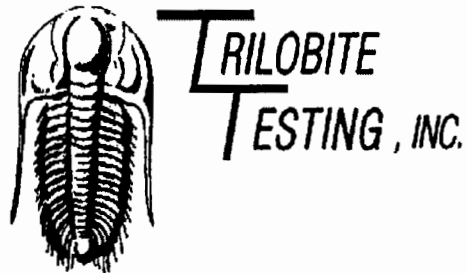


15-163-23364

28-10s-19w



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Ste 300
Wichita, Ks 67202

ATTN: Scott Robinson

28-10-19-Rooks-Ks

Irene Z # 1-28

Start Date: 2002.12.28 @ 01:45:41

End Date: 2002.12.28 @ 08:48:11

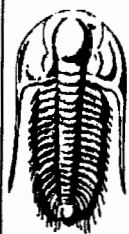
Job Ticket #: 16811

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 Ste 300
Wichita, Ks 67202

ATTN: Scott Robinson

Irene Z # 1-28

28-10-19-Rooks-Ks

Job Ticket: 16811

DST#: 1

Test Start: 2002.12.28 @ 01:45:41

GENERAL INFORMATION:

Formation: **Topeka 30'**

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

Time Tool Opened: 03:38:41

Time Test Ended: 08:48:11

Test Type: **Conventional Bottom Hole**

Tester: **Dan Bangle**

Unit No: **21**

Interval: **3182.00 ft (KB) To 3200.00 ft (KB) (TVD)**

Total Depth: **3200.00 ft (KB) (TVD)**

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

Reference Elevations: **2195.00 ft (KB)**

2190.00 ft (CF)

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

Serial #: **2357**

Inside

Press@RunDepth: **130.72 psig @ 3183.00 ft (KB)**

Start Date: **2002.12.28**

End Date:

2002.12.28

Capacity: **7000.00 psig**

Last Calib.: **2002.12.28**

Start Time: **01:45:46**

End Time:

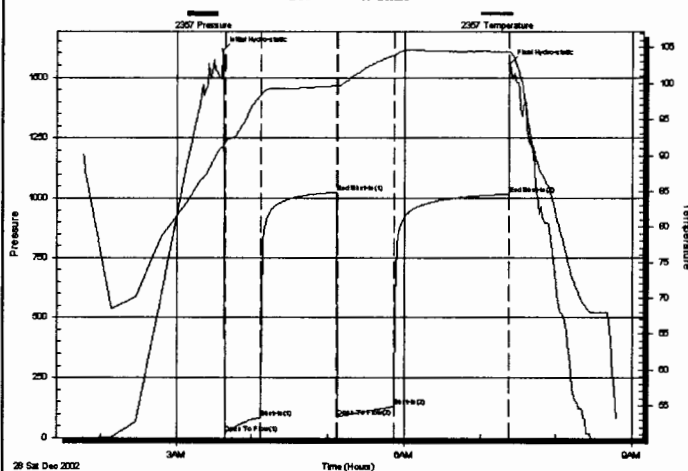
08:48:10

Time On Btm: **2002.12.28 @ 03:36:41**

Time Off Btm: **2002.12.28 @ 07:23:11**

TEST COMMENT: **F-Weak building to 4"**
FF-Weak building to 1 1/2"
Times-30-60-45-90

Pressure vs. Time



PRESSURE SUMMARY

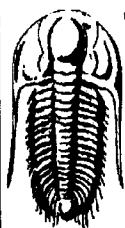
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1610.87	91.20	Initial Hydro-static
2	19.77	91.81	Open To Flow (1)
31	83.35	98.37	Shut-In(1)
90	1025.15	99.69	End Shut-In(1)
91	87.10	99.68	Open To Flow (2)
135	130.72	103.95	Shut-In(2)
226	1017.08	104.43	End Shut-In(2)
227	1556.54	104.41	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
248.00	Mdy Wtr 80%w 20%m	2.35

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

Irene Z # 1-28

250 N Water Ste 300
Wichita, Ks 67202

28-10-19-Rooks-Ks

Job Ticket: 16811

DST#: 1

ATTN: Scott Robinson

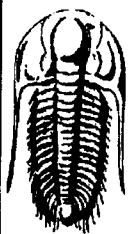
Test Start: 2002.12.28 @ 01:45:41

Tool Information

Drill Pipe:	Length:	3064.00 ft	Diameter:	3.80 inches	Volume:	42.98 bbl	Tool Weight:	1200.00 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:	124.00 ft	Diameter:	2.25 inches	Volume:	0.61 bbl	Weight to Pull Loose:	60000.00 lb
					Total Volume:	43.59 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	27.00 ft						String Weight: Initial	40000.00 lb
Depth to Top Packer:	3182.00 ft						Final	40000.00 lb
Depth to Bottom Packer:	ft							
Interval between Packers:	18.00 ft							
Tool Length:	39.00 ft							
Number of Packers:	2	Diameter:	6.75 inches					
Tool Comments:								
Slid tool 5' to bottom								

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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C.O. Sub	1.00			3162.00	
S.I. Tool	5.00			3167.00	
HMV	5.00			3172.00	
Packer	5.00			3177.00	21.00 Bottom Of Top Packer
Packer	5.00			3182.00	
Stubb	1.00			3183.00	
Recorder	0.00	2357	Inside	3183.00	
Perforations	14.00			3197.00	
Recorder	0.00	13254	Outside	3197.00	
Bullnose	3.00			3200.00	18.00 Bottom Packers & Anchor
Total Tool Length:	39.00				



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

Irene Z # 1-28

250 N Water Ste 300
Wichita, Ks 67202

28-10-19-Rooks-Ks

Job Ticket: 16811

DST#: 1

ATTN: Scott Robinson

Test Start: 2002.12.28 @ 01:45:41

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:

30000 ppm

Viscosity: 44.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.36 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4200.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
248.00	Mdy Wtr 80%w 20%m	2.349

Total Length: 248.00 ft Total Volume: 2.349 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Rw .24 @ 70 = 30000ppm

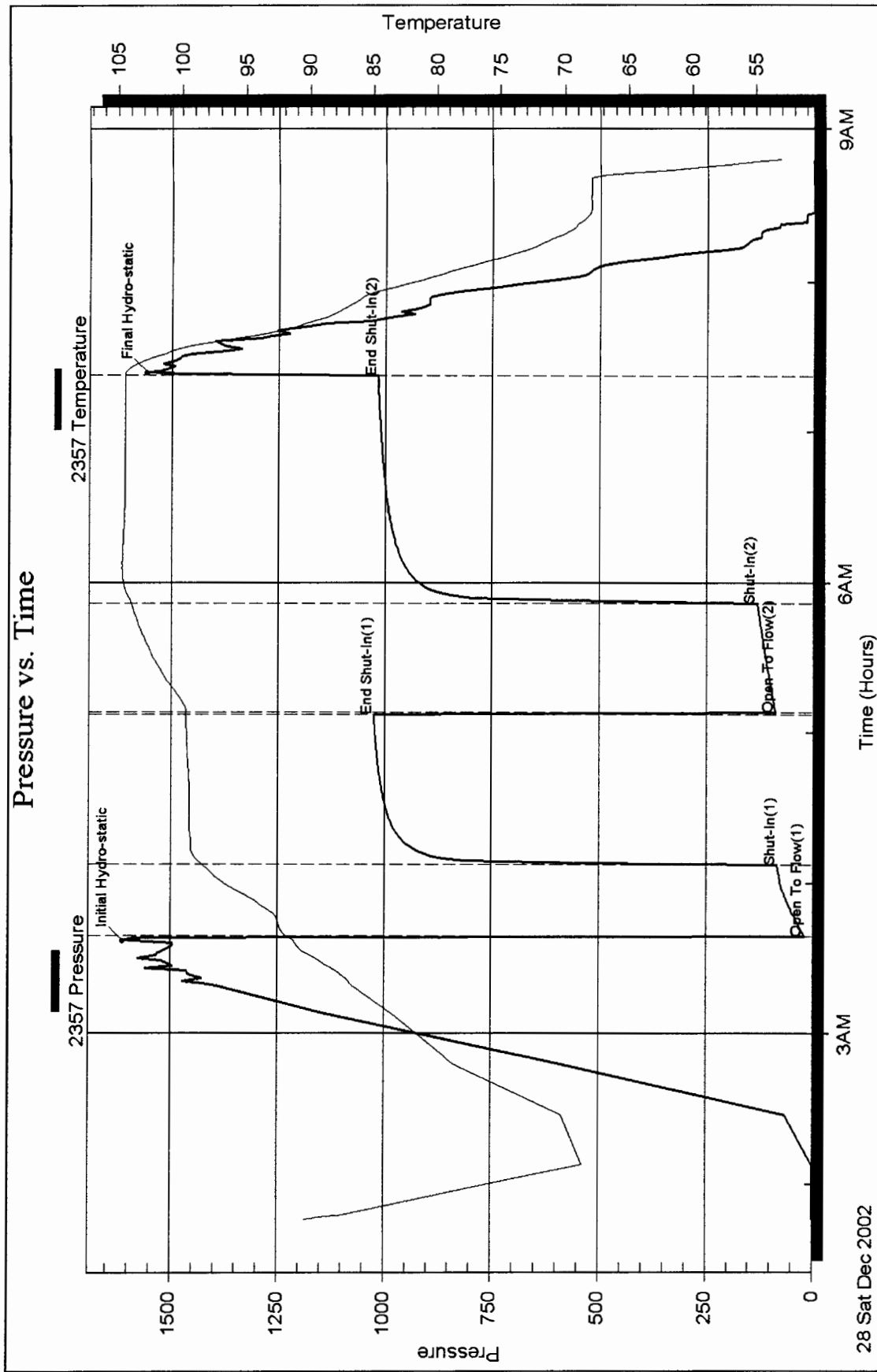
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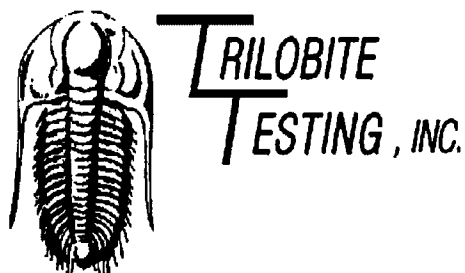
Inside

Murfin Drilling Co Inc

28-10-19-Rooks-Ks

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Ste 300
Wichita, Ks 67202

ATTN: Scott Robinson

28-10-19-Rooks-Ks

Irene Z # 1-28

Start Date: 2002.12.29 @ 10:08:51

End Date: 2002.12.29 @ 17:01:21

Job Ticket #: 16812 DST #: 2

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 Ste 300
Wichita, Ks 67202

ATTN: Scott Robinson

Irene Z # 1-28

28-10-19-Rooks-Ks

Job Ticket: 16812

DST#: 2

Test Start: 2002.12.29 @ 10:08:51

GENERAL INFORMATION:

Formation: **E-F-G-H LKC**

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

Time Tool Opened: 12:02:51

Time Test Ended: 17:01:21

Test Type: Conventional Bottom Hole

Tester: Dan Bangle

Unit No: 21

Interval: **3490.00 ft (KB) To 3573.00 ft (KB) (TVD)**

Total Depth: **3573.00 ft (KB) (TVD)**

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

Reference Elevations: **2195.00 ft (KB)**

2190.00 ft (CF)

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

Serial #: **2357**

Inside

Press@RunDepth: **286.55 psig @ 3492.00 ft (KB)**

Start Date: **2002.12.29**

End Date:

2002.12.29

Capacity: **7000.00 psig**

Last Calib.:

2002.12.29

Start Time: **10:08:56**

End Time:

17:01:20

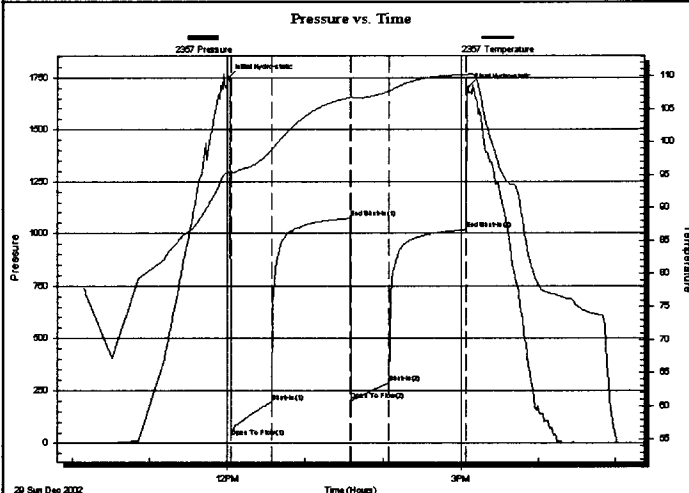
Time On Btm:

