



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Prepared For: **Thoroughbred Associa**

8100 E 22nd St No
Bldg 600 Suite F
Wichita KS 67226

ATTN: Rob Patton

15-32s-19w Comanche

Bernice Herd #3

Start Date: 2001.03.30 @ 17:44:00

End Date: 2001.03.31 @ 00:15:00

Job Ticket #: 14318 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



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DRILL STEM TEST REPORT

Thoroughbred Associa

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Test Start: 2001.03.30 @ 17:44:00

GENERAL INFORMATION:

Formation: **Miss**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:37:34

Time Test Ended: 00:15:00

Test Type: Conventional Bottom Hole

Tester: Ray Schwager

Unit No: 16

Interval: **5090.00 ft (KB) To 5214.00 ft (KB) (TVD)**

Total Depth: 5214.00 ft (KB)

Hole Diameter: 7.78 inches Hole Condition: Fair

Reference Elevations: 2018.00 ft (KB)

2013.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 3024 Inside

Press@RunDepth: 137.37 psig @ 5096.02 ft (KB)

Start Date: 2001.03.30

End Date:

2001.03.31

Start Time: 17:45:35

End Time:

03:08:04

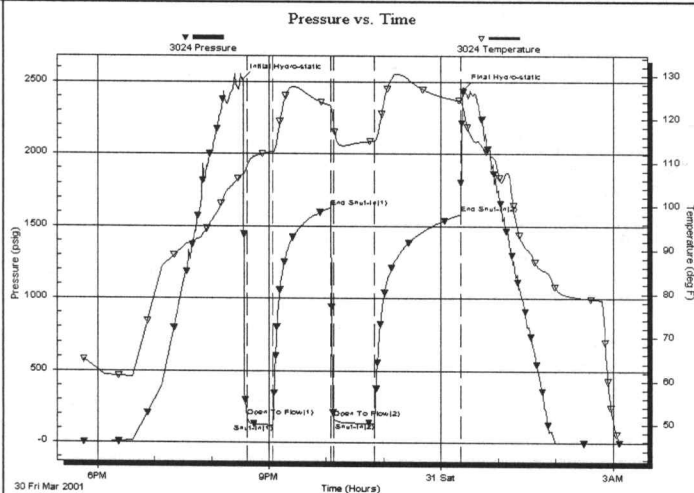
Capacity: 7000.00 psig

Last Calib.: 2001.03.31

Time On Btm: 2001.03.30 @ 20:33:04

Time Off Btm: 2001.03.31 @ 00:24:04

TEST COMMENT: times-30-60-45-90 IFP-strg bl gas in 5 min
FFP-gas to surface



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
168	2516.35	107.39	Initial Hydro-static
172	171.26	109.53	Open To Flow (1)
199	123.53	112.67	Shut-In(1)
259	1627.66	123.18	End Shut-In(1)
262	165.03	118.15	Open To Flow (2)
305	137.37	115.11	Shut-In(2)
395	1582.20	124.37	End Shut-In(2)
399	2453.28	121.76	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
390.00	GCM 6%gas 94%mud	3.28

Gas Rates

	Choke(inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.50	36.00	339.98
Last Gas Rate	0.50	24.00	247.00
Max. Gas Rate	0.50	36.00	339.98



