



DRILL STEM TEST REPORT

Prepared For: **Pioneer Resources**

80 Windmill Dr
Phillipsburg, KS 67661

ATTN: Cliff Ottaway

Foundation #1

3-5s-18w Phillips,KS

Start Date: 2012.04.29 @ 16:50:00

End Date: 2012.04.29 @ 22:53:00

Job Ticket #: 46152 DST #: 1

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

Printed: 2012.05.07 @ 10:47:55



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Pioneer Resources
80 Windmill Dr
Phillipsburg, KS 67661
ATTN: Cliff Ottaway

3-5s-18w Phillips,KS

Foundation #1

Job Ticket: 46152

DST#: 1

Test Start: 2012.04.29 @ 16:50:00

GENERAL INFORMATION:

Formation: **LKC "F"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 18:25:30
 Time Test Ended: 22:53:00
 Interval: **3160.00 ft (KB) To 3185.00 ft (KB) (TVD)**
 Total Depth: 3185.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: James Winder
 Unit No: 57
 Reference Elevations: 1910.00 ft (KB)
 1902.00 ft (CF)
 KB to GR/CF: 8.00 ft

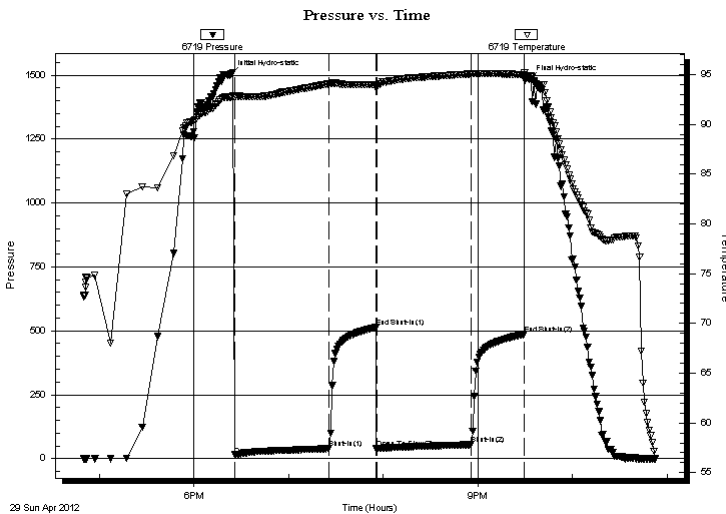
Serial #: 6719

Inside

Press @ Run Depth: 55.09 psig @ 3161.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.04.29 End Date: 2012.04.29 Last Calib.: 2012.04.29
 Start Time: 16:50:05 End Time: 22:52:59 Time On Btm: 2012.04.29 @ 18:23:00
 Time Off Btm: 2012.04.29 @ 21:32:30

TEST COMMENT: 60 - IF: Blow built to 5 1/2"
 30 - IS: Bled off, No blow back
 60 - FF: Blow started at 5 min., built to 3"
 30 - FS: Bled off, No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1501.46	92.74	Initial Hydro-static
3	14.98	92.77	Open To Flow (1)
63	39.62	94.10	Shut-In(1)
92	513.28	94.01	End Shut-In(1)
93	40.23	93.87	Open To Flow (2)
153	55.09	95.08	Shut-In(2)
186	486.49	95.03	End Shut-In(2)
190	1483.87	94.88	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
92.00	MCW w/trace oil 70%w , 30% m	1.01
1.00	Free Oil	0.01

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Pioneer Resources
80 Windmill Dr
Phillipsburg, KS 67661
ATTN: Cliff Ottaway

3-5s-18w Phillips,KS
Foundation #1
Job Ticket: 46152 **DST#: 1**
Test Start: 2012.04.29 @ 16:50:00

Tool Information

Drill Pipe:	Length: 3139.00 ft	Diameter: 3.80 inches	Volume: 44.03 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume: 44.18 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial	42000.00 lb
Depth to Top Packer:	3160.00 ft			Final	43000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	25.00 ft				
Tool Length:	45.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments: Tool slid 3' to bottom before opening, No mud loss