2002.12.29 @ 12:01:21

Time Off Btm:

2002.12.29 @ 15:05:21

TEST COMMENT: IF-Strong BOB in 7 min
FF-Strong BOB in 11 min
Times-30-60-30-60



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1748.70	95.33	Initial Hydro-static
2	27.86	95.38	Open To Flow (1)
33	196.09	98.77	Shut-In (1)
93	1072.98	106.78	End Shut-In (1)
94	201.59	106.80	Open To Flow (2)
123	286.55	107.73	Shut-In (2)
183	1018.26	110.18	End Shut-In (2)
184	1700.79	110.21	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
434.00	Mdy wtr 90%w 10%m	4.96
165.00	OC Wtr 90%w 10%o	2.31
30.00	CO	0.42
107.00	GIP	1.50

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

Irene Z # 1-28

250 N Water Ste 300
Wichita, Ks 67202

28-10-19-Rooks-Ks

Job Ticket: 16812

DST#: 2

ATTN: Scott Robinson

Test Start: 2002.12.29 @ 10:08:51

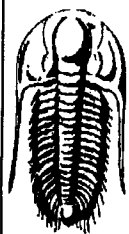
Tool Information

Drill Pipe:	Length: 3372.00 ft	Diameter: 3.80 inches	Volume: 47.30 bbl	Tool Weight: 1200.00 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: 124.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose: 60000.00 lb
		Total Volume: 47.91 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 43000.00 lb
Depth to Top Packer:	3490.00 ft			Final 45000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	83.00 ft			
Tool Length:	104.00 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			3470.00	
S.I. Tool	5.00			3475.00	
HMV	5.00			3480.00	
Packer	5.00			3485.00	21.00 Bottom Of Top Packer
Packer	5.00			3490.00	
Stubb	1.00			3491.00	
Perforations	1.00			3492.00	
Recorder	0.00	2357	Inside	3492.00	
C.O. Sub	1.00			3493.00	
Blank Spacing	62.00			3555.00	
C.O. Sub	1.00			3556.00	
Recorder	0.00	13254	Outside	3556.00	
Perforations	14.00			3570.00	
Bullnose	3.00			3573.00	83.00 Bottom Packers & Anchor

Total Tool Length: 104.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

Irene Z # 1-28

250 N Water Ste 300
Wichita, Ks 67202

28-10-19-Rooks-Ks

Job Ticket: 16812

DST#: 2

ATTN: Scott Robinson

Test Start: 2002.12.29 @ 10:08:51

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

34 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

38000 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.36 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8900.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
434.00	Mdy w tr 90%w 10%m	4.958
165.00	OC Wtr 90%w 10%o	2.315
30.00	CO	0.421
107.00	GIP	1.501

Total Length: 736.00 ft

Total Volume: 9.195 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Rw .19 @ 80 = 38000ppm

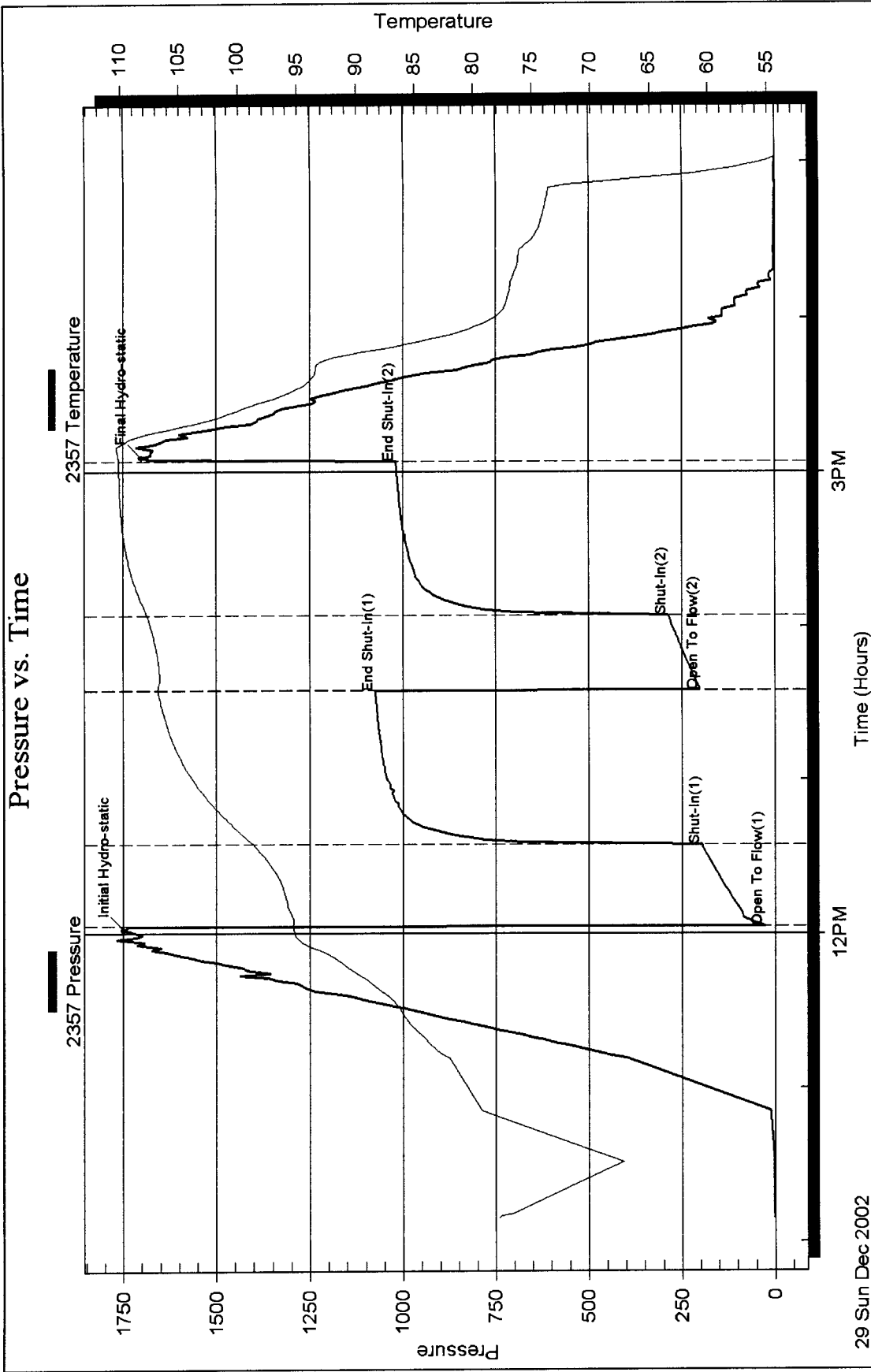
Serial #: 2357

Inside

Murfin Drilling Co Inc

28-10-19-Rooks-Ks

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Ste 300
Wichita, Ks 67202

ATTN: Scott Robinson

28-10-19-Rooks-Ks

Irene Z # 1-28

Start Date: 2002.12.30 @ 01:05:02

End Date: 2002.12.30 @ 08:11:26

Job Ticket #: 16813 DST #: 3

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 Ste 300
Wichita, Ks 67202

ATTN: Scott Robinson

Irene Z # 1-28

28-10-19-Rooks-Ks

Job Ticket: 16813

DST#: 3

Test Start: 2002.12.30 @ 01:05:02

GENERAL INFORMATION:

Formation: **LKC I-J**

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

Time Tool Opened: 02:44:57

Time Test Ended: 08:11:26

Test Type: **Conventional Bottom Hole**

Tester: **Ray Schwager**

Unit No: **21**

Interval: **3564.00 ft (KB) To 3603.00 ft (KB) (TVD)**

Total Depth: **3603.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **2195.00 ft (KB)**

2190.00 ft (CF)

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

Serial #: 2357

Inside

Press@RunDepth: **74.28 psig @ 3565.00 ft (KB)**

Start Date: **2002.12.30**

End Date:

2002.12.30

Start Time: **01:05:02**

End Time:

08:11:26

Capacity: **7000.00 psig**

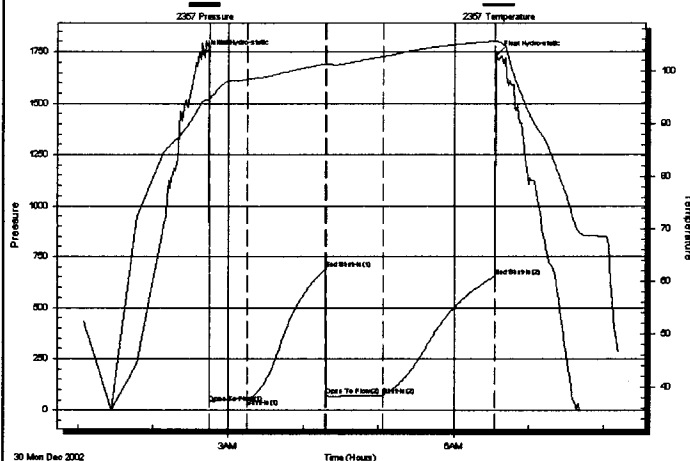
Last Calib.: **2002.12.30**

Time On Btm: **2002.12.30 @ 02:40:27**

Time Off Btm: **2002.12.30 @ 06:33:57**

TEST COMMENT: FFP-w k to fr bl 1/2" to 4" bl
FFP-w k bl thru-out 1/4" to 1" bl
Times 30-60-45-90

Pressure vs. Time



PRESSURE SUMMARY

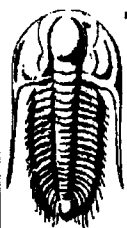
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1740.19	94.36	Initial Hydro-static
5	35.43	94.67	Open To Flow (1)
35	60.86	98.41	Shut-In (1)
98	688.92	101.31	End Shut-In (1)
98	70.26	101.33	Open To Flow (2)
143	74.28	102.71	Shut-In (2)
232	653.57	105.64	End Shut-In (2)
234	1737.24	105.60	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
70.00	MO 3%gas 62%oil 35%mud	0.34
80.00	Clean Oil	0.63

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

Irene Z # 1-28

250 N Water Ste 300
Wichita, Ks 67202

28-10-19-Rooks-Ks

Job Ticket: 16813

DST#: 3

ATTN: Scott Robinson

Test Start: 2002.12.30 @ 01:05:02

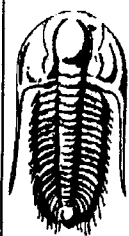
Tool Information

Drill Pipe:	Length: 3433.00 ft	Diameter: 3.80 inches	Volume: 48.16 bbl	Tool Weight:	1200.00 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: 124.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose:	50000.00 lb
		Total Volume:	48.77 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial	43000.00 lb
Depth to Top Packer:	3564.00 ft			Final	44000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	39.00 ft				
Tool Length:	60.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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C.O. Sub	1.00			3544.00	
S.I. Tool	5.00			3549.00	
HMV	5.00			3554.00	
Packer	5.00			3559.00	21.00 Bottom Of Top Packer
Packer	5.00			3564.00	
Stubb	1.00			3565.00	
Recorder	0.00	2357	Inside	3565.00	
Perforations	35.00			3600.00	
Recorder	0.00	13254	Outside	3600.00	
Bullnose	3.00			3603.00	39.00 Bottom Packers & Anchor
Total Tool Length:	60.00				



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

Irene Z # 1-28

250 N Water Ste 300
Wichita, Ks 67202

28-10-19-Rooks-Ks

Job Ticket: 16813

DST#: 3

ATTN: Scott Robinson

Test Start: 2002.12.30 @ 01:05:02

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

28 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.36 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8900.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
70.00	MO 3%gas 62%oil 35%mud	0.344
80.00	Clean Oil	0.630