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TOOL DIAGRAM

Thoroughbred Associa

Bernice Herd #3

8100 E 22nd St No

15-32s-19w Comanche

Bldg 600 Suite F

Job Ticket: 14318

DST#: 1

Wichita KS 67226

Test Start: 2001.03.30 @ 17:44:00

ATTN: Rob Patton

Tool Information

Drill Pipe:	Length: 4835.00 ft	Diameter: 3.80 inches	Volume: 67.82 bbl	Tool Weight: 2800.00 lb
Drill Collar:	Length: 240.00 ft	Diameter: 2.25 inches	Volume: 1.18 bbl	Weight set on Packer: 25000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 95000.00 lb
Drill Pipe Above KB:	13.00 ft			Tool Chased 0.00 ft
Depth to Top Packer:	5085.00 ft			String Weight: Initial 80000.00 lb
Depth to Bottom Packer:	ft			Final 80000.00 lb
Interval between Packers:	ft			
Tool Length:	151.02 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			5063.00	
S.I. Tool	5.00			5068.00	
HYD S.I. Tool	5.00			5073.00	
Jars	5.00			5078.00	
Safety Joint	2.00			5080.00	
Packer	5.00			5085.00	23.00 Bottom Of Top Packer
Packer	5.00			5090.00	
Stubb	1.00			5091.00	
Recorder	0.01	11085	Outside	5091.01	
Perforations	4.00			5095.01	
C.O. Sub	1.00			5096.01	
Recorder	0.01	3024	Inside	5096.02	
Blank Spacing	93.00			5189.02	
C.O. Sub	1.00			5190.02	
Perforations	20.00			5210.02	
Bullnose	3.00			5213.02	128.02 Bottom Packers & Anchor
Total Tool Length:		151.02			



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FLUID SUMMARY

Thoroughbred Associa

Bernice Herd #3

8100 E 22nd St No
Bldg 600 Suite F
Wichita KS 67226
ATTN: Rob Patton

15-32s-19w Comanche

Job Ticket: 14318

DST#: 1

Test Start: 2001.03.30 @ 17:44:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API: -999999 deg API

Mud Weight: 9.00 lb/gal

Cushion Length: ft

Water Salinity: - ppm

Viscosity: 73.00 sec/qt

Cushion Volume: bbl

214748364

Water Loss: 6.99

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 4000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
390.00	GCM 6%gas 94% mud	3.284

Total Length: 390.00 ft Total Volume: 3.280 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: 3024

Laboratory Name:

Laboratory Location:

Recovery Comments: times-30-60-45-90



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

GAS RATES

Thoroughbred Associa

Bernice Herd #3

8100 E 22nd St No
Bldg 600 Suite F
Wichita KS 67226
ATTN: Rob Patton

15-32s-19w Comanche

Job Ticket: 14318

DST#: 1

Test Start: 2001.03.30 @ 17:44:00

Gas Rates Information

Temperature: 70 (deg F)
Relative Density: 0.7
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (kPaa)	Gas Rate (Mcf/d)
1	10	0.50	36.00	339.98
1	10	0.50	36.00	324.19
1	10	0.50	36.00	324.19
1	20	0.50	31.00	292.03
1	30	0.50	24.00	247.00
2	10	0.50	36.00	324.19
2	20	0.50	28.00	272.74
2	30	0.50	24.00	247.00

NATURAL GAS ANALYSIS REPORT

Sampled by:

Trilobite Testing, L. L. C.
Hays, Kansas
Scott City, Kansas
Phone: 800-728-5369
Fax: 913-625-5620

Analyzed by:

Caraway Analytical, Inc
P. O. Box 2137
Liberal, Kansas 67905
Phone: 316-624-5389
Fax: 316-626-7108

Lab Number: 20011712

Analyzed: 04/03/01

Sample From: Bernice Herd #3 DST 1
Producer: Thoroughbred Assoc.

Pressure:
Temperature:

Date: Location: 15-32-19

Time:
Sampler:
Source:

County: Comanche
State: Kansas
Formation: Miss

	Mole %	GPM
Helium	He: 0.079	0.000
Hydrogen	H2: 0.007	0.000
Oxygen	O2: 0.000	0.000
Nitrogen	N2: 1.063	0.000
Carbon Dioxide	CO2: 0.121	0.000
Methane	C1: 94.183	0.000
Ethane	C2: 2.775	0.742
Propane	C3: 0.963	0.265
Iso Butane	iC4: 0.148	0.048
Normal Butane	nC4: 0.292	0.092
Iso Pentane	iC5: 0.094	0.034
Normal Pentane	nC5: 0.096	0.035
Hexanes Plus	C6+: 0.179	0.078