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3145.00	
Hydraulic tool	5.00			3150.00	
Packer	5.00			3155.00	20.00 Bottom Of Top Packer
Packer	5.00			3160.00	
Stubb	1.00			3161.00	
Recorder	0.00	6719	Inside	3161.00	
Recorder	0.00	8320	Outside	3161.00	
Perforations	21.00			3182.00	
Bullnose	3.00			3185.00	25.00 Bottom Packers & Anchor
Total Tool Length:	45.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Pioneer Resources
80 Windmill Dr
Phillipsburg, KS 67661
ATTN: Cliff Ottaway

3-5s-18w Phillips,KS
Foundation #1
Job Ticket: 46152 **DST#: 1**
Test Start: 2012.04.29 @ 16:50:00

Mud and Cushion Information

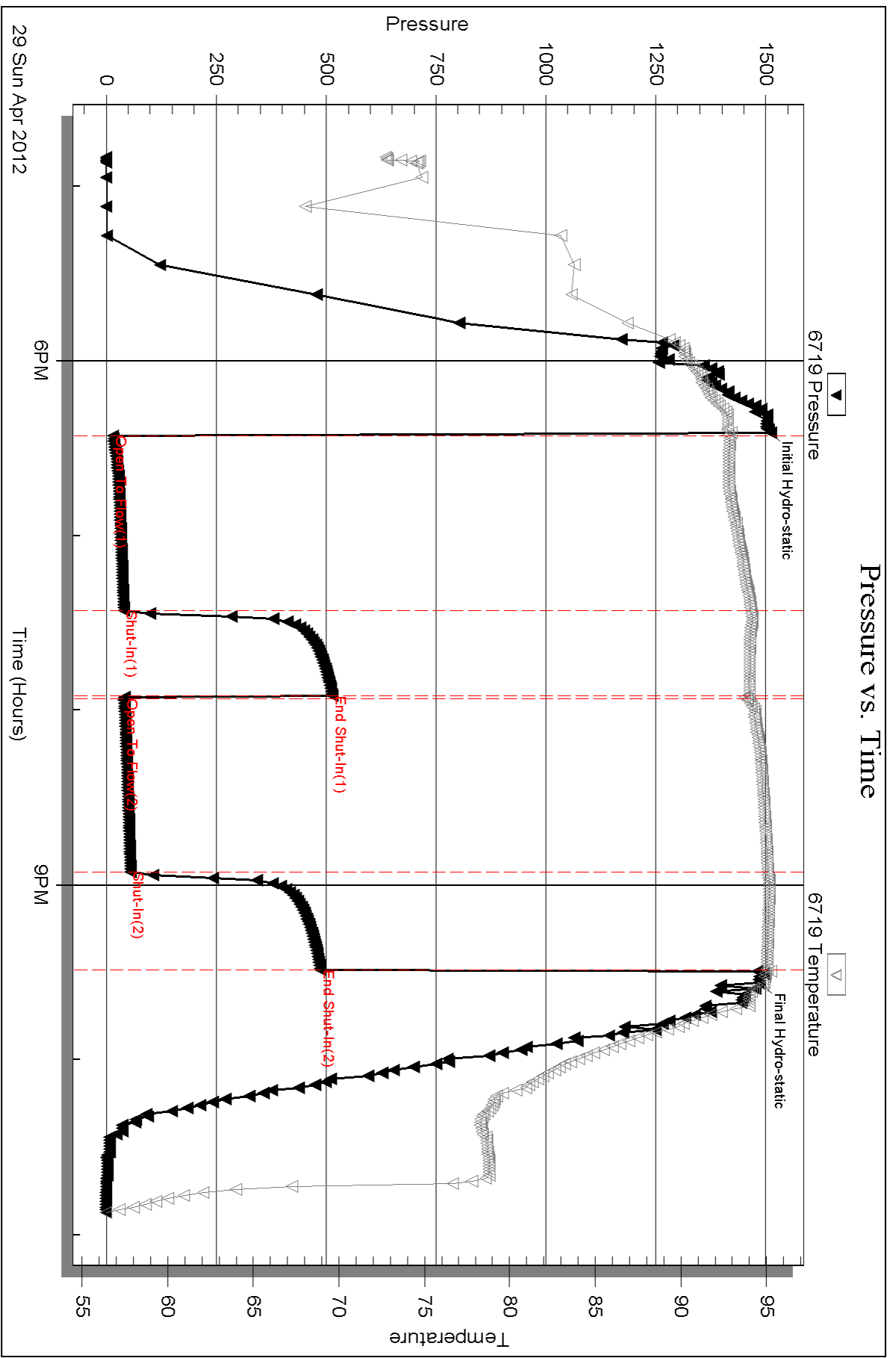
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	44000 ppm
Viscosity: 55.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.77 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 600.00 ppm			
Filter Cake: 1.00 inches			

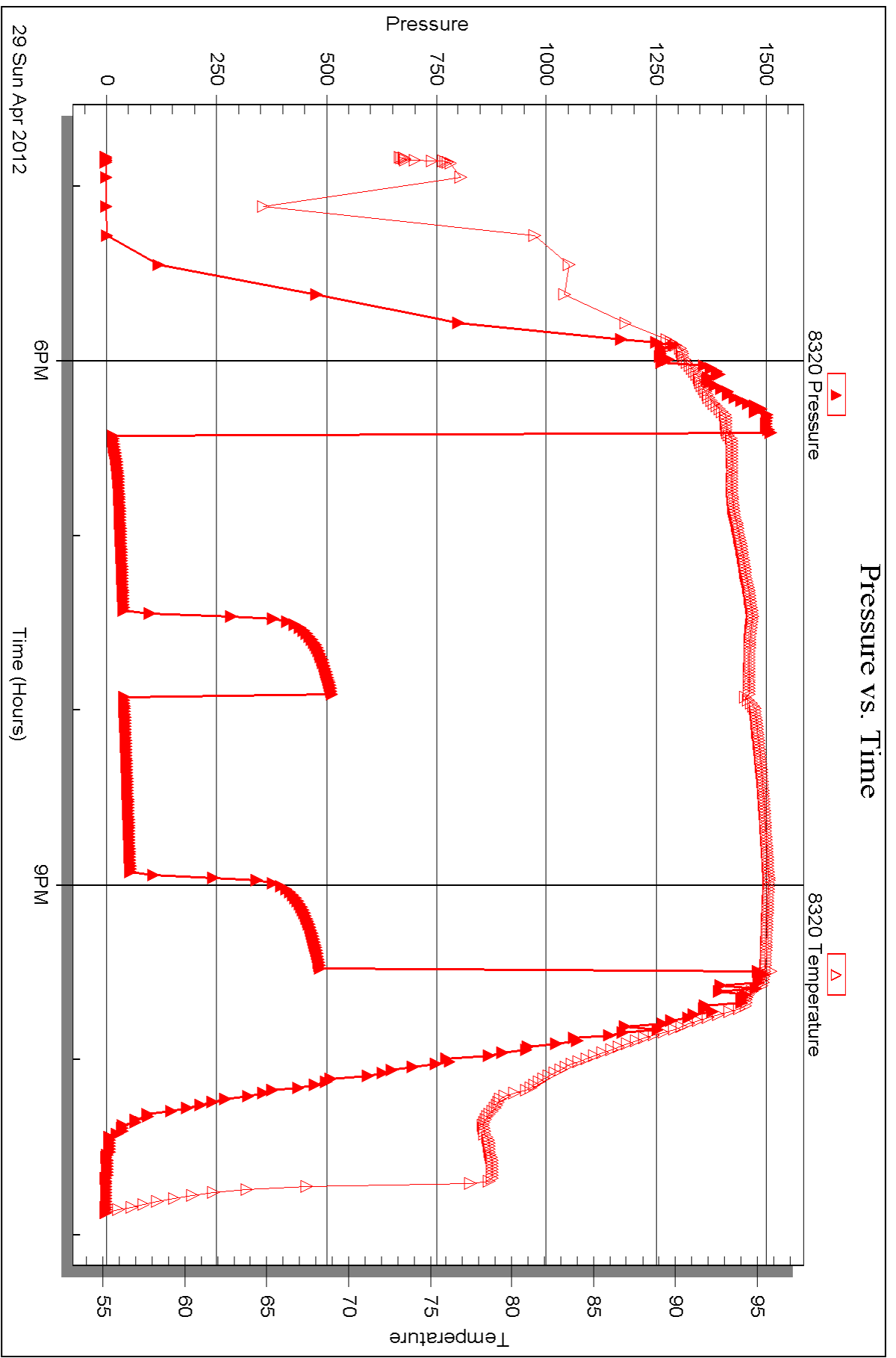
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
92.00	MCW w/trace oil 70%w , 30%m	1.008
1.00	Free Oil	0.014

