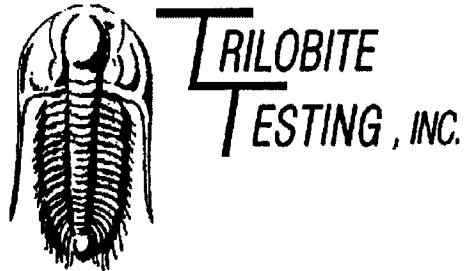


15-051-25170

25-11s-20w



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Suite 300
Wichita, Ks 67202

ATTN: Scott Robinson/David

25-11-20-Ellis-Ks

Western-Star # 2-25

Start Date: 2002.11.08 @ 13:28:34

End Date: 2002.11.08 @ 20:38:34

Job Ticket #: 16712 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N Water Suite 300
Wichita, Ks 67202
ATTN: Scott Robinson/David

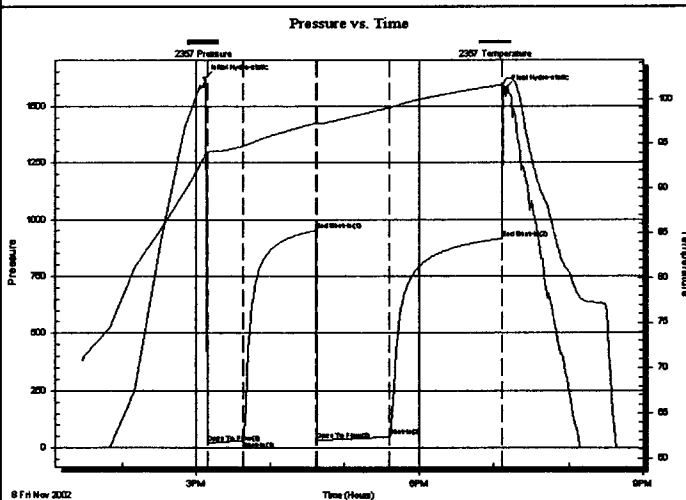
Western-Star # 2-25
25-11-20-Ellis-Ks
Job Ticket: 16712 DST#: 1
Test Start: 2002.11.08 @ 13:28:34

GENERAL INFORMATION:

Formation: **Topeka**
Deviated: **No** Whipstock: **ft (KB)**
Time Tool Opened: 15:08:34
Time Test Ended: 20:38:34
Interval: **3304.00 ft (KB) To 3371.00 ft (KB) (TVD)**
Total Depth: **3371.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches** Hole Condition: **Good**
Test Type: **Conventional Bottom Hole**
Tester: **Dan Bangle**
Unit No: **21**
Reference Elevations: **2085.00 ft (KB)**
2080.00 ft (CF)
KB to GR/CF: **5.00 ft**

Serial #: 2357 **Inside**
Press@RunDepth: **49.89 psig @ 3311.00 ft (KB)** Capacity: **7000.00 psig**
Start Date: **2002.11.08** End Date: **2002.11.08** Last Calib.: **2001.01.19**
Start Time: **13:28:35** End Time: **20:38:34** Time On Btrn: **2002.11.08 @ 15:06:04**
Time Off Btrn: **2002.11.08 @ 19:09:34**

TEST COMMENT: **F-Weak building to 1 1/4"**
FF-Weak surface blow -died in 30 min
Times-30-60-60-90



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1621.58	93.57	Initial Hydro-static
3	19.95	94.03	Open To Flow (1)
32	31.48	94.74	Shut-In(1)
91	950.17	97.30	End Shut-In(1)
92	33.34	97.32	Open To Flow (2)
150	49.89	99.02	Shut-In(2)
241	914.48	101.60	End Shut-In(2)
244	1573.58	101.99	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
65.00	Mdy Wtr Rw .47 @ 75 = 13000ppm	0.32

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

Western-Star # 2-25

250 N Water Suite 300
Wichita, Ks 67202

25-11-20-Ellis-Ks

Job Ticket: 16712

DST#: 1

ATTN: Scott Robinson/David

Test Start: 2002.11.08 @ 13:28:34

Tool Information

Drill Pipe:	Length: 3180.00 ft	Diameter: 3.80 inches	Volume: 44.61 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 115.00 ft	Diameter: 2.25 inches	Volume: 0.57 bbl	Weight to Pull Loose: 60000.00 lb
			Total Volume: 45.18 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3304.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	67.00 ft			
Tool Length:	90.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			3282.00	
S.I. Tool	5.00			3287.00	
HMV	5.00			3292.00	
Safety Joint	2.00			3294.00	
Packer	5.00			3299.00	23.00 Bottom Of Top Packer
Packer	5.00			3304.00	
Stubb	1.00			3305.00	
Perforations	5.00			3310.00	
C.O. Sub	1.00			3311.00	
Recorder	0.00	2357	Inside	3311.00	
Blank Spacing	31.00			3342.00	
C.O. Sub	1.00			3343.00	
Recorder	0.00	13254	Outside	3343.00	
Perforations	25.00			3368.00	
Bullnose	3.00			3371.00	67.00 Bottom Packers & Anchor

Total Tool Length: 90.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

Western-Star # 2-25

250 N Water Suite 300
Wichita, Ks 67202

25-11-20-Ellis-Ks

Job Ticket: 16712

DST#: 1

ATTN: Scott Robinson/David

Test Start: 2002.11.08 @ 13:28:34

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: 49.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.57 in³

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
65.00	Mdy Wtr Rw .47 @ 75 = 13000ppm	0.320

Total Length: 65.00 ft

Total Volume: 0.320 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

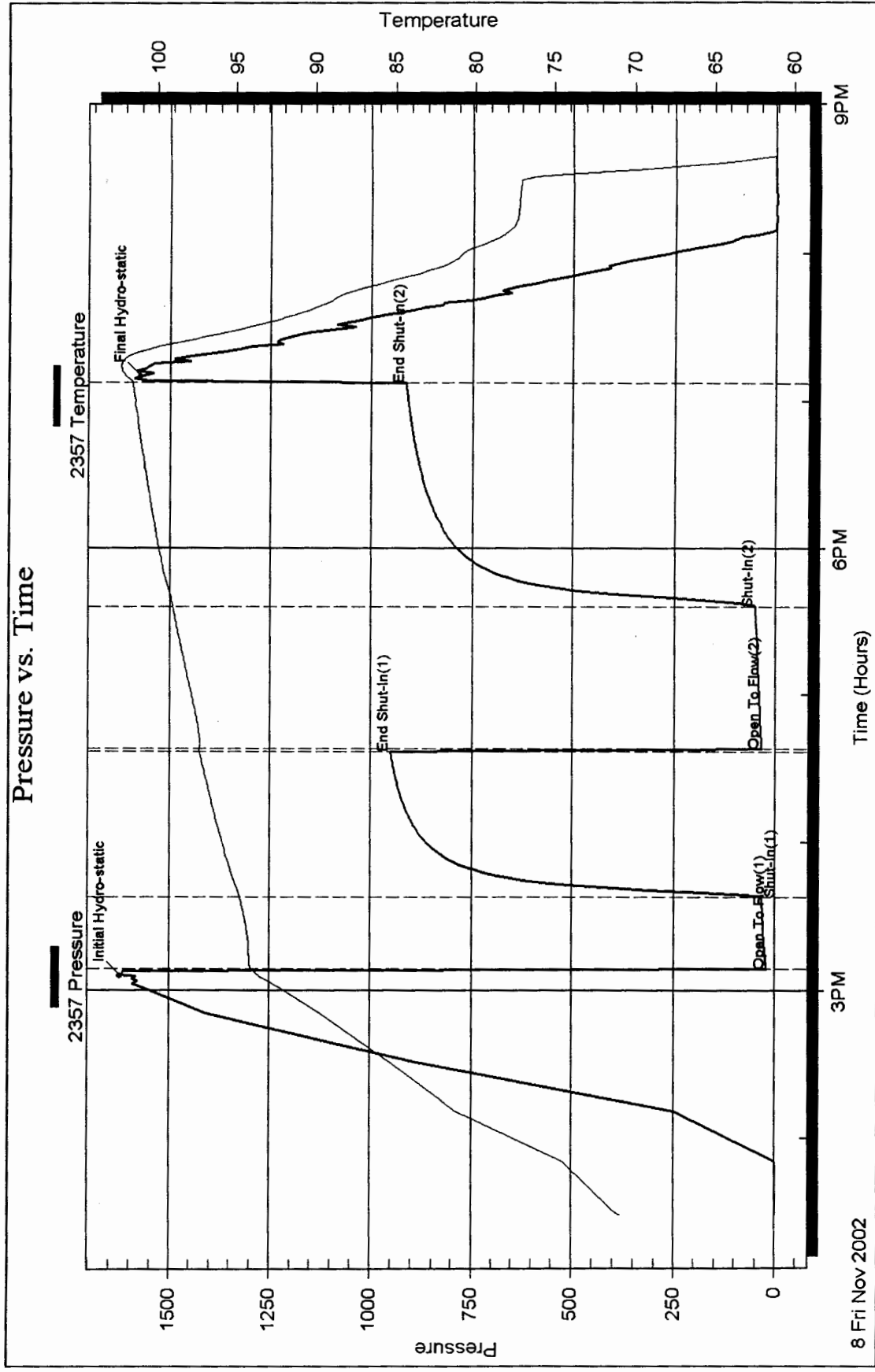
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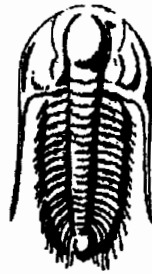
Inside

