

**DIAMOND TESTING, LLC**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(620) 653-7550 • (800) 542-7313  
STC/Ahscattleco3dst1

Company Chieftain Oil Company, Inc. Lease & Well No. AHS Cattle Co. No. 3  
Elevation 1388 GL Formation Misner Effective Pay \_\_\_\_\_ Ft. Ticket No. J3223  
Date 4-19-14 Sec. 12 Twp. 35S Range 12W County Barber State Kansas  
Test Approved By David Barker Diamond Representative John C. Riedl

Formation Test No. 1 Interval Tested from 5,154 ft. to 5,180 ft. Total Depth 5,180 ft  
Packer Depth 5,149 ft. Size 6 3/4 in. Packer Depth \_\_\_\_\_ ft. Size \_\_\_\_\_ in.  
Packer Depth 5,154 ft. Size 6 3/4 in. Packer Depth \_\_\_\_\_ ft. Size \_\_\_\_\_ in.  
Depth of Selective Zone Set \_\_\_\_\_ ft.

Top Recorder Depth (Inside) 5,157 ft. Recorder Number 30046 Cap. 6,000 psi.  
Bottom Recorder Depth (Outside) 5,177 ft. Recorder Number 13498 Cap. 4,000 psi.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ psi.

Drilling Contractor Fossil Drilling, Inc. - Rig 3 Drill Collar Length 250 ft I.D. 2 1/4 in.  
Mud Type Chemical Viscosity 63 Weight Pipe Length \_\_\_\_\_ ft I.D. \_\_\_\_\_ in.  
Weight 9.2 Water Loss 8.8 cc. Drill Pipe Length 4,878 ft I.D. 3 1/2 in.  
Chlorides 4,000 P.P.M. Test Tool Length 26 ft Tool Size 3 1/2-IF in.  
Jars: Make Sterling Serial Number 1 Anchor Length 26 ft. Size 4 1/2-FH in.  
Did Well Flow? No Reversed Out Yes Surface Choke Size 1 in. Bottom Choke Size 5/8 in.  
Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2-XH in.

Blow: 1st Open: Strong blow. Gas to surface in 7 mins. Gauged 130 MCF/D throughout. Strong blow back during shut-in.

2nd Open: Gas to surface throughout. Stabilized at 75 MCF/D. Strong blow back during shut-in.

Recovered 1,850 ft. of gassy oil = 23.998000 bbls. (Gravity: 40 @ 60°)

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Remarks Tool Sample Grind Out: 30%-gas; 70%-oil

Time Set Packer(s) 8:40 A.M. Time Started off Bottom 11:30 A.M. Maximum Temperature 136°  
Initial Hydrostatic Pressure.....(A) 2536 P.S.I.  
Initial Flow Period.....Minutes 30 (B) 130 P.S.I. to (C) 235 P.S.I.  
Initial Closed In Period.....Minutes 60 (D) 1945 P.S.I.  
Final Flow Period.....Minutes 20 (E) 261 P.S.I. to (F) 347 P.S.I.  
Final Closed In Period.....Minutes 60 (G) 1936 P.S.I.  
Final Hydrostatic Pressure.....(H) 2465 P.S.I.

## GENERAL INFORMATION

### Client Information:

Company: CHIEFTAIN OIL CO. INC.

Contact: JOHN MOLZ

Phone: Fax: e-mail:

### Site Information:

Contact: DAVE BARKER

Phone: Fax: e-mail:

### Well Information:

Name: AHS CATTLE CO. #3

Operator: CHIEFTAIN OIL CO. INC.

Location-Downhole:

Location-Surface: S12/35S/12W

### Test Information:

Company: DIAMOND TESTING

Representative: JOHN RIEDL

Supervisor: DAVE BARKER

Test Type: DST #1 CONVENTIONAL Job Number: J3223

Test Unit:

Start Date: 2014/04/19 Start Time: 07:00:00

End Date: 2014/04/19 End Time: 16:10:00

Report Date: 2014/04/19 Prepared By: JOHN RIEDL

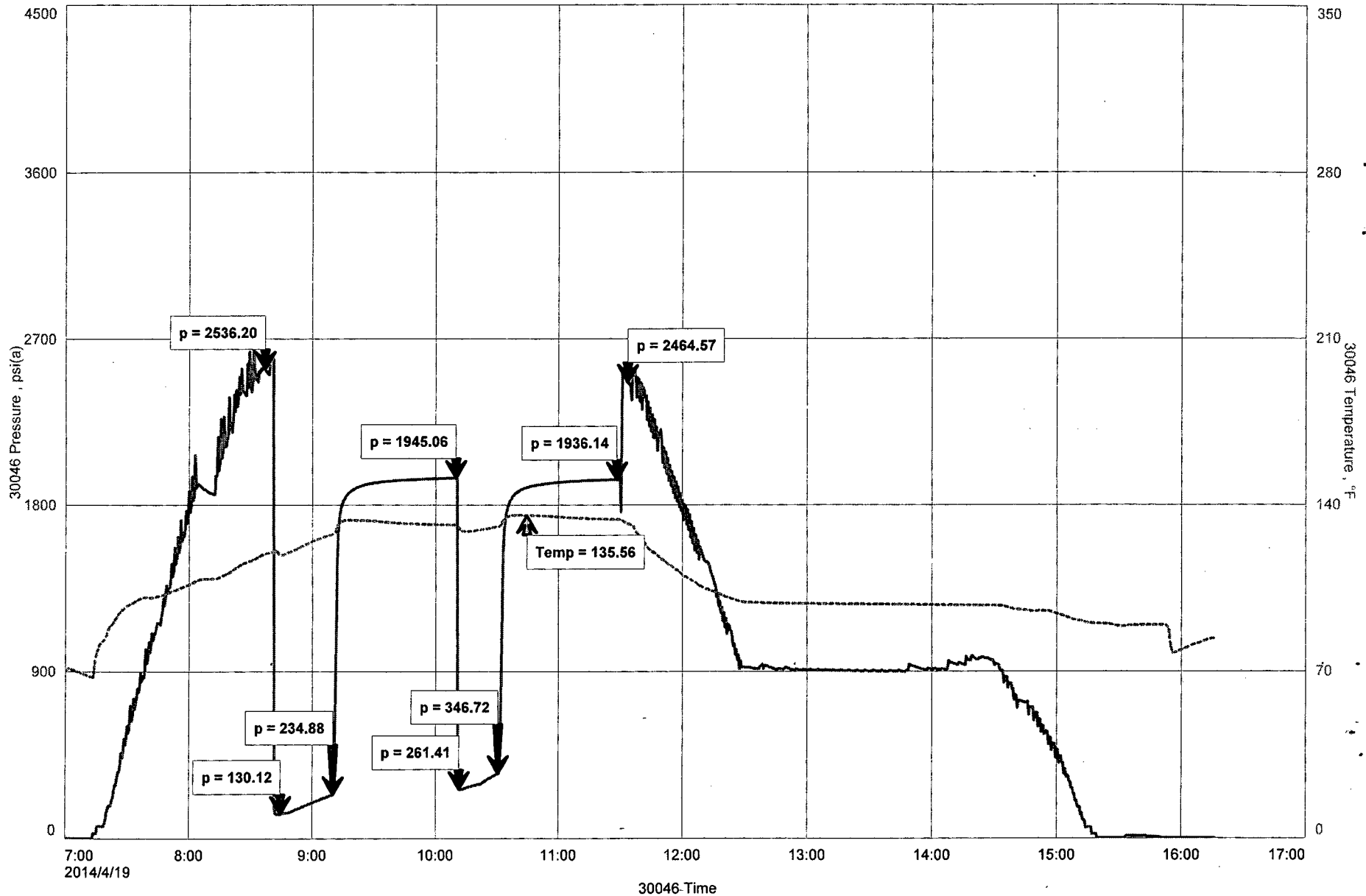
Remarks: Qualified By: DAVE BARKER

RECOVERY: GAS TO SURFACE; 1850' GASSY OIL

CHIEFTAIN OIL CO. INC.  
Start Test Date: 2014/04/19  
Final Test Date: 2014/04/19

AHS CATTLE CO. #3  
Formation: MISNER  
Job Number: J3223

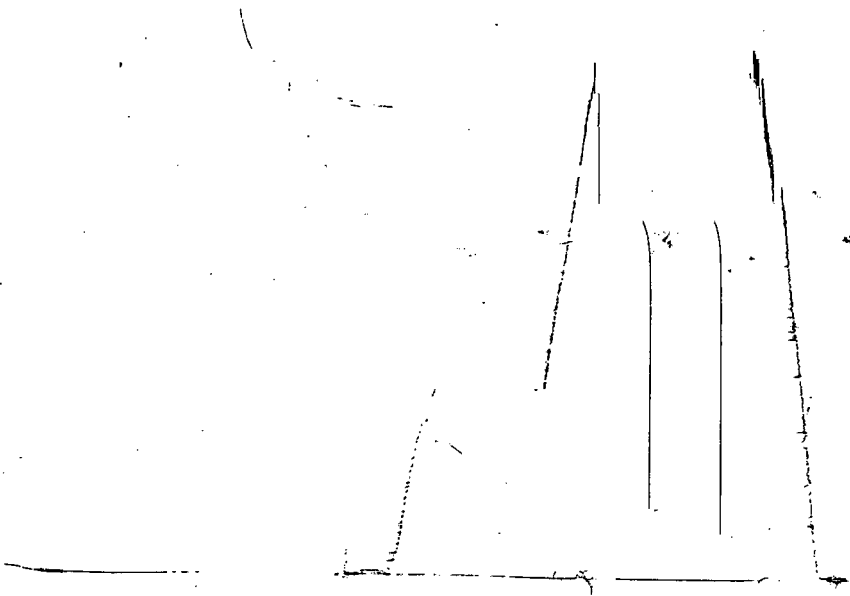
# AHS CATTLE CO. #3



COPY TO BIRD  
ARTS CENTER

285 1  
4/19/24

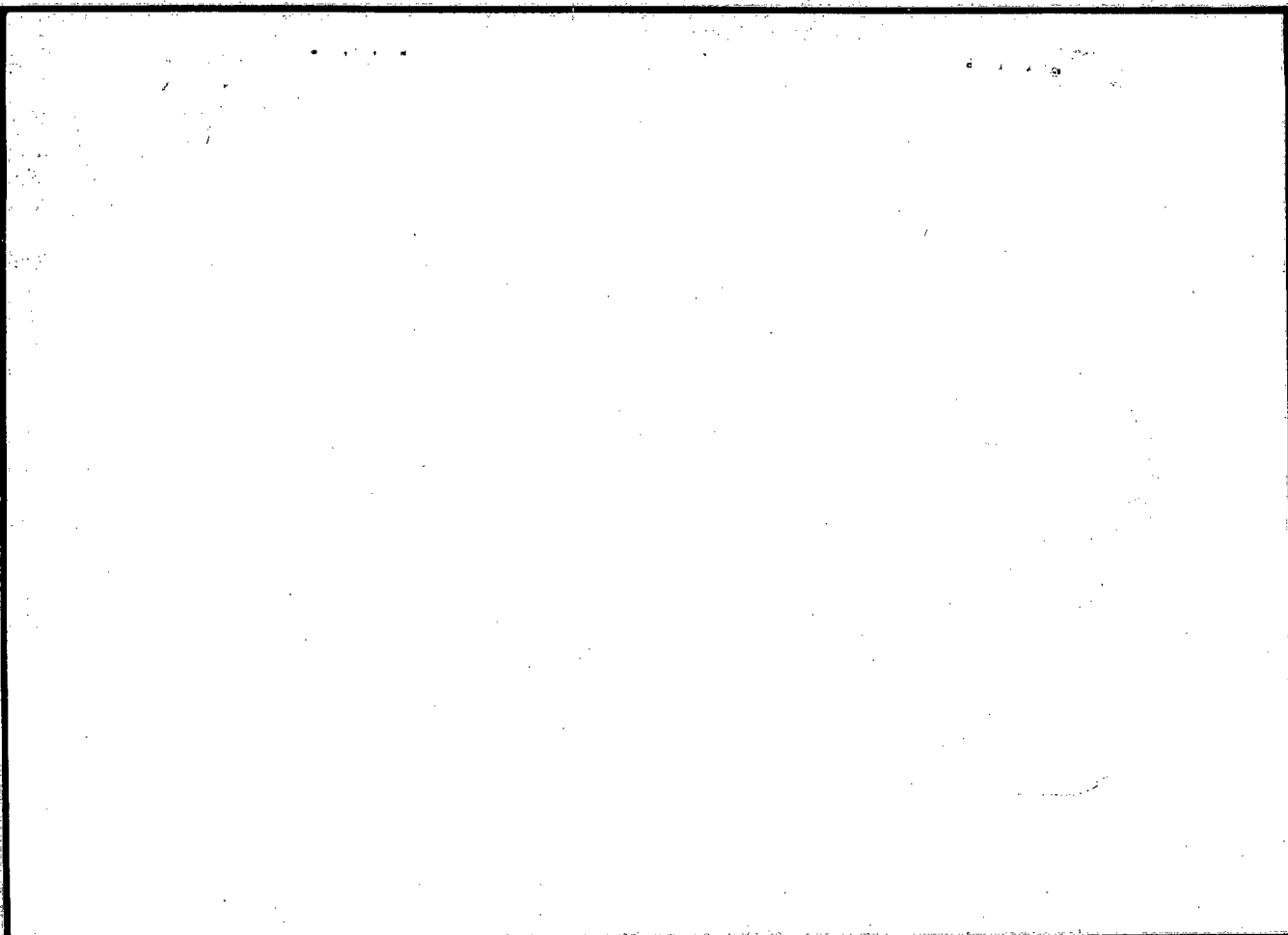
REF 13498  
OUTSIDE



## NOMENCLATURE

<b>b</b>	<b>== Approximate Radius of Investigation</b>	<b>Feet</b>
<b>b<sup>1</sup></b>	<b>== Approximate Radius of Investigation (Net Pay Zone h<sup>1</sup>)</b>	<b>Feet</b>
<b>D.R.</b>	<b>== Damage Ratio</b>	<b>—</b>
<b>EI</b>	<b>== Elevation</b>	<b>Feet</b>
<b>GD</b>	<b>== B.T. Gauge Depth (From Surface Reference)</b>	<b>Feet</b>
<b>h</b>	<b>== Interval Tested</b>	<b>Feet</b>
<b>h<sup>1</sup></b>	<b>== Net Pay Thickness</b>	<b>Feet</b>
<b>K</b>	<b>== Permeability</b>	<b>md</b>
<b>K<sup>1</sup></b>	<b>== Permeability (From Net Pay Zone h<sup>1</sup>)</b>	<b>md</b>
<b>m</b>	<b>== Slope Extrapolated Pressure Plot (Psi<sup>2</sup>/cycle Gas)</b>	<b>psi/cycle</b>
<b>OF<sup>1</sup></b>	<b>== Maximum Indicated Flow Rate</b>	<b>MCF/D</b>
<b>OF<sup>2</sup></b>	<b>== Minimum Indicated Flow Rate</b>	<b>MCF/D</b>
<b>OF<sup>3</sup></b>	<b>== Theoretical Open Flow Potential with/Damage Removed Max.</b>	<b>MCF/D</b>
<b>OF<sup>4</sup></b>	<b>== Theoretical Open Flow Potential with/Damage Removed Min.</b>	<b>MCF/D</b>
<b>P<sup>S</sup></b>	<b>== Extrapolated Static Pressure</b>	<b>Psig.</b>