Total Length: 150.00 ft

Total Volume: 0.974 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

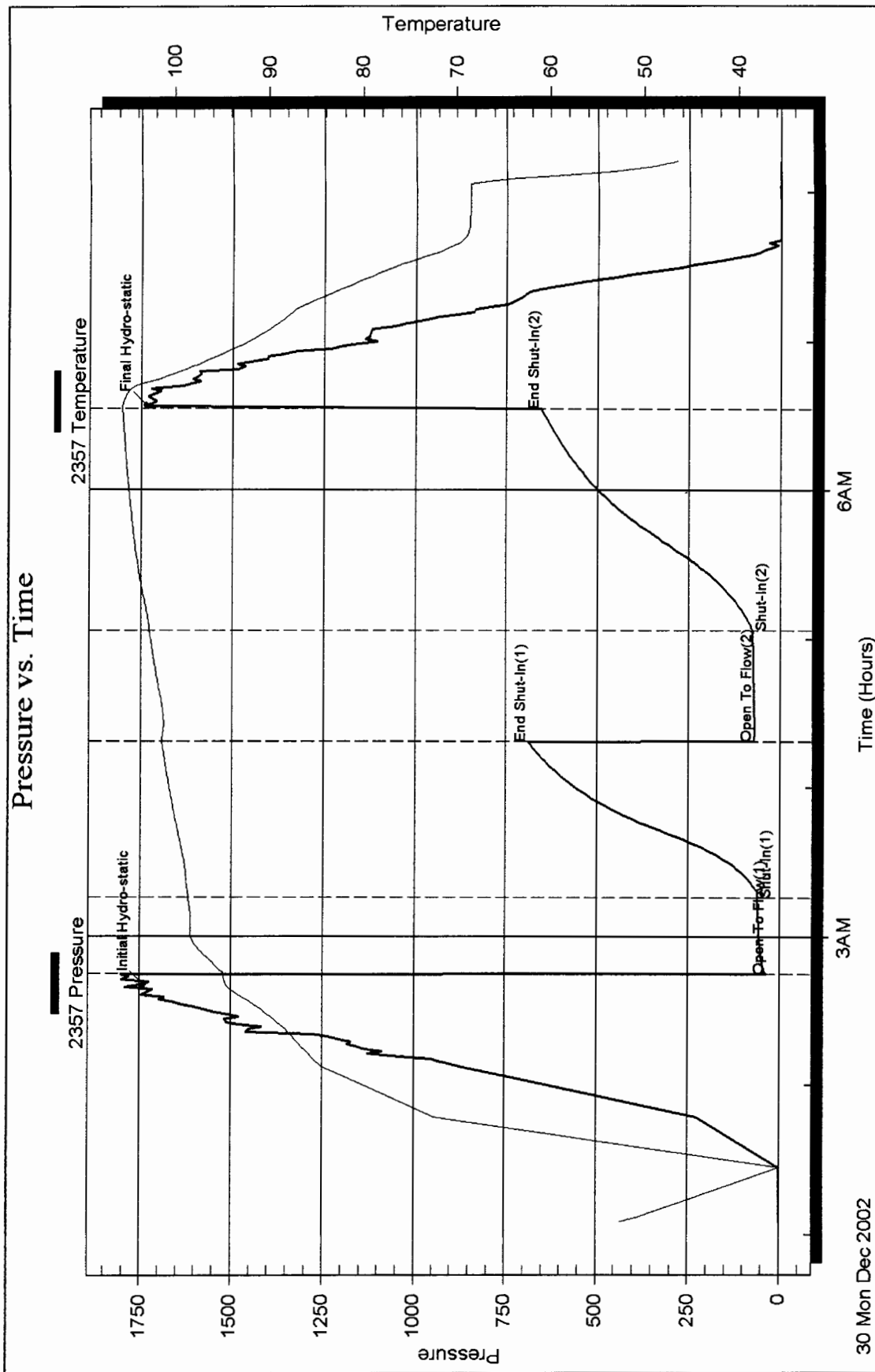
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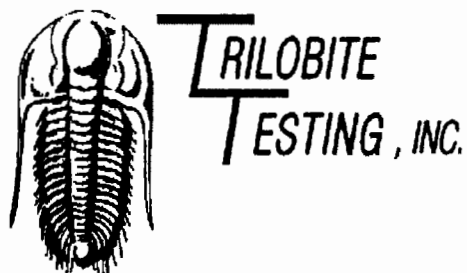
Inside

Murfin Drilling Co Inc

28-10-19-Rocks-Ks

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Ste 300
Wichita, Ks 67202

ATTN: Scott Robinson

28-10-19-Rooks-Ks

Irene Z # 1-28

Start Date: 2002.12.30 @ 14:57:52

End Date: 2002.12.30 @ 21:06:52

Job Ticket #: 16814 DST #: 4

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 Ste 300
Wichita, Ks 67202

ATTN: Scott Robinson

Irene Z # 1-28

28-10-19-Rooks-Ks

Job Ticket: 16814

DST#: 4

Test Start: 2002.12.30 @ 14:57:52

GENERAL INFORMATION:

Formation: K-L LKC

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:38:52

Time Test Ended: 21:06:52

Test Type: Conventional Bottom Hole

Tester: Dan Bangle

Unit No: 21

Interval: 3596.00 ft (KB) To 3632.00 ft (KB) (TVD)

Total Depth: 3632.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2195.00 ft (KB)

2190.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 2357

Inside

Press@RunDepth: 22.83 psig @ 3603.00 ft (KB)

Start Date: 2002.12.30

End Date:

2002.12.30

Start Time: 14:57:57

End Time:

21:06:51

Capacity: 7000.00 psig

Last Calib.: 2002.12.30

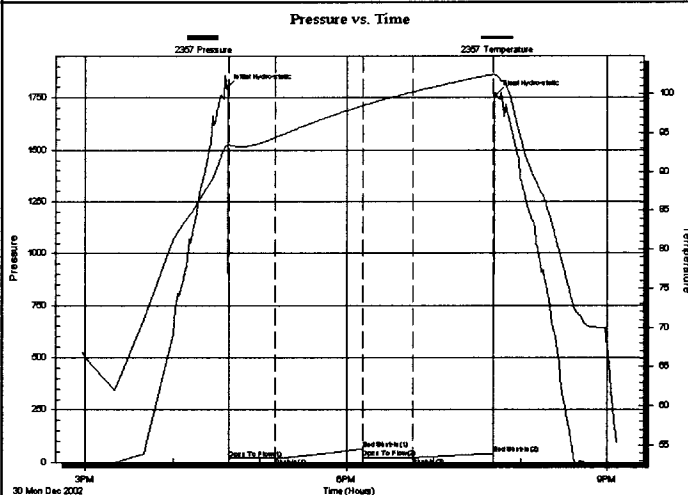
Time On Btm: 2002.12.30 @ 16:37:22

Time Off Btm: 2002.12.30 @ 19:42:52

TEST COMMENT: IF-Weak died in 28 min

FF-No blow

Times-30-60-30-60



PRESSURE SUMMARY

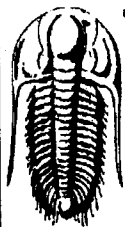
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1798.85	93.41	Initial Hydro-static
2	18.54	93.51	Open To Flow (1)
34	20.25	94.47	Shut-In(1)
94	65.01	98.51	End Shut-In(1)
94	20.83	98.54	Open To Flow (2)
128	22.83	100.25	Shut-In(2)
184	42.58	102.48	End Shut-In(2)
186	1766.18	102.36	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud w/ oil spots	0.02

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

Irene Z # 1-28

250 N Water Ste 300
Wichita, Ks 67202

28-10-19-Rooks-Ks

Job Ticket: 16814

DST#: 4

ATTN: Scott Robinson

Test Start: 2002.12.30 @ 14:57:52

Tool Information

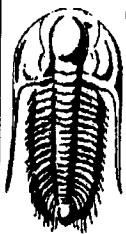
Drill Pipe:	Length: 3465.00 ft	Diameter: 3.80 inches	Volume: 48.60 bbl	Tool Weight: 1300.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 124.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose: 50000.00 lb
		Total Volume:	49.21 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 44000.00 lb
Depth to Top Packer:	3596.00 ft			Final 44000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	36.00 ft			
Tool Length:	57.00 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			3576.00	
S.I. Tool	5.00			3581.00	
HMV	5.00			3586.00	
Packer	5.00			3591.00	21.00 Bottom Of Top Packer
Packer	5.00			3596.00	
Stubb	1.00			3597.00	
Perforations	6.00			3603.00	
Recorder	0.00	2357	Inside	3603.00	
Perforations	26.00			3629.00	
Recorder	0.00	13254	Outside	3629.00	
Bullnose	3.00			3632.00	36.00 Bottom Packers & Anchor

Total Tool Length: 57.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

Irene Z # 1-28

250 N Water Ste 300
Wichita, Ks 67202

28-10-19-Rooks-Ks

Job Ticket: 16814

DST#: 4

ATTN: Scott Robinson

Test Start: 2002.12.30 @ 14:57:52

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: 50.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 10400.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud w / oil spots	0.025

Total Length: 5.00 ft

Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

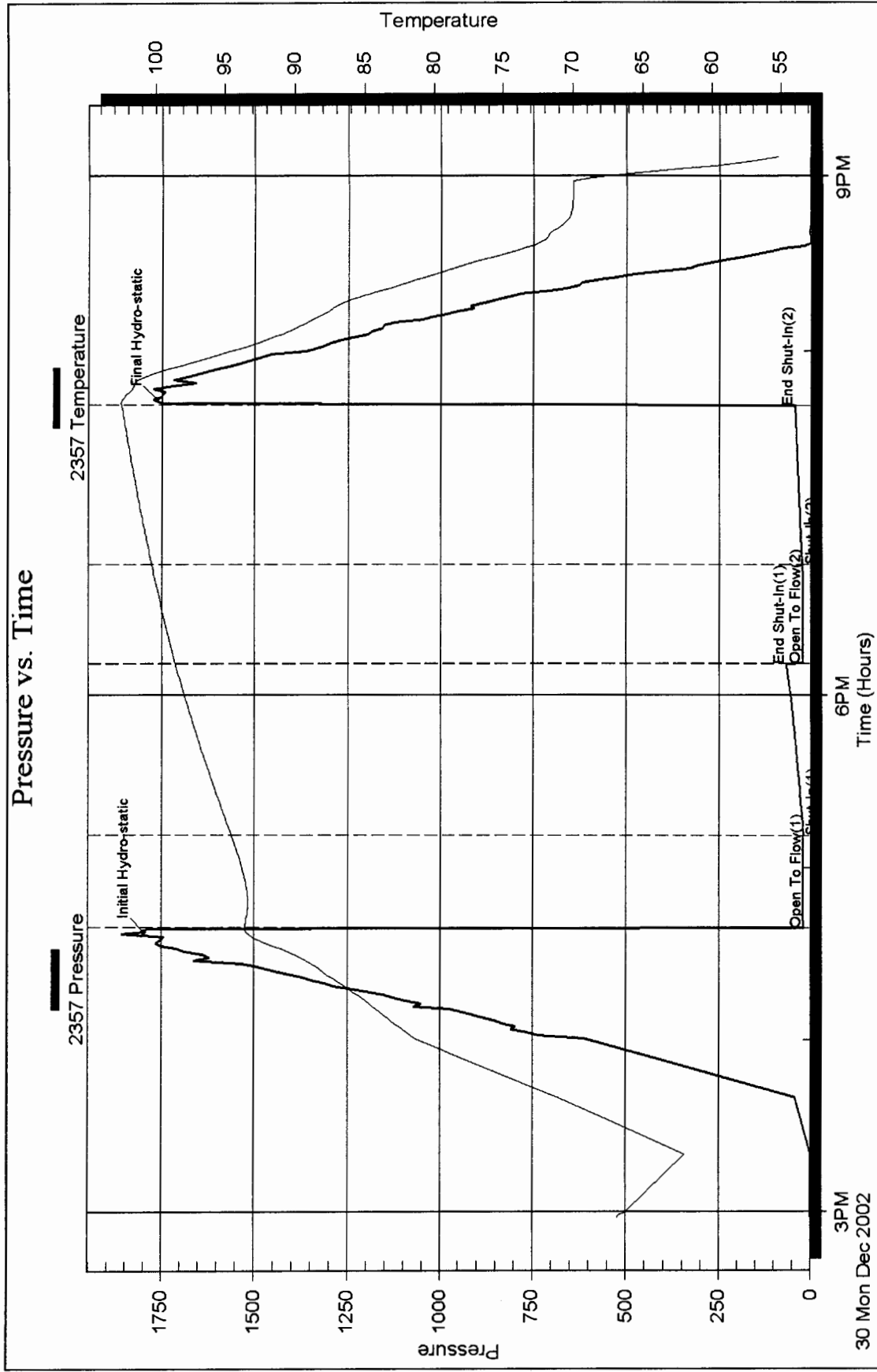
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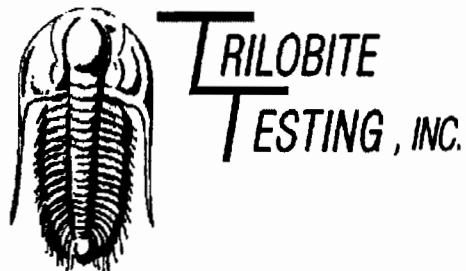
Inside

