



DRILL STEM TEST REPORT

Prepared For: **American Land & Energy LLC**

7277 Tenby Way Box 2287
Castle Rock CO 80104

ATTN: Rod Anderson

Leiker 8-15 #1

8 15s 16w Ellis,KS

Start Date: 2013.12.08 @ 15:47:00

End Date: 2013.12.08 @ 22:26:00

Job Ticket #: 55800 DST #: 1

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

Printed: 2013.12.13 @ 13:39:58



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

American Land & Energy LLC

8 15s 16w Ellis,KS

7277 Tenby Way Box 2287
Castle Rock CO 80104

Leiker 8-15 #1

Job Ticket: 55800

DST#: 1

ATTN: Rod Anderson

Test Start: 2013.12.08 @ 15:47:00

GENERAL INFORMATION:

Formation: **LKC " A - D "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:35:15

Time Test Ended: 22:26:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jim Svaty

Unit No: 54

Interval: 3182.00 ft (KB) To 3270.00 ft (KB) (TVD)

Reference Elevations: 1932.00 ft (KB)

Total Depth: 3270.00 ft (KB) (TVD)

1925.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8289 Outside

Press@RunDepth: 126.29 psig @ 3188.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.12.08 End Date: 2013.12.08

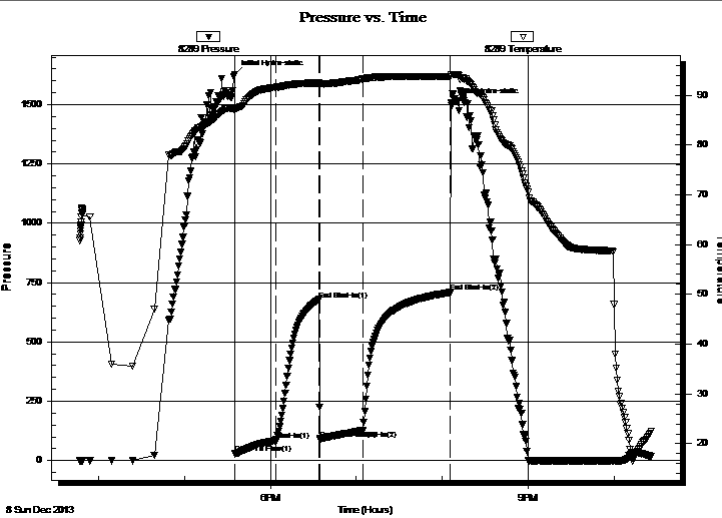
Last Calib.: 2013.12.08

Start Time: 15:47:02 End Time: 22:26:00

Time On Btm: 2013.12.08 @ 17:35:00

Time Off Btm: 2013.12.08 @ 20:06:15

TEST COMMENT: 30-IFP- BOB in 2 min.
30-ISIP- Surface Blow Died Back in 8min.
30-FFP- BOB in 1min 10sec.
60-FSIP- BOB in 16min Died Back in 28min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1627.42	87.52	Initial Hydro-static
1	29.62	86.96	Open To Flow (1)
29	84.20	91.56	Shut-In(1)
59	678.40	92.47	End Shut-In(1)
60	89.73	92.30	Open To Flow (2)
90	126.29	93.23	Shut-In(2)
151	708.77	93.80	End Shut-In(2)
152	1508.92	94.04	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
254.00	WMCGO 10%w 15%m 15%g 60%o	3.56
30.00	Mud 100%	0.42
0.00	792 GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

American Land & Energy LLC

8 15s 16w Ellis,KS

7277 Tenby Way Box 2287
Castle Rock CO 80104

Leiker 8-15 #1

Job Ticket: 55800

DST#: 1

ATTN: Rod Anderson

Test Start: 2013.12.08 @ 15:47:00

Tool Information

Drill Pipe:	Length: 3169.00 ft	Diameter: 3.80 inches	Volume: 44.45 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 58000.00 lb
			<u>Total Volume: 44.45 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	3182.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	88.00 ft			
Tool Length:	109.00 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			3162.00	
Shut In Tool	5.00			3167.00	
Hydraulic tool	5.00			3172.00	
Packer	5.00			3177.00	21.00 Bottom Of Top Packer
Packer	5.00			3182.00	
Stubb	1.00			3183.00	
Perforations	4.00			3187.00	
Change Over Sub	1.00			3188.00	
Recorder	0.00	8789	Inside	3188.00	
Recorder	0.00	8289	Outside	3188.00	
Blank Spacing	63.00			3251.00	
Change Over Sub	1.00			3252.00	
Perforations	15.00			3267.00	
Bullnose	3.00			3270.00	88.00 Bottom Packers & Anchor

Total Tool Length: 109.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

American Land & Energy LLC

8 15s 16w Ellis,KS

7277 Tenby Way Box 2287
Castle Rock CO 80104

Leiker 8-15 #1

Job Ticket: 55800

DST#: 1

ATTN: Rod Anderson

Test Start: 2013.12.08 @ 15:47:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 47.00 sec/qt
Water Loss: 9.50 in³
Resistivity: ohm.m
Salinity: 5000.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
254.00	WMCGO 10%w 15%m 15%g 60%o	3.563
30.00	Mud 100%	0.421
0.00	792 GIP	0.000

Total Length: 284.00 ft Total Volume: 3.984 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

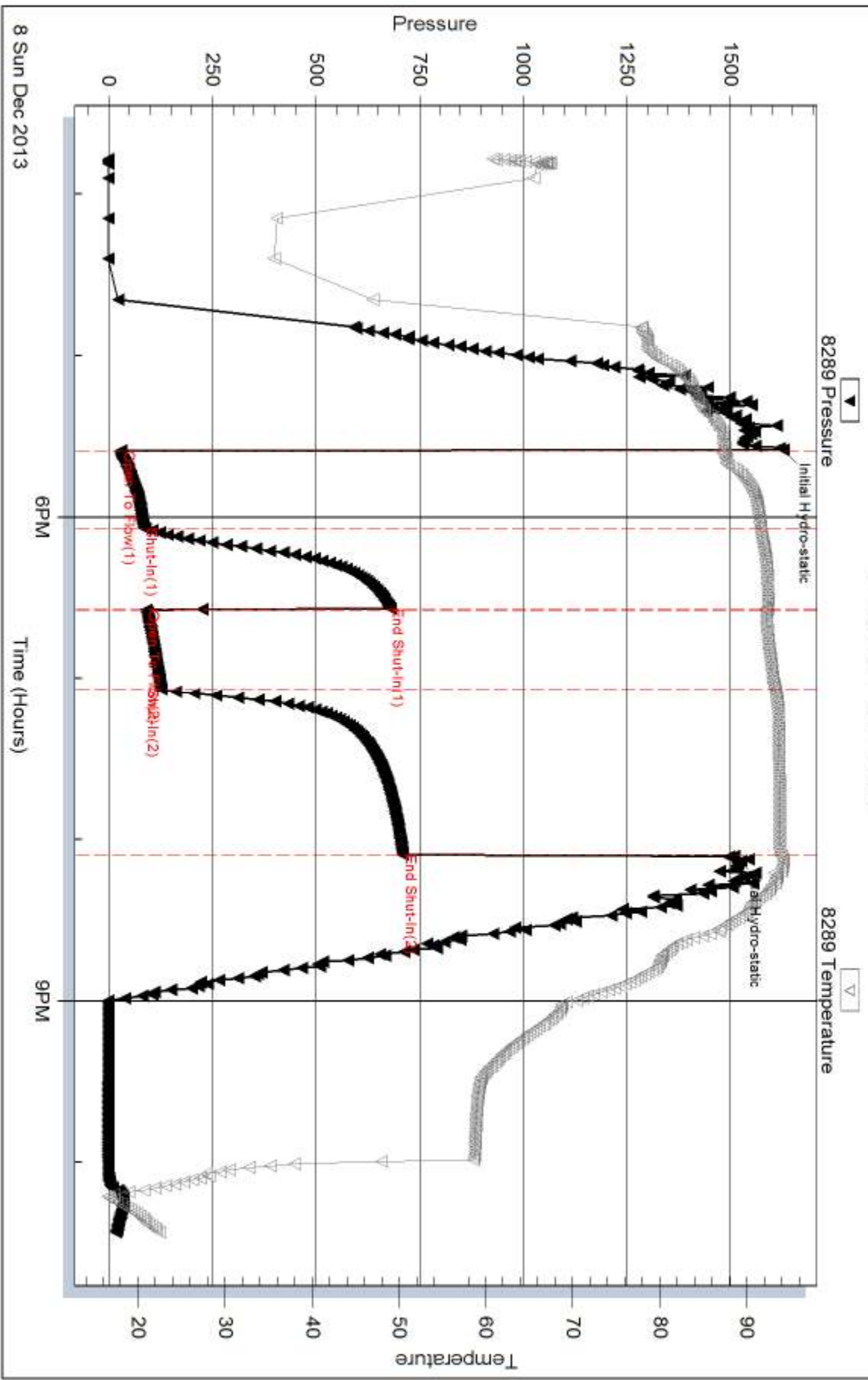
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



