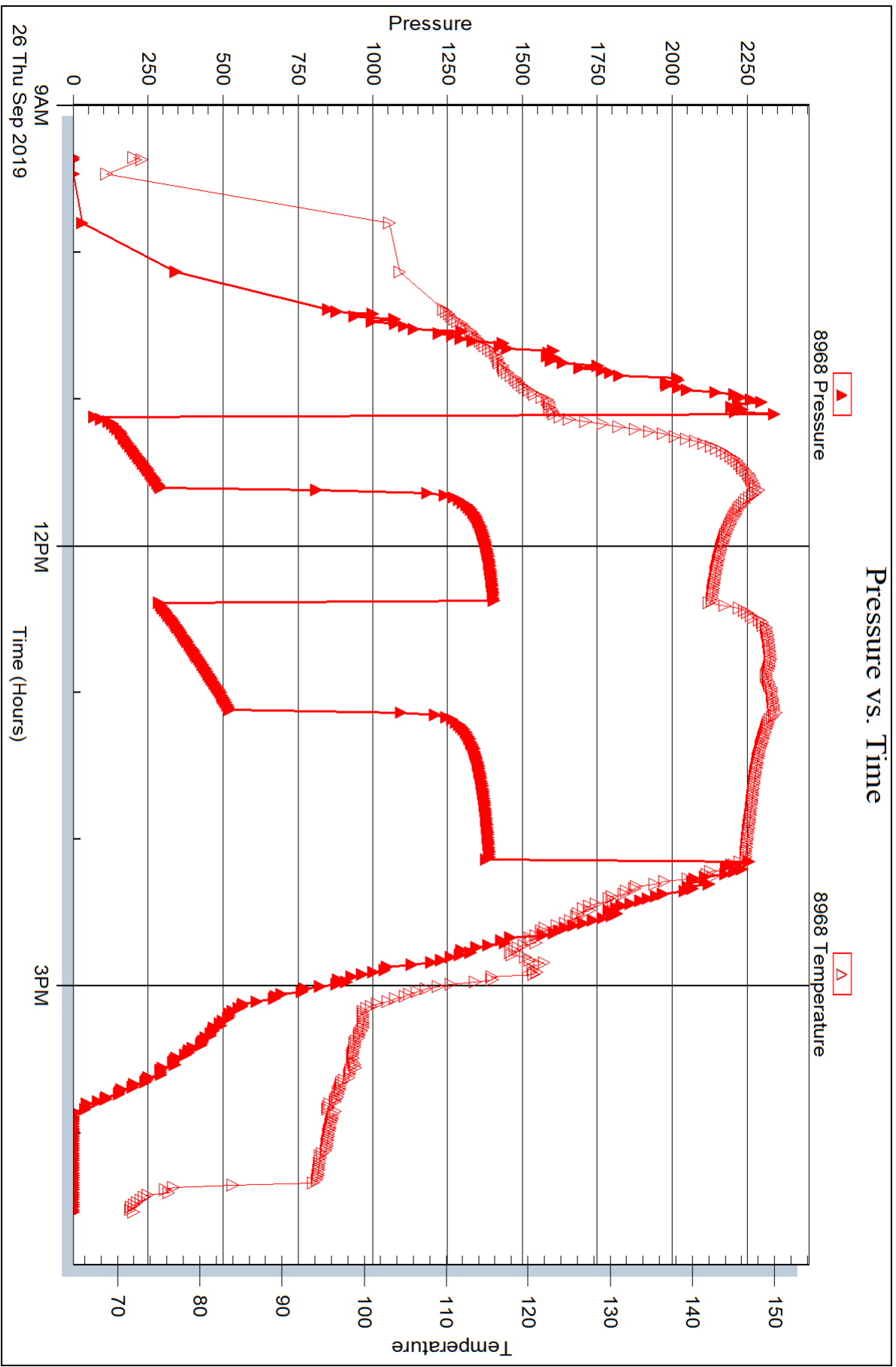


Serial #: 8968

Outside Geosouthern Operation II LLC

Cross #1-28

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 63929

Printed: 2019.09.30 @ 11:12:56



DRILL STEM TEST REPORT

Prepared For: **GeoSouthern Operation II LLC**

1425 Lake Front Circle
The Woods TX 77380

ATTN: Ben Landes

Cress #1-28

28-7s-37w Sherman,KS

Start Date: 2019.09.27 @ 02:00:15

End Date: 2019.09.27 @ 07:45:30

Job Ticket #: 63930 DST #: 4

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

Printed: 2019.09.30 @ 11:12:29

GeoSouthern Operation II LLC
28-7s-37w Sherman,KS
Cress #1-28
DST # 4
Pawnee
2019.09.27



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

GeoSouthern Operation II LLC

28-7s-37w Sherman,KS

1425 Lake Front Circle
The Woods TX 77380

Cress #1-28

Job Ticket: 63930

DST#: 4

ATTN: Ben Landes

Test Start: 2019.09.27 @ 02:00:15

GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:40:15

Time Test Ended: 07:45:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 81

Interval: 4596.00 ft (KB) To 4646.00 ft (KB) (TVD)

Reference Elevations: 3425.00 ft (KB)

Total Depth: 4646.00 ft (KB) (TVD)

3420.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8521

Inside

Press@RunDepth: 38.10 psig @ 4636.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.09.27

End Date:

2019.09.27

Last Calib.:

2019.09.27

Start Time:

02:00:15

End Time:

07:45:30

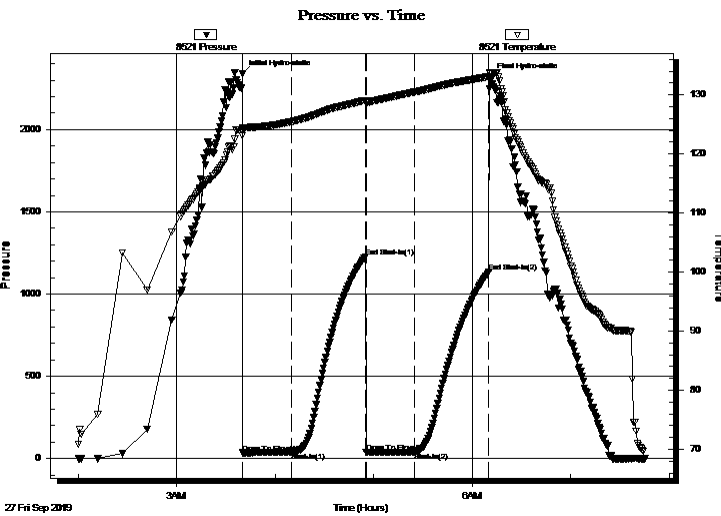
Time On Btm:

2019.09.27 @ 03:40:00

Time Off Btm:

2019.09.27 @ 06:11:00

TEST COMMENT: IF: Built to 3/4" blow and died to 1/2" blow
IS: No return blow
FF: Weak surface blow that died in 10 min.
FS: No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2337.33	124.41	Initial Hydro-static
1	33.91	123.12	Open To Flow (1)
31	36.20	125.47	Shut-In(1)
75	1226.86	129.07	End Shut-In(1)
76	37.33	128.61	Open To Flow (2)
105	38.10	130.46	Shut-In(2)
151	1133.65	133.08	End Shut-In(2)
151	2318.64	133.52	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud w ith oil spots	0.02

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

GeoSouthern Operation II LLC

28-7s-37w Sherman,KS

1425 Lake Front Circle
The Woods TX 77380

Cress #1-28

Job Ticket: 63930

DST#: 4

ATTN: Ben Landes

Test Start: 2019.09.27 @ 02:00:15

Tool Information

Drill Pipe:	Length: 4473.00 ft	Diameter: 3.80 inches	Volume: 62.74 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 121.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 63.34 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 66000.00 lb
Depth to Top Packer:	4596.00 ft			Final 66000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	50.00 ft			
Tool Length:	81.00 ft			
Number of Packers:	2	Diameter: 6.88 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4566.00	
Shut In Tool	5.00			4571.00	
Sampler	3.00			4574.00	
Hydraulic tool	5.00			4579.00	
Jars	5.00			4584.00	
Safety Joint	3.00			4587.00	
Packer	5.00			4592.00	31.00 Bottom Of Top Packer
Packer	4.00			4596.00	
Stubb	1.00			4597.00	
Perforations	5.00			4602.00	
Change Over Sub	1.00			4603.00	
Drill Pipe	32.00			4635.00	
Change Over Sub	1.00			4636.00	
Recorder	0.00	8968	Outside	4636.00	
Recorder	0.00	8521	Inside	4636.00	
Perforations	5.00			4641.00	
Bullnose	5.00			4646.00	50.00 Bottom Packers & Anchor
Total Tool Length:	81.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

GeoSouthern Operation II LLC

28-7s-37w Sherman,KS

1425 Lake Front Circle
The Woods TX 77380

Cress #1-28

Job Ticket: 63930

DST#: 4

ATTN: Ben Landes

Test Start: 2019.09.27 @ 02:00:15

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 63.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.96 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	mud w ith oil spots	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

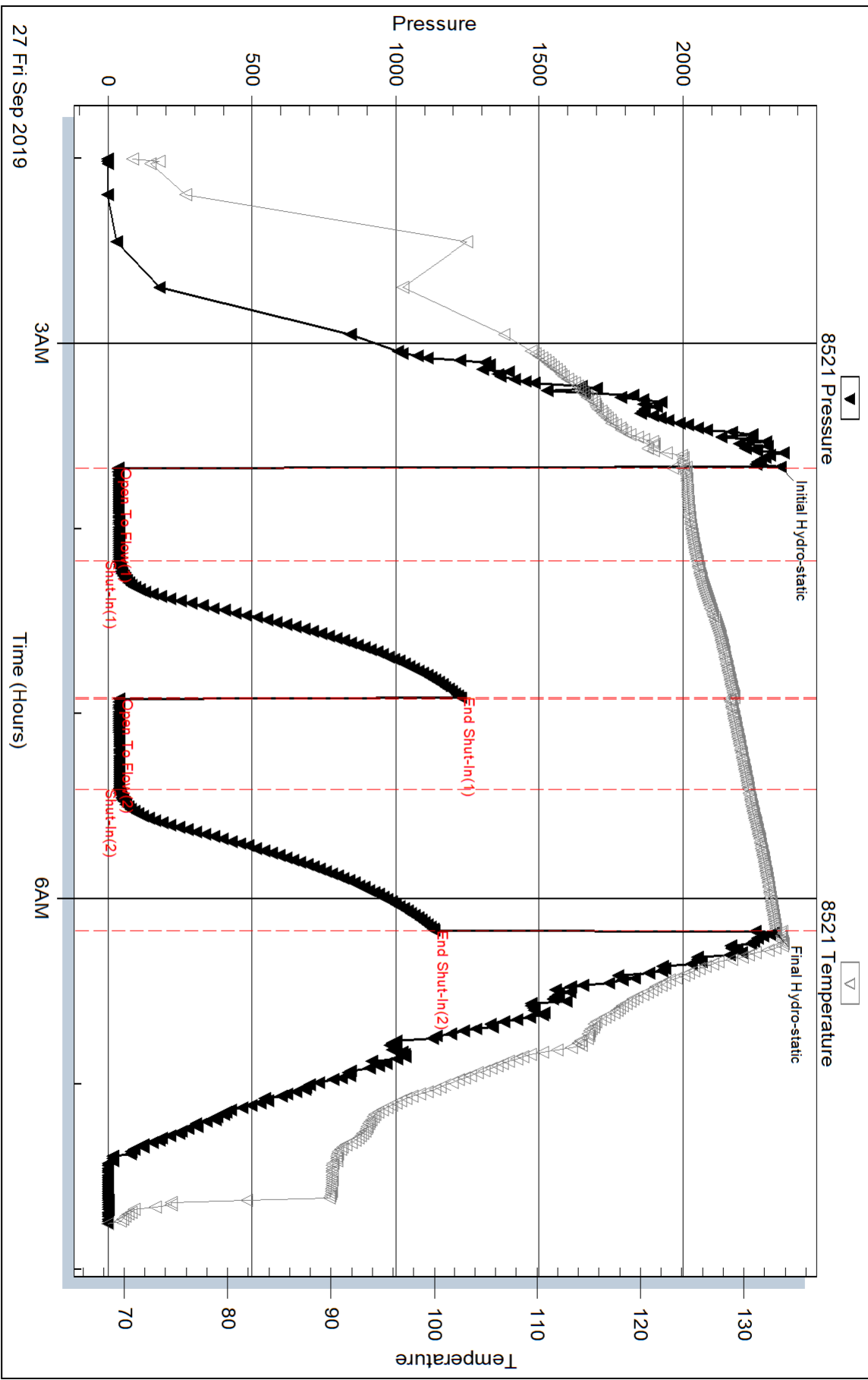
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