Murfin Drilling Co Inc

28-10-19-Rocks-Ks

DST Test Number: 4





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Ste 300
Wichita, Ks 67202

ATTN: Scott Robinson

28-10-19-Rooks-Ks

Irene Z # 1-28

Start Date: 2002.12.31 @ 07:46:41

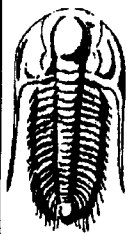
End Date: 2002.12.31 @ 14:48:41

Job Ticket #: 16815 DST #: 5

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 Ste 300
Wichita, Ks 67202

ATTN: Scott Robinson

Irene Z # 1-28

28-10-19-Rooks-Ks

Job Ticket: 16815

DST#: 5

Test Start: 2002.12.31 @ 07:46:41

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:41:41

Time Test Ended: 14:48:41

Test Type: Conventional Bottom Hole

Tester: Dan Bangle

Unit No: 21

Interval: 3710.00 ft (KB) To 3730.00 ft (KB) (TVD)

Total Depth: 3730.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2195.00 ft (KB)

2190.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 2357

Inside

Press@RunDepth: 280.68 psig @ 3711.00 ft (KB)

Start Date: 2002.12.31

End Date:

2002.12.31

Start Time: 07:46:46

End Time:

14:48:40

Capacity: 7000.00 psig

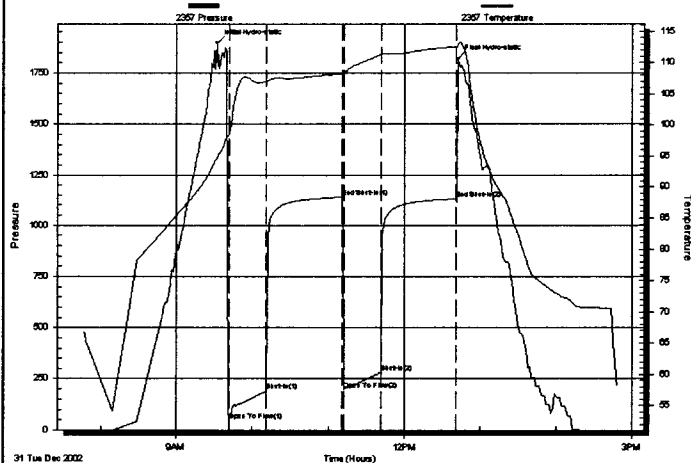
Last Calib.: 2002.12.31

Time On Btm: 2002.12.31 @ 09:32:11

Time Off Btm: 2002.12.31 @ 12:42:11

TEST COMMENT: F-Strong BOB in 17 min
FF-Strong BOB in 11 min
Times-30-60-30-60

Pressure vs. Time



31 Tue Dec 2002

PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1896.76	94.75	Initial Hydro-static
10	44.28	98.51	Open To Flow (1)
39	189.90	107.04	Shut-In(1)
99	1138.91	108.27	End Shut-In(1)
100	197.07	108.33	Open To Flow (2)
129	280.68	111.37	Shut-In(2)
189	1129.86	112.56	End Shut-In(2)
190	1819.33	112.79	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
635.00	HO	7.78

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

Irene Z # 1-28

250 N Water Ste 300
Wichita, Ks 67202

28-10-19-Rooks-Ks

Job Ticket: 16815

DST#: 5

ATTN: Scott Robinson

Test Start: 2002.12.31 @ 07:46:41

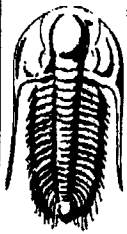
Tool Information

Drill Pipe:	Length: 3591.00 ft	Diameter: 3.80 inches	Volume: 50.37 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: 25000.00 lb
Drill Collar:	Length: 124.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose: 50000.00 lb
		Total Volume:	50.98 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 44000.00 lb
Depth to Top Packer:	3710.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	20.00 ft			
Tool Length:	41.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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C.O. Sub	1.00			3690.00	
S.I. Tool	5.00			3695.00	
HMV	5.00			3700.00	
Packer	5.00			3705.00	21.00 Bottom Of Top Packer
Packer	5.00			3710.00	
Stubb	1.00			3711.00	
Recorder	0.00	2357	Inside	3711.00	
Perforations	16.00			3727.00	
Recorder	0.00	13254	Outside	3727.00	
Bullhose	3.00			3730.00	20.00 Bottom Packers & Anchor
Total Tool Length:	41.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

Irene Z # 1-28

250 N Water Ste 300
Wichita, Ks 67202

28-10-19-Rooks-Ks

Job Ticket: 16815

DST#: 5

ATTN: Scott Robinson

Test Start: 2002.12.31 @ 07:46:41

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

16 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 9200.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
635.00	H O	7.778

Total Length: 635.00 ft

Total Volume: 7.778 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

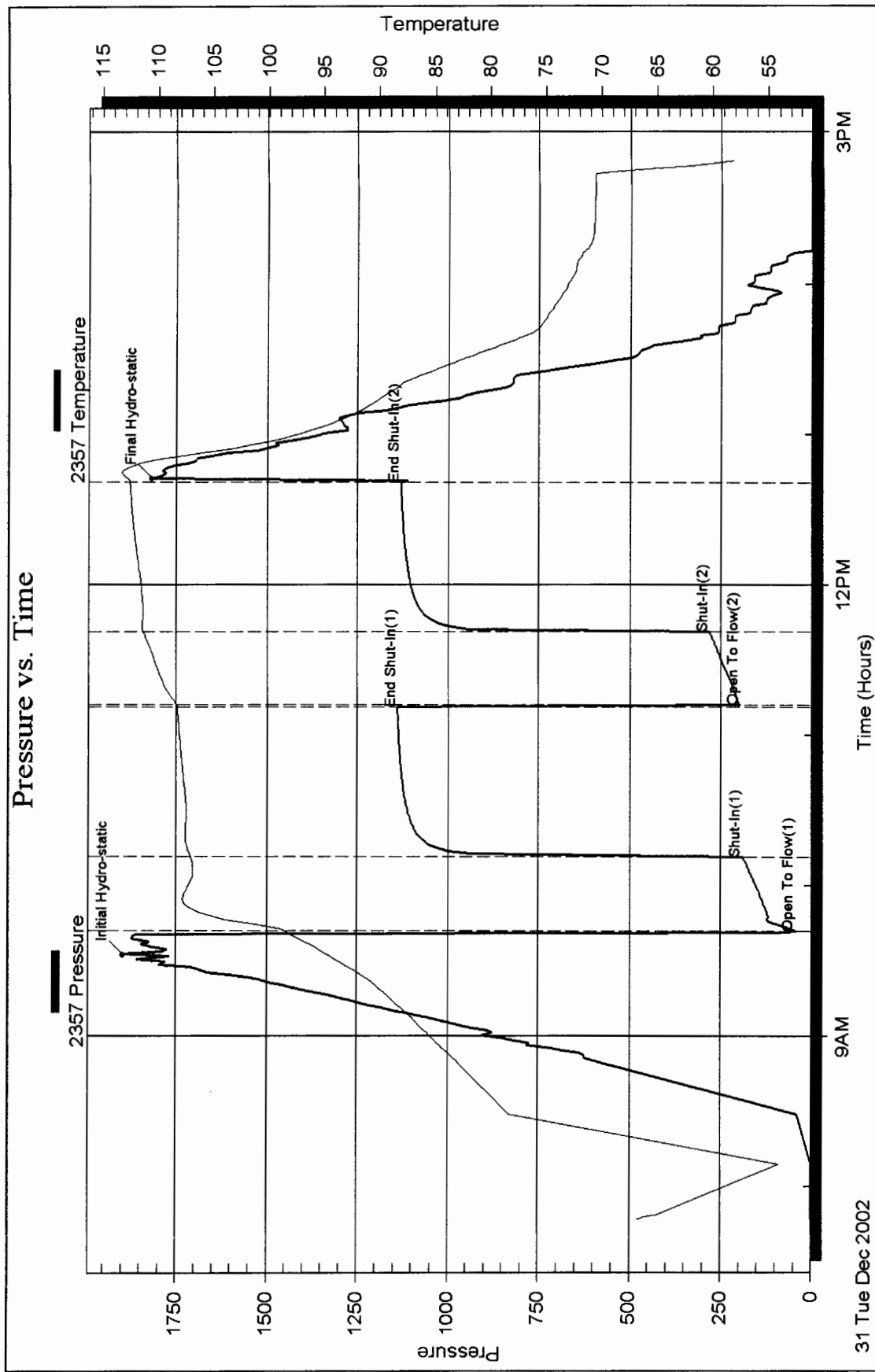
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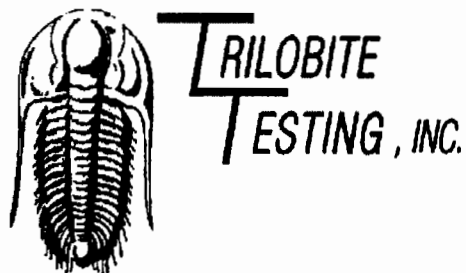
Inside

Murfin Drilling Co Inc

28-10-19-Rooks-Ks

DST Test Number: 5





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Ste 300
Wichita, Ks 67202

ATTN: Scott Robinson

28-10-19-Rooks-Ks

Irene Z # 1-28

Start Date: 2002.12.31 @ 21:32:02

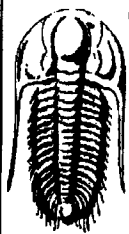
End Date: 2003.01.01 @ 04:52:32

Job Ticket #: 16816 DST #: 6

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 Ste 300
Wichita, Ks 67202

ATTN: Scott Robinson

Irene Z # 1-28

28-10-19-Rooks-Ks

Job Ticket: 16816

DST#: 6

Test Start: 2002.12.31 @ 21:32:02

GENERAL INFORMATION:

Formation: **Arbuckle**

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

Time Tool Opened: 23:27:32

Time Test Ended: 04:52:32

Test Type: **Conventional Bottom Hole**

Tester: **Dan Bangle**

Unit No: **21**

Interval: **3730.00 ft (KB) To 3740.00 ft (KB) (TVD)**

Total Depth: **3740.00 ft (KB) (TVD)**

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

Reference Elevations: **2195.00 ft (KB)**

2190.00 ft (CF)

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

Serial #: **2357**

Inside

Press@RunDepth: **211.49 psig @ 3731.00 ft (KB)**

Start Date: **2002.12.31**

End Date:

2003.01.01

Start Time: **21:32:07**

End Time:

04:52:31

Capacity: **7000.00 psig**

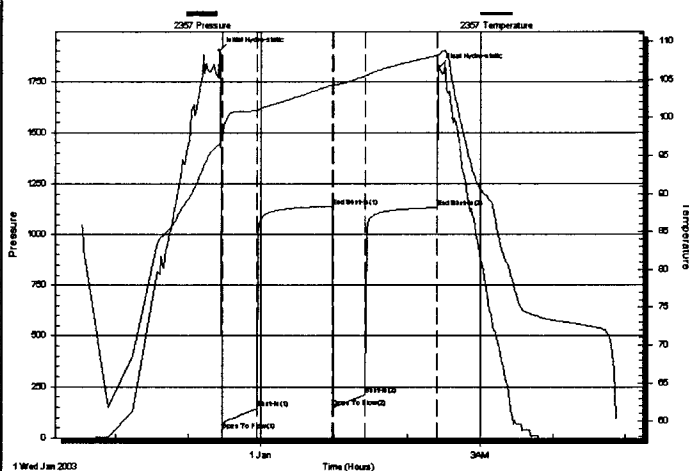
Last Calib.: **2003.01.01**

Time On Btm: **2002.12.31 @ 23:25:32**

Time Off Btm: **2003.01.01 @ 02:26:02**

TEST COMMENT: IF-Strong BOB in 10 min
FF-Strong BOB in 18 min
Times-30-60-30-60

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1900.52	96.54	Initial Hydro-static
2	35.39	97.40	Open To Flow (1)
31	143.88	100.95	Shut-In (1)
93	1139.33	104.26	End Shut-In (1)
94	148.36	104.28	Open To Flow (2)
120	211.49	105.45	Shut-In (2)
179	1132.12	108.16	End Shut-In (2)
181	1821.58	108.29	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
490.00	HO	5.74

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

Irene Z # 1-28

250 N Water Ste 300
Wichita, Ks 67202

28-10-19-Rooks-Ks

Job Ticket: 16816

DST#: 6

ATTN: Scott Robinson

Test Start: 2002.12.31 @ 21:32:02

Tool Information

Drill Pipe:	Length: 3589.00 ft	Diameter: 3.80 inches	Volume: 50.34 bbl	Tool Weight: 1000.00 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: 124.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose: 70000.00 lb
		Total Volume: 50.95 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 44000.00 lb
Depth to Top Packer:	3730.00 ft			Final 45000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	10.00 ft			
Tool Length:	31.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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C.O. Sub	1.00			3710.00	
S.I. Tool	5.00			3715.00	
HMV	5.00			3720.00	
Packer	5.00			3725.00	21.00 Bottom Of Top Packer
Packer	5.00			3730.00	
Stubb	1.00			3731.00	
Recorder	0.00	2357	Inside	3731.00	
Perforations	6.00			3737.00	
Recorder	0.00	13254	Outside	3737.00	
Bullnose	3.00			3740.00	10.00 Bottom Packers & Anchor
Total Tool Length:	31.00				



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

Irene Z # 1-28

250 N Water Ste 300
Wichita, Ks 67202

28-10-19-Rooks-Ks

Job Ticket: 16816

DST#: 6

ATTN: Scott Robinson

Test Start: 2002.12.31 @ 21:32:02

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

16 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 9200.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
490.00	HO	5.744

Total Length: 490.00 ft

Total Volume: 5.744 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

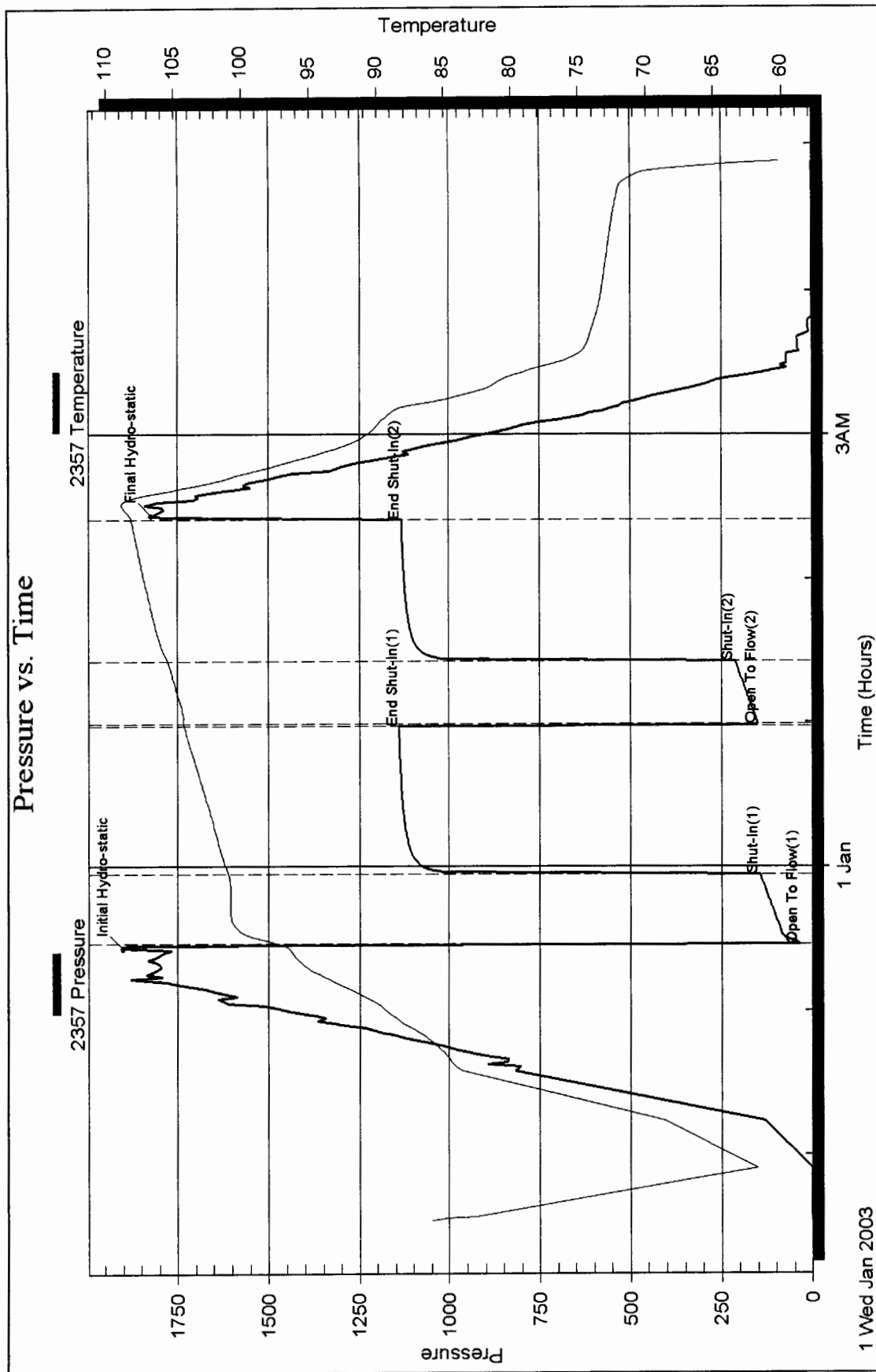
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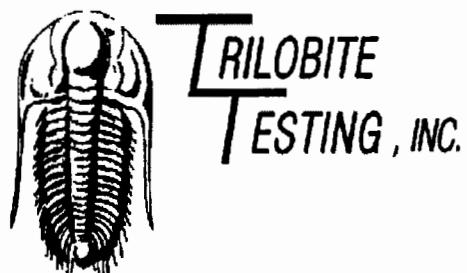
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Ste 300
Wichita, Ks 67202

ATTN: Scott Robinson

28-10-19-Rooks-Ks

Irene Z # 1-28

Start Date: 2003.01.01 @ 11:24:28

End Date: 2003.01.01 @ 17:27:28

Job Ticket #: 16817 DST #: 7

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 Ste 300
Wichita, Ks 67202

ATTN: Scott Robinson

Irene Z # 1-28

28-10-19-Rooks-Ks

Job Ticket: 16817

DST#: 7

Test Start: 2003.01.01 @ 11:24:28

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:15:28

Time Test Ended: 17:27:28

Test Type: Conventional Bottom Hole

Tester: Dan Bangle

Unit No: 21

Interval: **3741.00 ft (KB) To 3750.00 ft (KB) (TVD)**

Total Depth: 3750.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2195.00 ft (KB)

2190.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 2357

Inside

Press@RunDepth: 967.98 psig @ 3742.00 ft (KB)

Start Date: 2003.01.01

End Date:

2003.01.01

Start Time: 11:24:33

End Time:

17:27:27

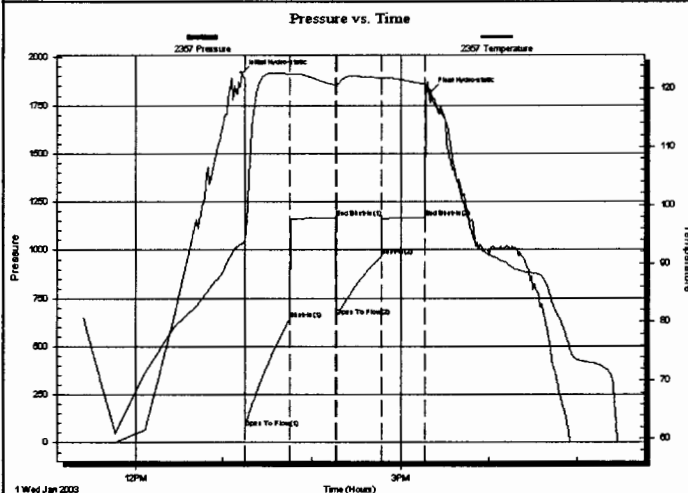
Capacity: 7000.00 psig

Last Calib.: 2003.01.01

Time On Btm: 2003.01.01 @ 13:12:58

Time Off Btm: 2003.01.01 @ 15:20:28

TEST COMMENT: F-Strong BOB in 1.5 min
FF-Strong BOB in 1.5 min
Times-30-30-30-30



PRESSURE SUMMARY

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	1917.87	93.36	Initial Hydro-static
3	77.36	94.20	Open To Flow (1)
33	640.61	122.47	Shut-In (1)
63	1166.05	120.53	End Shut-In (1)
64	653.79	120.48	Open To Flow (2)
94	967.98	121.79	Shut-In (2)
124	1166.67	120.74	End Shut-In (2)
128	1824.24	118.69	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2170.00	Water Rw .20 @ 80 = 30000ppm	29.31

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

Irene Z # 1-28

250 N Water Ste 300
Wichita, Ks 67202

28-10-19-Rooks-Ks

Job Ticket: 16817

DST#: 7

ATTN: Scott Robinson

Test Start: 2003.01.01 @ 11:24:28

Tool Information

Drill Pipe:	Length:	3621.00 ft	Diameter:	3.80 inches	Volume:	50.79 bbl	Tool Weight:	900.00 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:	124.00 ft	Diameter:	2.25 inches	Volume:	0.61 bbl	Weight to Pull Loose:	70000.00 lb
					Total Volume:	51.40 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		20.00 ft					String Weight: Initial	44000.00 lb
Depth to Top Packer:		3741.00 ft					Final	52000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		9.00 ft						
Tool Length:		25.00 ft						
Number of Packers:		1	Diameter:	6.75 inches				

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			3726.00	
S.I. Tool	5.00			3731.00	
HMV	5.00			3736.00	
Packer	5.00			3741.00	16.00 Bottom Of Top Packer
Stubb	1.00			3742.00	
Recorder	0.00	2357	Inside	3742.00	
Perforations	5.00			3747.00	
Recorder	0.00	13254	Outside	3747.00	
Bullnose	3.00			3750.00	9.00 Anchor Tool
Total Tool Length:		25.00			



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

Irene Z # 1-28

250 N Water Ste 300
Wichita, Ks 67202

28-10-19-Rooks-Ks

Job Ticket: 16817

DST#: 7

ATTN: Scott Robinson

Test Start: 2003.01.01 @ 11:24:28

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:

30000 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 9500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2170.00	Water Rw .20 @ 80 = 30000ppm	29.310

Total Length: 2170.00 ft

Total Volume: 29.310 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

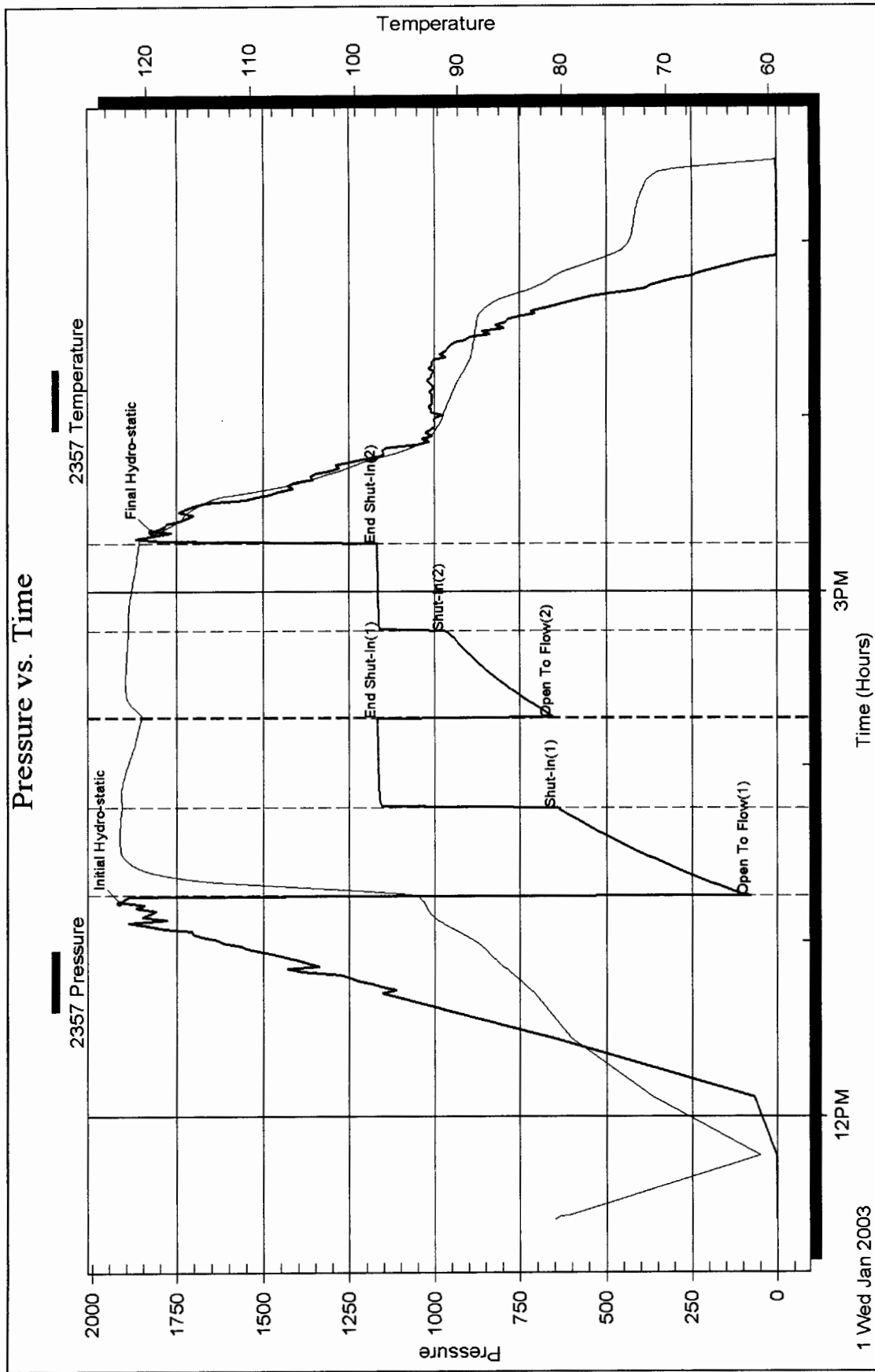
Serial #: 2357

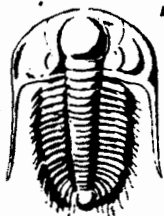
Inside

Murfin Drilling Co Inc

28-10-19-Rocks-Ks

DST Test Number: 7





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

INW # 5331
6251 00

No 16811

Test Ticket

Well Name & No. <u>Irene 2, #1-28</u>	Test No. <u>1</u>	Date <u>12-28-02</u>
Company <u>Murfin Drilling Co. Inc.</u>	Zone Tested <u>Topeka 30'</u>	
Address <u>250 N. WTR. Ste 300, Wichita, Ks. 67202</u>	Elevation <u>2195</u> KB <u>2190</u> GL	
Co. Rep / Geo. <u>Kris Kennedy</u>	Cont. <u>Murfin #8</u>	Est. Ft. of Pay <u> </u> Por. <u> </u> %
Location: Sec. <u>28</u> Twp. <u>10</u> Rge. <u>19</u>	Co. <u>ROOKS</u> State <u>KS</u>	
No. of Copies <u> </u> Distribution Sheet (Y, N) <u> </u>	Turnkey (Y, N) <u> </u>	Evaluation (Y, N) <u> </u>

Interval Tested <u>3182 — 3200</u>	Initial Str Wt./Lbs. <u>40,000</u>	Unseated Str Wt./Lbs. <u>40,000</u>
Anchor Length <u>18'</u>	Wt. Set Lbs. <u>27000</u>	Wt. Pulled Loose/Lbs. <u>69000</u>
Top Packer Depth <u>3177</u>	Tool Weight <u>1200</u>	
Bottom Packer Depth <u>3182</u>	Hole Size — 7 7/8" <u> </u>	Rubber Size — 6 3/4" <u> </u>
Total Depth <u>3200</u>	Wt. Pipe Run <u> </u>	Drill Collar Run <u>124</u>
Mud Wt. <u>8.7</u> LCM <u> </u> Vis. <u>44</u> WL <u>8.4</u>	Drill Pipe Size <u>4.5 XH</u>	Ft. Run <u>3064</u>
Blow Description <u>IF - Weak - building to 4"</u>		

E.F. Weak - building to 1 1/2"

Slid Tool 5' to bottom

Recovery — Total Feet <u>248</u>	GIP <u> </u>	Ft. in DC <u>124</u>	Ft. in DP <u>124</u>
Rec. <u>248</u> Feet Of <u>mdy wtr</u>	%gas <u> </u> %oil <u>80</u> %water <u>20</u> %mud <u> </u>		
Rec. <u> </u> Feet Of <u> </u>	%gas <u> </u> %oil <u> </u> %water <u> </u> %mud <u> </u>		
Rec. <u> </u> Feet Of <u> </u>	%gas <u> </u> %oil <u> </u> %water <u> </u> %mud <u> </u>		
Rec. <u> </u> Feet Of <u> </u>	%gas <u> </u> %oil <u> </u> %water <u> </u> %mud <u> </u>		
Rec. <u> </u> Feet Of <u> </u>	%gas <u> </u> %oil <u> </u> %water <u> </u> %mud <u> </u>		
BHT <u>104</u> °F Gravity <u> </u>	°API D@ <u> </u>	°F Corrected Gravity <u> </u>	°API <u> </u>
RW <u>124</u> @ <u>70</u> °F	Chlorides <u>30,000</u> ppm Recovery	Chlorides <u>4200</u> ppm System	

	AK-1	Alpine		
(A) Initial Hydrostatic Mud	<u>1610</u>	PSI	Recorder No. <u>2357</u>	T-On Location <u>00:30</u>
(B) First Initial Flow Pressure	<u>19</u>	PSI	(depth) <u>3183</u>	T-Started <u>01:45</u>
(C) First Final Flow Pressure	<u>83</u>	PSI	Recorder No. <u>13254</u>	T-Open <u>03:37</u>
(D) Initial Shut-In Pressure	<u>1025</u>	PSI	(depth) <u>3197</u>	T-Pulled <u>07:22</u>
(E) Second Initial Flow Pressure	<u>87</u>	PSI	Recorder No. <u> </u>	T-Out <u>08:48</u>
(F) Second Final Flow Pressure	<u>130</u>	PSI	(depth) <u> </u>	T-Off Location <u>09:15</u>
(G) Final Shut-in Pressure	<u>1017</u>	PSI	Initial Opening <u>30</u>	Test <u>700</u>
(Q) Final Hydrostatic Mud	<u>1556</u>	PSI	Initial Shut-in <u>60</u>	Jars <u> </u>
			Final Flow <u>45</u>	Safety Joint <u> </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>\$878</u>

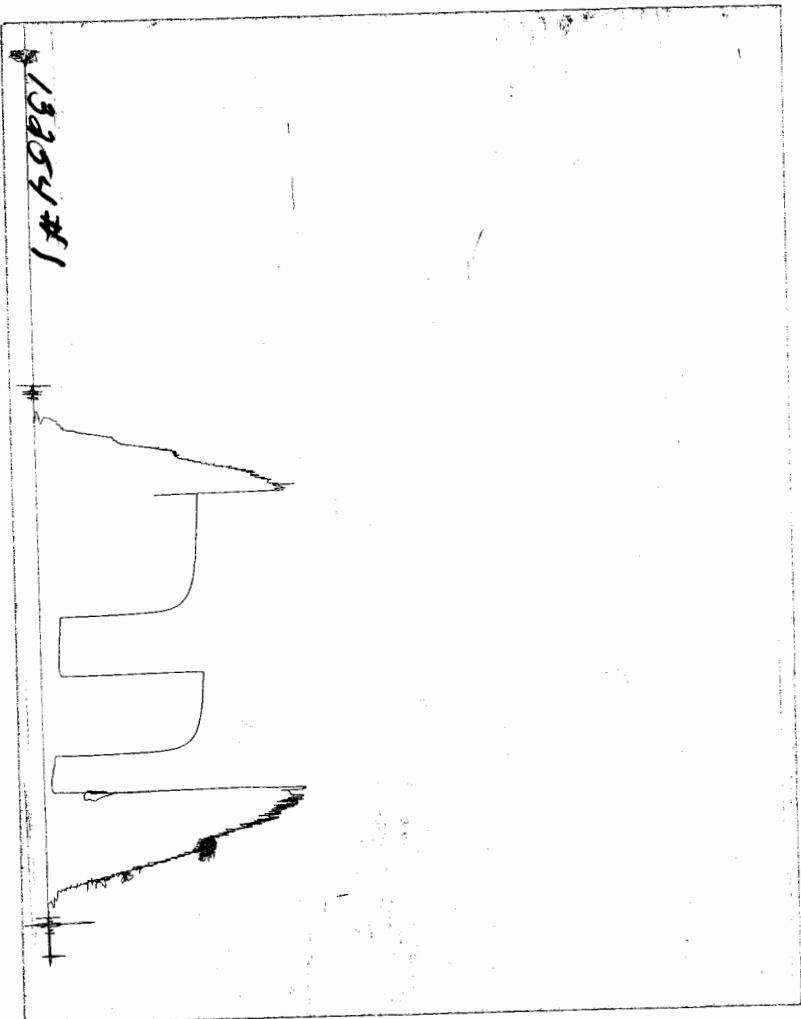
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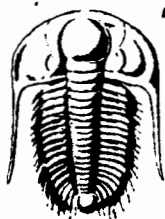
Approved By [Signature]

Our Representative [Signature]

CHART PAGE

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TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 16812

Test Ticket

Well Name & No. Irene 2 #1-28 Test No. 2 Date 12-29-02
 Company Murfin Drilling Co. Inc. Zone Tested F-F-G-H LKS
 Address _____ Elevation 2195 KB 2190 GL
 Co. Rep / Geo. Kris Kennedy Cont. Murfin #8 Est. Ft. of Pay _____ Por. _____ %
 Location: Sec. 28 Twp. 10 Rge. 19 Co. ROOKS State KS
 No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 3490 — 3573 Initial Str Wt./Lbs. 43000 Unseated Str Wt./Lbs. 45000
 Anchor Length 83 Wt. Set Lbs. 25000 Wt. Pulled Loose/Lbs. 60000
 Top Packer Depth 3485 Tool Weight 1200
 Bottom Packer Depth 3490 Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Total Depth 3573 Wt. Pipe Run _____ Drill Collar Run 124
 Mud Wt. 9.1 LCM _____ Vis. 48 WL 8.4 Drill Pipe Size 4.5 XH Ft. Run 3372
 Blow Description I.F. Strong B.O.B. in 7 min

E.F. Strong - B.O.B. in 11 min.