TOTAL: 100.000 1.295

Z Fact: 0.9978

SP.GR.: 0.5983

BTU (SAT): 1042.0 @ 14.73 psia

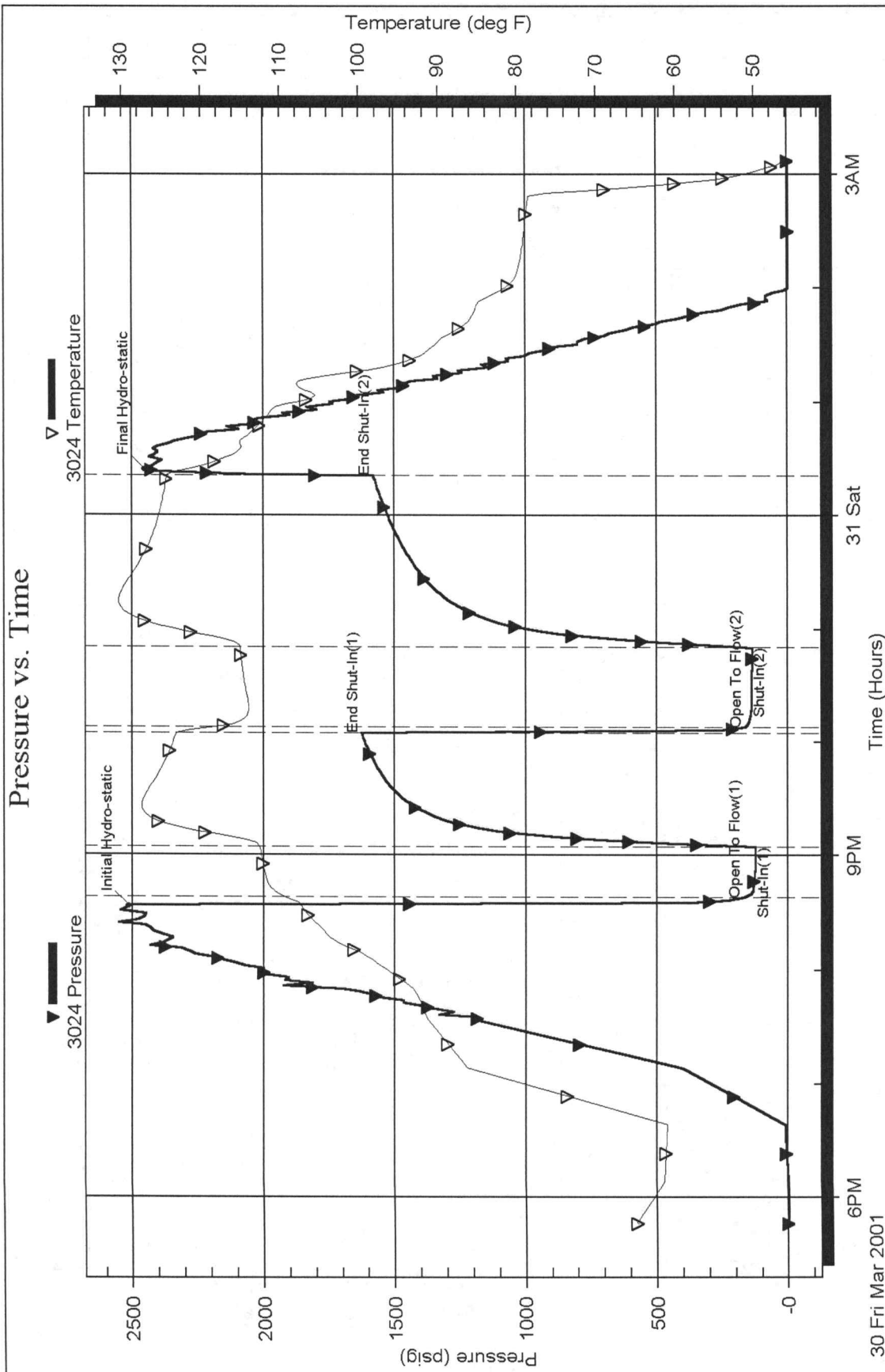