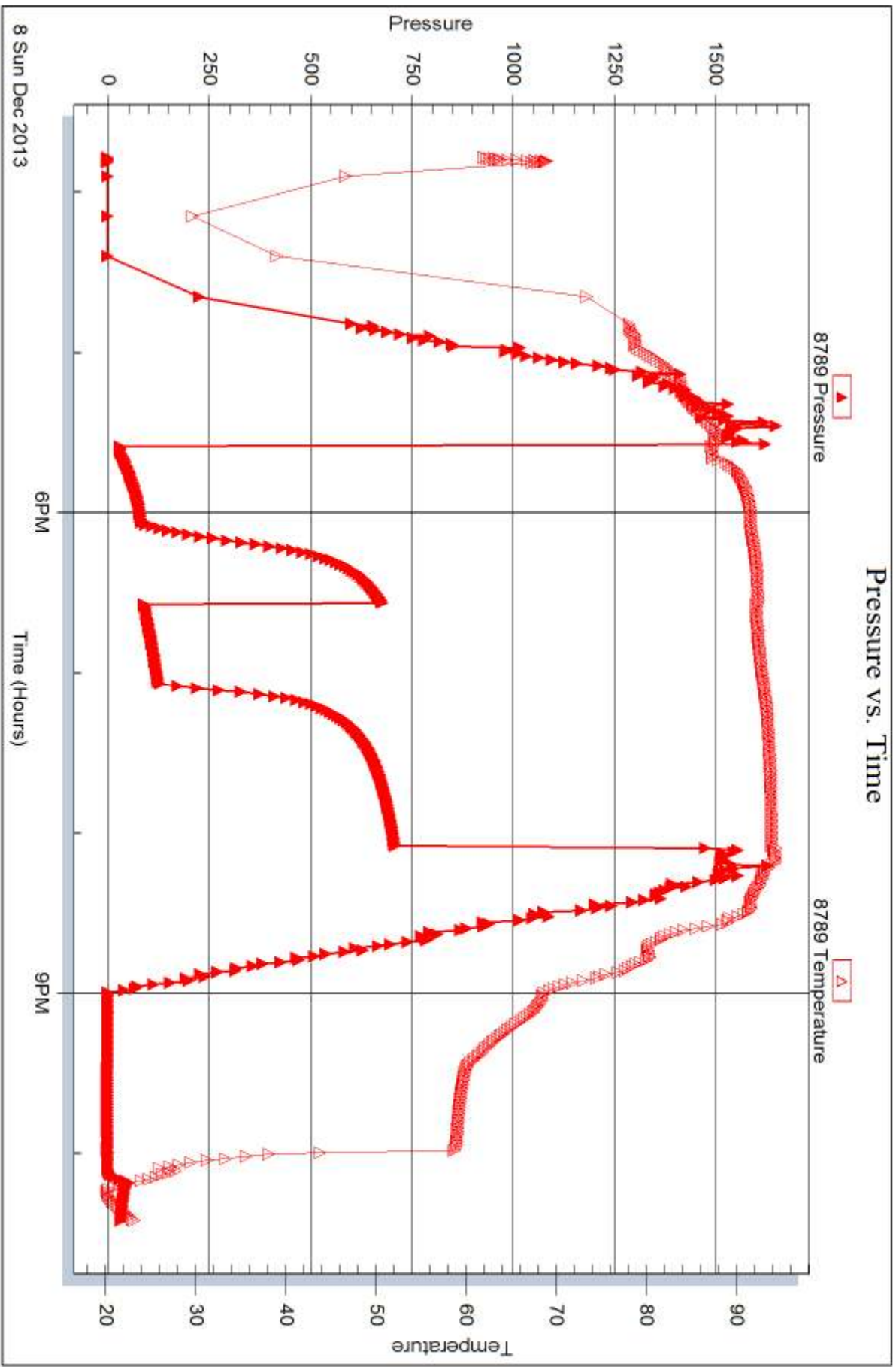
Serial #: 8789

Inside

American Land & Energy LLC

Leiker 8-15 #1

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **American Land & Energy LLC**

7277 Tenby Way Box 2287
Castle Rock CO 80104

ATTN: Rod Anderson

Leiker 8-15 #1

8 15s 16w Ellis,KS

Start Date: 2013.12.09 @ 07:04:00

End Date: 2013.12.09 @ 14:03:00

Job Ticket #: 50401 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2013.12.13 @ 13:39:23



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

American Land & Energy LLC

8 15s 16w Ellis,KS

7277 Tenby Way Box 2287
Castle Rock CO 80104

Leiker 8-15 #1

Job Ticket: 50401

DST#: 2

ATTN: Rod Anderson

Test Start: 2013.12.09 @ 07:04:00

GENERAL INFORMATION:

Formation: **LKC " E - G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:05:15

Time Test Ended: 14:03:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 54

Interval: 3270.00 ft (KB) To 3335.00 ft (KB) (TVD)

Reference Elevations: 1932.00 ft (KB)

Total Depth: 3335.00 ft (KB) (TVD)

1925.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8289 Outside

Press@RunDepth: 83.92 psig @ 3276.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.12.09 End Date: 2013.12.09

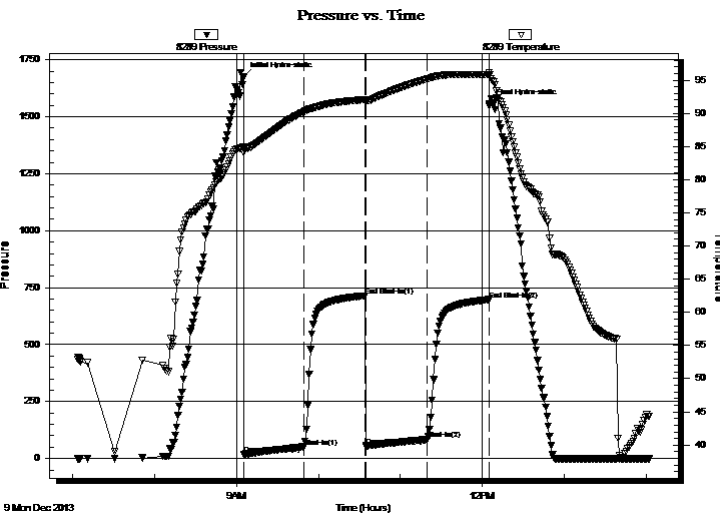
Last Calib.: 2013.12.09

Start Time: 07:04:02 End Time: 14:03:00

Time On Btm: 2013.12.09 @ 09:05:00

Time Off Btm: 2013.12.09 @ 12:05:00

TEST COMMENT: 45-IFP- Surface Blow For 18min. BOB in 19min.
45-ISIP- Surface Blow in 9min.
45-FFP- Surface Blow Building to 8 1/2in.
45-FSIP- Surface Blow in 4min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1674.70	84.89	Initial Hydro-static
1	18.99	84.04	Open To Flow (1)
45	51.65	90.20	Shut-In(1)
90	714.28	92.06	End Shut-In(1)
90	55.28	91.83	Open To Flow (2)
135	83.92	95.17	Shut-In(2)
180	697.55	95.87	End Shut-In(2)
180	1557.27	96.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
146.00	OSMCW 25% m 75% w	2.05
0.00	170' GIP	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

American Land & Energy LLC

8 15s 16w Ellis, KS

7277 Tenby Way Box 2287
Castle Rock CO 80104

Leiker 8-15 #1

Job Ticket: 50401

DST#: 2

ATTN: Rod Anderson

Test Start: 2013.12.09 @ 07:04:00

Tool Information

Drill Pipe:	Length: 3264.00 ft	Diameter: 3.80 inches	Volume: 45.79 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 57000.00 lb
			<u>Total Volume: 45.79 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	3270.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	65.00 ft			
Tool Length:	86.00 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			3250.00	
Shut In Tool	5.00			3255.00	
Hydraulic tool	5.00			3260.00	
Packer	5.00			3265.00	21.00 Bottom Of Top Packer
Packer	5.00			3270.00	
Stubb	1.00			3271.00	
Perforations	4.00			3275.00	
Change Over Sub	1.00			3276.00	
Recorder	0.00	8789	Inside	3276.00	
Recorder	0.00	8289	Outside	3276.00	
Blank Spacing	32.00			3308.00	
Change Over Sub	1.00			3309.00	
Perforations	23.00			3332.00	
Bullnose	3.00			3335.00	65.00 Bottom Packers & Anchor

Total Tool Length: 86.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

American Land & Energy LLC

8 15s 16w Ellis,KS

7277 Tenby Way Box 2287
Castle Rock CO 80104

Leiker 8-15 #1

Job Ticket: 50401

DST#: 2

ATTN: Rod Anderson

Test Start: 2013.12.09 @ 07:04:00

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:

82500 ppm

Viscosity: 47.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.48 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
146.00	OSMCW 25% m 75% w	2.048
0.00	170' GIP	0.000