Total Length: 93.00 ft Total Volume: 1.022 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: RW = .212 ohms @ 56.3 deg F
 Chlorides = 44,000 ppm







DRILL STEM TEST REPORT

Prepared For: **Pioneer Resources**

80 Windmill Dr
Phillipsburg, KS 67661

ATTN: Cliff Ottaway

Foundation #1

3-5s-18w Phillips,KS

Start Date: 2012.04.30 @ 04:03:00

End Date: 2012.04.30 @ 09:00:30

Job Ticket #: 46153 DST #: 2

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

Printed: 2012.05.07 @ 10:46:33



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Pioneer Resources
 80 Windmill Dr
 Phillipsburg, KS 67661
 ATTN: Cliff Ottaway

3-5s-18w Phillips,KS
Foundation #1
 Job Ticket: 46153 **DST#: 2**
 Test Start: 2012.04.30 @ 04:03:00

GENERAL INFORMATION:

Formation: **LKC "G"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 05:23:00
 Time Test Ended: 09:00:30
 Interval: **3184.00 ft (KB) To 3198.00 ft (KB) (TVD)**
 Total Depth: 3198.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: James Winder
 Unit No: 57
 Reference Elevations: 1910.00 ft (KB)
 1902.00 ft (CF)
 KB to GR/CF: 8.00 ft

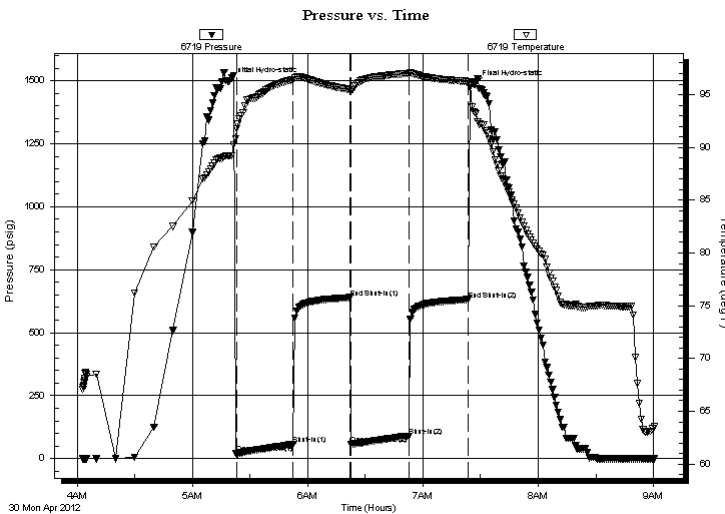
Serial #: 6719

Inside

Press @ Run Depth: 90.05 psig @ 3185.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.04.30 End Date: 2012.04.30 Last Calib.: 2012.04.30
 Start Time: 04:03:05 End Time: 09:00:29 Time On Btm: 2012.04.30 @ 05:19:00
 Time Off Btm: 2012.04.30 @ 07:27:00

TEST COMMENT: 30 - IF: Blow built to BOB (11") in 9 3/4 min.
 30 - IS: Bled off, Blow back built to 1 1/4", dying back at 20 min.
 30 - FF: Blow built to BOB in 17 1/2 min.
 30 - FS: Bled off, Blow back built to 1 1/4", dying back at 20 min.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1498.10	89.20	Initial Hydro-static
4	19.44	91.78	Open To Flow (1)
34	56.73	96.43	Shut-In(1)
63	639.38	95.48	End Shut-In(1)
64	58.19	95.28	Open To Flow (2)
94	90.05	97.00	Shut-In(2)
125	631.39	96.23	End Shut-In(2)
128	1484.03	93.28	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
45.00	SO/GMCW 58%w , 30%w, 10%g, 2%o	0.35
15.00	SMWCO 70%o, 23%w , 7%w	0.21
62.00	SMWCGO 91%o, 5%g, 2%w, 2%w	0.87
72.00	SMCGO 74%o, 15%g, 11%w	1.01
0.00	GIP = 235'	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

Pioneer Resources
80 Windmill Dr
Phillipsburg, KS 67661
ATTN: Cliff Ottaway

3-5s-18w Phillips,KS
Foundation #1
Job Ticket: 46153 **DST#: 2**
Test Start: 2012.04.30 @ 04:03:00

Tool Information

Drill Pipe:	Length: 3139.00 ft	Diameter: 3.80 inches	Volume: 44.03 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	58000.00 lb
			<u>Total Volume: 44.18 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial	42000.00 lb
Depth to Top Packer:	3184.00 ft			Final	44000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	14.00 ft				
Tool Length:	34.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments: tool slid 4 - 5' to bottom before open, no mud loss

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3169.00	
Hydraulic tool	5.00			3174.00	
Packer	5.00			3179.00	20.00 Bottom Of Top Packer
Packer	5.00			3184.00	
Stubb	1.00			3185.00	
Recorder	0.00	6719	Inside	3185.00	
Recorder	0.00	8320	Outside	3185.00	
Perforations	10.00			3195.00	
Bullnose	3.00			3198.00	14.00 Bottom Packers & Anchor
Total Tool Length:	34.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Pioneer Resources
80 Windmill Dr
Phillipsburg, KS 67661
ATTN: Cliff Ottaway

3-5s-18w Phillips,KS
Foundation #1
Job Ticket: 46153 **DST#: 2**
Test Start: 2012.04.30 @ 04:03:00

Mud and Cushion Information

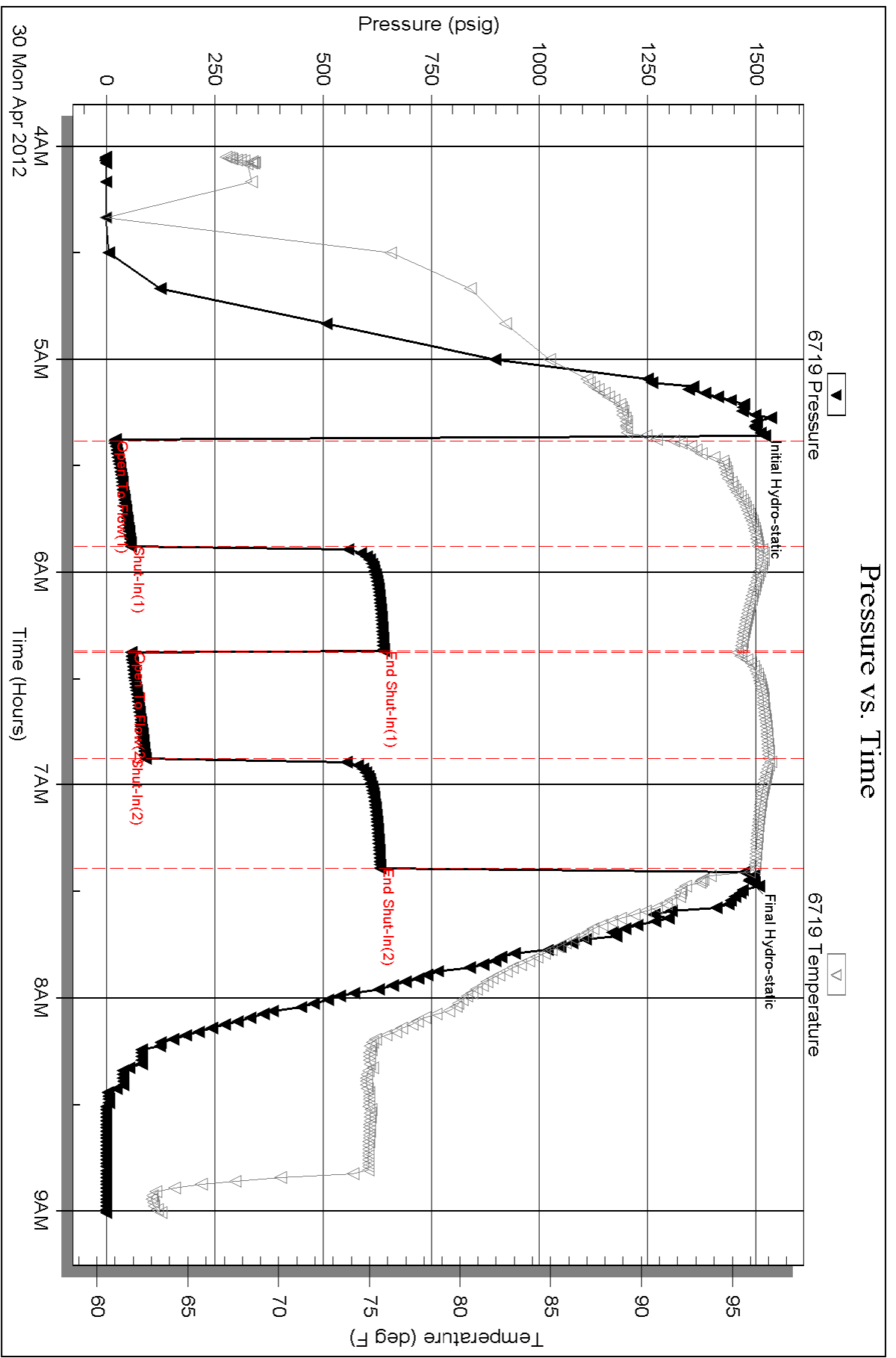
Mud Type: Gel Chem	Cushion Type:	Oil API: 36 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 45000 ppm
Viscosity: 55.00 sec/qt	Cushion Volume: bbl	
Water Loss: 6.78 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 600.00 ppm		
Filter Cake: 1.00 inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
45.00	SO/GMCW 58%w , 30%m, 10%g, 2%o	0.349
15.00	SMWCO 70%o, 23%w , 7%m	0.210
62.00	SMWCGO 91%o, 5%g, 2%m, 2%w	0.870
72.00	SMCGO 74%o, 15%g, 11%m	1.010
0.00	GIP = 235'	0.000

Total Length: 194.00 ft Total Volume: 2.439 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: Gravity = 36.4 api @ 64 deg F
 RW = .188 ohms @ 62.3 deg F

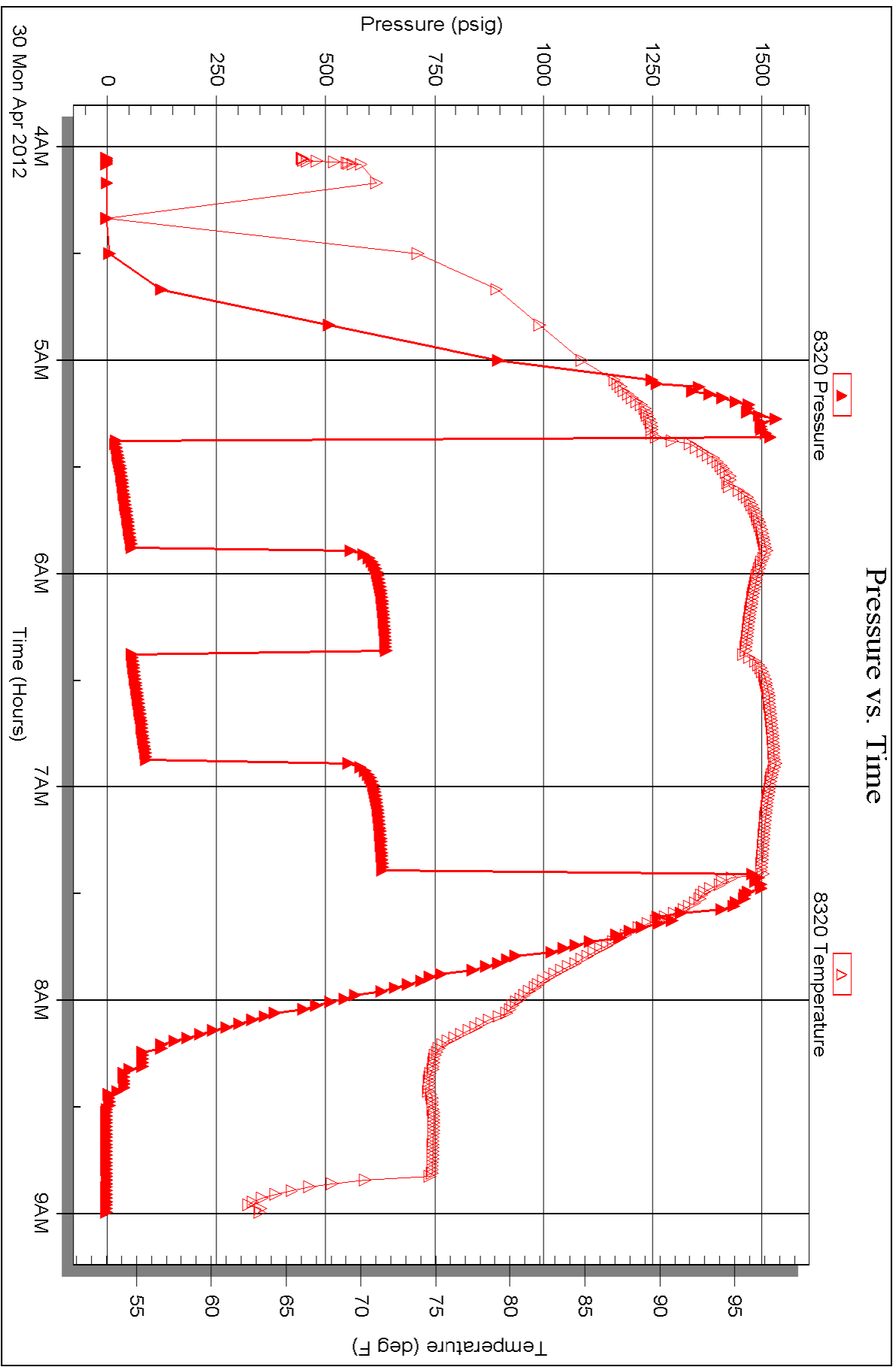


Serial #: 8320

Outside Pioneer Resources

Foundation #1

DST Test Number: 2





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601 BY: _____

RECEIVED
MAY 04 2012

Test Ticket

NO. 46152

Well Name & No. Foundation #1 Test No. 1 Date 4-29-12
 Company Pioneer Resources Elevation 1910 KB 1902 GL
 Address 80 Windmill Dr. Phillipsburg KS 67661
 Co. Rep / Geo. Cliff Ottaway Rig Discovery #1
 Location: Sec. 3 Twp. 5s Rge. 18w Co. Phillips State KS

Interval Tested 3160-3185 Zone Tested LKC "F"
 Anchor Length 25 Drill Pipe Run 3139 Mud Wt. 8.9
 Top Packer Depth 3155 Drill Collars Run 31 Vis 55
 Bottom Packer Depth 3160 Wt. Pipe Run - WL 6.8
 Total Depth 3185 Chlorides 600 ppm System LCM 2

Blow Description IF: Blow built to 5 1/2"
ISI: Bled off, No blowback
FF: Blow started at 5 min, built to 3"
FSI: Bled off, No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>Free Oil</u>				
<u>92</u>	<u>MCW w/trace of oil</u>	<u>-</u>	<u>trace</u>	<u>70</u>	<u>30</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 93 BHT 95 Gravity - API RW .212 @ 56.3 °F Chlorides 44,000 ppm

(A) Initial Hydrostatic 1501 Test * 1160 T-On Location 16:00
 (B) First Initial Flow 15 Jars T-Started 16:50
 (C) First Final Flow 40 Safety Joint T-Open 18:25
 (D) Initial Shut-In 513 Circ Sub *NA T-Pulled 21:29
 (E) Second Initial Flow 40 Hourly Standby T-Out 22:50
 (F) Second Final Flow 55 Mileage 116 RT 179.80 Comments Tool slid 3' to
 (G) Final Shut-In 486 Sampler bottom before oper-
 (H) Final Hydrostatic 1484 Straddle No mud loss (116 RT to top)
 Ruined Shale Packer
 Ruined Packer

Initial Open 60 Extra Packer
 Initial Shut-In 30 Extra Recorder
 Final Flow 60 Day Standby
 Final Shut-In 30 Accessibility
 Sub Total 1329.80 Sub Total 0
 Total 1329.80 MP/DST Disc't _____

Approved By _____ Our Representative James Winder

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.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED
MAY 04 2012

Test Ticket

NO. 46153

Well Name & No. Foundation #1 Test No. 2 Date 4-30-12
 Company Pioneer Resources Elevation 1910 KB 1902 GL
 Address 80 Windmill Dr. Phillipsburg, KS 67661
 Co. Rep / Geo. Cliff Ottaway Rig Discovery #1
 Location: Sec. 3 Twp. 5s Rge. 18w Co. Phillips State KS

Interval Tested 3184-3198 Zone Tested LKC "G"
 Anchor Length 14 Drill Pipe Run 3139 Mud Wt. 8.9
 Top Packer Depth 3179 Drill Collars Run 31 Vis 55
 Bottom Packer Depth 3184 Wt. Pipe Run - WL 6.8
 Total Depth 3198 Chlorides 600 ppm System LCM 2

Blow Description IF: Blow built to BOB (11") in 9 3/4 min.
ISI: Bled off, Blowback built to 1 1/4", dying back at 20 min.
FF: Blow built to BOB in 17 1/2 min.
FSI: Bled off, Blowback built to 1 1/4", dying back at 20 min.

Rec	Feet of	%gas	%oil	%water	%mud
72	SMCGO SMCGO	15	74	-	11
62	SMWCGO	5	91	2	2
15	SM/WCO	-	70	23	7
45	SO/GMCW	10	2	58	30
114	GIP=235'				

Rec Total 194 Fluid 235 GIP BHT 96 Gravity 36 API RW 188 @ 62.3 °F Chlorides 45,000 ppm
 (A) Initial Hydrostatic 1498 Test * 1150 T-On Location 3:25
 (B) First Initial Flow 19 Jars T-Started 4:03
 (C) First Final Flow 57 Safety Joint T-Open 5:23
 (D) Initial Shut-In 639 Circ Sub *NA T-Pulled 7:23
 (E) Second Initial Flow 58 Hourly Standby T-Out 8:55
 (F) Second Final Flow 90 Mileage 116 RT x 2 359.60 Comments Tool slid 4'-5' to bottom before open -
 (G) Final Shut-In 631 Sampler No mud loss
 (H) Final Hydrostatic 1484 Straddle Ruined Shale Packer
 Shale Packer Ruined Packer
 Extra Packer Extra Copies

Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 30
 Sub Total 1509.60
 Total 1509.60
 MP/DST Disc't _____
 Sub Total 1509.60

Approved By _____ Our Representative James Winkler

Tribolite 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.