BTU (DRY): 1060.5 @ 14.73 psia

OCTANE RATING: 126.8

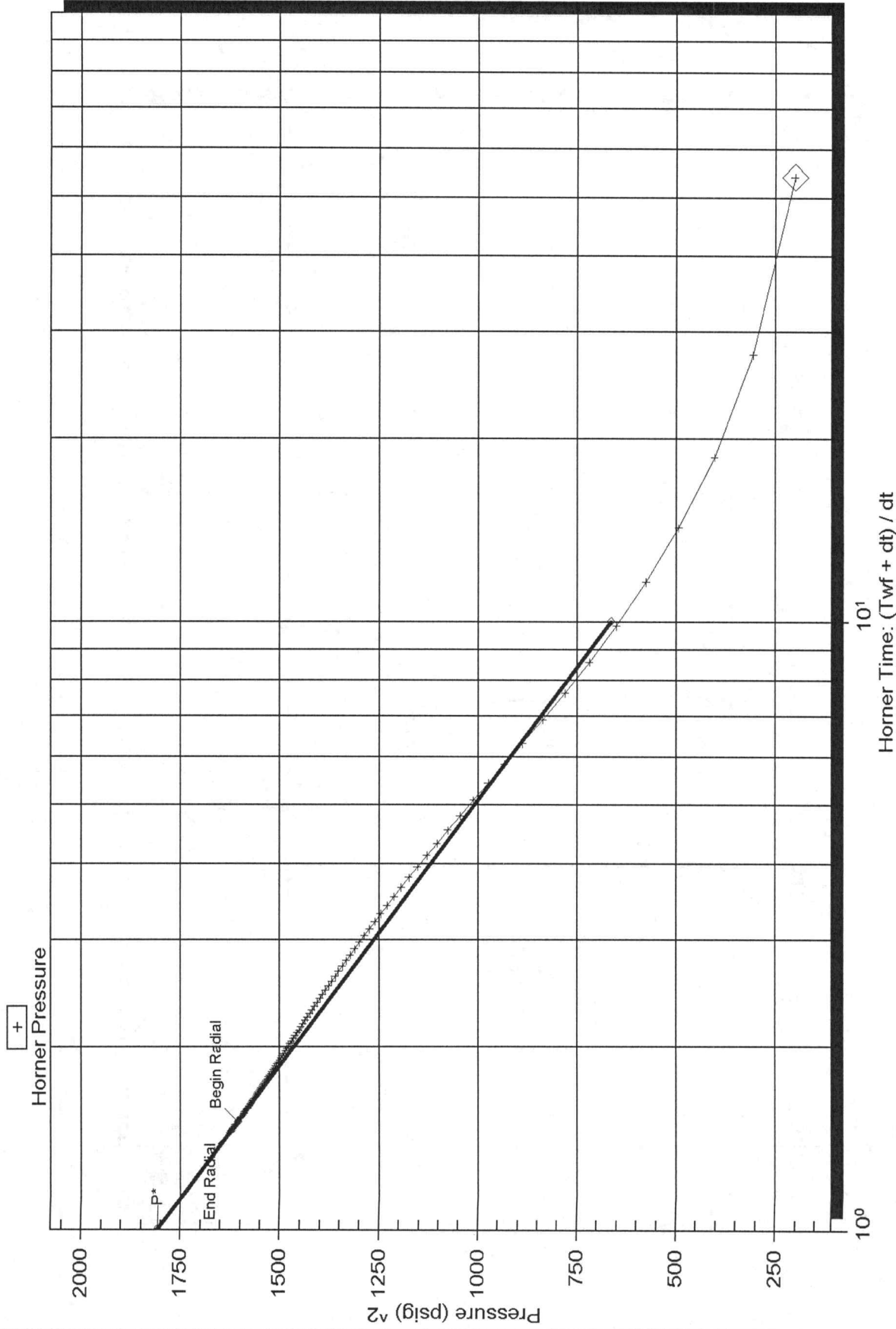
COMMENTS:

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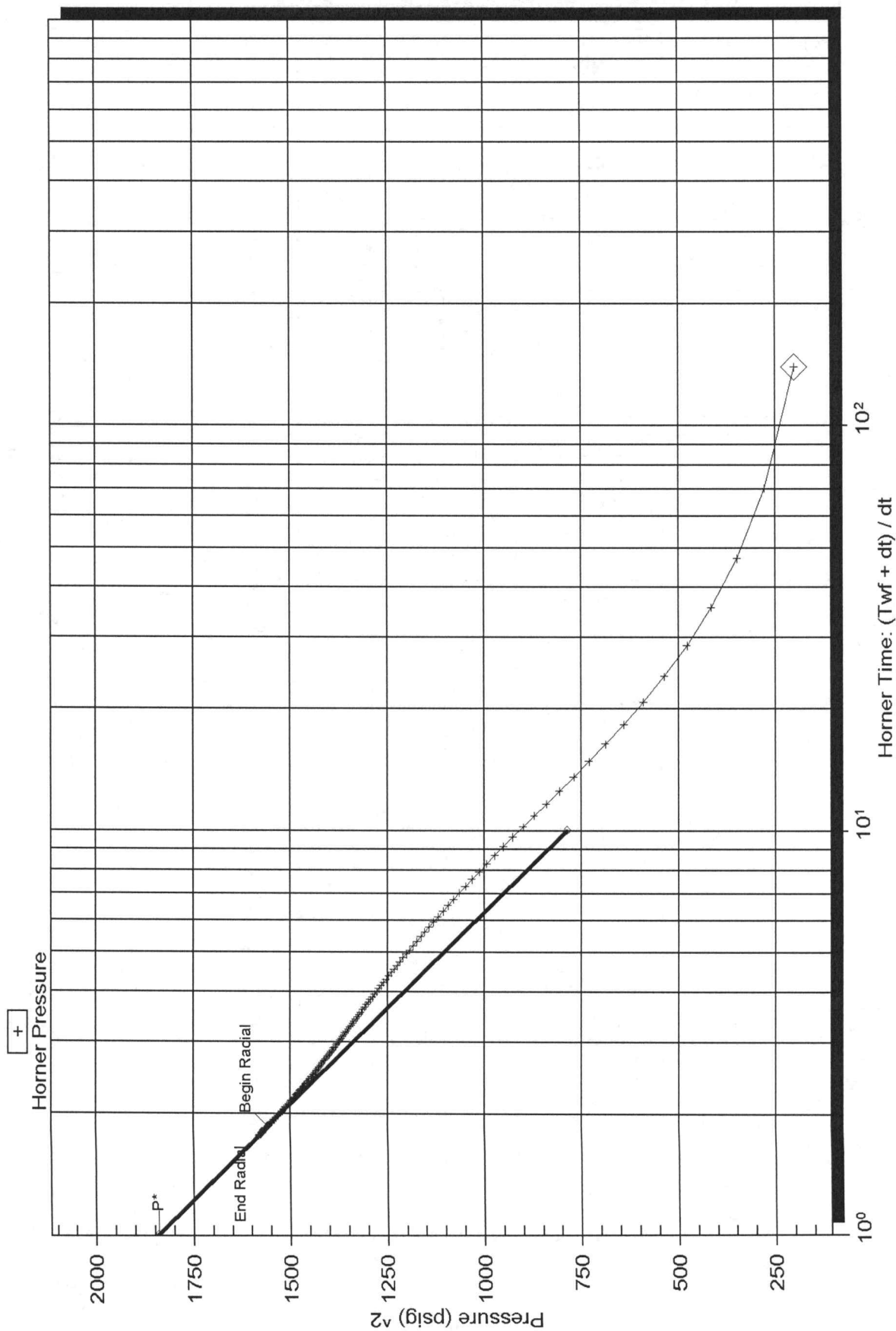
Pressure vs. Time



