

**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Landmark Resources**

16116 S. Voss Rd Ste 150  
Huston Tx77057

ATTN: Paul Gerlach

**33-34s-31w**

**Long Branstine 1-33**

Start Date: 2004.12.03 @ 11:42:35

End Date: 2004.12.03 @ 21:16:37

Job Ticket #: 20541                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Landmark Resources

Long Branstine 1-33

33-34s-31w

DST # 1

lola

2004.12.03



# DRILL STEM TEST REPORT

Landmark Resources  
 16116 S. Voss Rd Ste 150  
 Houston Tx77057  
 ATTN: Paul Gerlach

**Long Branstine 1-33**  
**33-34s-31w**  
 Job Ticket: 20541      **DST#: 1**  
 Test Start: 2004.12.03 @ 11:42:35

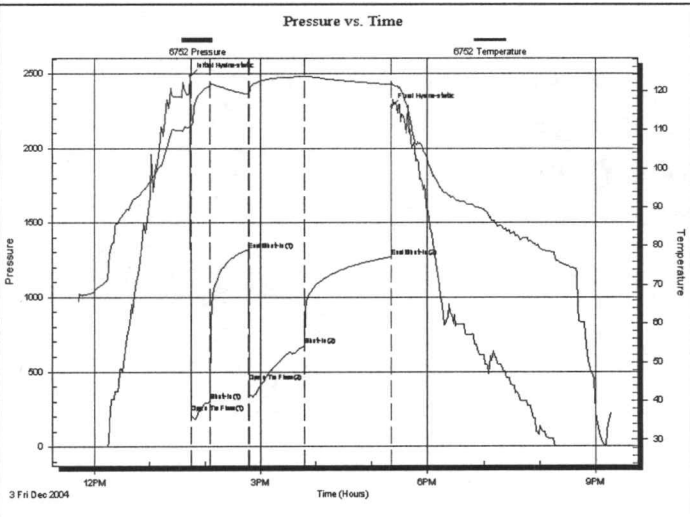
## GENERAL INFORMATION:

Formation: **Iola**  
 Deviated: **No Whipstock:**      ft (KB)  
 Time Tool Opened: 13:44:44  
 Time Test Ended: 21:16:37  
 Test Type: **Conventional Bottom Hole**  
 Tester: **Kevin Webster**  
 Unit No: **20**  
 Interval: **4865.00 ft (KB) To 4889.00 ft (KB) (TVD)**  
 Total Depth: **4889.00 ft (KB) (TVD)**  
 Hole Diameter: **7.78 inches** Hole Condition: **Good**  
 Reference Elevations: **2721.00 ft (KB)**  
**2711.00 ft (CF)**  
 KB to GR/CF: **10.00 ft**

## Serial #: 6752

**Inside**  
 Press@RunDepth: **676.10 psig @ 4866.00 ft (KB)**      Capacity: **7000.00 psig**  
 Start Date: **2004.12.03**      End Date: **2004.12.03**      Last Calib.: **1899.12.30**  
 Start Time: **11:42:38**      End Time: **21:16:38**      Time On Btm: **2004.12.03 @ 13:44:23**  
 Time Off Btm: **2004.12.03 @ 17:21:20**

TEST COMMENT: IF- bob 1min gts 14 min  
 IS- bob 27 min  
 FF- bob asao  
 FS- bob 17 min



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2482.01	111.07	Initial Hydro-static
1	225.59	110.34	Open To Flow (1)
21	303.54	121.20	Shut-In(1)
63	1318.15	119.10	End Shut-In(1)
64	431.55	118.70	Open To Flow (2)
124	676.10	123.59	Shut-In(2)
217	1267.78	121.59	End Shut-In(2)
217	2275.22	122.04	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
930.00	95% oil 5% mud	7.31
279.00	30% gas 30% oil 5% w ater 35% mud	3.91
93.00	15% gas 30% oil 30% w ater 25% mud	1.30
465.00	100% w ater	6.52

Gas Rates			
	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	3.00	6.51
Last Gas Rate	0.13	10.00	9.13
Max. Gas Rate	0.13	10.00	9.13



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## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Landmark Resources  
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Huston Tx77057  
ATTN: Paul Gerlach

**Long Branstine 1-33**  
**33-34s-31w**  
Job Ticket: 20541      **DST#: 1**  
Test Start: 2004.12.03 @ 11:42:35

### Tool Information

Drill Pipe:	Length: 4228.00 ft	Diameter: 3.80 inches	Volume: 59.31 bbl	Tool Weight: 1800.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 630.00 ft	Diameter: 2.25 inches	Volume: 3.10 bbl	Weight to Pull Loose: 105000.0 lb
			<u>Total Volume: 62.41 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 94000.00 lb
Depth to Top Packer:	4865.00 ft			Final 94000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	24.00 ft			
Tool Length:	51.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4839.00	
Shut In Tool	5.00			4844.00	
Hydraulic tool	5.00			4849.00	
Jars	5.00			4854.00	
Safety Joint	2.00			4856.00	
Packer	5.00			4861.00	27.00      Bottom Of Top Packer
Packer	4.00			4865.00	
Stubb	1.00			4866.00	
Recorder	0.00	6752	Inside	4866.00	
Perforations	5.00			4871.00	
Perforations	15.00			4886.00	
Bullnose	3.00			4889.00	
Recorder	0.00	10993	Inside	4889.00	24.00      Bottom Packers & Anchor

**Total Tool Length: 51.00**



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**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Landmark Resources

**Long Branstine 1-33**

16116 S. Voss Rd Ste 150  
Huston Tx77057

**33-34s-31w**

Job Ticket: 20541

**DST#: 1**

ATTN: Paul Gerlach

Test Start: 2004.12.03 @ 11:42:35

**Mud and Cushion Information**

Mud Type: Gel Chem

Cushion Type:

Oil API:

61 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

179000 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
930.00	95% oil 5% mud	7.306
279.00	30%gas 30% oil 5% water 35% mud	3.914
93.00	15% gas 30% oil 30% water 25% mud	1.305
465.00	100% water	6.523

Total Length: 1767.00 ft      Total Volume: 19.048 bbl

Num Fluid Samples: 1

Num Gas Bombs: 1

Serial #: 7eko81

Laboratory Name: Caraway

Laboratory Location: Liberal, KS

Recovery Comments: pgerlach@toast.net



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## DRILL STEM TEST REPORT

**GAS RATES**

Landmark Resources  
16116 S. Voss Rd Ste 150  
Huston Tx77057

**Long Branstine 1-33**

**33-34s-31w**

Job Ticket: 20541

**DST#: 1**

ATTN: Paul Gerlach

Test Start: 2004.12.03 @ 11:42:35

### Gas Rates Information

Temperature: 59 deg C  
Relative Density: 0.65  
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m <sup>3</sup> /d)
2	10	0.13	3.00	6.51
2	20	0.13	8.00	8.38
2	30	0.13	9.00	8.76
2	40	0.13	10.00	9.13
2	50	0.13	10.00	9.13

Serial #: 6752

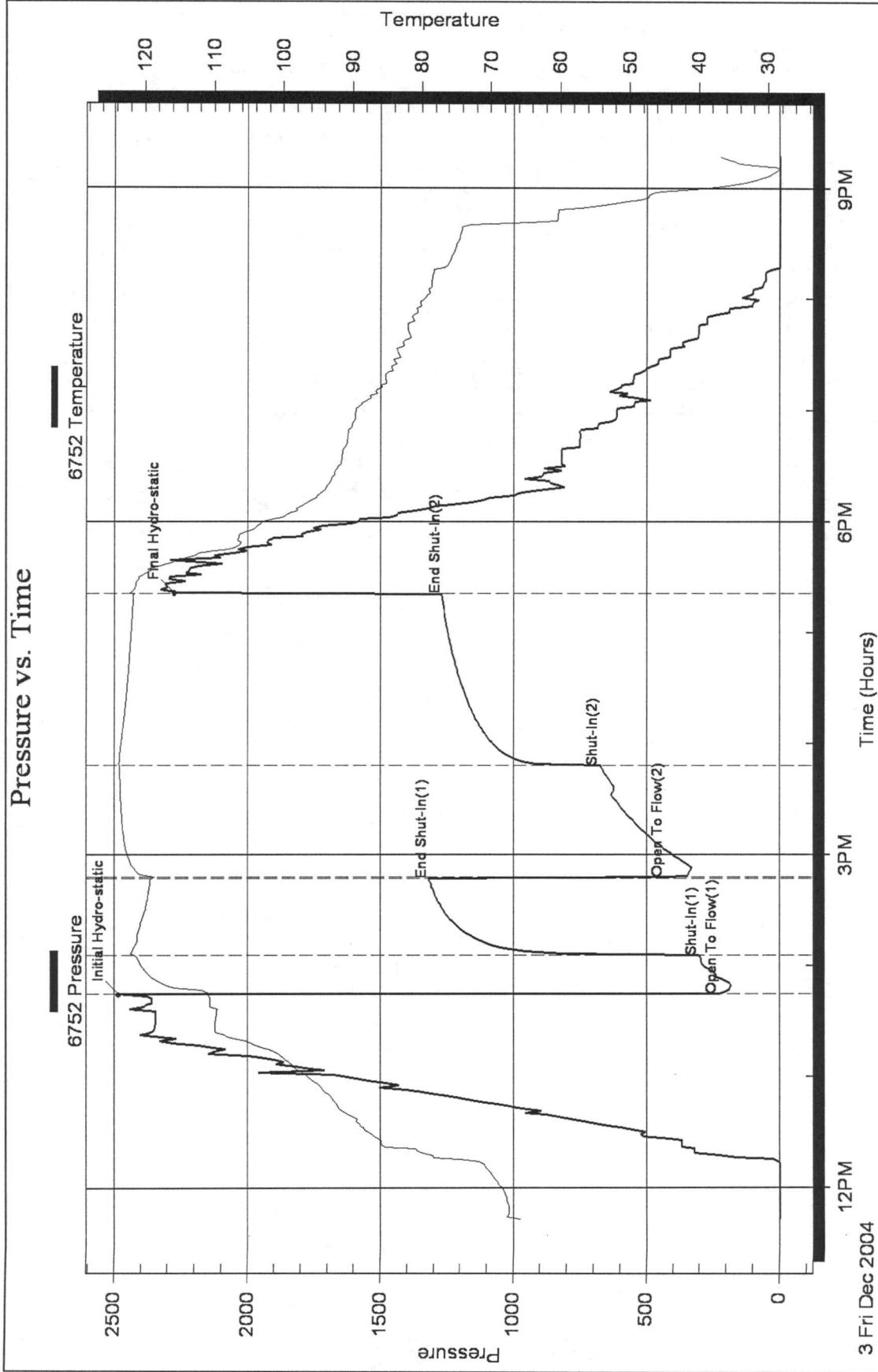
Inside

Landmark Resources

33-34s-31w

DST Test Number: 1

### Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Landmark Resources**

16116 S. Voss Rd Ste 150  
Huston Tx77057

ATTN: Paul Gerlach

**33-34s-31w**

**Long Branstine 1-33**

Start Date: 2004.12.07 @ 17:26:11

End Date: 2004.12.08 @ 04:01:56

Job Ticket #: 20581                      DST #: 2

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# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Landmark Resources  
16116 S. Voss Rd Ste 150  
Huston Tx77057  
ATTN: Paul Gerlach

**Long Branstine 1-33**  
**33-34s-31w**  
Job Ticket: 20581      **DST#: 2**  
Test Start: 2004.12.07 @ 17:26:11

**Tool Information**

Drill Pipe:	Length: 5469.00 ft	Diameter: 3.80 inches	Volume: 76.72 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: 30000.00 lb
Drill Collar:	Length: 670.00 ft	Diameter: 2.25 inches	Volume: 3.29 bbl	Weight to Pull Loose: 125000.0 lb
			<u>Total Volume: 80.01 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 103000.0 lb
Depth to Top Packer:	6157.00 ft			Final 103000.0 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	54.00 ft			
Tool Length:	82.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:	Tool Pulged during initial flow.			

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	2.00			6131.00	
Shut In Tool	5.00			6136.00	
Hydraulic tool	5.00			6141.00	
Jars	5.00			6146.00	
Safety Joint	2.00			6148.00	
Packer	5.00			6153.00	28.00      Bottom Of Top Packer
Packer	4.00			6157.00	
Stubb	1.00			6158.00	
Perforations	1.00			6159.00	
Recorder	0.00	6769	Inside	6159.00	
Stubb	5.00			6164.00	
Change Over Sub	1.00			6165.00	
Drill Pipe	29.00			6194.00	
Change Over Sub	1.00			6195.00	
Perforations	12.00			6207.00	
Recorder	0.00	6724	Outside	6207.00	
Bullnose	4.00			6211.00	54.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>82.00</b>				



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**FLUID SUMMARY**

Landmark Resources

**Long Branstine 1-33**

16116 S. Voss Rd Ste 150  
Houston Tx 77057

**33-34s-31w**

Job Ticket: 20581

**DST#: 2**

ATTN: Paul Gerlach

Test Start: 2004.12.07 @ 17:26:11

## 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:	ppm
Viscosity: 54.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.96 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1200.00 ppm			
Filter Cake: inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
123.00	GIP	0.605
93.00	100% mud	0.457

Total Length: 216.00 ft      Total Volume: 1.062 bbl

Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments: No Sampler ran.

### Pressure vs. Time