Total Length: 146.00 ft Total Volume: 2.048 bbl

Num Fluid Samples: 0

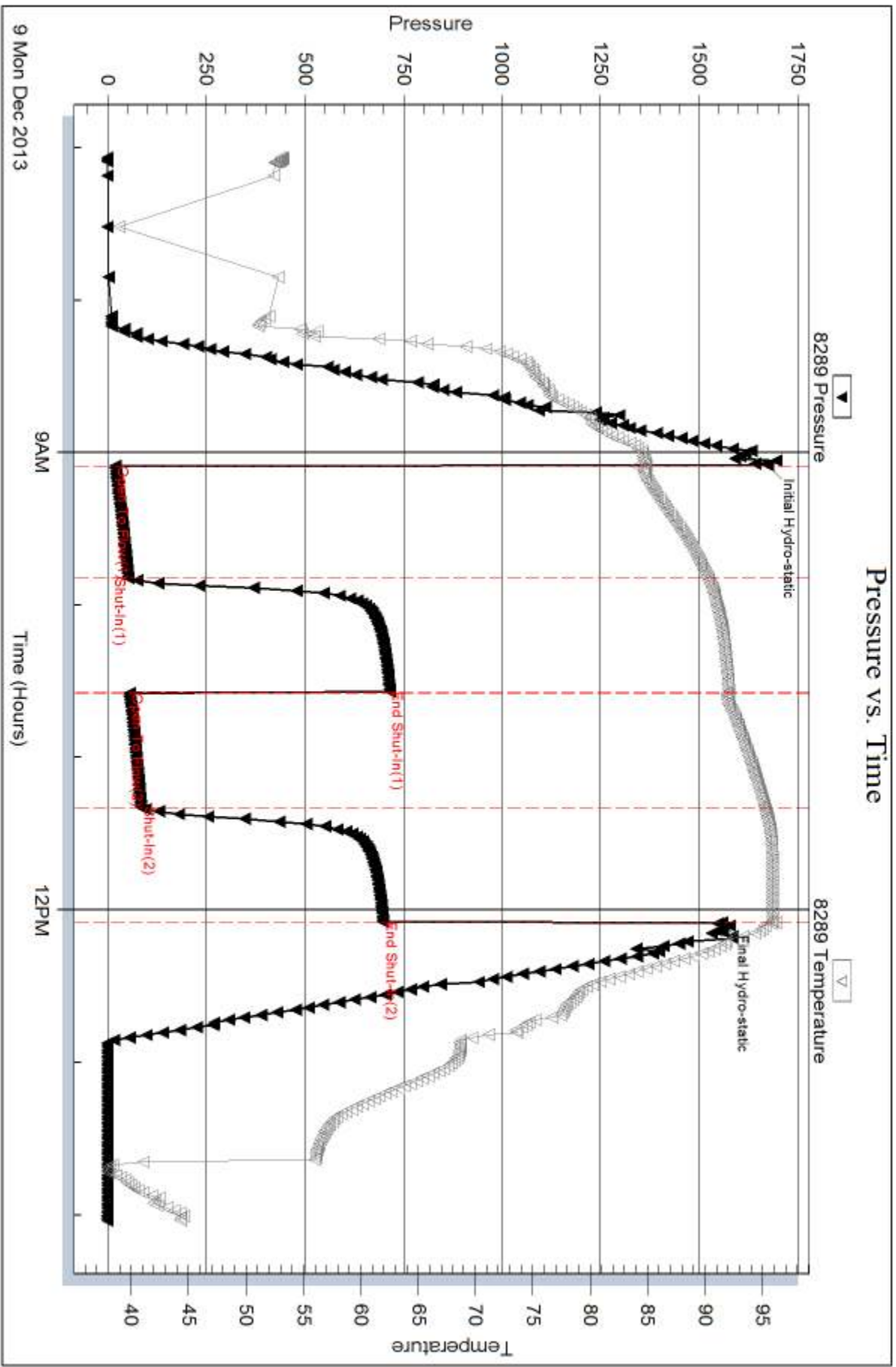
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .150 @ 45



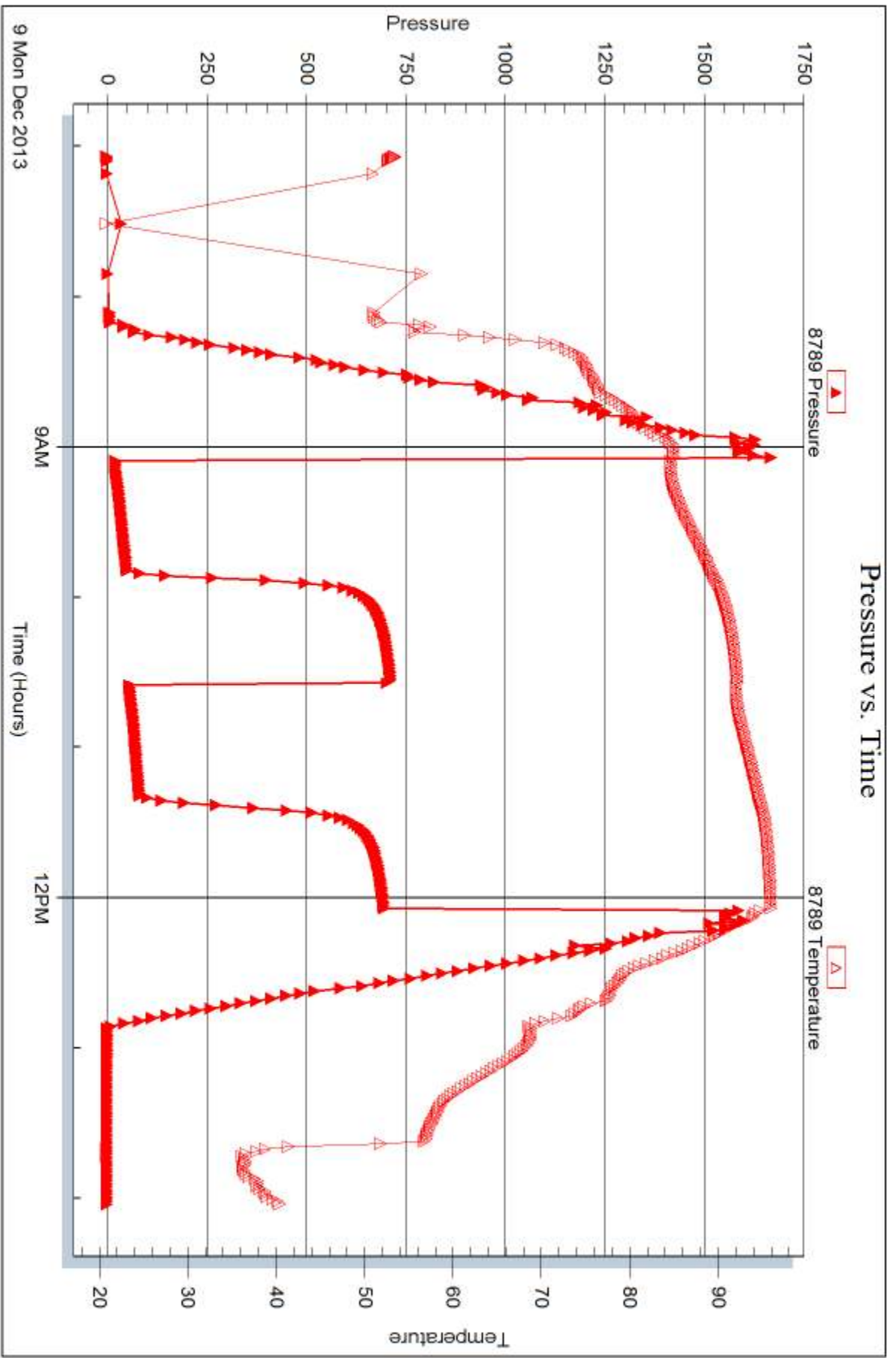
Serial #: 8789

Inside

American Land & Energy LLC

Leiker 8-15 #1

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **American Land & Energy LLC**

7277 Tenby Way Box 2287
Castle Rock CO 80104

ATTN: Rod Anderson

Leiker 8-15 #1

8 15s 16w Ellis,KS

Start Date: 2013.12.09 @ 22:11:00

End Date: 2013.12.10 @ 04:07:00

Job Ticket #: 50402 DST #: 3

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

Printed: 2013.12.13 @ 13:38:46



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

American Land & Energy LLC

8 15s 16w Ellis,KS

7277 Tenby Way Box 2287
Castle Rock CO 80104

Leiker 8-15 #1

Job Ticket: 50402

DST#: 3

ATTN: Rod Anderson

Test Start: 2013.12.09 @ 22:11:00

GENERAL INFORMATION:

Formation: **LKC "H - J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:01:45

Time Test Ended: 04:07:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 54

Interval: 3334.00 ft (KB) To 3395.00 ft (KB) (TVD)

Reference Elevations: 1932.00 ft (KB)

Total Depth: 3395.00 ft (KB) (TVD)

1925.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8289 Outside

Press@RunDepth: 23.15 psig @ 3337.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.12.09 End Date: 2013.12.10

Last Calib.: 2013.12.10

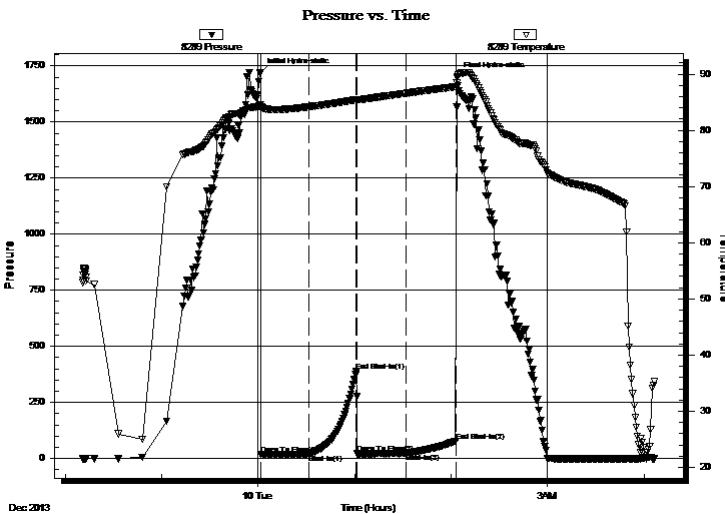
Start Time: 22:11:02 End Time: 04:07:00

Time On Btm: 2013.12.10 @ 00:01:30

Time Off Btm: 2013.12.10 @ 02:03:45

TEST COMMENT: 30-IFP- Good Surge on Tool Open -- No Blow
30-ISIP- No Blow
30-FFP- Weak Surface Blow
30-FSIP- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1721.44	84.54	Initial Hydro-static
1	17.74	83.94	Open To Flow (1)
30	20.46	84.18	Shut-In(1)
60	389.26	85.45	End Shut-In(1)
60	21.57	85.36	Open To Flow (2)
91	23.15	86.58	Shut-In(2)
122	78.95	87.78	End Shut-In(2)
123	1702.88	89.36	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Oil Speck Mud 100%	0.14