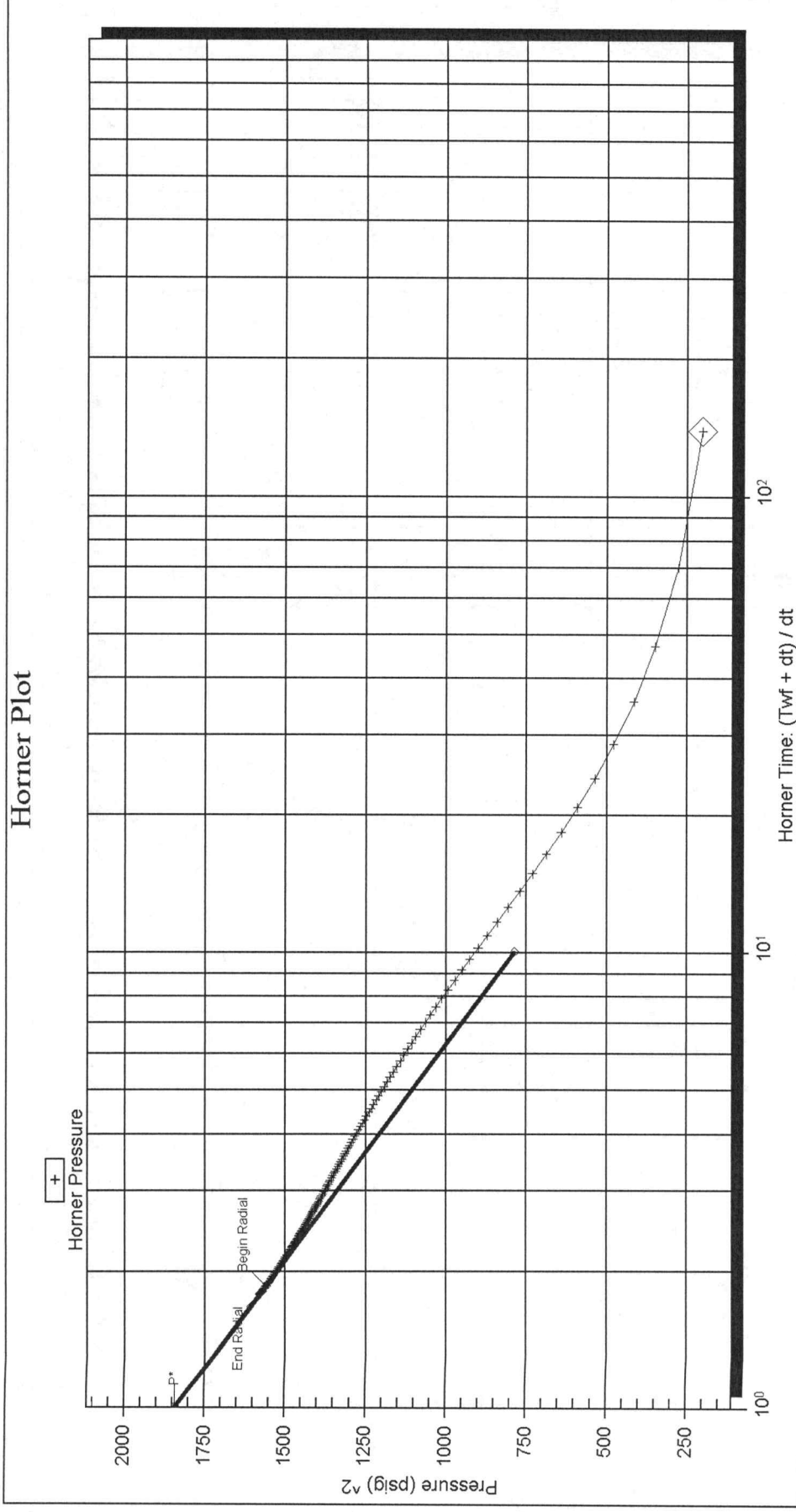
Horner Plot



Horner Plot



Horner Plot



Serial Number: 3024 (Inside)

Flow Cycle: 1

Analysis (Fluid)

Inputs

Average Fluid Viscosity: Net Pay Thickness: Initial Static Reservoir Pressure: 1841.7 Volume of Recovered Fluid: 3.28
 Total System Compress: Formation Porosity: Flowing Bottom Hole Pressure: 137.37 Total Flowing Time: 1.15
 Formation Volume Factor: Water Saturation: Wellbore Radius: 3.89

Outputs

Horner Slope (m): 1054.23 Effective Permeability:
 Radius of Investigation: Apparent Skin Factor:
 Fluid Flow Rate: kh:



GAS VOLUME REPORT

Thoroughbred Assoc
OPERATOR

Bernice Herd #3

WELL NAME AND NO.

DST NO.

GAS IN 5min

Remarks: