



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Culbreath Oil & Gas Co. Inc.

22 10s 30w Sheridan KS

1532 S Peiria Ave
Tulsa OK 74120-6202

Hawkeye 1-22

Job Ticket: 61387

DST#: 2

ATTN: Anthony Luna

Test Start: 2015.01.07 @ 20:22:00

GENERAL INFORMATION:

Formation: **LKC " B - D "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:28:30

Time Test Ended: 09:31:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 76

Interval: 3946.00 ft (KB) To 4000.00 ft (KB) (TVD)

Reference Elevations: 2828.00 ft (KB)

Total Depth: 4000.00 ft (KB) (TVD)

2823.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8289 Outside

Press@RunDepth: 1080.33 psig @ 3955.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.01.07 End Date: 2015.01.08

Last Calib.: 2015.01.08

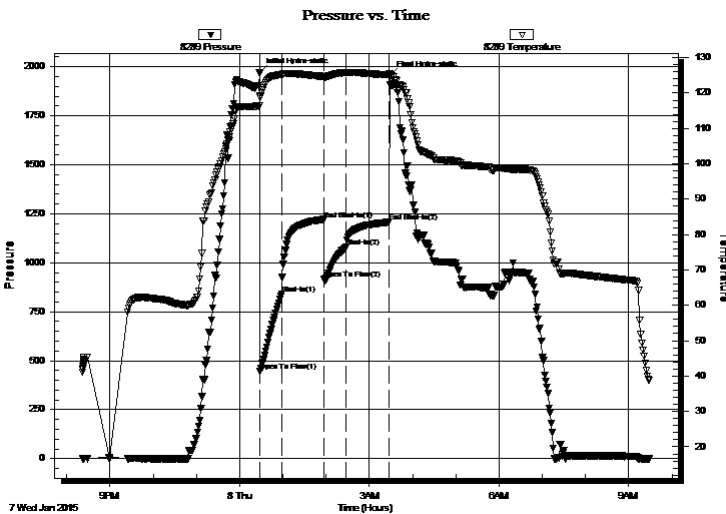
Start Time: 20:22:02 End Time: 09:29:02

Time On Btm: 2015.01.08 @ 00:27:30

Time Off Btm: 2015.01.08 @ 03:28:00

TEST COMMENT: 30-IFP- BOB in 45sec.
60-ISIP- No Blow
30-FFP- BOB in 45sec.
60-FSIP- Surface Blow in 2min. Building to 7in.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1971.38	116.55	Initial Hydro-static
1	448.38	118.81	Open To Flow (1)
31	839.65	125.31	Shut-In(1)
90	1221.52	124.68	End Shut-In(1)
90	915.34	124.54	Open To Flow (2)
121	1080.33	125.83	Shut-In(2)
180	1207.15	125.13	End Shut-In(2)
181	1953.43	125.35	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
186.00	Oil Speck WCM 5%w 95%m	1.50
1750.00	OCW 20%o 80%w	24.55
187.00	MOCW 20%m 30%o 50%w	2.62
187.00	MWCO 10%m 25%w 65%o	2.62
0.00	GIP 125	0.00

* Recovery from multiple tests

Gas Rates

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



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FLUID SUMMARY

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Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

21 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

61000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 750.00 ppm

Filter Cake: 1.50 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
186.00	Oil Speck WCM 5%w 95%m	1.498
1750.00	OCW 20%o 80%w	24.548
187.00	MOCW 20%m 30%o 50%w	2.623
187.00	MWCO 10%m 25%w 65%o	2.623
0.00	GIP 125	0.000

Total Length: 2310.00 ft

Total Volume: 31.292 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .340 @ 26