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

American Land & Energy LLC

8 15s 16w Ellis,KS

7277 Tenby Way Box 2287
Castle Rock CO 80104

Leiker 8-15 #1

Job Ticket: 50402

DST#: 3

ATTN: Rod Anderson

Test Start: 2013.12.09 @ 22:11:00

Tool Information

Drill Pipe:	Length: 3331.00 ft	Diameter: 3.80 inches	Volume: 46.73 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 56000.00 lb
			<u>Total Volume: 46.73 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3334.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	61.00 ft			
Tool Length:	82.00 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			3314.00	
Shut In Tool	5.00			3319.00	
Hydraulic tool	5.00			3324.00	
Packer	5.00			3329.00	21.00 Bottom Of Top Packer
Packer	5.00			3334.00	
Stubb	1.00			3335.00	
Perforations	1.00			3336.00	
Change Over Sub	1.00			3337.00	
Recorder	0.00	8789	Inside	3337.00	
Recorder	0.00	8289	Outside	3337.00	
Blank Spacing	31.00			3368.00	
Change Over Sub	1.00			3369.00	
Perforations	23.00			3392.00	
Bullnose	3.00			3395.00	61.00 Bottom Packers & Anchor

Total Tool Length: 82.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

American Land & Energy LLC

8 15s 16w Ellis,KS

7277 Tenby Way Box 2287
Castle Rock CO 80104

Leiker 8-15 #1

Job Ticket: 50402

DST#: 3

ATTN: Rod Anderson

Test Start: 2013.12.09 @ 22:11:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.14 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Oil Speck Mud 100%	0.140

Total Length: 10.00 ft Total Volume: 0.140 bbl

Num Fluid Samples: 0

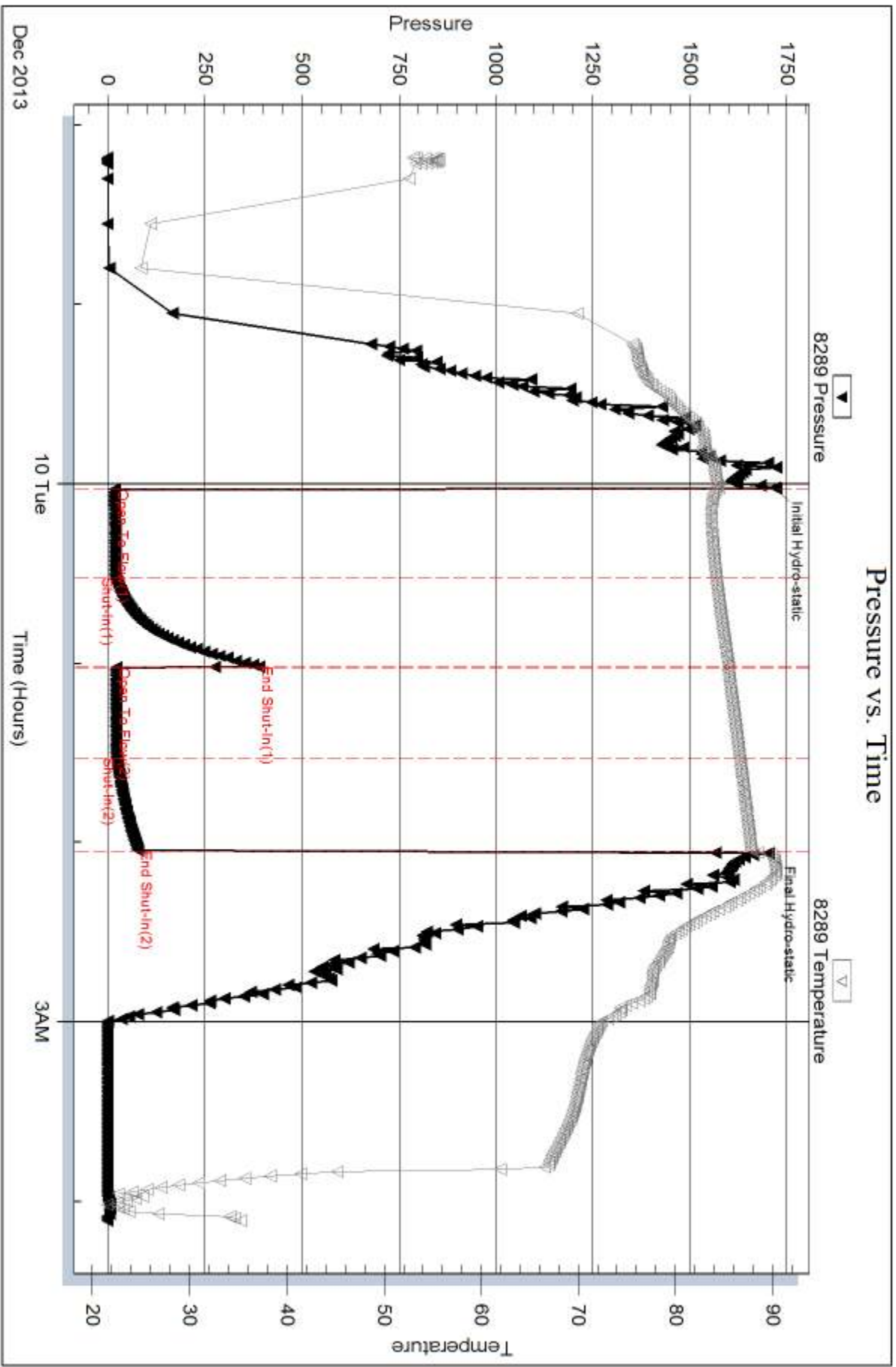
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



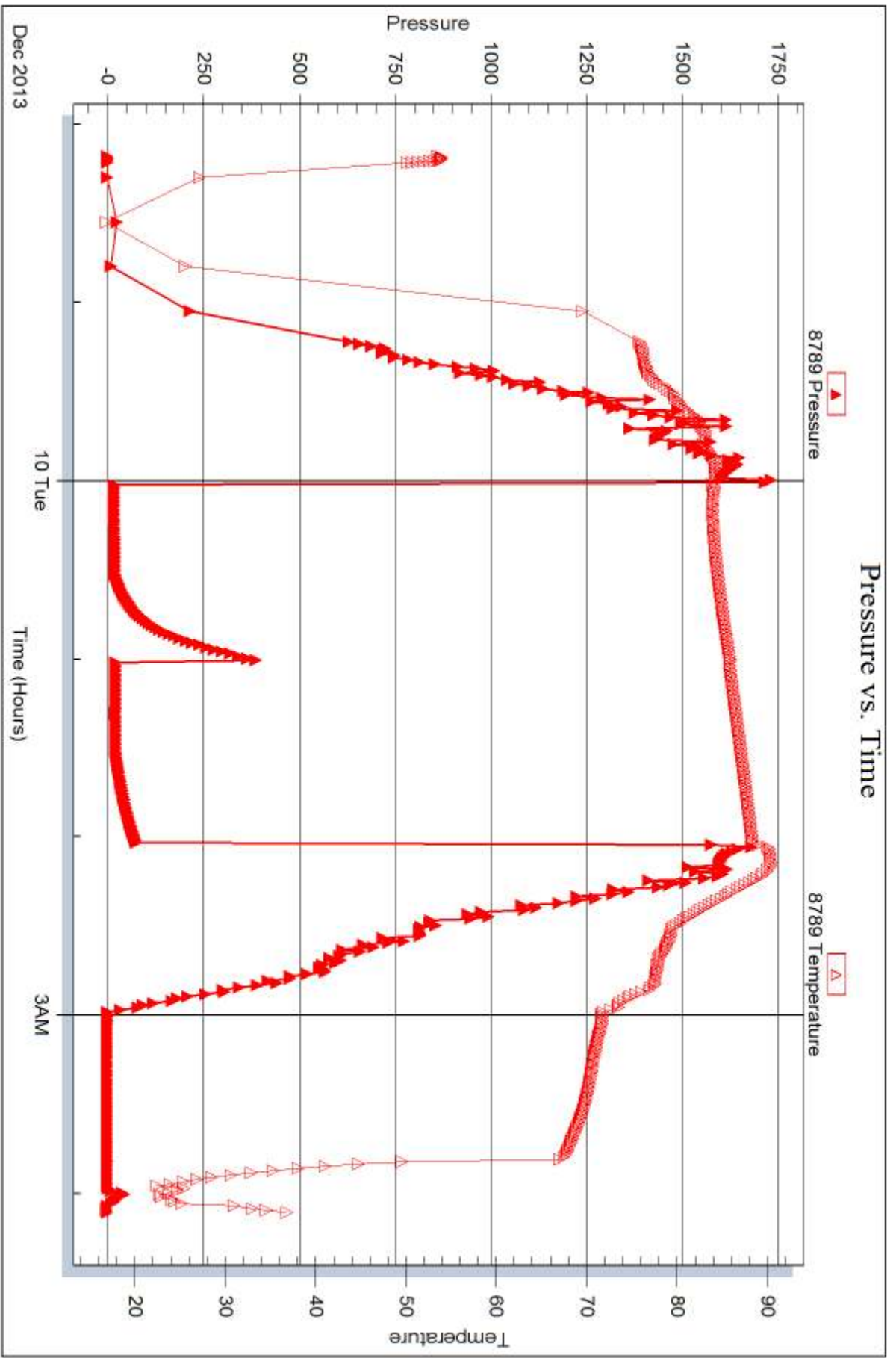
Serial #: 8789

Inside

American Land & Energy LLC

Leiker 8-15 #1

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 50402

Printed: 2013.12.13 @ 13:38:48



DRILL STEM TEST REPORT

Prepared For: **American Land & Energy LLC**

7277 Tenby Way Box 2287
Castle Rock CO 80104

ATTN: Rod Anderson

Leiker 8-15 #1

8 15s 16w Ellis,KS

Start Date: 2013.12.10 @ 12:37:00

End Date: 2013.12.10 @ 17:30:00

Job Ticket #: 50403 DST #: 4

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

Printed: 2013.12.13 @ 13:38:07



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

American Land & Energy LLC

8 15s 16w Ellis,KS

7277 Tenby Way Box 2287
Castle Rock CO 80104

Leiker 8-15 #1

Job Ticket: 50403

DST#: 4

ATTN: Rod Anderson

Test Start: 2013.12.10 @ 12:37:00

GENERAL INFORMATION:

Formation: **LKC " K & L "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:04:15

Time Test Ended: 17:30:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 54

Interval: 3396.00 ft (KB) To 3445.00 ft (KB) (TVD)

Reference Elevations: 1932.00 ft (KB)

Total Depth: 3445.00 ft (KB) (TVD)

1925.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8289 Outside

Press@RunDepth: 18.28 psig @ 3404.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.12.10

End Date:

2013.12.10

Last Calib.:

2013.12.10

Start Time: 12:37:02

End Time:

17:29:45

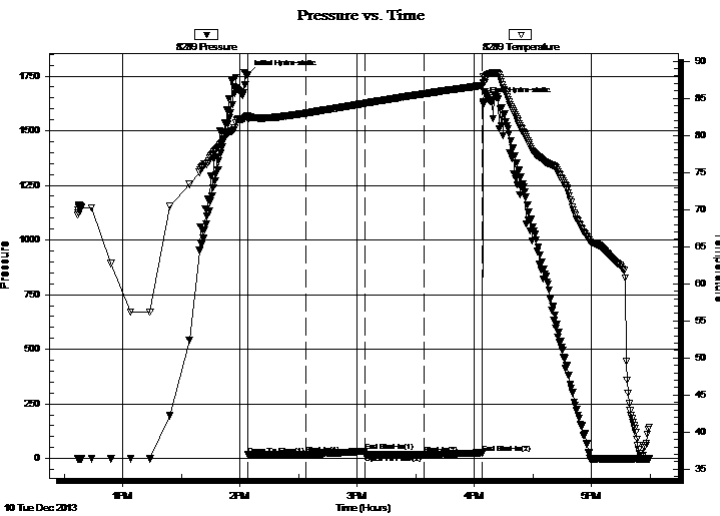
Time On Btm:

2013.12.10 @ 14:04:00

Time Off Btm:

2013.12.10 @ 16:04:30

TEST COMMENT: 30-IFP- Surging Surface Blow Building to 1/2"
30-ISIP- No Blow
30-FFP- Surface Blow Building to 1/4"
30-FSIP- No Blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1755.29	82.66	Initial Hydro-static
1	16.66	82.20	Open To Flow (1)
30	17.97	83.00	Shut-In(1)
60	33.29	84.31	End Shut-In(1)
61	18.32	84.32	Open To Flow (2)
90	18.28	85.58	Shut-In(2)
121	26.05	86.73	End Shut-In(2)
121	1633.15	87.86	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
7.00	OSM 100%	0.10

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

American Land & Energy LLC

8 15s 16w Ellis,KS

7277 Tenby Way Box 2287
Castle Rock CO 80104

Leiker 8-15 #1

Job Ticket: 50403

DST#: 4

ATTN: Rod Anderson

Test Start: 2013.12.10 @ 12:37:00

Tool Information

Drill Pipe:	Length: 3393.00 ft	Diameter: 3.80 inches	Volume: 47.59 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 59000.00 lb
			<u>Total Volume: 47.59 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	3396.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	49.00 ft			
Tool Length:	70.00 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			3376.00	
Shut In Tool	5.00			3381.00	
Hydraulic tool	5.00			3386.00	
Packer	5.00			3391.00	21.00 Bottom Of Top Packer
Packer	5.00			3396.00	
Stubb	1.00			3397.00	
Perforations	6.00			3403.00	
Change Over Sub	1.00			3404.00	
Recorder	0.00	8789	Inside	3404.00	
Recorder	0.00	8289	Outside	3404.00	
Blank Spacing	32.00			3436.00	
Change Over Sub	1.00			3437.00	
Perforations	5.00			3442.00	
Bullnose	3.00			3445.00	49.00 Bottom Packers & Anchor

Total Tool Length: 70.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

American Land & Energy LLC

8 15s 16w Ellis,KS

7277 Tenby Way Box 2287
Castle Rock CO 80104

Leiker 8-15 #1

Job Ticket: 50403

DST#: 4

ATTN: Rod Anderson

Test Start: 2013.12.10 @ 12:37:00

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: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 11.95 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 10000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
7.00	OSM 100%	0.098

Total Length: 7.00 ft Total Volume: 0.098 bbl

Num Fluid Samples: 0

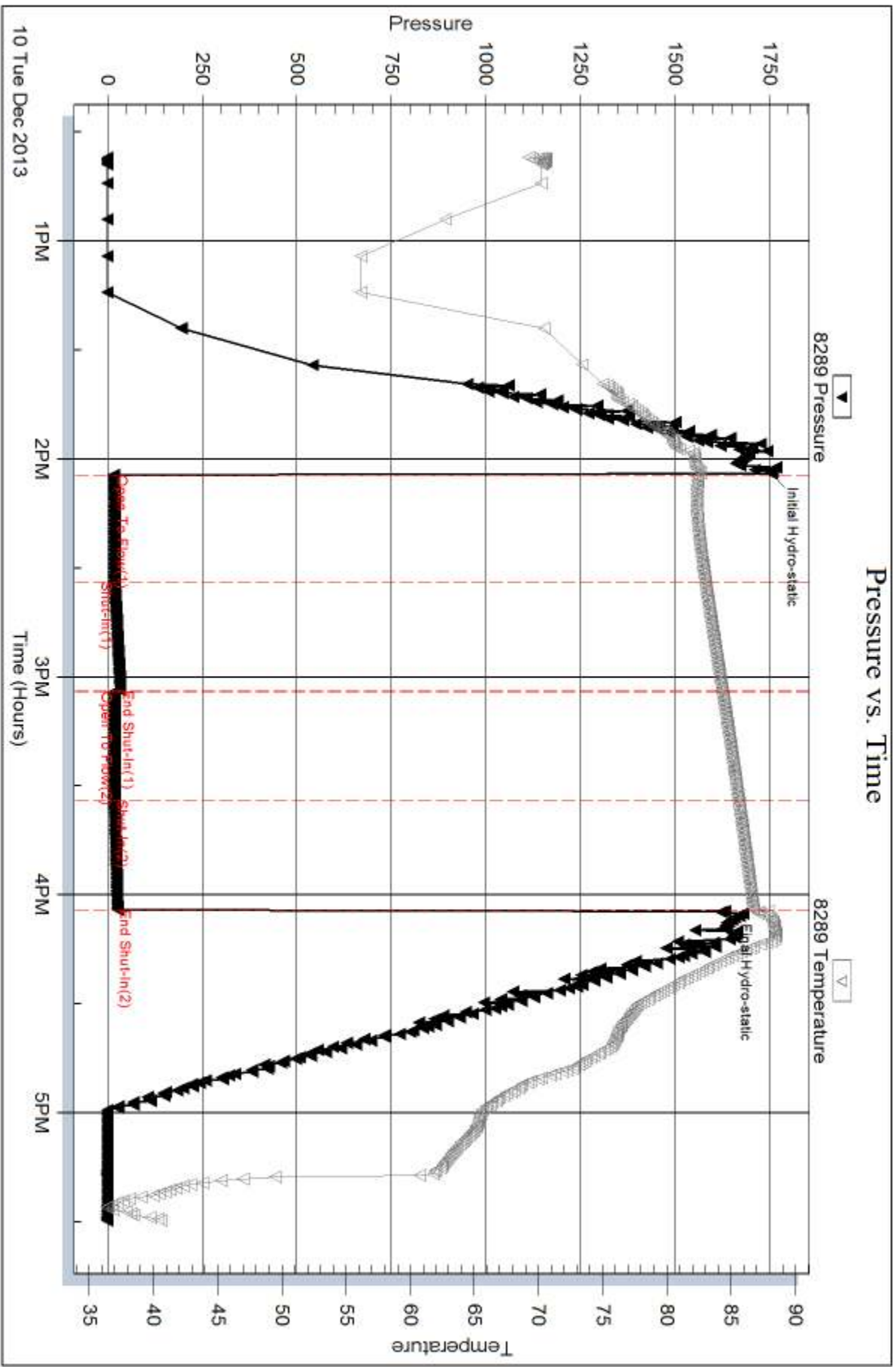
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



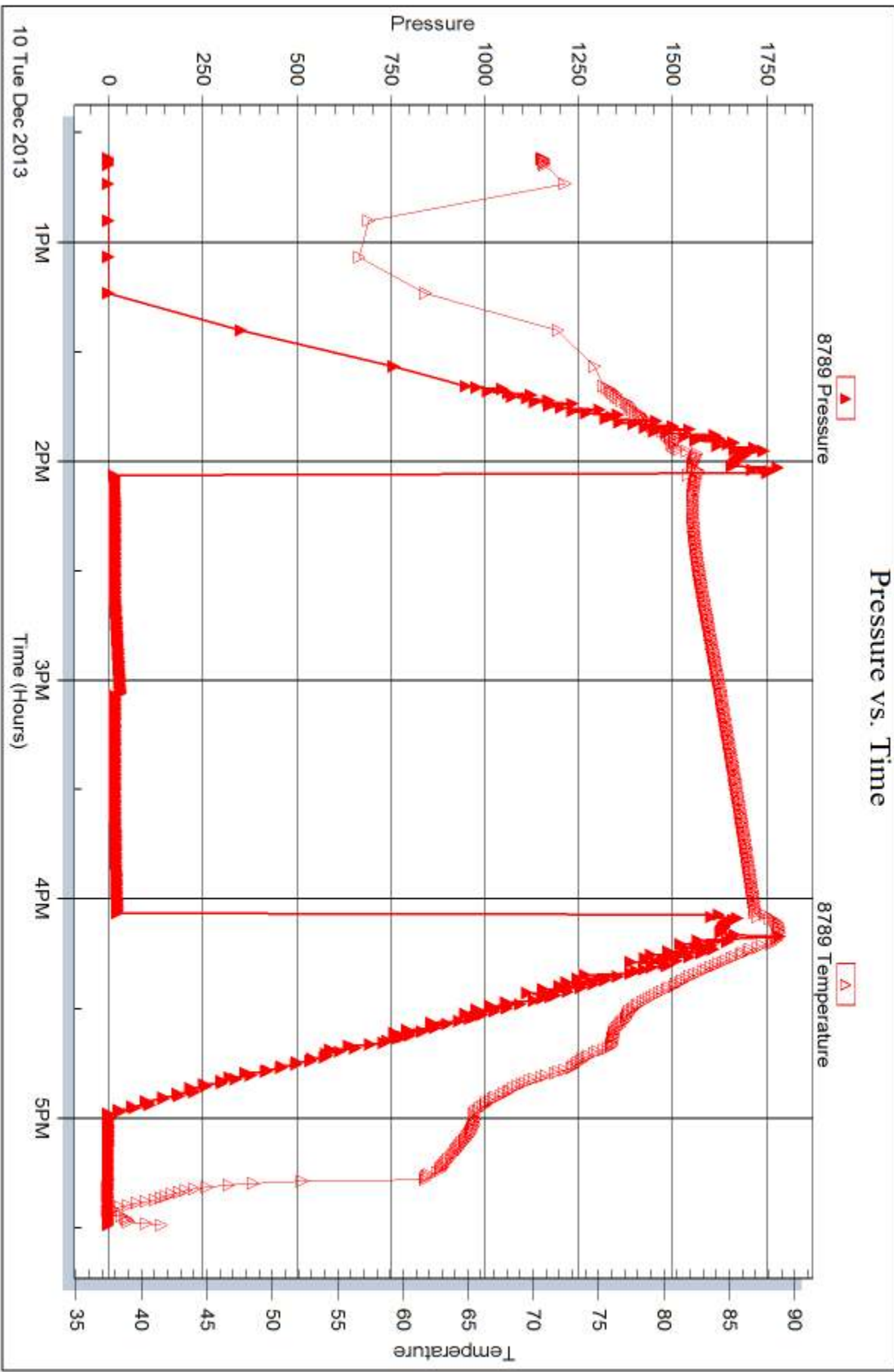
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Inside

American Land & Energy LLC

Leiker 8-15 #1

DST Test Number: 4



Triobite Testing, Inc

Ref. No: 50403

Printed: 2013.12.13 @ 13:38:09



DRILL STEM TEST REPORT

Prepared For: **American Land & Energy LLC**

7277 Tenby Way Box 2287
Castle Rock CO 80104

ATTN: Rod Anderson

Leiker 8-15 #1

8 15s 16w Ellis,KS

Start Date: 2013.12.11 @ 00:05:00

End Date: 2013.12.11 @ 07:47:00

Job Ticket #: 50404 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2013.12.13 @ 13:37:21



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

American Land & Energy LLC

8 15s 16w Ellis,KS

7277 Tenby Way Box 2287
Castle Rock CO 80104

Leiker 8-15 #1

Job Ticket: 50404

DST#: 5

ATTN: Rod Anderson

Test Start: 2013.12.11 @ 00:05:00

GENERAL INFORMATION:

Formation: **Conglomerate Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:01:30

Time Test Ended: 07:47:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 54

Interval: 3443.00 ft (KB) To 3480.00 ft (KB) (TVD)

Reference Elevations: 1932.00 ft (KB)

Total Depth: 3480.00 ft (KB) (TVD)

1925.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8289 Outside

Press@RunDepth: 50.74 psig @ 3444.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.12.11 End Date: 2013.12.11

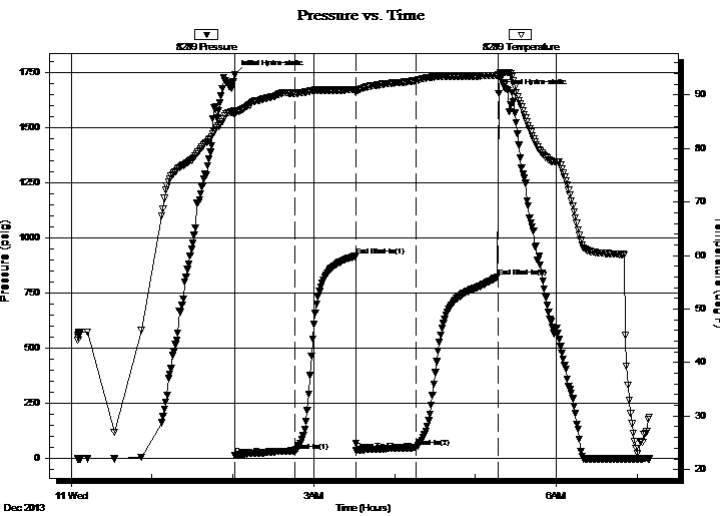
Last Calib.: 2013.12.11

Start Time: 00:05:02 End Time: 07:09:45

Time On Btm: 2013.12.11 @ 02:01:15

Time Off Btm: 2013.12.11 @ 05:17:15

TEST COMMENT: 45-IFP- Surface Blow Building to 8"
45-ISIP- No Blow
45-FFP- Surface Blow Building to 6 3/4"
60-FSIP- No Blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1739.17	86.95	Initial Hydro-static
1	15.31	86.36	Open To Flow (1)
45	34.87	90.30	Shut-In(1)
90	917.29	90.96	End Shut-In(1)
91	39.04	90.65	Open To Flow (2)
135	50.74	92.67	Shut-In(2)
196	823.04	93.64	End Shut-In(2)
196	1653.66	93.86	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
63.00	OCM 25% o 75% m	0.88
32.00	CO 100%	0.45

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

American Land & Energy LLC

8 15s 16w Ellis,KS

7277 Tenby Way Box 2287
Castle Rock CO 80104

Leiker 8-15 #1

Job Ticket: 50404

DST#: 5

ATTN: Rod Anderson

Test Start: 2013.12.11 @ 00:05:00

Tool Information

Drill Pipe:	Length: 3455.00 ft	Diameter: 3.80 inches	Volume: 48.46 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume: 48.46 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial	58000.00 lb
Depth to Top Packer:	3443.00 ft			Final	59000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	37.00 ft				
Tool Length:	58.00 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			3423.00	
Shut In Tool	5.00			3428.00	
Hydraulic tool	5.00			3433.00	
Packer	5.00			3438.00	21.00 Bottom Of Top Packer
Packer	5.00			3443.00	
Stubb	1.00			3444.00	
Recorder	0.00	8789	Inside	3444.00	
Recorder	0.00	8289	Outside	3444.00	
Perforations	33.00			3477.00	
Bullnose	3.00			3480.00	37.00 Bottom Packers & Anchor
Total Tool Length:	58.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

American Land & Energy LLC

8 15s 16w Ellis,KS

7277 Tenby Way Box 2287
Castle Rock CO 80104

Leiker 8-15 #1

Job Ticket: 50404

DST#: 5

ATTN: Rod Anderson

Test Start: 2013.12.11 @ 00:05:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

31 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 11.96 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 10000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
63.00	OCM 25%o 75%m	0.884
32.00	CO 100%	0.449

Total Length: 95.00 ft Total Volume: 1.333 bbl

Num Fluid Samples: 0

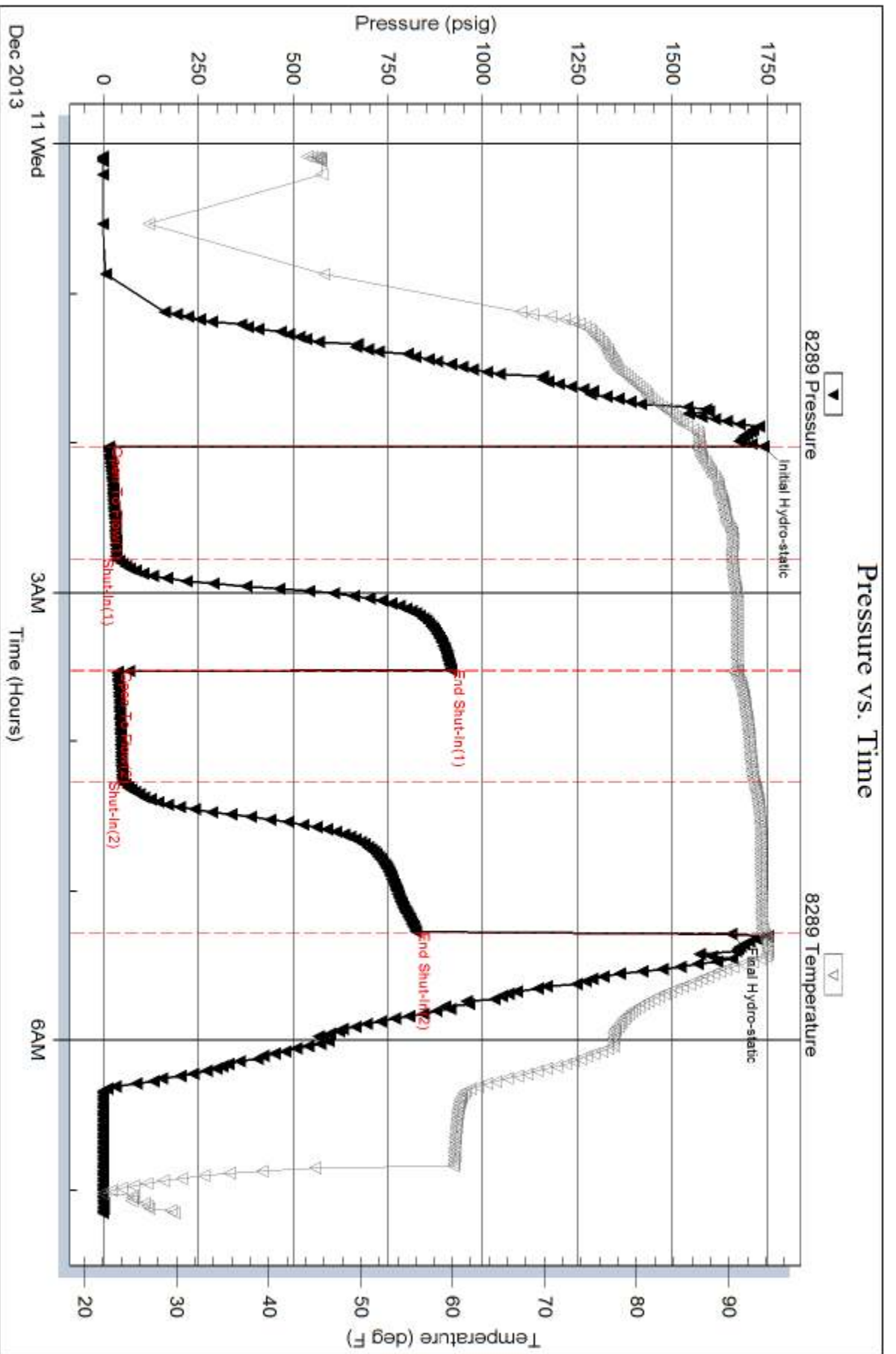
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



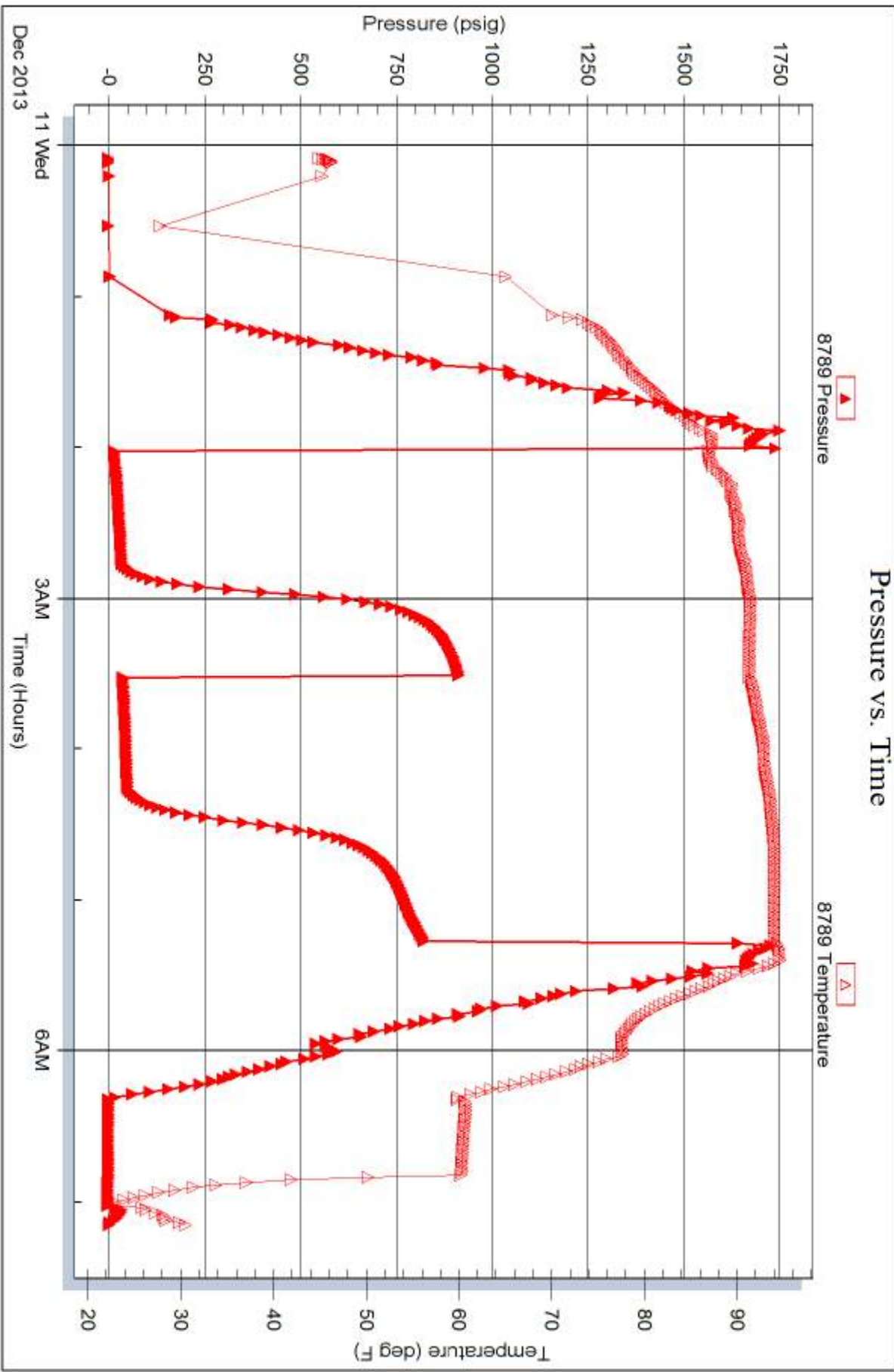
Serial #: 8789

Inside

American Land & Energy LLC

Leiker 8-15 #1

DST Test Number: 5



Triobite Testing, Inc

Ref. No: 50404

Printed: 2013.12.13 @ 13:37:24



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **55800**

4/10

Well Name & No. Leiker 8-15 #1 Test No. 1 Date 12-8-13
 Company American Land and Energy LLC Elevation 1930 KB 1925 GL
 Address 2277 Tenby Way Box 5287 Castle Rock CO 80104
 Co. Rep / Geo. Reda Mary Leiker Rig Royal #1
 Location: Sec. 8 Twp. 15^s Rge. 16^w Co. Ellis State KS

Interval Tested 3182-3270 Zone Tested LKC "A-D"
 Anchor Length 88 Drill Pipe Run 3169 Mud Wt. 9.1
 Top Packer Depth 3177 Drill Collars Run 0 Vis 47
 Bottom Packer Depth 3182 Wt. Pipe Run 0 WL 9.6
 Total Depth 3270 Chlorides 5000 ppm System LCM 1

Blow Description IFP - BOB in 2min
ISIP - Surface Blow Dried Back in 8min
FFP - BOB in 10 sec
FSIP - BOB in 16min Dried Back in 28min

Rec	Feet of	%gas	%oil	%water	%mud
<u>254</u>	<u>WMCSD</u>	<u>15</u>	<u>60</u>	<u>10</u>	<u>15</u>
<u>30</u>	<u>mud</u>				
	<u>792 DIP</u>				

Rec Total 284 BHT 94 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1627 Test 1150 T-On Location 13:47
 (B) First Initial Flow 29 Jars _____ T-Started 15:47
 (C) First Final Flow 84 Safety Joint _____ T-Open 17:35
 (D) Initial Shut-In 678 Circ Sub _____ T-Pulled 20:05
 (E) Second Initial Flow 89 Hourly Standby _____ T-Out 22:26
 (F) Second Final Flow 126 Mileage 30 RT 46.50 Comments _____
 (G) Final Shut-In 708 Sampler _____
 (H) Final Hydrostatic 1508 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1196.50
 Accessibility _____ MP/DST Disc't _____

Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 60
 Sub Total 1196.50

Approved By _____ Our Representative [Signature]
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785 639 5864



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50401

Well Name & No. Leiker 8-15 #1 Test No. 2 Date 12-9-13
 Company American Land and Energy LLC Elevation 1932 KB 1925 GL
 Address 7277 Tenby Way Box 2287 Castle Rock CO, 80104
 Co. Rep / Geo. Rod Anderson Rig Royal #1
 Location: Sec. 8 Twp. 15^s Rge. 16^w Co. EPHs State KS

Interval Tested 3270-3335 Zone Tested LKC "E-A"
 Anchor Length 65 Drill Pipe Run 3264 Mud Wt. 9.1
 Top Packer Depth 3265 Drill Collars Run 0 Vis 47
 Bottom Packer Depth 3270 Wt. Pipe Run 0 WL 9.6
 Total Depth 3335 Chlorides 5000 ppm System LCM 1

Blow Description IFP - Surface Blow for 18 min. BOB in 19 min.
FSIP - Surface Blow in 9 min.
FFP - Surface Blow Building to 8 1/2 in.
FSIP - Surface Blow in 4 min.

Rec	Feet of	%gas	%oil	%water	%mud
<u>146</u>	<u>OS MCW</u>			<u>75</u>	<u>25</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of <u>170 DIP</u>	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 146 BHT 96 Gravity _____ API RW: 150 @ 45 °F Chlorides 82,500 ppm

(A) Initial Hydrostatic 1674 Test 1150 T-On Location 7:00
 (B) First Initial Flow 18 Jars _____ T-Started 7:04
 (C) First Final Flow 51 Safety Joint _____ T-Open 7:05
 (D) Initial Shut-In 714 Circ Sub _____ T-Pulled 12:05
 (E) Second Initial Flow 55 Hourly Standby _____ T-Out 14:03
 (F) Second Final Flow 83 Mileage 46.50 Comments _____
 (G) Final Shut-In 697 Sampler _____
 (H) Final Hydrostatic 1557 Straddle _____

Initial Open 45 Ruined Shale Packer _____
 Initial Shut-In 45 Ruined Packer _____
 Final Flow 45 Extra Packer _____
 Final Shut-In 45 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1196.50
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1196.50

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50402

Well Name & No. Leiker 8-15 #1 Test No. 3 Date 12-9-13
 Company American Land and Energy LLC Elevation 1932 KB 1925 GL
 Address 7277 Tenby Way Box 22007 Castle Rock CO 80104
 Co. Rep / Geo. Rod Anderson Rig Royal #1
 Location: Sec. 8 Twp. 15S Rge. 16W Co. Ellis State KS

Interval Tested 3334 - 3395 Zone Tested LKC "H-J"
 Anchor Length 61 Drill Pipe Run 3331 Mud Wt. 9.4
 Top Packer Depth ~~3328~~ 3329 Drill Collars Run 0 Vis 60
 Bottom Packer Depth ~~3390~~ 3334 Wt. Pipe Run 0 WL 10.2
 Total Depth 3395 Chlorides 5000 ppm System LCM 1

Blow Description IFP - Good Surge on Tool open - No Blow
ISIP - No Blow
FFP - Very Weak Surface Blow
FSIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>Oil Speck Mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 10 BHT 89 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1721 Test 1150 T-On Location 2200
 (B) First Initial Flow 17 Jars _____ T-Started 22:11
 (C) First Final Flow 20 Safety Joint _____ T-Open 00:02
 (D) Initial Shut-In 389 Circ Sub _____ T-Pulled 02:02
 (E) Second Initial Flow 21 Hourly Standby _____ T-Out 04:07
 (F) Second Final Flow 23 Mileage 46.50 Comments _____
 (G) Final Shut-In 78 Sampler _____
 (H) Final Hydrostatic 1702 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

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

Sub Total 1196.50 Total 1196.50 MP/DST Disc't _____

Approved By _____ Our Representative [Signature]
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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50403

Well Name & No. Leiker 8-15 #1 Test No. 4 Date 12-10-13
 Company American Landmark Energy LLC Elevation 1932 KB 1925 GL
 Address 7277 Tenby Way Box 5287 Castle Rock CO 80104
 Co. Rep / Geo. Rod Anderson Rig Royal #1
 Location: Sec. 8 Twp. 15^s Rge. 16^w Co. Ellis State KS

Interval Tested 3396 - 3445 Zone Tested LKC "K&L"
 Anchor Length 49 Drill Pipe Run 3393 Mud Wt. 9.4
 Top Packer Depth 3391 Drill Collars Run 0 Vis 52
 Bottom Packer Depth 3396 Wt. Pipe Run 0 WL 12
 Total Depth 3445 Chlorides 10,000 ppm System LCM 2

Blow Description IFP - Surging Surface Blow Building to 1/2 in.
ISIP - No Blow
FFP - Surface Blow in 8 min. Building to 1/4 in
FSIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>7</u>	<u>0.5 m</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

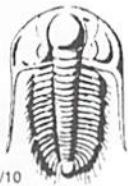
Rec Total 7 BHT 87 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic	<u>1755</u>	<input checked="" type="checkbox"/> Test	<u>1150</u>	T-On Location	<u>12:12</u>
(B) First Initial Flow	<u>16</u>	<input type="checkbox"/> Jars		T-Started	<u>12:37</u>
(C) First Final Flow	<u>17</u>	<input type="checkbox"/> Safety Joint		T-Open	<u>14:04</u>
(D) Initial Shut-In	<u>33</u>	<input type="checkbox"/> Circ Sub		T-Pulled	<u>16:04</u>
(E) Second Initial Flow	<u>18</u>	<input type="checkbox"/> Hourly Standby		T-Out	<u>17:30</u>
(F) Second Final Flow	<u>18</u>	<input checked="" type="checkbox"/> Mileage	<u>46.50</u>	Comments	
(G) Final Shut-In	<u>26</u>	<input type="checkbox"/> Sampler			
(H) Final Hydrostatic	<u>1633</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>30</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>30</u>	<input type="checkbox"/> Day Standby		Total	<u>1196.50</u>
		<input type="checkbox"/> Accessibility		MP/DST Disc't	
		Sub Total	<u>1196.50</u>		

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50404

4/10

Well Name & No. Leiker 8-15 #1 Test No. 5 Date 12-11-13
 Company American Land And Energy LLC Elevation 1932 KB 1925 GL
 Address 277 Tenby Way Box 2287 Castle Rock CO 80104
 Co. Rep / Geo. Rod Anderson Rig Royal #1
 Location: Sec. 8 Twp. 15^s Rge. 16^w Co. Ellis State KS

Interval Tested 3443 - 3480 Zone Tested Congl. SAND
 Anchor Length 37 Drill Pipe Run 3455 Mud Wt. 9.4
 Top Packer Depth 3438 Drill Collars Run 0 Vis 52
 Bottom Packer Depth 3443 Wt. Pipe Run 0 WL 12
 Total Depth 3480 Chlorides 10000 ppm System LCM 2

Blow Description IFP - Surface Blow Building to 8 in.
ISIP - No Blow
FFP - Surface Blow Building to 6 3/4 in.
FSIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>63</u>	<u>0cm</u>	<u>25</u>		<u>75</u>	
<u>32</u>	<u>60</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 Total 95 BHT 93 Gravity 31 API RW @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic	<u>1739</u>	<input checked="" type="checkbox"/> Test	<u>1150</u>	T-On Location	<u>00:05</u>
(B) First Initial Flow	<u>15</u>	<input type="checkbox"/> Jars		T-Started	<u>00:42</u>
(C) First Final Flow	<u>34</u>	<input type="checkbox"/> Safety Joint		T-Open	<u>02:39</u>
(D) Initial Shut-In	<u>917</u>	<input type="checkbox"/> Circ Sub		T-Pulled	<u>05:54</u>
(E) Second Initial Flow	<u>39</u>	<input type="checkbox"/> Hourly Standby		T-Out	<u>07:47</u>
(F) Second Final Flow	<u>50</u>	<input checked="" type="checkbox"/> Mileage	<u>93</u>	Comments	<u>loaded tools 12/11 16:00</u>
(G) Final Shut-In	<u>823</u>	<input type="checkbox"/> Sampler			
(H) Final Hydrostatic	<u>1653</u>	<input type="checkbox"/> Straddle		<input type="checkbox"/> Ruined Shale Packer	

Initial Open	<u>45</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>45</u>	<input type="checkbox"/> Extra Recorder		Sub Total	<u>0</u>
Final Shut-In	<u>60</u>	<input type="checkbox"/> Day Standby		Total	<u>1243</u>
		<input type="checkbox"/> Accessibility		MP/DST Disc't	
		Sub Total	<u>1243</u>		

Approved By _____ Our Representative [Signature]

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