Murfin Drilling Co Inc

25-11-20-Ellis-Ks

DST Test Number: 1





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Suite 300
Wichita, Ks 67202

ATTN: Scott Robinson/David

25-11-20-Ellis-Ks

Western-Star # 2-25

Start Date: 2002.11.09 @ 06:04:59

End Date: 2002.11.09 @ 12:32:59

Job Ticket #: 16713 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Murfin Drilling Co Inc

Western-Star # 2-25

25-11-20-Ellis-Ks

DST # 2

B-C-D

LKC

2002.11.09



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N Water Suite 300
Wichita, Ks 67202

Western-Star # 2-25

25-11-20-Ellis-Ks

Job Ticket: 16713

DST#: 2

ATTN: Scott Robinson/David

Test Start: 2002.11.09 @ 06:04:59

GENERAL INFORMATION:

Formation: **B-C-D LKC**

Deviated: **No Whipstock:** ft (KB)

Time Tool Opened: 07:55:59

Time Test Ended: 12:32:59

Test Type: Conventional Bottom Hole

Tester: Dan Bangle

Unit No: 21

Interval: **3403.00 ft (KB) To 3454.00 ft (KB) (TVD)**

Total Depth: 3403.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2085.00 ft (KB)

2080.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 2357 Inside

Press@RunDepth: 31.74 psig @ 3410.00 ft (KB)

Start Date: 2002.11.09

End Date:

2002.11.09

Start Time: 06:05:00

End Time:

12:32:59

Capacity: 7000.00 psig

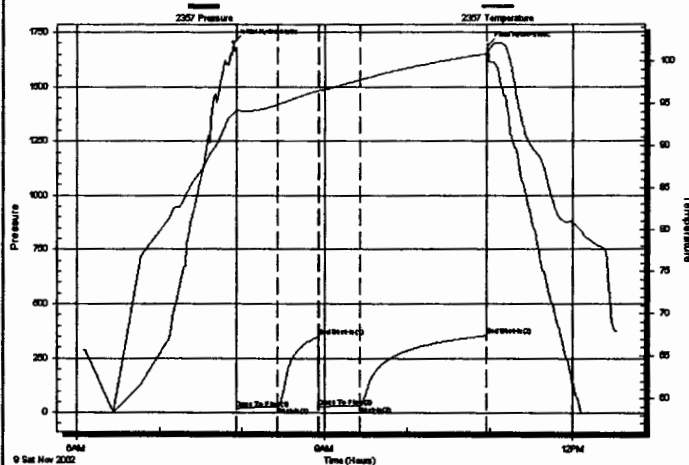
Last Calib.: 2001.01.19

Time On Btm: 2002.11.09 @ 07:53:29

Time Off Btm: 2002.11.09 @ 10:57:59

TEST COMMENT: F-Weak building to 1"
FF-Very weak surface blow
Times-30-30-30-90

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1702.45	93.87	Initial Hydro-static
3	18.80	94.17	Open To Flow (1)
33	28.36	94.85	Shut-In(1)
62	348.49	96.50	End Shut-In(1)
63	29.16	96.53	Open To Flow (2)
92	31.74	97.76	Shut-In(2)
184	353.36	100.88	End Shut-In(2)
185	1690.16	101.07	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	DM	0.15

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

Western-Star # 2-25

250 N Water Suite 300
Wichita, Ks 67202

25-11-20-Ellis-Ks

Job Ticket: 16713

DST#:2

ATTN: Scott Robinson/David

Test Start: 2002.11.09 @ 06:04:59

Tool Information

Drill Pipe:	Length: 3274.00 ft	Diameter: 3.80 inches	Volume: 45.93 bbl	Tool Weight: 1900.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 115.00 ft	Diameter: 2.25 inches	Volume: 0.57 bbl	Weight to Pull Loose: 60000.00 lb
			Total Volume: 46.50 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3403.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	51.00 ft			
Tool Length:	74.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			3381.00	
S.I. Tool	5.00			3386.00	
HMV	5.00			3391.00	
Safety Joint	2.00			3393.00	
Packer	5.00			3398.00	23.00 Bottom Of Top Packer
Packer	5.00			3403.00	
Stubb	1.00			3404.00	
Perforations	5.00			3409.00	
C.O. Sub	1.00			3410.00	
Recorder	0.00	2357	Inside	3410.00	
Blank Spacing	31.00			3441.00	
C.O. Sub	1.00			3442.00	
Recorder	0.00	13254	Outside	3442.00	
Perforations	9.00			3451.00	
Bullnose	3.00			3454.00	51.00 Bottom Packers & Anchor

Total Tool Length: 74.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

Western-Star # 2-25

250 N Water Suite 300
Wichita, Ks 67202

25-11-20-Ellis-Ks

Job Ticket: 16713

DST#: 2

ATTN: Scott Robinson/David

Test Start: 2002.11.09 @ 06:04:59

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: 49.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.57 in³

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
30.00	DM	0.148

Total Length: 30.00 ft

Total Volume: 0.148 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 2357

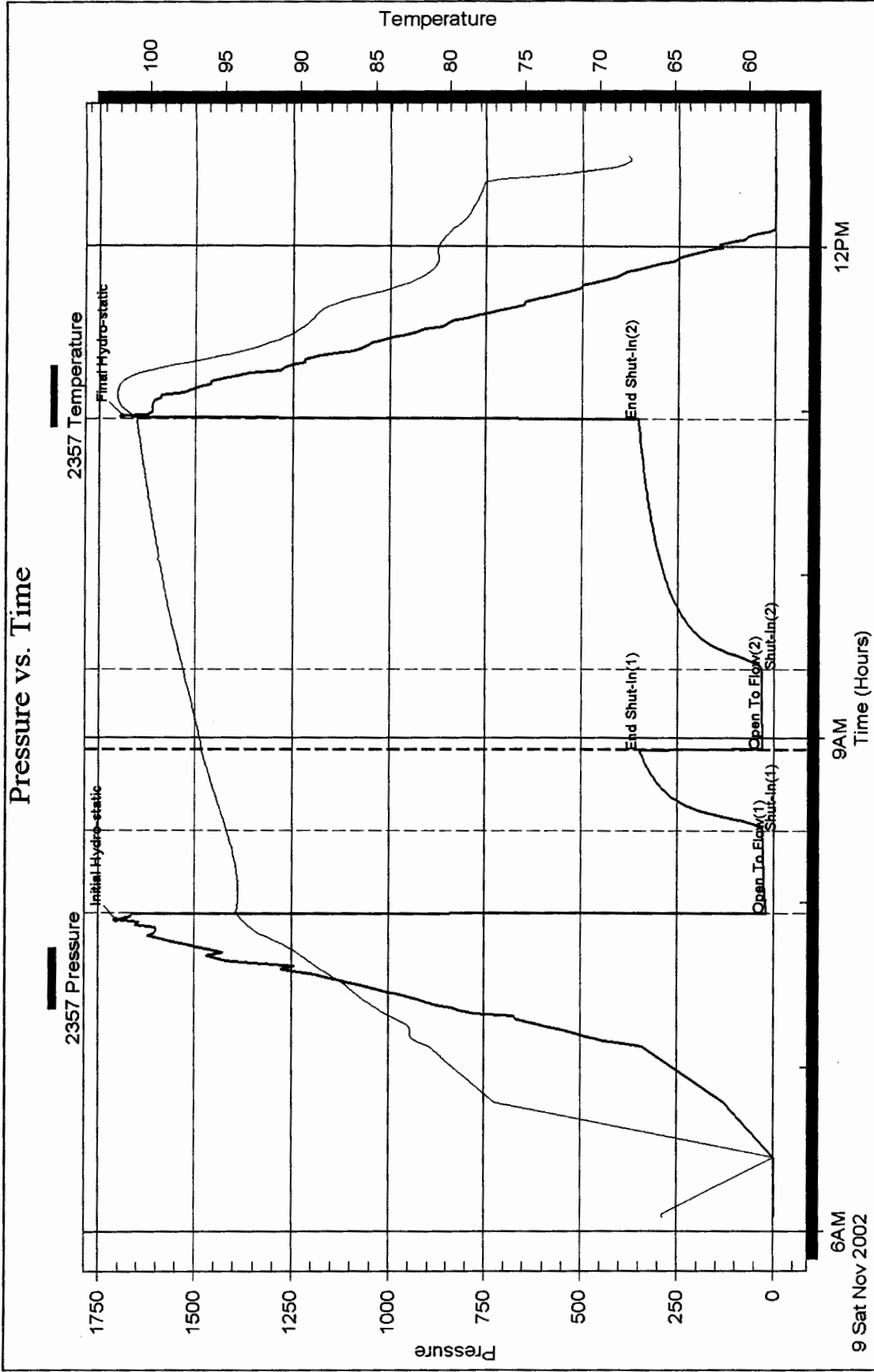
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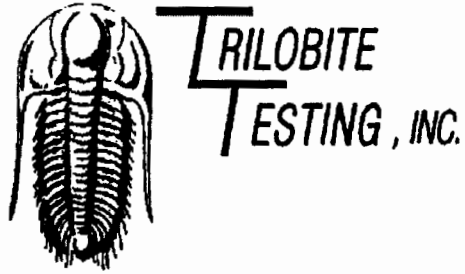
Murfin Drilling Co Inc

25-11-20-Ellis-Ks

DST Test Number: 2

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**
250 N Water Suite 300
Wichita, Ks 67202

ATTN: Scott Robinson/David

25-11-20-Ellis-Ks

Western-Star # 2-25

Start Date: 2002.11.10 @ 03:41:19

End Date: 2002.11.10 @ 11:01:19

Job Ticket #: 16714 DST #: 3

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Murfin Drilling Co Inc

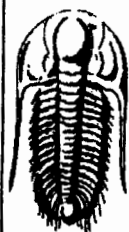
Western-Star # 2-25

25-11-20-Ellis-Ks

DST # 3

LKC H-L

2002.11.10



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N Water Suite 300
Wichita, Ks 67202

Western-Star # 2-25

25-11-20-Ellis-Ks

Job Ticket: 16714

DST#: 3

ATTN: Scott Robinson/David

Test Start: 2002.11.10 @ 03:41:19

GENERAL INFORMATION:

Formation: LKC H-L

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:19:19

Time Test Ended: 11:01:19

Test Type: Conventional Bottom Hole

Tester: Paul Simpson

Unit No: 21

Interval: 3506.00 ft (KB) To 3620.00 ft (KB) (TVD)

Total Depth: 3371.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2085.00 ft (KB)

2080.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 2357

Inside

Press@RunDepth: 93.67 psig @ 3512.00 ft (KB)

Capacity: 7000.00 psig

Start Date: 2002.11.10

End Date: 2002.11.10

Last Calib.: 2001.01.19

Start Time: 03:41:20

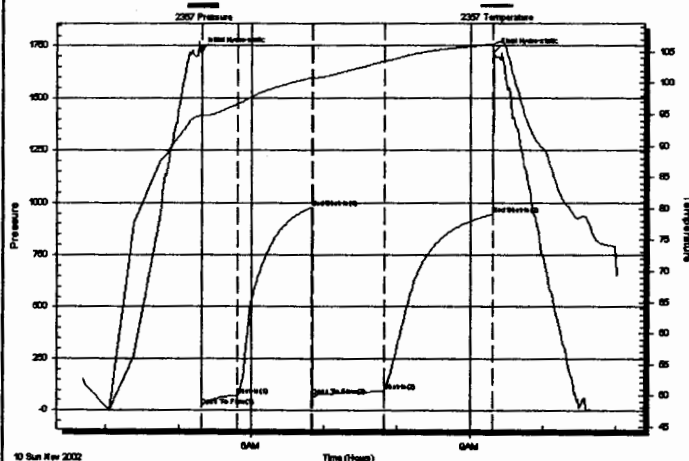
End Time: 11:01:19

Time On Btm: 2002.11.10 @ 05:18:19

Time Off Btm: 2002.11.10 @ 09:19:49

TEST COMMENT: F- 1/2" blow building to bottom of bucket in 29 minutes
FF- surface blow building to bottom of bucket in 30 minutes
no blow on either shutin

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1722.02	94.84	Initial Hydro-static
1	21.53	94.88	Open To Flow (1)
31	71.36	96.73	Shut-In(1)
92	976.25	100.90	End Shut-In(1)
93	69.19	100.92	Open To Flow (2)
151	93.67	103.52	Shut-In(2)
241	944.30	106.24	End Shut-In(2)
242	1720.34	106.28	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
45.00	m&w co 50%O 35%w 15%m	0.22
60.00	gassy w & mco 10%g 65%o 10%w 15%m	0.30
60.00	mud cut oil 50%o 50%m	0.75
20.00	cl gassy oil 10% g 90%oil	0.28
0.00	210' gas in pipe	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

Western-Star # 2-25

250 N Water Suite 300
Wichita, Ks 67202

25-11-20-Ellis-Ks

Job Ticket: 16714

DST#: 3

ATTN: Scott Robinson/David

Test Start: 2002.11.10 @ 03:41:19

Tool Information

Drill Pipe:	Length: 3395.00 ft	Diameter: 3.80 inches	Volume: 47.62 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 115.00 ft	Diameter: 2.25 inches	Volume: 0.57 bbl	Weight to Pull Loose: 60000.00 lb
			Total Volume: 48.19 bbl	Tool Chased: ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3506.00 ft			Final 57000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	114.00 ft			
Tool Length:	137.00 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			3484.00	
S.I. Tool	5.00			3489.00	
HMV	5.00			3494.00	
Safety Joint	2.00			3496.00	
Packer	5.00			3501.00	23.00 Bottom Of Top Packer
Packer	5.00			3506.00	
Stubb	1.00			3507.00	
Perforations	4.00			3511.00	
C.O. Sub	1.00			3512.00	
Recorder	0.00	2357	Inside	3512.00	
Blank Spacing	94.00			3606.00	
C.O. Sub	1.00			3607.00	
Recorder	0.00	13254	Outside	3607.00	
Perforations	10.00			3617.00	
Bullnose	3.00			3620.00	114.00 Bottom Packers & Anchor

Total Tool Length: 137.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

Western-Star # 2-25

250 N Water Suite 300
Wichita, Ks 67202

25-11-20-Ellis-Ks

Job Ticket: 16714

DST#: 3

ATTN: Scott Robinson/David

Test Start: 2002.11.10 @ 03:41:19

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

35 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

24000 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
45.00	m&w co 50%O 35%w 15%m	0.221
60.00	gassy w &mco 10%g 65%o 10%w 15%m	0.295
60.00	mud cut oil 50%o 50%m	0.751
20.00	cl gassy oil 10% g 90%oil	0.281
0.00	210' gas in pipe	0.000

Total Length: 185.00 ft

Total Volume: 1.548 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Rw .33@61

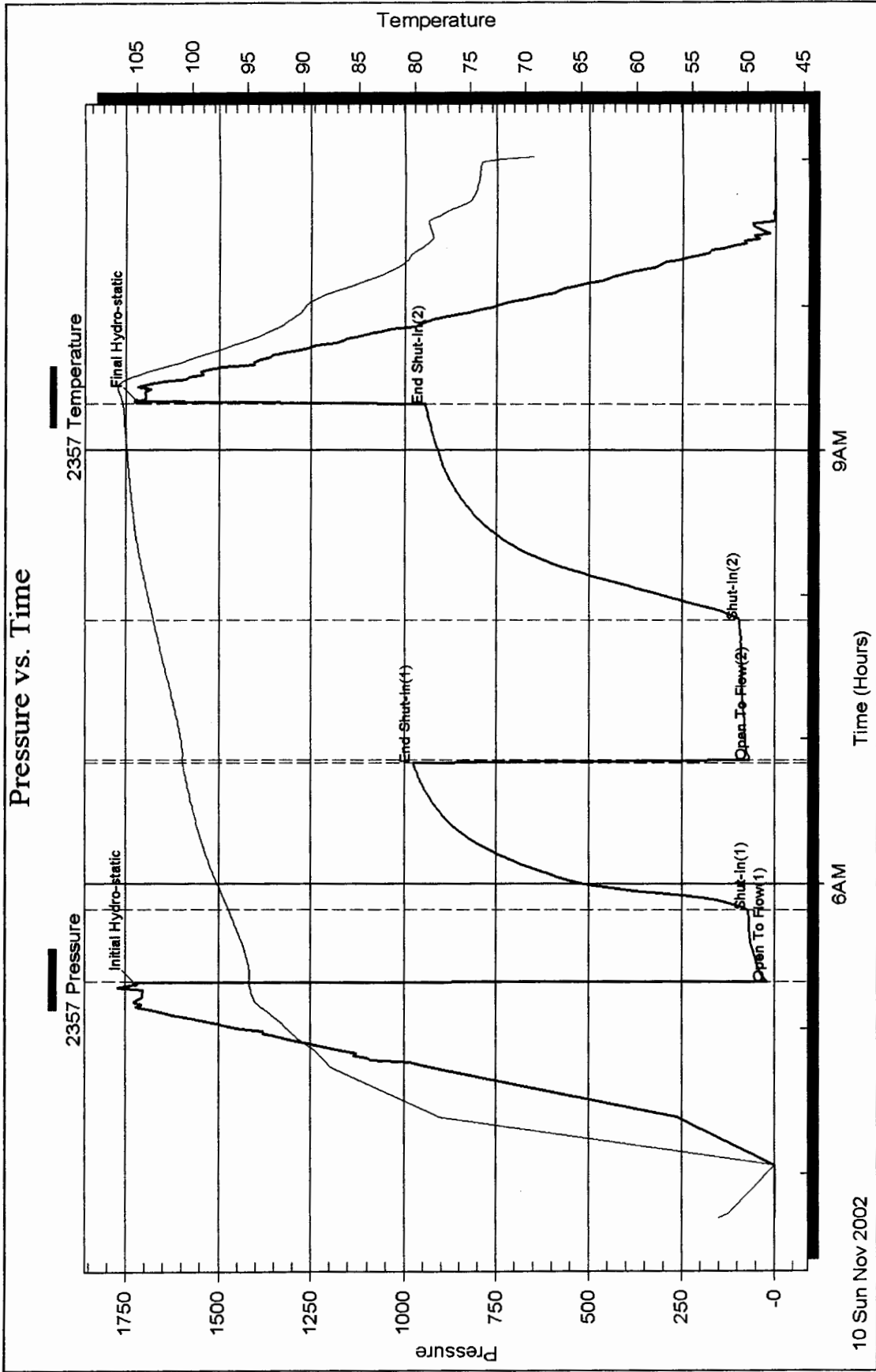
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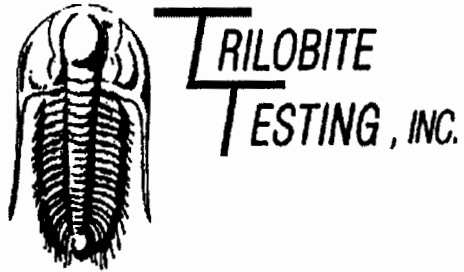
Inside

Murfin Drilling Co Inc

25-11-20-Ellis-Ks

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Suite 300
Wichita, Ks 67202

ATTN: Scott Robinson/David

25-11-20-Ellis-Ks

Western-Star # 2-25

Start Date: 2002.11.10 @ 22:19:25

End Date: 2002.11.11 @ 05:50:55

Job Ticket #: 16715 DST #: 4

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Murfin Drilling Co Inc

Western-Star # 2-25

25-11-20-Ellis-Ks

DST # 4

Arbuckle

2002.11.10



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N Water Suite 300
Wichita, Ks 67202

ATTN: Scott Robinson/David

Western-Star # 2-25

25-11-20-Ellis-Ks

Job Ticket: 16715

DST#: 4

Test Start: 2002.11.10 @ 22:19:25

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 00:02:55

Time Test Ended: 05:50:55

Test Type: **Conventional Bottom Hole**

Tester: **Paul Simpson**

Unit No: **21**

Interval: **3693.00 ft (KB) To 3710.00 ft (KB) (TVD)**

Total Depth: **3371.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Good**

Reference Elevations: **2085.00 ft (KB)**

2080.00 ft (CF)

KB to GR/CF: **5.00 ft**

Serial #: 2357

Inside

Press@RunDepth: **50.39 psig @ 3697.00 ft (KB)**

Start Date: **2002.11.10**

End Date:

2002.11.11

Capacity: **7000.00 psig**

Last Calib.: **1899.12.30**

Start Time: **22:19:30**

End Time:

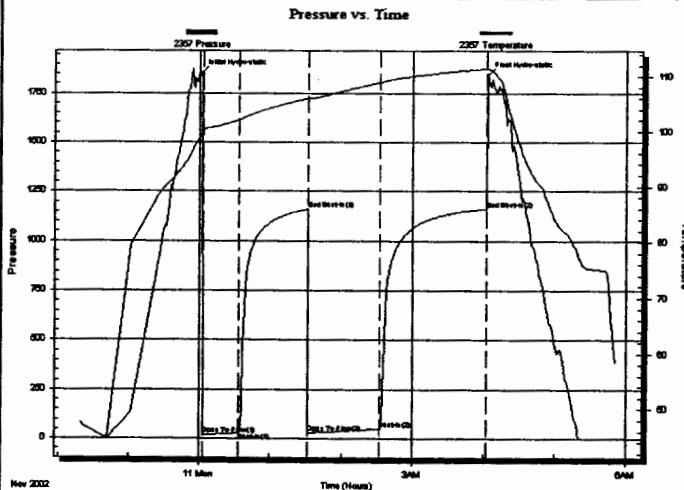
05:50:54

Time On Btm: **2002.11.11 @ 00:01:25**

Time Off Btm: **2002.11.11 @ 04:03:25**

TEST COMMENT: F- weak surface blow building to 1.5"

FF- weak .25" blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1852.20	99.46	Initial Hydro-static
2	18.14	100.10	Open To Flow (1)
32	28.46	102.12	Shut-In(1)
90	1158.53	106.00	End Shut-In(1)
91	31.08	106.01	Open To Flow (2)
151	50.39	108.92	Shut-In(2)
241	1161.10	111.43	End Shut-In(2)
242	1840.96	111.39	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	muddy oil 80%oil 20%mud	0.07
40.00	clean oil	0.20

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

Western-Star # 2-25

250 N Water Suite 300
Wichita, Ks 67202

25-11-20-Ellis-Ks

Job Ticket: 16715

DST#: 4

ATTN: Scott Robinson/David

Test Start: 2002.11.10 @ 22:19:25

Tool Information

Drill Pipe:	Length: 3582.00 ft	Diameter: 3.80 inches	Volume: 50.25 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 115.00 ft	Diameter: 2.25 inches	Volume: 0.57 bbl	Weight to Pull Loose:	55000.00 lb
		Total Volume: 50.82 bbl		Tool Chased	ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial	55000.00 lb
Depth to Top Packer:	3693.00 ft			Final	55000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	17.00 ft				
Tool Length:	40.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			3671.00	
S.I. Tool	5.00			3676.00	
HMV	5.00			3681.00	
Safety Joint	2.00			3683.00	
Packer	5.00			3688.00	23.00 Bottom Of Top Packer
Packer	5.00			3693.00	
Stubb	1.00			3694.00	
Perforations	3.00			3697.00	
Recorder	0.00	2357	Inside	3697.00	
Perforations	10.00			3707.00	
Recorder	0.00	13254	Outside	3707.00	
Bullnose	3.00			3710.00	17.00 Bottom Packers & Anchor

Total Tool Length: 40.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

Western-Star # 2-25

250 N Water Suite 300
Wichita, Ks 67202

25-11-20-Ellis-Ks

Job Ticket: 16715

DST#: 4

ATTN: Scott Robinson/David

Test Start: 2002.11.10 @ 22:19:25

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 25 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 49.00 sec/qt	Cushion Volume: bbl	
Water Loss: 8.38 in ³	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
15.00	muddy oil 80%oil 20%mud	0.074
40.00	clean oil	0.197

Total Length: 55.00 ft Total Volume: 0.271 bbl

Num Fluid Samples: 0

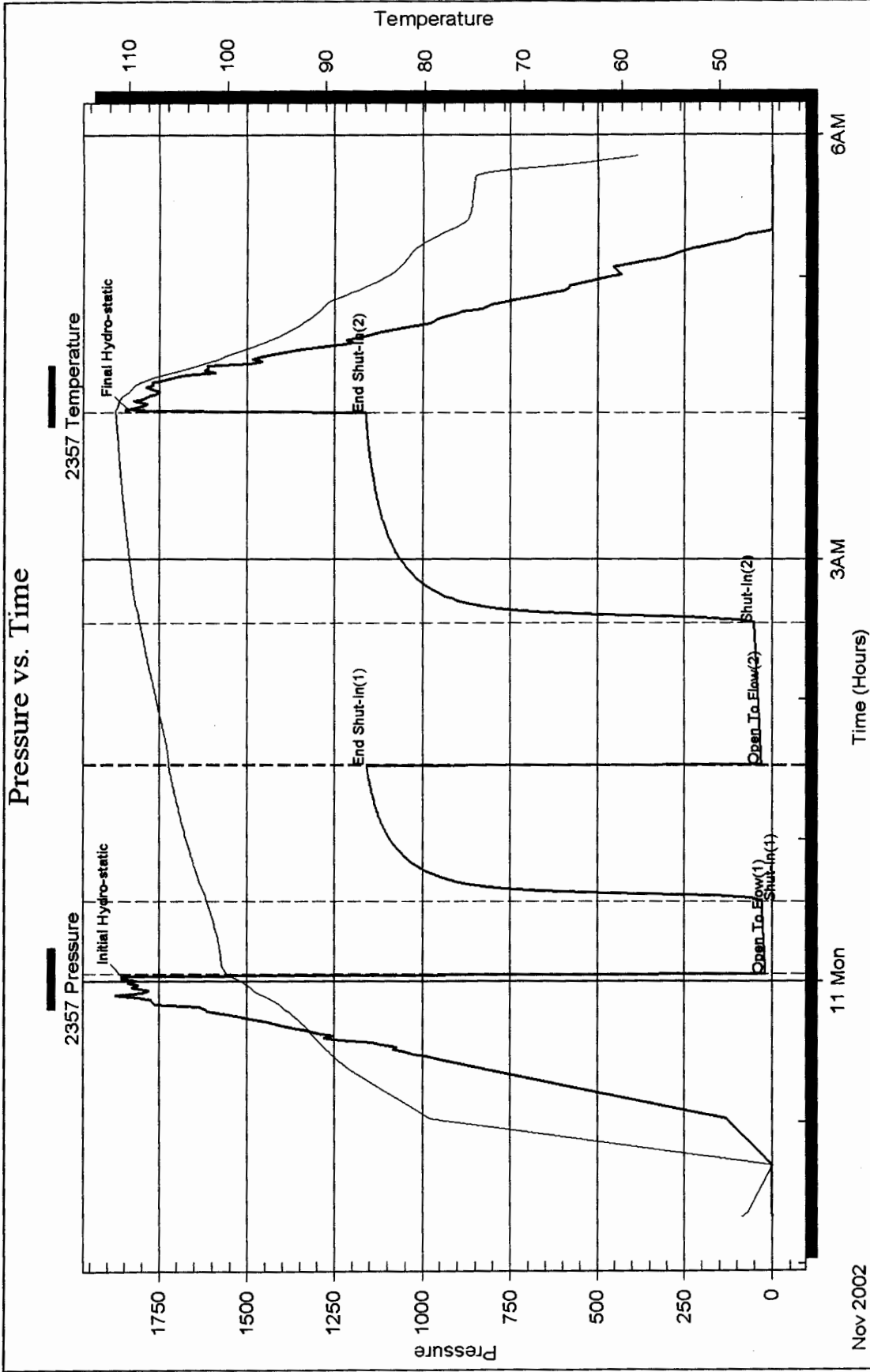
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Suite 300
Wichita, Ks 67202

ATTN: Scott Robinson/David

25-11-20-Ellis-Ks

Western-Star # 2-25

Start Date: 2002.11.11 @ 11:32:18

End Date: 2002.11.11 @ 19:32:18

Job Ticket #: 16716 DST #: 5

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Murfin Drilling Co Inc

Western-Star # 2-25

25-11-20-Ellis-Ks

DST # 5

Arbuckle

2002.11.11



**TRIOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

Western-Star # 2-25

250 N Water Suite 300
Wichita, Ks 67202

25-11-20-Ellis-Ks

Job Ticket: 16716

DST#: 5

ATTN: Scott Robinson/David

Test Start: 2002.11.11 @ 11:32:18

Tool Information

Drill Pipe:	Length: 3583.00 ft	Diameter: 3.80 inches	Volume: 50.26 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 115.00 ft	Diameter: 2.25 inches	Volume: 0.57 bbl	Weight to Pull Loose: lb
			<u>Total Volume: 50.83 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3709.00 ft			Final lb
Depth to Bottom Packer:	ft			
Interval between Packers:	11.00 ft			
Tool Length:	34.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:
30-60-45-90

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			3687.00	
S.I. Tool	5.00			3692.00	
HMV	5.00			3697.00	
Safety Joint	2.00			3699.00	
Packer	5.00			3704.00	23.00 Bottom Of Top Packer
Packer	5.00			3709.00	
Stubb	1.00			3710.00	
Recorder	0.00	6528	Inside	3710.00	
Recorder	0.00	13254	Outside	3710.00	
Perforations	7.00			3717.00	
Bullnose	3.00			3720.00	11.00 Bottom Packers & Anchor
Total Tool Length:	34.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

Western-Star # 2-25

250 N Water Suite 300
Wichita, Ks 67202

25-11-20-Ellis-Ks

Job Ticket: 16716

DST#: 5

ATTN: Scott Robinson/David

Test Start: 2002.11.11 @ 11:32:18

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:

24000 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
1500.00	salt water with scum of oil	19.993

Total Length: 1500.00 ft Total Volume: 19.993 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

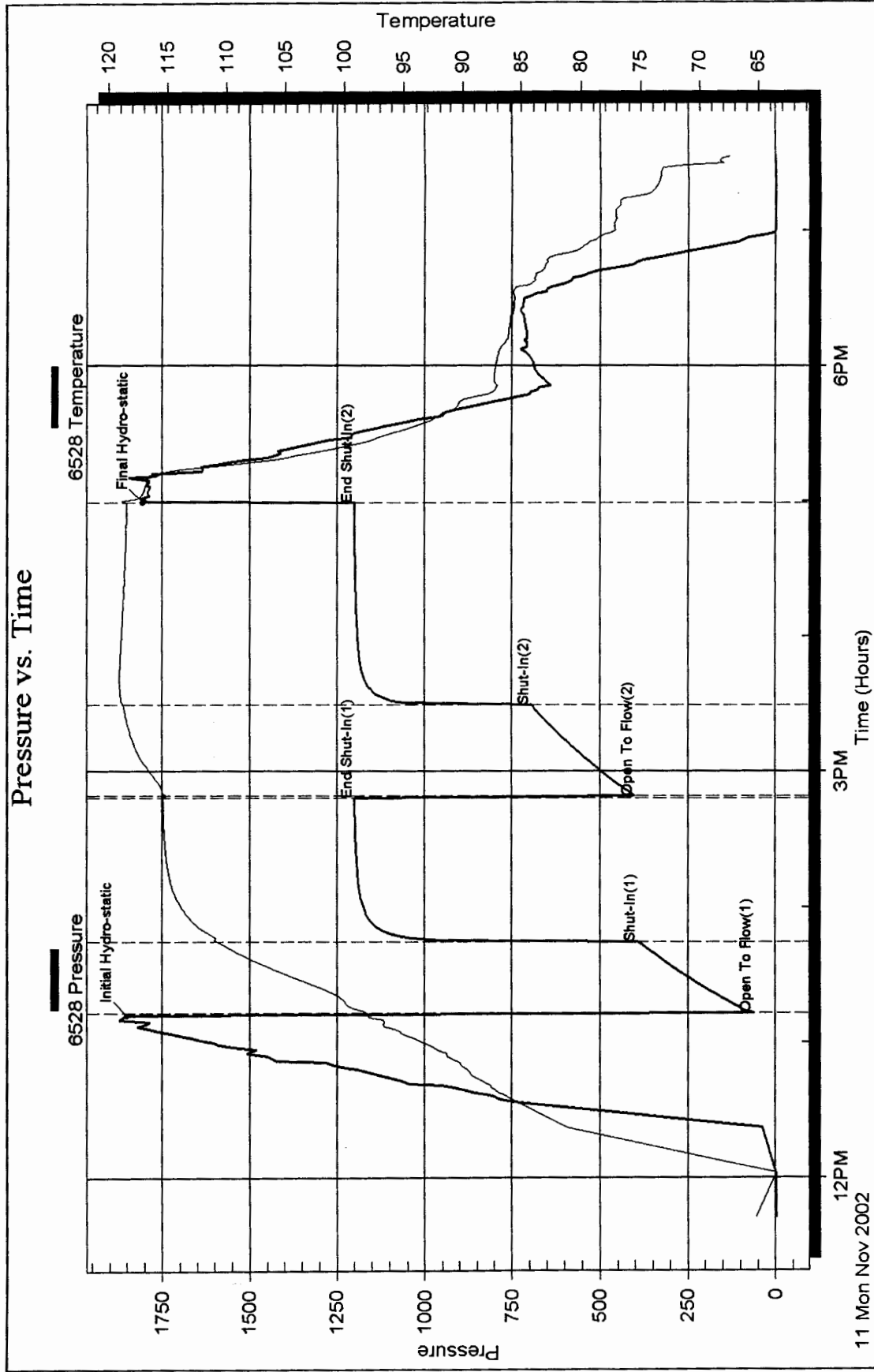
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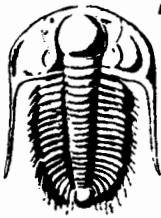
Laboratory Name:

Laboratory Location:

Recovery Comments: .40@48 reversed into pit

Pressure vs. Time





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

LN #3227
\$4760.00

No 16712

Test Ticket

Well Name & No. Western-Star 2-20 Test No. 1 Date 11-8-02
 Company Murfin Dalg Co. Inc Zone Tested Topeka
 Address 250 N. WTR, STE 300, Wichita, Ks. 67202 Elevation 2085 KB 2080 GL
 Co. Rep / Geo. Kris Kennedy Cont. Murfin #16 Est. Ft. of Pay Por. %
 Location: Sec. 25 Twp. 11 Rge. 20 Co. Ellis State Ks
 No. of Copies Distribution Sheet (Y, N) Turnkey (Y, N) Evaluation (Y, N)

Interval Tested 3304 — 3371 Initial Str Wt./Lbs 10,000 Unseated Str Wt./Lbs 50,000
 Anchor Length 67 Wt. Set Lbs. 25,000 Wt. Pulled Loose/Lbs 20,000
 Top Packer Depth 3299 Tool Weight 2200
 Bottom Packer Depth 3304 Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Total Depth 3371 Wt. Pipe Run Drill Collar Run 115
 Mud Wt. 9.2 LCM Vis. 49 WL 7.6 Drill Pipe Size 4.5 XH Ft. Run 3180
 Blow Description I.F. Weak - building to 1 1/4"

I.F. Weak surface blow - died in 30 min.

Recovery — Total Feet	GIP	Ft. in DC	Ft. in DP
<u>65</u>	<u> </u>	<u>65</u>	<u> </u>
Rec. <u>65</u> Feet Of <u>mdy WTR</u>	%gas	%oil	<u>50%</u> water <u>45%</u> mud
Rec. <u> </u> Feet Of <u> </u>	%gas	%oil	%water %mud
Rec. <u> </u> Feet Of <u> </u>	%gas	%oil	%water %mud
Rec. <u> </u> Feet Of <u> </u>	%gas	%oil	%water %mud
Rec. <u> </u> Feet Of <u> </u>	%gas	%oil	%water %mud

BHT 101 °F Gravity °API D@ °F Corrected Gravity °API
 RW 47 @ 75 °F Chlorides 13,000 ppm Recovery Chlorides 3500 ppm System

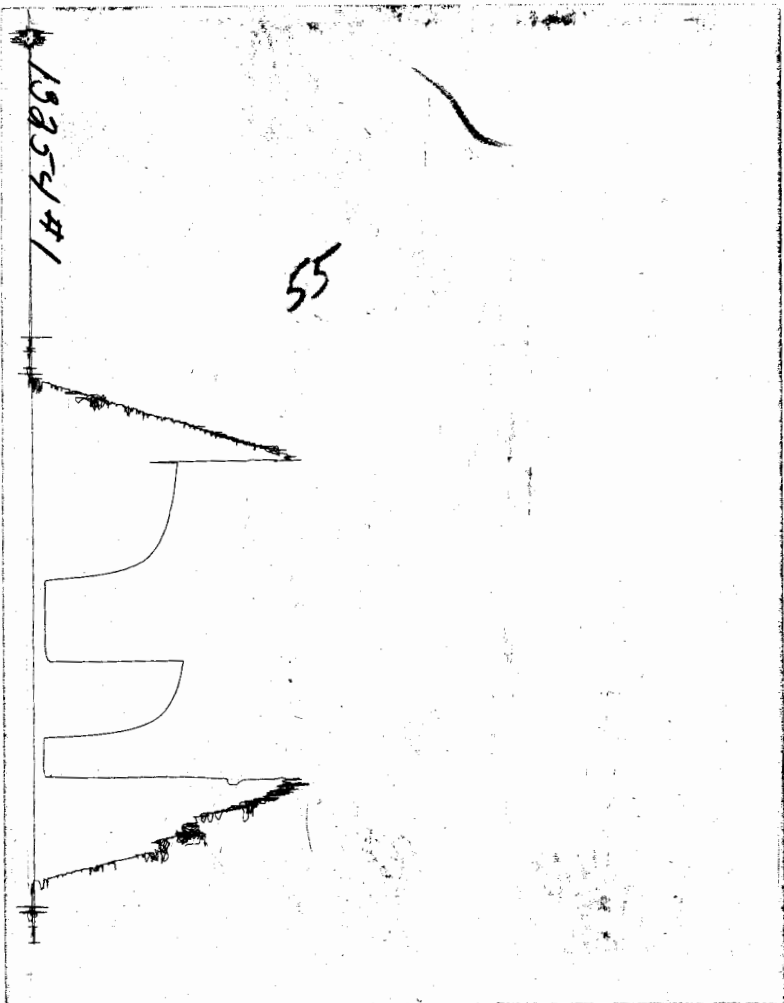
	AK-1	Alpine	PSI	Recorder No.	T-On Location
(A) Initial Hydrostatic Mud	<u>1621</u>	<u> </u>	<u> </u>	<u>2357</u>	<u>12:30</u>
(B) First Initial Flow Pressure	<u>19</u>	<u> </u>	<u> </u>	<u>3311</u>	<u>13:28</u>
(C) First Final Flow Pressure	<u>31</u>	<u> </u>	<u> </u>	<u>13254</u>	<u>15:07</u>
(D) Initial Shut-In Pressure	<u>950</u>	<u> </u>	<u> </u>	<u>3343</u>	<u>19:07</u>
(E) Second Initial Flow Pressure	<u>33</u>	<u> </u>	<u> </u>	<u> </u>	<u>20:38</u>
(F) Second Final Flow Pressure	<u>49</u>	<u> </u>	<u> </u>	<u> </u>	<u>21:00</u>
(G) Final Shut-in Pressure	<u>914</u>	<u> </u>	<u> </u>	Initial Opening <u>30</u>	Test <u>700</u>
(Q) Final Hydrostatic Mud	<u>1573</u>	<u> </u>	<u> </u>	Initial Shut-in <u>60</u>	Jars <u> </u>
				Final Flow <u>60</u>	Safety Joint <u>X</u> <u>50</u>
				Final Shut-in <u>90</u>	Straddle <u> </u>
					Circ. Sub <u> </u>
					Sampler <u> </u>
					Extra Packer <u> </u>
					Elec. Rec. <u>X</u> <u>150</u>
					Mileage <u>28</u> <u>28</u>
					Other <u> </u>
					TOTAL PRICE \$ <u> </u> <u>\$928</u>

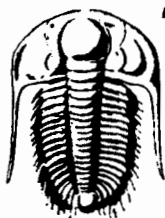
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Approved By [Signature]
 Our Representative Don Rangle

CHART PAGE

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TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 16713

Test Ticket

Well Name & No. WESTERN-STAR #2-25 Test No. 2 Date 11-9-01
 Company Murfin Drilg Co. Inc Zone Tested B-C-D LKC
 Address _____ Elevation 2085 KB 2080 GL
 Co. Rep / Geo. Kris Kennedy Cont. Murfin #16 Est. Ft. of Pay _____ Por. _____ %
 Location: Sec. 25 Twp. 11 Rge. 20 Co. Ellis State Ks
 No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 3403 - 3454 Initial Str Wt./Lbs. 59,000 Unseated Str Wt./Lbs. 59,000
 Anchor Length 51 Wt. Set Lbs. 1900 Wt. Pulled Loose/Lbs. 69,000
 Top Packer Depth 3398 Tool Weight 1900
 Bottom Packer Depth 3403 Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
 Total Depth 3454 Wt. Pipe Run _____ Drill Collar Run 115
 Mud Wt. 9.2 LCM _____ Vis. 49 WL 7.6 Drill Pipe Size 4.5 KH Ft. Run 3274
 Blow Description I.F. Weak building to 1"

F.F. Very weak surface blow

Recovery — Total Feet 30 GIP _____ Ft. in DC 30 Ft. in DP _____
 Rec. 30 Feet Of D.m. %gas _____ %oil _____ %water _____ %mud _____
 Rec. _____ Feet Of _____ %gas _____ %oil _____ %water _____ %mud _____
 Rec. _____ Feet Of _____ %gas _____ %oil _____ %water _____ %mud _____
 Rec. _____ Feet Of _____ %gas _____ %oil _____ %water _____ %mud _____
 Rec. _____ Feet Of _____ %gas _____ %oil _____ %water _____ %mud _____
 BHT 100 °F Gravity _____ °API D@ _____ °F Corrected Gravity _____ °API
 RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

	AK-1	Alpine			
(A) Initial Hydrostatic Mud	<u>1702</u>	PSI	Recorder No. <u>2357</u>	T-On Location	<u>05:15</u>
(B) First Initial Flow Pressure	<u>18</u>	PSI	(depth) <u>3410</u>	T-Started	<u>06:04</u>
(C) First Final Flow Pressure	<u>28</u>	PSI	Recorder No. <u>13254</u>	T-Open	<u>07:56</u>
(D) Initial Shut-In Pressure	<u>348</u>	PSI	(depth) <u>3442</u>	T-Pulled	<u>10:55</u>
(E) Second Initial Flow Pressure	<u>29</u>	PSI	Recorder No. _____	T-Out	<u>12:33</u>
(F) Second Final Flow Pressure	<u>31</u>	PSI	(depth) _____	T-Off Location	<u>13:50</u>
(G) Final Shut-in Pressure	<u>353</u>	PSI	Initial Opening <u>30</u>	Test	<u>700</u>
(Q) Final Hydrostatic Mud	<u>1690</u>	PSI	Initial Shut-in <u>30</u>	Jars	_____
			Final Flow <u>30</u>	Safety Joint <u>X</u>	<u>50</u>
			Final Shut-in <u>90</u>	Straddle	_____
				Circ. Sub	_____
				Sampler	_____
				Extra Packer	_____
				Elec. Rec. <u>X</u>	<u>150</u>
				Mileage <u>28</u>	<u>28</u>
				Other	_____
				TOTAL PRICE \$	<u>\$928</u>

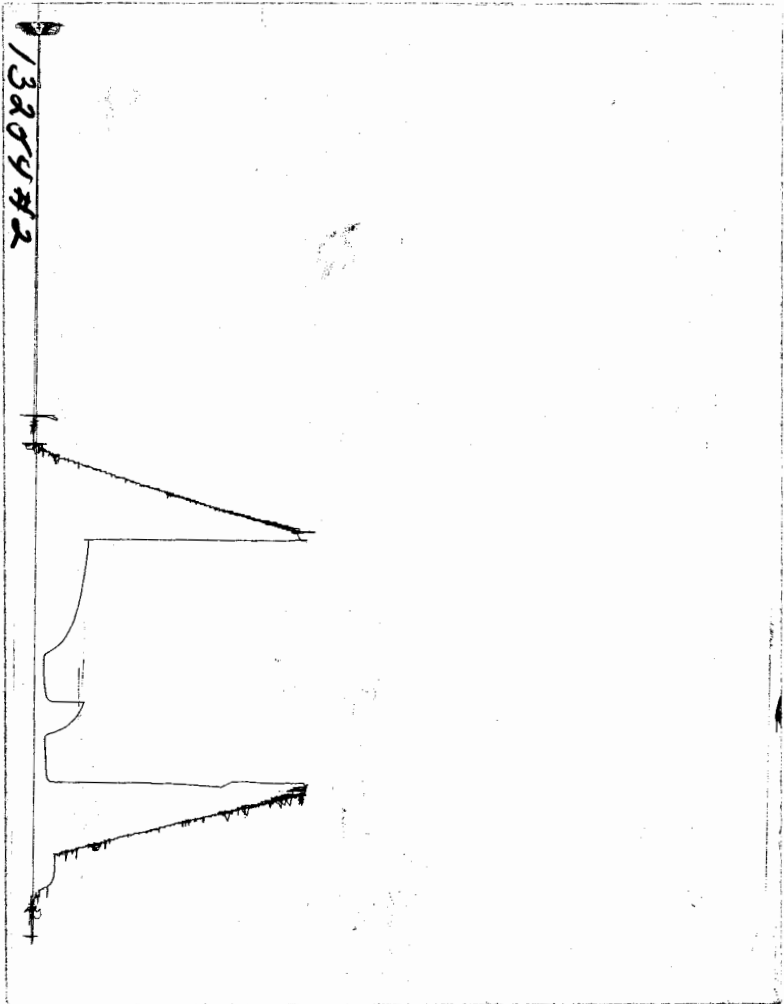
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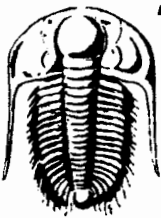
Approved By [Signature]
Our Representative Dan Bangle

TOTAL PRICE \$ \$928

CHART PAGE

This is a photocopy of the actual AK-1 recorder chart





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 16714

Test Ticket

Well Name & No. Western - Star 2-25 Test No. 3 Date 11-10-02
 Company MDC Zone Tested LKC
 Address _____ Elevation 2085 KB 2080 GL
 Co. Rep / Geo. Kris Kennedy Cont. MDC #16 Est. Ft. of Pay _____ Por. _____ %
 Location: Sec. 25 Twp. 11 S Rge. 20 W Co. Ellis State KS
 No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 3506-3620 Initial Str Wt./Lbs. 55,000 Unseated Str Wt./Lbs. 57,000
 Anchor Length 114 Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 60,000
 Top Packer Depth 3501 Tool Weight 2100
 Bottom Packer Depth 3506 Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Total Depth 3620 Wt. Pipe Run _____ Drill Collar Run 115
 Mud Wt. 9.2 LCM _____ Vis. 48 WL 8.0 Drill Pipe Size 4 1/2 HT Ft. Run 3395
 Blow Description 1/2" blow building to bottom of bucket in 29 minutes
ISI - no blow
FF - surface blow building to bottom of bucket in 30
minutes

Recovery — Total Feet	GIP	Ft. in DC	Ft. in DP
Rec. <u>20</u>	<u>210</u>	<u>115</u>	<u>50</u>
Feet Of <u>cl gassy oil</u>		10 %gas 90 %oil	%water %mud
Rec. <u>60</u>		%gas 50 %oil	%water 50 %mud
Feet Of <u>MCO</u>			
Rec. <u>60</u>		10 %gas 65 %oil 10 %water 15 %mud	
Feet Of <u>gry oil w/ MCO</u>			
Rec. <u>45</u>		%gas 50 %oil 35 %water 15 %mud	
Feet Of <u>w/ MCO</u>			

BHT 106 °F Gravity 35 °API D @ 60 °F Corrected Gravity 35 °API
 RW .33 @ 61 °F Chlorides 24,000 ppm Recovery Chlorides _____ ppm System

	AK-1	Alpine	PSI Recorder No.	T-On Location
(A) Initial Hydrostatic Mud		<u>1722</u>	<u>2357</u>	<u>0315</u>
(B) First Initial Flow Pressure		<u>22</u>	(depth) <u>3512</u>	T-Started <u>0341</u>
(C) First Final Flow Pressure		<u>71</u>	PSI Recorder No. <u>13254</u>	T-Open <u>0519</u>
(D) Initial Shut-In Pressure		<u>976</u>	PSI (depth) <u>3605</u>	T-Pulled <u>0919</u>
(E) Second Initial Flow Pressure		<u>69</u>	PSI Recorder No. _____	T-Out <u>1101</u>
(F) Second Final Flow Pressure		<u>94</u>	PSI (depth) _____	T-Off Location <u>1130</u>
(G) Final Shut-in Pressure		<u>944</u>	PSI Initial Opening _____	Test <u>700</u>
(Q) Final Hydrostatic Mud		<u>1720</u>	PSI Initial Shut-in <u>30</u>	Jars _____

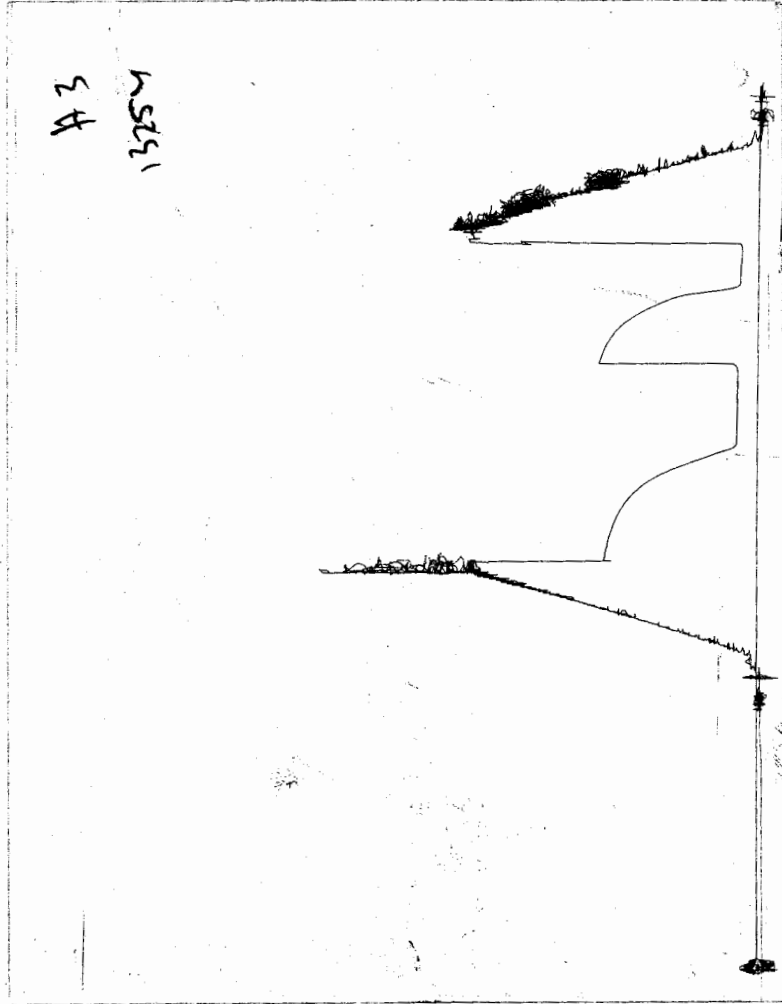
Final Flow 60 Safety Joint X 50
 Final Shut-in 60 Straddle _____
90 Circ. Sub _____
 Sampler _____
 Extra Packer _____
 Elec. Rec. 150
 Mileage 28 28
 Other _____
 TOTAL PRICE \$ \$928

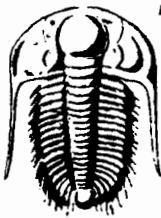
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Approved By [Signature]
 Our Representative Paul Simpson

CHART PAGE

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TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 16715

Test Ticket

Well Name & No. Western Star 2-25 Test No. 4 Date 11-10-02
 Company MDC Zone Tested Arbuckle
 Address _____ Elevation 2085 KB 2080 GL
 Co. Rep / Geo. Kris Kennedy Cont. MDC #16 Est. Ft. of Pay _____ Por. _____ %
 Location: Sec. 25 Twp. 11s Rge. 20w Co. Ellis State Ks
 No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 3693-3710 Initial Str Wt./Lbs. 55,000 Unseated Str Wt./Lbs. 55,000
 Anchor Length 17 Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 55,000
 Top Packer Depth 3688 Tool Weight 1900
 Bottom Packer Depth 3693 Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Total Depth 3710 Wt. Pipe Run _____ Drill Collar Run 35825
 Mud Wt. 8.8 LCM Vis. 49 WL 8.4 Drill Pipe Size 4 1/2 x H Ft. Run 115
 Blow Description IS - Surface blow building to 1 1/2"
FF - weak 1/2" blow

Recovery — Total Feet 65 GIP _____ Ft. in DC 65 Ft. in DP _____
 Rec. 40 Feet Of oil %gas _____ %oil _____ %water _____ %mud _____
 Rec. 15 Feet Of MU %gas 80 %oil _____ %water 20 %mud _____
 Rec. _____ Feet Of _____ %gas _____ %oil _____ %water _____ %mud _____
 Rec. _____ Feet Of _____ %gas _____ %oil _____ %water _____ %mud _____
 Rec. _____ Feet Of _____ %gas _____ %oil _____ %water _____ %mud _____
 BHT 111 °F Gravity 25 °API D@ 60 °F Corrected Gravity 25 °API _____
 RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

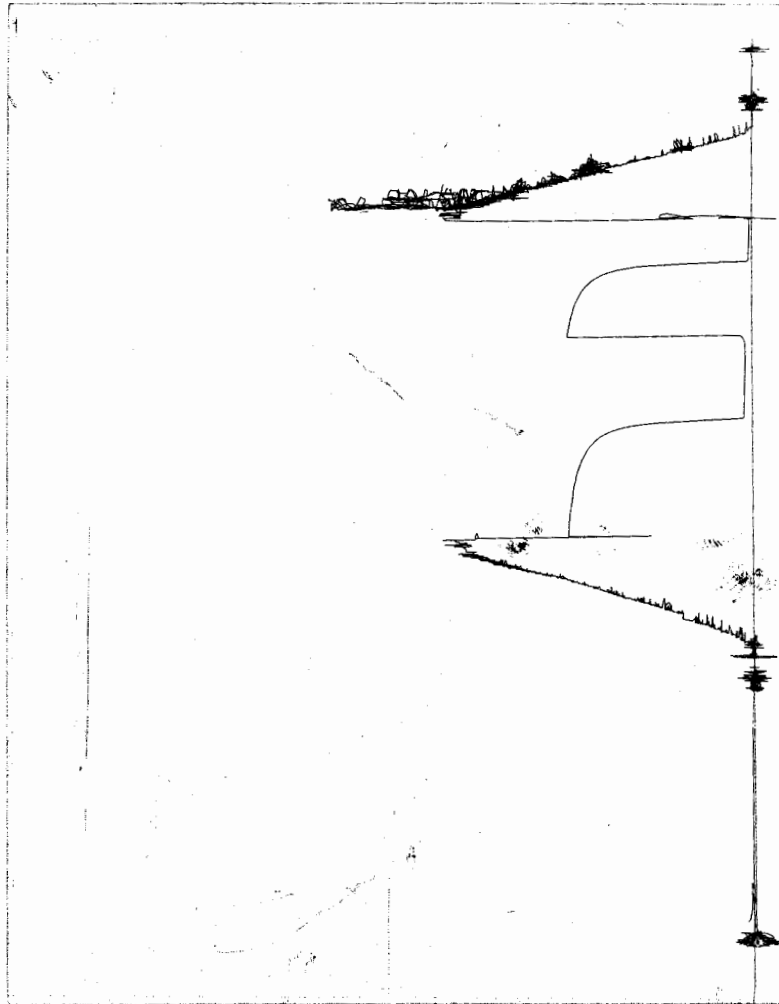
	AK-1	Alpine	PSI	Recorder No.	T-On Location
(A) Initial Hydrostatic Mud		1852		2357	2140
(B) First Initial Flow Pressure		18		(depth) 3697	T-Started 2219
(C) First Final Flow Pressure		28		13254	T-Open 0003
(D) Initial Shut-In Pressure		1158		(depth) 3707	T-Pulled 0403
(E) Second Initial Flow Pressure		31		Recorder No. _____	T-Out 0550
(F) Second Final Flow Pressure		50		(depth) _____	T-Off Location 0615
(G) Final Shut-in Pressure		1161		PSI Initial Opening 30	Test 700
(Q) Final Hydrostatic Mud		1841		PSI Initial Shut-in 60	Jars _____
				Final Flow 60	Safety Joint <input checked="" type="checkbox"/> 50
				Final Shut-in 90	Straddle _____
					Circ. Sub _____
					Sampler _____
					Extra Packer _____
					Elec. Rec. <input checked="" type="checkbox"/> 150
					Mileage 28 28
					Other _____
					TOTAL PRICE \$ <u>7928</u>

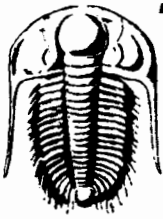
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Approved By [Signature]
 Our Representative [Signature]

CHART PAGE

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TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 16716

Test Ticket

Well Name & No. Western Star 2-25 Test No. 5 Date 11-11-02
 Company MDC Zone Tested Arbuck
 Address _____ Elevation 2085 KB 2080 GL
 Co. Rep / Geo. Kew Kennedy Cont. MDC #16 Est. Ft. of Pay _____ Por. _____ %
 Location: Sec. 25 Twp. 11s Rge. 20w Co. Ellis State Ks
 No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 3709-3720 Initial Str Wt./Lbs. 55000 Unseated Str Wt./Lbs. 59000
 Anchor Length 11 Wt. Set Lbs. _____ Wt. Pulled Loose/Lbs. 64000
 Top Packer Depth 3704 Tool Weight 1800
 Bottom Packer Depth 3709 Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Total Depth 3720 Wt. Pipe Run _____ Drill Collar Run 115
 Mud Wt. 9.3 LCM _____ Vis. 55 WL 8.0 Drill Pipe Size 4 1/2 XH Ft. Run 3583
 Blow Description FF - strong blow - bottom of bucket in 3 minutes
FF - bottom of bucket in 4 minutes

Recovery — Total Feet 1500 GIP _____ Ft. in DC 115 Ft. in DP 1485
 Rec. 1500 Feet Of water w/ oilicum %gas _____ %oil _____ %water _____ %mud _____
 Rec. _____ Feet Of _____ %gas _____ %oil _____ %water _____ %mud _____
 Rec. _____ Feet Of _____ %gas _____ %oil _____ %water _____ %mud _____
 Rec. _____ Feet Of _____ %gas _____ %oil _____ %water _____ %mud _____
 Rec. _____ Feet Of _____ %gas _____ %oil _____ %water _____ %mud _____
 BHT 118 °F Gravity _____ °API D@ _____ °F Corrected Gravity _____ °API
 RW 34 @ 48 °F Chlorides 24,000 ppm Recovery Chlorides 6500 ppm System

	AK-1	Alpine	PSI	Recorder No.	T-On Location
(A) Initial Hydrostatic Mud		<u>1850</u>		<u>6258</u>	<u>1115</u>
(B) First Initial Flow Pressure		<u>62</u>		(depth) <u>3710</u>	T-Started <u>1132</u>
(C) First Final Flow Pressure		<u>393</u>		Recorder No. <u>13254</u>	T-Open <u>1213</u>
(D) Initial Shut-in Pressure		<u>1199</u>		(depth) <u>3717</u>	T-Pulled <u>1658</u>
(E) Second Initial Flow Pressure		<u>403</u>		Recorder No. _____	T-Out <u>1932</u>
(F) Second Final Flow Pressure		<u>693</u>		(depth) _____	T-Off Location <u>2010</u>
(G) Final Shut-in Pressure		<u>1199</u>		Initial Opening <u>30</u>	Test _____ <u>700</u>
(Q) Final Hydrostatic Mud		<u>1804</u>		Initial Shut-in <u>60</u>	Jars _____
				Final Flow <u>45</u>	Safety Joint <u>X</u> <u>50</u>
				Final Shut-in <u>90</u>	Straddle _____
					Circ. Sub <u>X</u> <u>35</u>
					Sampler _____
					Extra Packer _____
					Elec. Rec. <u>Y</u> <u>150</u>
					Mileage <u>28</u> <u>28</u>
					Other <u>1 st by</u> <u>963</u>
					TOTAL PRICE \$ <u>22 ex Copies</u> <u>993</u>

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CHART PAGE

This is a photocopy of the actual AK-1 recorder chart