<b>P<sup>F</sup></b>	<b>== Final Flow Pressure</b>	<b>Psig.</b>
<b>P<sup>OT</sup></b>	<b>== Potentiometric Surface (Fresh Water*)</b>	<b>Feet</b>
<b>Q</b>	<b>== Average Adjusted Production Rate During Test</b>	<b>bbls/day</b>
<b>Q<sup>1</sup></b>	<b>== Theoretical Production w/Damage Removed</b>	<b>bbls/day</b>
<b>Q<sup>g</sup></b>	<b>== Measured Gas Production Rate</b>	<b>MCF/D</b>
<b>R</b>	<b>== Corrected Recovery</b>	<b>bbls</b>
<b>r<sup>w</sup></b>	<b>== Radius of Well Bore</b>	<b>Feet</b>
<b>t</b>	<b>== Flow Time</b>	<b>Minutes</b>
<b>t<sup>o</sup></b>	<b>== Total Flow Time</b>	<b>Minutes</b>
<b>T</b>	<b>== Temperature Rankine</b>	<b>°R</b>
<b>Z</b>	<b>== Compressibility Factor</b>	<b>—</b>
<b>u</b>	<b>== Viscosity Gas or Liquid</b>	<b>CP</b>
<b>Log</b>	<b>== Common Log</b>	

\* Potentiometric Surface Reference to Rotary Table When Elevation Not Given, Fresh Water Corrected to 100° F.



This is an actual photograph of recorder chart.

POINT	PRESSURE	
	Electronic Reading	
(A) Initial Hydrostatic Mud .....	2536	PSI
(B) First Initial Flow Pressure .....	130	PSI
(C) First Final Flow Pressure.....	235	PSI
(D) Initial Closed-in Pressure.....	1945	PSI
(E) Second Initial Flow Pressure.....	261	PSI
(F) Second Final Flow Pressure.....	347	PSI
(G) Final Closed-in Pressure .....	1936	PSI
(H) Final Hydrostatic Mud.....	2465	PSI