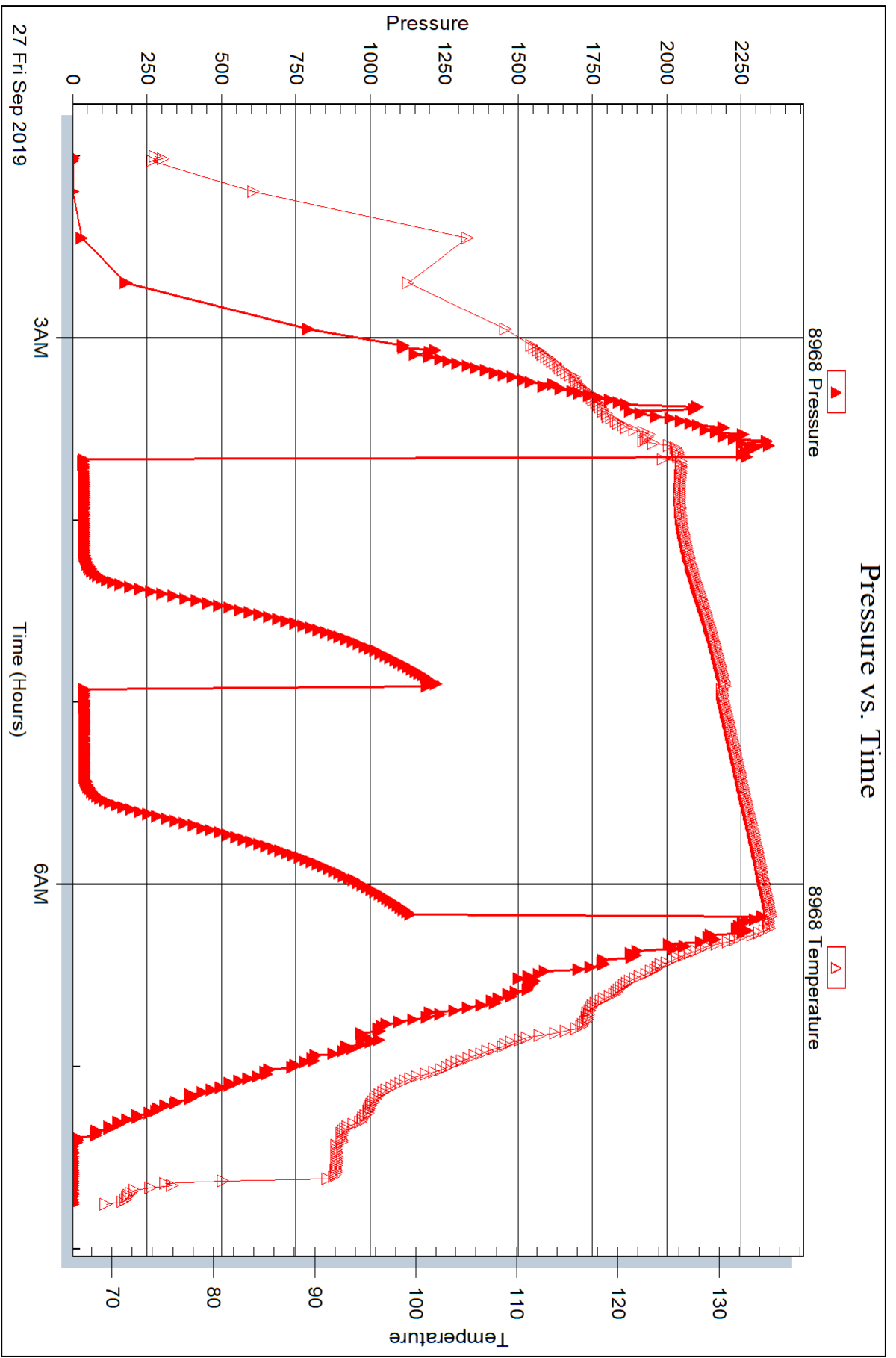


Serial #: 8968

Outside Geosouthern Operation II LLC

Cross #1-28

DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 63930

Printed: 2019.09.30 @ 11:12:31



DRILL STEM TEST REPORT

Prepared For: **GeoSouthern Operation II LLC**

1425 Lake Front Circle
The Woods TX 77380

ATTN: Ben Landes

Cress #1-28

28-7s-37w Sherman,KS

Start Date: 2019.09.27 @ 20:04:15

End Date: 2019.09.28 @ 02:09:30

Job Ticket #: 63931 DST #: 5

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

Printed: 2019.09.30 @ 11:10:15



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

GeoSouthern Operation II LLC

28-7s-37w Sherman,KS

1425 Lake Front Circle
The Woods TX 77380

Cress #1-28

ATTN: Ben Landes

Job Ticket: 63931

DST#: 5

Test Start: 2019.09.27 @ 20:04:15

GENERAL INFORMATION:

Formation: **Myrick St - Ft Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:02:00

Time Test Ended: 02:09:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 81

Interval: 4640.00 ft (KB) To 4750.00 ft (KB) (TVD)

Reference Elevations: 3425.00 ft (KB)

Total Depth: 4750.00 ft (KB) (TVD)

3420.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8521

Inside

Press@RunDepth: 116.70 psig @ 4745.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.09.27

End Date:

2019.09.28

Last Calib.:

2019.09.28

Start Time: 20:04:15

End Time:

02:09:30

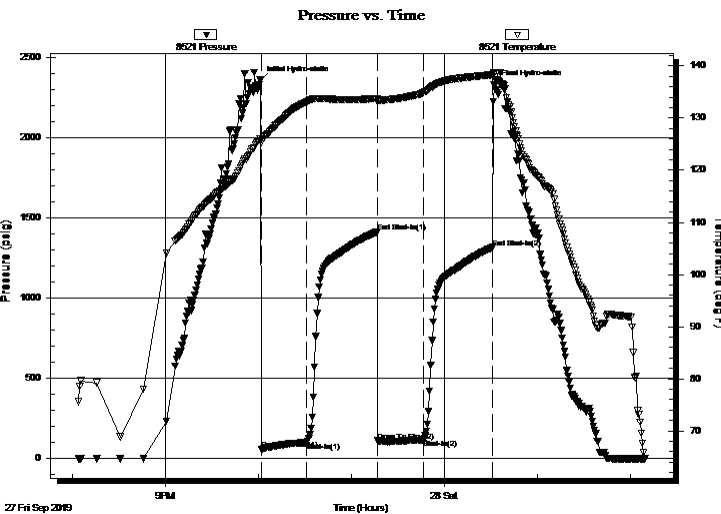
Time On Btm:

2019.09.27 @ 22:01:30

Time Off Btm:

2019.09.28 @ 00:32:15

TEST COMMENT: IF: Built to 7 1/2" blow
IS: No return blow
FF: Built to 11 1/2" blow BOB in 25 min.
FS: Return blow built to 3"



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2354.12	126.12	Initial Hydro-static
1	56.68	125.39	Open To Flow (1)
30	98.41	133.16	Shut-In(1)
76	1412.03	133.78	End Shut-In(1)
76	110.58	133.14	Open To Flow (2)
106	116.70	134.86	Shut-In(2)
150	1315.10	138.31	End Shut-In(2)
151	2330.54	138.51	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
61.00	mco 20% m 30% g 50% m (collar)	0.30
61.00	ocm 50% o 50% m (collar)	0.31
62.00	gco 20% g 80% o	0.87
0.00	GIP= 124 ft	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

GeoSouthern Operation II LLC

28-7s-37w Sherman,KS

1425 Lake Front Circle
The Woods TX 77380

Cress #1-28

Job Ticket: 63931

DST#: 5

ATTN: Ben Landes

Test Start: 2019.09.27 @ 20:04:15

Tool Information

Drill Pipe:	Length: 4503.00 ft	Diameter: 3.80 inches	Volume: 63.17 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 121.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 63.77 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 66000.00 lb
Depth to Top Packer:	4640.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	110.00 ft			
Tool Length:	141.00 ft			
Number of Packers:	2	Diameter: 6.88 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4610.00	
Shut In Tool	5.00			4615.00	
Sampler	3.00			4618.00	
Hydraulic tool	5.00			4623.00	
Jars	5.00			4628.00	
Safety Joint	3.00			4631.00	
Packer	5.00			4636.00	31.00 Bottom Of Top Packer
Packer	4.00			4640.00	
Stubb	1.00			4641.00	
Perforations	7.00			4648.00	
Change Over Sub	1.00			4649.00	
Drill Pipe	95.00			4744.00	
Change Over Sub	1.00			4745.00	
Recorder	0.00	8968	Outside	4745.00	
Recorder	0.00	8521	Inside	4745.00	
Bullnose	5.00			4750.00	110.00 Bottom Packers & Anchor
Total Tool Length:	141.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

GeoSouthern Operation II LLC

28-7s-37w Sherman,KS

1425 Lake Front Circle
The Woods TX 77380

Cress #1-28

Job Ticket: 63931

DST#: 5

ATTN: Ben Landes

Test Start: 2019.09.27 @ 20:04:15

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

34 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.58 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4900.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
61.00	mcgo 20%m 30%g 50%m (collar)	0.300
61.00	ocm 50%o 50%m (collar)	0.309
62.00	gco 20%g 80%o	0.870
0.00	GIP= 124 ft	0.000

Total Length: 184.00 ft Total Volume: 1.479 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API= 34 @ 60 corrected to 34

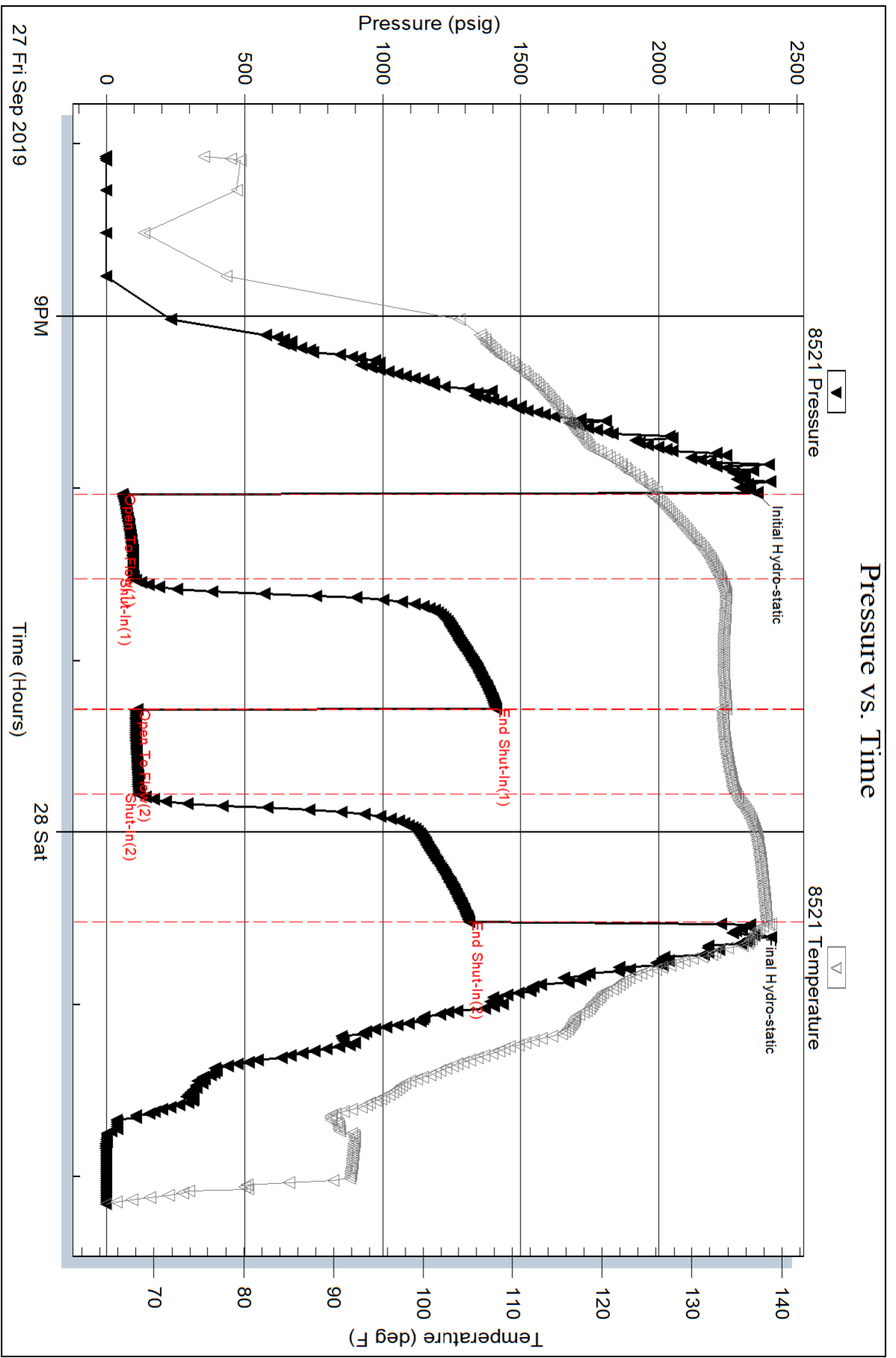
Serial #: 8521

Inside

GeoSouthern Operation II LLC

Cross #1-28

DST Test Number: 5

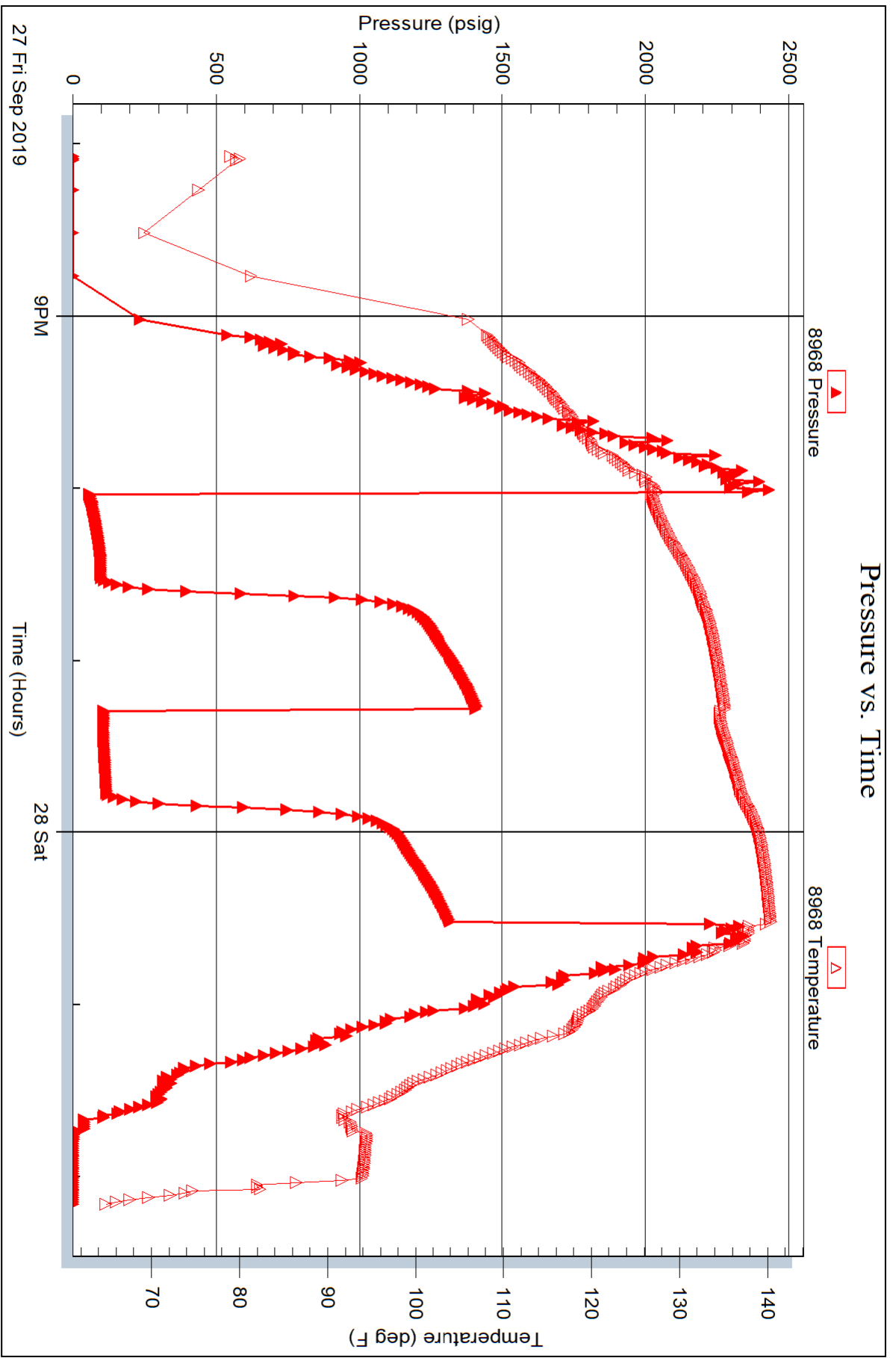


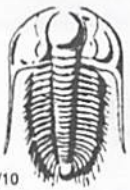
Serial #: 8968

Outside Geosouthern Operation II LLC

Cross #1-28

DST Test Number: 5





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **63927**

Well Name & No. Cress 1-2B Test No. 1 Date 9-24-19
 Company Geo Southern Operating II LLC Elevation 3425 KB 3420 GL
 Address 1425 Lake Front Circle The Woods Texas 77380
 Co. Rep / Geo. Ben Landes Rig WW110
 Location: Sec. 28 Twp. 7 Rge. 37 Co. Sherman State KS

Interval Tested 4163-4260 Zone Tested Toronto-Top Lansing
 Anchor Length 97 Drill Pipe Run 4032 Mud Wt. 9.2
 Top Packer Depth 4158 Drill Collars Run 121 Vis 66
 Bottom Packer Depth 4163 Wt. Pipe Run 6 WL 7.2
 Total Depth 4260 Chlorides 3800 ppm System LCM 1
 Blow Description IF: Built to 8 1/4" Blow
IS: No Return Blow
FF: Built to 15" Blow
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>124</u>	<u>WCM</u>		<u>5</u>	<u>95</u>	
<u>186</u>	<u>WCM</u>		<u>50</u>	<u>50</u>	
<u>121</u>	<u>MCW</u>		<u>80</u>	<u>20</u>	

Rec Total 431 BHT 132 Gravity — API RW 342 @ 60.9°F Chlorides 25000 ppm
 (A) Initial Hydrostatic 2097 Test 1300 T-On Location 13:41
 (B) First Initial Flow 52 Jars 250 T-Started 14:42
 (C) First Final Flow 148 Safety Joint 75 T-Open 16:33
 (D) Initial Shut-In 1309 Circ Sub NC T-Pulled 20:03
 (E) Second Initial Flow 152 Hourly Standby _____ T-Out 21:22
 (F) Second Final Flow 250 Mileage 200 RT 200 Comments Mokel
 (G) Final Shut-In 1298 Sampler 250
 (H) Final Hydrostatic 2042 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____

Initial Open 30 Extra Packer _____ Extra Copies _____
 Initial Shut-In 60 Extra Recorder _____ Sub Total 0
 Final Flow 60 Day Standby _____ Total 2075
 Final Shut-In ~~60~~ 30 Accessibility _____ MP/DST Disc't _____
 Sub Total 2075

Approved By _____ Our Representative Mike Roberts

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TRILOBITE TESTING, INC.

1515 Commerce Parkway • Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 63927 Date 9-24-19
 Company Name Geo Southern Operating LLC
 Lease Cross 1-28 Test No. 1
 County Sherman Sec. 28 Twp. 7 Rng. 37

SAMPLER RECOVERY

Gas 0 ML
 Oil 0 ML
 Mud 400 ML
 Water 1600 ML
 Other 0 ML
 Pressure 1100 ML
 Total 2000 ML

PIT MUD ANALYSIS

~~Chlorides _____ ppm.
 Resistivity _____ ohms @ _____ F
 Viscosity _____
 Mud Weight _____
 Filtrate _____
 Other _____~~

SAMPLER ANALYSIS

Resistivity .342 ohms @ 60.3/- F
 Chlorides 25000 ppm.
 Gravity — corrected @60F

PIPE RECOVERY

~~TOP
 Resistivity _____ ohms @ _____ F
 Chlorides _____ ppm.
 MIDDLE
 Resistivity _____ ohms @ _____ F
 Chlorides _____ ppm.
 BOTTOM
 Resistivity _____ ohms @ _____ F
 Chlorides _____ ppm.~~



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **63928**

Well Name & No. Cress 1-28 Test No. 2 Date 9-25-19
 Company Geo Southern Operating II LLC Elevation 3425 KB 3420 GL
 Address 1425 Lake Front Circle The Woods Texas 77380
 Co. Rep / Geo. Ben Landes Rig WW110
 Location: Sec. 28 Twp. 7 Rge. 37 Co. Sherman State KS

Interval Tested 4444-4511 Zone Tested K&L
 Anchor Length 67 Drill Pipe Run 4309 Mud Wt. 9.1
 Top Packer Depth 4439 Drill Collars Run 121 Vis 63
 Bottom Packer Depth 4444 Wt. Pipe Run Ø WL 8.0
 Total Depth 4511 Chlorides 5000 ppm System LCM 1
 Blow Description IF: Built to 23 1/2" Blow BOB in 3 Min
IS: Return Built to 10 1/2" Blow ~~BOB~~ in 10
FF: Built to 13 1/2" Blow BOB in 8 Min
FS: Return Built to 6" Blow

Rec	Feet of	%gas	%oil	%water	%mud
104	Feet of gco <u>gco</u>	30	70		
94	Feet of <u>gcom</u>	20	30	50	
121	Feet of <u>gcom</u>	10	30	60	
	Feet of	%gas	%oil	%water	%mud

Rec Total 319 BHT 135 Gravity 36 API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2253</u>	<input checked="" type="checkbox"/> Test 1300	T-On Location <u>17:00</u>
(B) First Initial Flow <u>134</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>18:26</u>
(C) First Final Flow <u>142</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>20:15</u>
(D) Initial Shut-In <u>1280</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>22:15</u>
(E) Second Initial Flow <u>154</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>00:08</u>
(F) Second Final Flow <u>157</u>	<input checked="" type="checkbox"/> Mileage <u>200 RT</u> 200	Comments <u>Motel</u>
(G) Final Shut-In <u>1201</u>	<input checked="" type="checkbox"/> Sampler 250	
(H) Final Hydrostatic <u>2167</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
	<input type="checkbox"/> Day Standby	Total <u>2075</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>2075</u>	

Initial Open 15
 Initial Shut-In 45
 Final Flow 15
 Final Shut-In 45

Approved By _____ Our Representative Mike Roberts

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TRILOBITE TESTING, INC.

1515 Commerce Parkway • Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 63928 Date 9-25-19
Company Name GeoSouthern Operating 11 LLC
Lease Cross 1-28 Test No. 2
County ~~Stanley~~ Sherman Sec. 28 Twp. 7 Rng. 37

SAMPLER RECOVERY

Gas 200 ML
Oil 600 ML
Mud 1200 ML
Water ∅ ML
Other ∅ ML
Pressure 1200 PSI ML
Total 2000 ML

PIT MUD ANALYSIS

~~Chlorides _____ ppm.
Resistivity _____ ohms @ _____ F
Viscosity _____ ML
Mud Weight _____ ML
Filtrate _____ ML
Other _____ ML~~

SAMPLER ANALYSIS

Resistivity NA ohms @ _____ F
Chlorides _____ ppm.
Gravity 36 corrected @60F

PIPE RECOVERY

~~TOP
Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.
MIDDLE
Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.
BOTTOM
Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.~~



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **63929**

Well Name & No. Cross 1-28 Test No. 3 Date 9-26-19
 Company GeoSouthern Operating II LLC Elevation 3425 KB 3420 GL
 Address 1425 LakeFront Circle The Woods TX 77380
 Co. Rep / Geo. Ben Landes Rig WW 110
 Location: Sec. 28 Twp. 7 Rge. 37 Co. ~~Stanton~~ Sherman State KS

Interval Tested 4516-4585 Zone Tested Marmaton
 Anchor Length 69 Drill Pipe Run 4381 Mud Wt. 9.1
 Top Packer Depth 4511 Drill Collars Run 121 Vis 63
 Bottom Packer Depth 4516 Wt. Pipe Run Ø WL 8.0
 Total Depth 4585 Chlorides 5000 ppm System LCM 1
 Blow Description IF: Built to 36" Blow BOB in 10 Min
IS: Return Blow Built to 248"
FF: Built to 47" Blow BOB in 10 Min.
FS: Return Blow Weak Surface Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>gco</u>	<u>5</u>	<u>95</u>		
<u>134</u>	<u>gcoo/m</u>	<u>5</u>	<u>15</u>	<u>30</u>	<u>50</u>
<u>372</u>	<u>gco/w</u>	<u>5</u>	<u>15</u>	<u>80</u>	
<u>493</u>	<u>SW</u>			<u>100</u>	

Rec Total 1014 BHT 136 Gravity 36 API RW .231 @ 72.7°F Chlorides 25000 ppm
 (A) Initial Hydrostatic 2289 Test 1300 T-On Location 08:35
 (B) First Initial Flow 65 Jars 250 T-Started 09:21
 (C) First Final Flow 293 Safety Joint 75 T-Open 11:07
 (D) Initial Shut-In 1393 Circ Sub NC T-Pulled 14:07
 (E) Second Initial Flow 285 Hourly Standby _____ T-Out 16:33
 (F) Second Final Flow 523 Mileage 200 RT 200 Comments Motel
 (G) Final Shut-In 1389 Sampler 250
 (H) Final Hydrostatic 2247 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 2075
 Accessibility _____ MP/DST Disc't _____

Initial Open 30
 Initial Shut-In 45
 Final Flow 45
 Final Shut-In 60

Sub Total 2075

Approved By _____ Our Representative Mike Roberts

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TRILOBITE TESTING, INC.

1515 Commerce Parkway • Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 63929 Date 9-26-19
 Company Name GeoSouthern Operating II LLC
 Lease Cross 1-28 Test No. _____
 County Sherman Sec. 28 Twp. 7 Rng. 37

SAMPLER RECOVERY

Gas 0 ML
 Oil Slight ML
 Mud ~~3000~~ 200 ML
 Water 1800 ML
 Other / ML
 Pressure 1200 ML
 Total 2000 ML

PIT MUD ANALYSIS

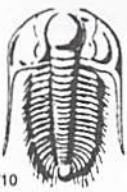
Chlorides _____ ppm.
 Resistivity _____ ohms @ _____ F
 Viscosity _____
 Mud Weight _____
 Filtrate _____
 Other _____

SAMPLER ANALYSIS

Resistivity .231 ohms @ 72.2/- F
 Chlorides 25000 ppm.
 Gravity 36 corrected @60F

PIPE RECOVERY

TOP
 Resistivity _____ ohms @ _____ F
 Chlorides _____ ppm.
MIDDLE
 Resistivity _____ ohms @ _____ F
 Chlorides _____ ppm.
BOTTOM
 Resistivity _____ ohms @ _____ F
 Chlorides _____ ppm.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **63930**

Well Name & No. Cress 1-28 Test No. 4 Date 9-27-19
 Company Geo Southern Operating, LLC Elevation 3425 KB 3420 GL
 Address 1425 Lake Front Circle The Woods Texas 77380
 Co. Rep / Geo. Ben Landes Rig WW110
 Location: Sec. 28 Twp. 7 Rge. 37 Co. Sherman State KS

Interval Tested 4596-4646 Zone Tested Pawnee
 Anchor Length 50 Drill Pipe Run ~~4476~~ 4473 Mud Wt. 9.1
 Top Packer Depth 4591 Drill Collars Run 121 Vis 63
 Bottom Packer Depth 4596 Wt. Pipe Run _____ WL 8.0
 Total Depth 4646 Chlorides 4000 ppm System LCM 1

Blow Description IF: Built to 3/4" And Died to 1/2"
IS: No Return Blow
FF: Weak Surface Blow that Died in 10 Min.
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>mud with oil spots</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 5 BHT 132 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>2337</u>	<input checked="" type="checkbox"/> Test <u>1300</u>	T-On Location <u>01:15</u>
(B) First Initial Flow <u>33</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>02:00</u>
(C) First Final Flow <u>36</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>03:41</u>
(D) Initial Shut-In <u>1226</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>02:45 06:11</u>
(E) Second Initial Flow <u>37</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>07:45</u>
(F) Second Final Flow <u>38</u>	<input checked="" type="checkbox"/> Mileage <u>200 RT</u> 200	Comments <u>None</u>
(G) Final Shut-In <u>1133</u>	<input checked="" type="checkbox"/> Sampler <u>250</u>	
(H) Final Hydrostatic <u>2318</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Day Standby _____	Total <u>2075</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>2075</u>	

Approved By _____ Our Representative Mike Rolats

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

FLUID SAMPLER DATA

Ticket No. 63930 Date 9-27-19
 Company Name GeoSouthern Operating II LLC
 Lease Cress 1-28 Test No. _____
 County Sherman Sec. 28 Twp. 7 Rng. 37

SAMPLER RECOVERY

Gas ∅ ML
 Oil ∅ ML
 Mud 2000 ML
 Water ∅ ML
 Other ∅ ML
 Pressure 1060 ML
 Total 2000 ML

PIT MUD ANALYSIS

~~Chlorides _____ ppm.
 Resistivity _____ ohms @ _____ F
 Viscosity _____
 Mud Weight _____
 Filtrate _____
 Other _____~~

SAMPLER ANALYSIS

Resistivity _____ ohms @ _____ F
 Chlorides _____ ppm.
 Gravity _____ corrected @60F

PIPE RECOVERY

~~TOP
 Resistivity _____ ohms @ _____ F
 Chlorides _____ ppm.
 MIDDLE
 Resistivity _____ ohms @ _____ F
 Chlorides _____ ppm.
 BOTTOM
 Resistivity _____ ohms @ _____ F
 Chlorides _____ ppm.~~



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **63931**

Well Name & No. Cress 1-28 Test No. 5 Date 9-27-19
 Company Geo Southern Operating II LLC Elevation 3425 KB 3420 GL
 Address 1425 Lake Front ^{Garfield} ~~Front~~ The Woods Texas 77380
 Co. Rep / Geo. Ben Landes Rig WW110
 Location: Sec. 28 Twp. 7 Rge. 37 Co. Sherman State KS

Interval Tested 4640-4750 Zone Tested ^{Myricks} FT Scott - Cherokee
 Anchor Length 110 Drill Pipe Run 4503 Mud Wt. 9.2
 Top Packer Depth 4635 Drill Collars Run 121 Vis 65
 Bottom Packer Depth 4640 Wt. Pipe Run Ø WL 9.6
 Total Depth 4750 Chlorides 4900 ppm System LCM 1
 Blow Description IF: Built to 7 1/2' Blow
IS: No Return Blow
FF: Built to 11 1/2' Blow BOB in 25 Min
FS: Return Built to 3"

Rec	Feet of	%gas	%oil	%water	%mud
<u>Ø</u>	<u>GIP = 124'</u>	<u>100</u>			
<u>62</u>	<u>gco</u>	<u>20</u>	<u>80</u>		
<u>61</u>	<u>OCM (COLLAR)</u>		<u>50</u>		<u>50</u>
<u>61</u>	<u>mcgo (COLLAR)</u>	<u>30</u>	<u>50</u>		<u>20</u>
<u>Rec Total</u>	<u>184</u>				

BHT 138 Gravity 34 API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2354</u>	<input checked="" type="checkbox"/> Test <u>1300</u>	T-On Location <u>19:00</u>
(B) First Initial Flow <u>56</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>20:04</u>
(C) First Final Flow <u>98</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>22:02</u>
(D) Initial Shut-In <u>1412</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>00:32</u>
(E) Second Initial Flow <u>110</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>02:09</u>
(F) Second Final Flow <u>116</u>	<input checked="" type="checkbox"/> Mileage <u>200 RT</u> ²⁰⁰	Comments <u>Motel</u>
(G) Final Shut-In <u>1315</u>	<input checked="" type="checkbox"/> Sampler <u>250</u>	<input type="checkbox"/> Ruined Shale Packer
(H) Final Hydrostatic <u>2330</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Total <u>2075</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Day Standby	MP/DST Disc't
	<input type="checkbox"/> Accessibility	
	Sub Total <u>2075</u>	

Approved By _____

Our Representative Mike Roberts

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TRILOBITE TESTING, INC.

1515 Commerce Parkway • Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 63931 Date 9-27-19
 Company Name GeoSouthern Operating II LLC
 Lease Cross 1-2B Test No. 5
 County Sterman Sec. 28 Twp. 7 Rng. 37

SAMPLER RECOVERY

Gas 600 ML
 Oil 1000 ML
 Mud 400 ML
 Water ∅ ML
 Other ∅ ML
 Pressure 1300 ML
 Total 2000 ML

PIT MUD ANALYSIS

~~Chlorides _____ ppm.
 Resistivity _____ ohms @ _____ F
 Viscosity _____
 Mud Weight _____
 Filtrate _____
 Other _____~~

SAMPLER ANALYSIS

Resistivity ∅ ohms @ ∅ F
 Chlorides ∅ ppm.
 Gravity 34 corrected @60F

PIPE RECOVERY

~~TOP
 Resistivity _____ ohms @ _____ F
 Chlorides _____ ppm.
 MIDDLE
 Resistivity _____ ohms @ _____ F
 Chlorides _____ ppm.
 BOTTOM
 Resistivity _____ ohms @ _____ F
 Chlorides _____ ppm.~~