



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Culbreath Oil & Gas

21-14S-34W Logan KS

3501 S. Yale Ave
Tulsa OK 74135

Baker #1-21

Job Ticket: 62775

DST#: 1

ATTN: Steve Murphy

Test Start: 2015.09.16 @ 00:47:00

GENERAL INFORMATION:

Formation: **LKC " L "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:03:20

Time Test Ended: 08:04:39

Test Type: Conventional Bottom Hole (Initial)

Tester: Ryan Nichols

Unit No: 78

Interval: 4252.00 ft (KB) To 4282.00 ft (KB) (TVD)

Reference Elevations: 3109.00 ft (KB)

Total Depth: 4282.00 ft (KB) (TVD)

3102.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

Serial #: 6752

Inside

Press@RunDepth: 257.43 psig @ 4253.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.09.16

End Date:

2015.09.16

Last Calib.:

2015.09.16

Start Time: 00:47:01

End Time:

08:04:40

Time On Btm:

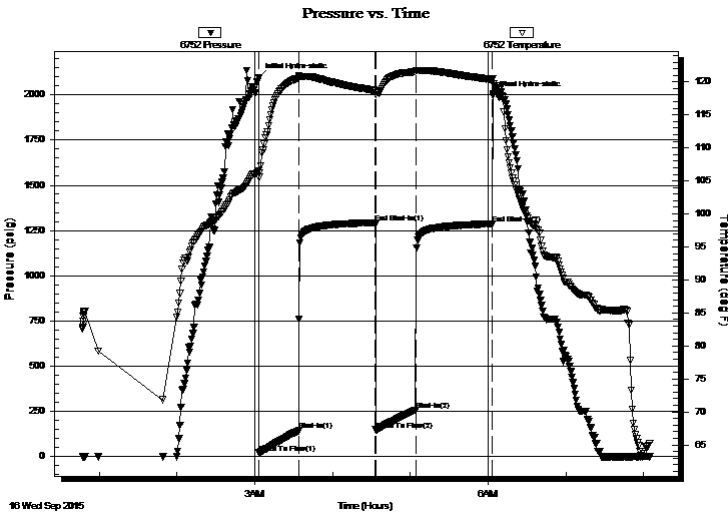
2015.09.16 @ 03:03:10

Time Off Btm:

2015.09.16 @ 06:04:00

TEST COMMENT: 30 IF - 1/2" blow built to BoB @ 11 1/2 mins
60 ISI - No return
30 FF - Surface blow started @ 1 min built to BoB @ 13 1/2 mins
60 FSI - No return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2095.05	106.51	Initial Hydro-static
1	18.46	105.56	Open To Flow (1)
31	142.16	120.57	Shut-In(1)
90	1293.42	118.68	End Shut-In(1)
90	146.45	118.10	Open To Flow (2)
121	257.43	121.53	Shut-In(2)
180	1286.54	120.35	End Shut-In(2)
181	1997.09	120.41	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
63.00	MCW - 30%M - 70%W	0.88
442.00	MCW - 10%M - 90%W	6.20
30.00	MCW - 20%M - 80%W	0.42

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Culbreath Oil & Gas

21-14S-34W Logan KS

3501 S. Yale Ave
Tulsa OK 74135

Baker #1-21

Job Ticket: 62775

DST#: 1

ATTN: Steve Murphy

Test Start: 2015.09.16 @ 00:47:00

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:

14000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 11000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
63.00	MCW - 30%M - 70%W	0.884
442.00	MCW - 10%M - 90%W	6.200
30.00	MCW - 20%M - 80%W	0.421

Total Length: 535.00 ft Total Volume: 7.505 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .545 @ 60.7 DEG F

CHLORIDES = 14,000 PPM