Recovery — Total Feet 629 GIP 107 Ft. in DC 124 Ft. in DP 505
 Rec. 30 Feet Of CO %gas _____ %oil _____ %water _____ %mud _____
 Rec. 165 Feet Of OC WTR %gas 10 %oil 90 %water _____ %mud _____
 Rec. 434 Feet Of mdy WTR %gas _____ %oil 90 %water 10 %mud _____
 Rec. _____ Feet Of _____ %gas _____ %oil _____ %water _____ %mud _____
 Rec. _____ Feet Of _____ %gas _____ %oil _____ %water _____ %mud _____
 BHT 110 °F Gravity _____ °API D@ _____ °F Corrected Gravity 34 °API
 RW 119 @ 80 °F Chlorides 38,200 ppm Recovery Chlorides 8900 ppm System

	AK-1	Alpine			
(A) Initial Hydrostatic Mud	<u>1748</u>	PSI	Recorder No. <u>2357</u>	T-On Location	<u>10:00</u>
(B) First Initial Flow Pressure	<u>27</u>	PSI	(depth) <u>3492</u>	T-Started	<u>10:00P</u>
(C) First Final Flow Pressure	<u>196</u>	PSI	Recorder No. <u>13254</u>	T-Open	<u>12:03</u>
(D) Initial Shut-In Pressure	<u>1072</u>	PSI	(depth) <u>3506</u>	T-Pulled	<u>15:03</u>
(E) Second Initial Flow Pressure	<u>201</u>	PSI	Recorder No. _____	T-Out	<u>17:01</u>
(F) Second Final Flow Pressure	<u>296</u>	PSI	(depth) _____	T-Off Location	<u>17:20</u>
(G) Final Shut-in Pressure	<u>1018</u>	PSI	Initial Opening <u>30</u>	Test	<u>760</u>
(Q) Final Hydrostatic Mud	<u>1700</u>	PSI	Initial Shut-in <u>60</u>	Jars	_____
			Final Flow <u>30</u>	Safety Joint	_____
			Final Shut-in <u>60</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>8276</u>

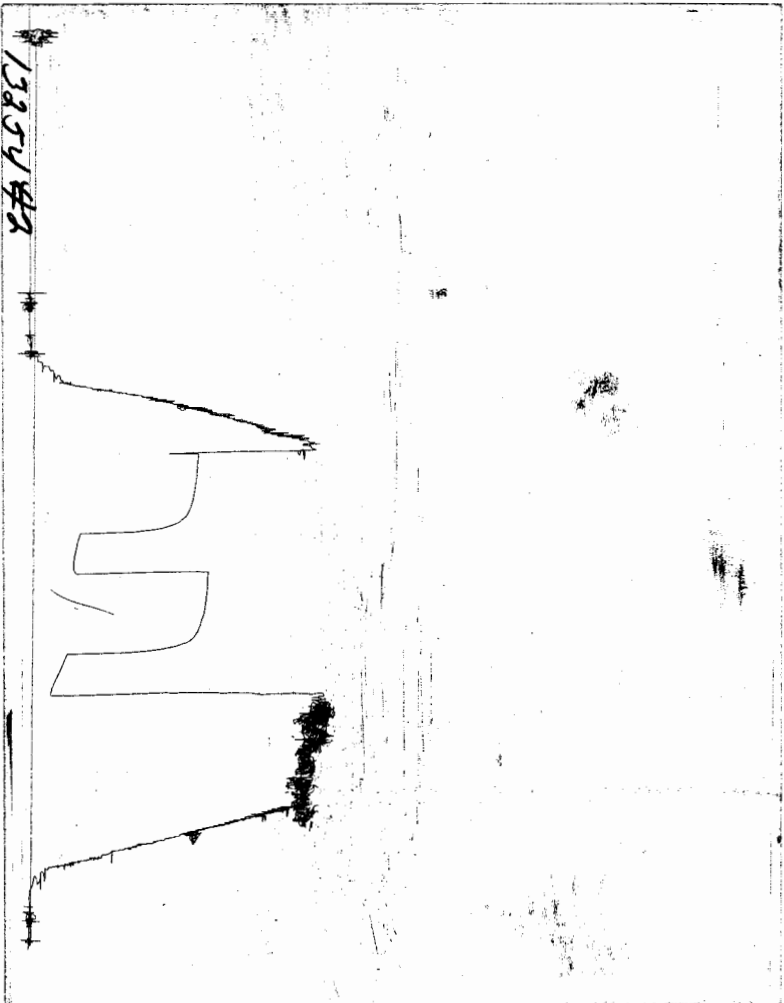
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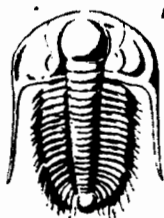
Approved By [Signature]

Our Representative Dan Rausche

CHART PAGE

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TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 16813

Test Ticket

Well Name & No. IRENE 2 #1-28 Test No. 3 Date 12-30-02
 Company MURFIN DRILLING CO. INC Zone Tested LKK I-J
 Address _____ Elevation 2195 KB 2190 GL
 Co. Rep / Geo. KRIS KENNEDY Cont. MURFIN 8 Est. Ft. of Pay - Por. - %
 Location: Sec. 28 Twp. 10 Rge. 19 Co. ROOKS State KO
 No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 3564-3603 Initial Str Wt./Lbs. 43000 Unseated Str Wt./Lbs. 44000
 Anchor Length 39 Wt. Set Lbs. 25000 Wt. Pulled Loose/Lbs. 55000
 Top Packer Depth 3559 Tool Weight 2200
 Bottom Packer Depth 3564 Hole Size — 7 7/8" yes Rubber Size — 6 3/4" yes
 Total Depth 3603 Wt. Pipe Run - Drill Collar Run 128
 Mud Wt. 9.2 LCM - Vis. 55 WL 8.4 Drill Pipe Size 4 1/2 XH Ft. Run 3433
 Blow Description IFP - WEAK TO A FAIR BLOW 1/2" TO 4" BLOW
FFP - WEAK BLOW thru-out 1/4" TO 1" BLOW
NO BLOW ON SHUT-IN

Recovery — Total Feet 150 GIP - Ft. in DC 120 Ft. in DP 30
 Rec. 80 Feet Of CLEAN OIL %gas _____ %oil _____ %water _____ %mud _____
 Rec. 70 Feet Of MO 3 %gas 62 %oil _____ %water 35 %mud _____
 Rec. _____ Feet Of _____ %gas _____ %oil _____ %water _____ %mud _____
 Rec. _____ Feet Of _____ %gas _____ %oil _____ %water _____ %mud _____
 Rec. _____ Feet Of _____ %gas _____ %oil _____ %water _____ %mud _____
 BHT _____ °F Gravity 28 °API D@ 60 °F Corrected Gravity 28 °API
 RW - @ - °F Chlorides - ppm Recovery Chlorides 8900 ppm System

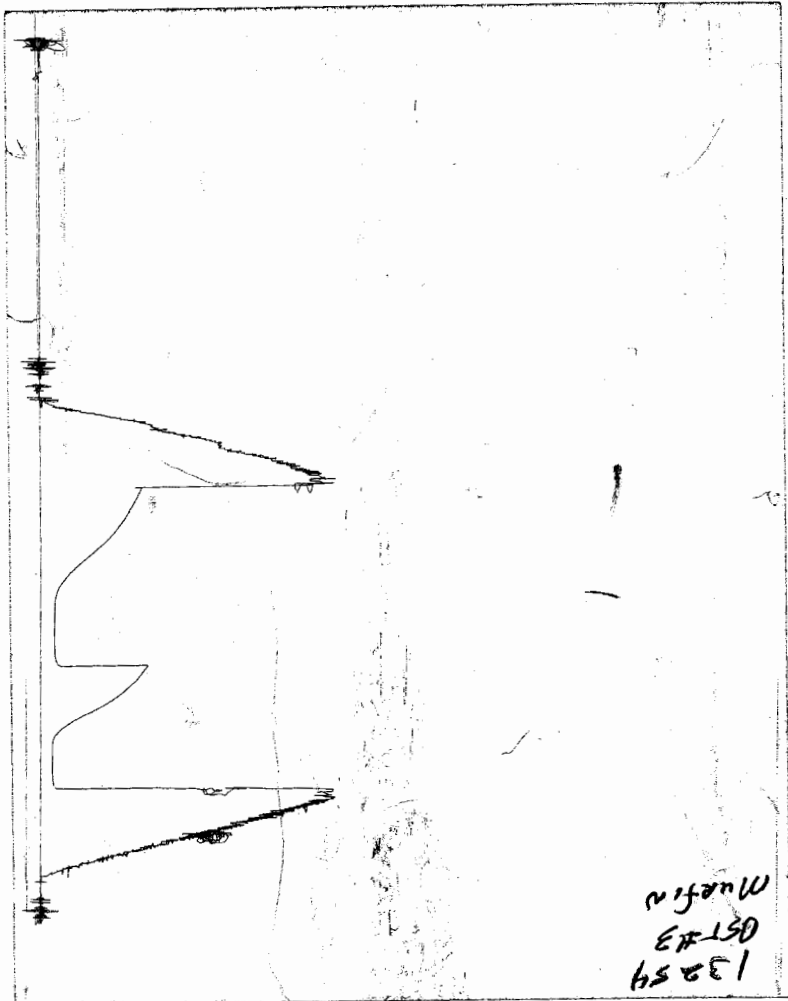
	AK-1	Alpine	PSI	Recorder No.	T-On Location
(A) Initial Hydrostatic Mud		<u>1740</u>		<u>2357</u>	<u>0030</u>
(B) First Initial Flow Pressure		<u>35</u>		<u>3565</u>	<u>0104</u>
(C) First Final Flow Pressure		<u>60</u>		<u>13254</u>	<u>0245</u>
(D) Initial Shut-In Pressure		<u>688</u>		<u>3600</u>	<u>0630</u>
(E) Second Initial Flow Pressure		<u>70</u>		<u>-</u>	<u>0810</u>
(F) Second Final Flow Pressure		<u>74</u>		<u>-</u>	
(G) Final Shut-in Pressure		<u>653</u>		<u>30</u>	Test <u>✓</u> <u>700</u>
(Q) Final Hydrostatic Mud		<u>1737</u>		<u>60</u>	Jars _____
				<u>45</u>	Safety Joint _____
				<u>90</u>	Straddle _____
					Circ. Sub _____
					Sampler _____
					Extra Packer _____
					Elec. Rec. <u>✓</u> <u>150</u>
					Mileage <u>✓</u> <u>28</u> <u>28</u>
					Other _____
					TOTAL PRICE \$ <u>✓</u> <u>4878</u>

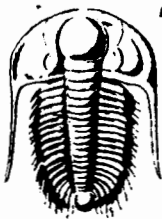
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Approved By [Signature]
 Our Representative RAY SCHWAGER THANK YOU

CHART PAGE

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TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 16814

Test Ticket

Well Name & No. Irene Z #1-28 Test No. 4 Date 12-30-02
 Company Murfin Drilg Co. Inc Zone Tested K-L LKC
 Address _____ Elevation 2195 KB 2190 GL
 Co. Rep / Geo. Kris Kennedy Cont. Murfin #8 Est. Ft. of Pay _____ Por. _____ %
 Location: Sec. 28 Twp. 10 Rge. 19 Co. ROOKS State KS
 No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 3596 — 3632 Initial Str Wt./Lbs. 44000 Unseated Str Wt./Lbs. 44000
 Anchor Length 36 Wt. Set Lbs. 25000 Wt. Pulled Loose/Lbs. 59000
 Top Packer Depth 3691 Tool Weight 1300
 Bottom Packer Depth 3696 Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
 Total Depth 3632 Wt. Pipe Run _____ Drill Collar Run 124
 Mud Wt. 9.2 LCM _____ Vis. 50 WL 8 Drill Pipe Size 4.5XH Ft. Run 3465
 Blow Description I.F. Weak - Died in 28 min.

E.F. No blow

Recovery — Total Feet 5 GIP _____ Ft. in DC 5 Ft. in DP _____
 Rec. 5 Feet Of Mud w/oil spots %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 102 °F Gravity _____ °API D@ _____ °F Corrected Gravity _____ °API
 RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 10,400 ppm System

	AK-1	Alpine			
(A) Initial Hydrostatic Mud	<u>1798</u>	PSI	Recorder No. <u>2357</u>	T-On Location	<u>15:00</u>
(B) First Initial Flow Pressure	<u>18</u>	PSI	(depth) <u>3603</u>	T-Started	<u>14:57</u>
(C) First Final Flow Pressure	<u>20</u>	PSI	Recorder No. <u>13254</u>	T-Open	<u>16:39</u>
(D) Initial Shut-In Pressure	<u>65</u>	PSI	(depth) <u>3629</u>	T-Pulled	<u>19:39</u>
(E) Second Initial Flow Pressure	<u>20</u>	PSI	Recorder No. _____	T-Out	<u>21:06</u>
(F) Second Final Flow Pressure	<u>22</u>	PSI	(depth) _____	T-Off Location	<u>21:25</u>
(G) Final Shut-in Pressure	<u>42</u>	PSI	Initial Opening <u>30</u>	Test	<u>700</u>
(Q) Final Hydrostatic Mud	<u>1766</u>	PSI	Initial Shut-in <u>60</u>	Jars	_____
			Final Flow <u>30</u>	Safety Joint	_____
			Final Shut-in <u>60</u>	Straddle	_____
				Circ. Sub	_____
				Sampler	_____

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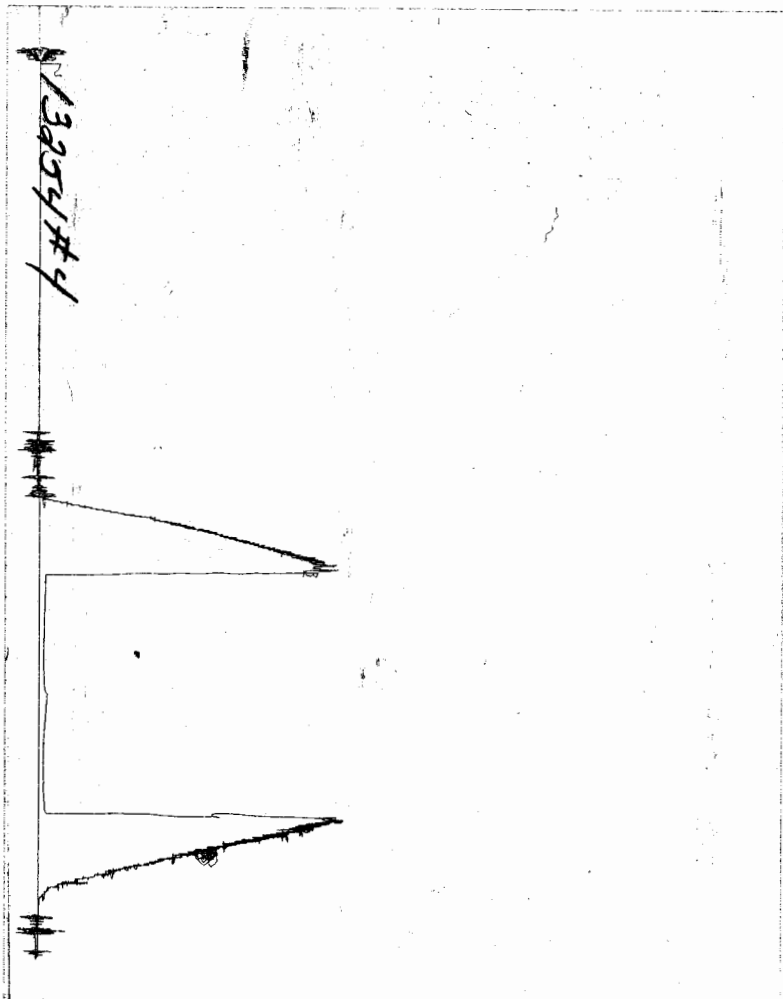
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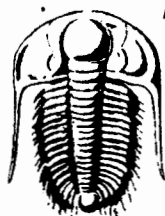
Our Representative [Signature]

Extra Packer _____
 Elec. Rec. X 150
 Mileage 28 28
 Other _____
 TOTAL PRICE \$ 878

CHART PAGE

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TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 16815

Test Ticket

Well Name & No. Irene 2 #1-28 Test No. 5 Date 12-31-02
 Company Murfin Drilling Co Inc Zone Tested Arbuckle
 Address _____ Elevation 2195 KB 2190 GL
 Co. Rep / Geo. Kris Kennedy Cont. Murfin #8 Est. Ft. of Pay _____ Por. _____ %
 Location: Sec. 28 Twp. 10 Rge. 19 Co. Reeks State KS
 No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 3710 — 3730 Initial Str Wt./Lbs. 44,000 Unseated Str Wt./Lbs. 46,000
 Anchor Length 20 Wt. Set Lbs. 25,000 Wt. Pulled Loose/Lbs. 50,000
 Top Packer Depth 3705 Tool Weight 1800
 Bottom Packer Depth 3710 Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
 Total Depth 3730 Wt. Pipe Run _____ Drill Collar Run 124
 Mud Wt. 9.2 LCM _____ Vis. 48 WL 8 Drill Pipe Size 4.5x14 Ft. Run 3591
 Blow Description I.F. Strong - B.O.B. in 17 min

EF - Strong - B.O.B. in 11 min.

Recovery — Total Feet 635 GIP _____ Ft. in DC 124 Ft. in DP 511
 Rec. 635 Feet Of 40 %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 112 °F Gravity _____ °API D@ _____ °F Corrected Gravity 16 °API
 RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 9200 ppm System

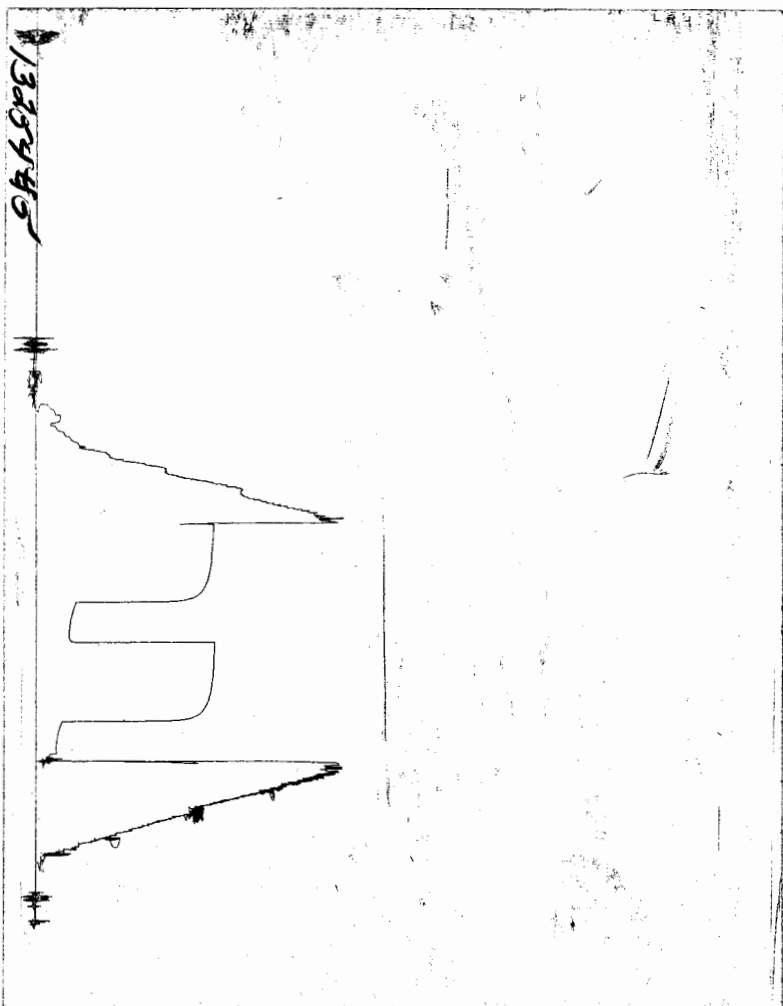
(A) Initial Hydrostatic Mud	AK-1	Alpine	1896	PSI	Recorder No. <u>2357</u>	T-On Location <u>06:50</u>
(B) First Initial Flow Pressure			44	PSI	(depth) <u>3711</u>	T-Started <u>07:46</u>
(C) First Final Flow Pressure			189	PSI	Recorder No. <u>13254</u>	T-Open <u>09:40</u>
(D) Initial Shut-In Pressure			1138	PSI	(depth) <u>3727</u>	T-Pulled <u>12:40</u>
(E) Second Initial Flow Pressure			197	PSI	Recorder No. _____	T-Out <u>14:48</u>
(F) Second Final Flow Pressure			280	PSI	(depth) _____	T-Off Location <u>15:00</u>
(G) Final Shut-in Pressure			1129	PSI	Initial Opening <u>30</u>	Test _____ 700
(Q) Final Hydrostatic Mud			1819	PSI	Initial Shut-in <u>60</u>	Jars _____
					Final Flow <u>30</u>	Safety Joint _____
					Final Shut-in <u>60</u>	Straddle _____
						Circ. Sub _____
						Sampler _____
						Extra Packer _____
						Elec. Rec. <u>X</u> 150
						Mileage <u>28</u> 28
						Other _____
						TOTAL PRICE \$ <u>878</u>

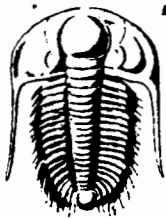
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Approved By [Signature]

Our Representative [Signature]

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TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 16816

Test Ticket

Well Name & No. <u>Irene Z # 1-28</u>	Test No. <u>6</u>	Date <u>12-31-02</u>
Company <u>Murfin Drilling Co. Inc</u>	Zone Tested <u>Arbuckle</u>	
Address _____	Elevation <u>2195</u> KB <u>2190</u> GL	
Co. Rep / Geo. <u>Kris Kennedy</u>	Cont. <u>Murfin #8</u>	Est. Ft. of Pay _____ Por. _____ %
Location: Sec. <u>28</u> Twp. <u>10</u> Rge. <u>19</u>	Co. <u>Rooks</u> State <u>KS</u>	
No. of Copies _____	Distribution Sheet (Y, N) _____	Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 37.30 — 37.40 Initial Str Wt./Lbs. 44,000 Unseated Str Wt./Lbs. 45,000
 Anchor Length 10 Wt. Set Lbs. 25,000 Wt. Pulled Loose/Lbs. 79,000
 Top Packer Depth 37.25 Tool Weight 1000
 Bottom Packer Depth 37.30 Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Total Depth 37.40 Wt. Pipe Run _____ Drill Collar Run 124
 Mud Wt. 9.2 LCM _____ Vis. 48 WL 8 Drill Pipe Size 4.5 X H Ft. Run 3089
 Blow Description I.F. Strong - B.O.B. in 10 min.

F.F. Strong Bob in 18 min.

Recovery — Total Feet 490 GIP _____ Ft. in DC 124 Ft. in DP 366
 Rec. 490 Feet Of HO %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 108 °F Gravity _____ °API D@ _____ °F Corrected Gravity 16 °API
 RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 9200 ppm System

	AK-1	Alpine			
(A) Initial Hydrostatic Mud	<u>1900</u>	PSI	Recorder No. <u>2357</u>	T-On Location	<u>21:00</u>
(B) First Initial Flow Pressure	<u>35</u>	PSI	(depth) <u>3731</u>	T-Started	<u>21:32</u>
(C) First Final Flow Pressure	<u>143</u>	PSI	Recorder No. <u>13254</u>	T-Open	<u>23:25</u>
(D) Initial Shut-In Pressure	<u>1139</u>	PSI	(depth) <u>3737</u>	T-Pulled	<u>02:25</u>
(E) Second Initial Flow Pressure	<u>148</u>	PSI	Recorder No. _____	T-Out	<u>04:52</u>
(F) Second Final Flow Pressure	<u>211</u>	PSI	(depth) _____	T-Off Location	<u>05:00</u>
(G) Final Shut-in Pressure	<u>1132</u>	PSI	Initial Opening <u>30</u>	Test	<u>700</u>
(Q) Final Hydrostatic Mud	<u>1821</u>	PSI	Initial Shut-in <u>60</u>	Jars	_____
			Final Flow <u>30</u>	Safety Joint	_____
			Final Shut-in <u>60</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>\$816</u>

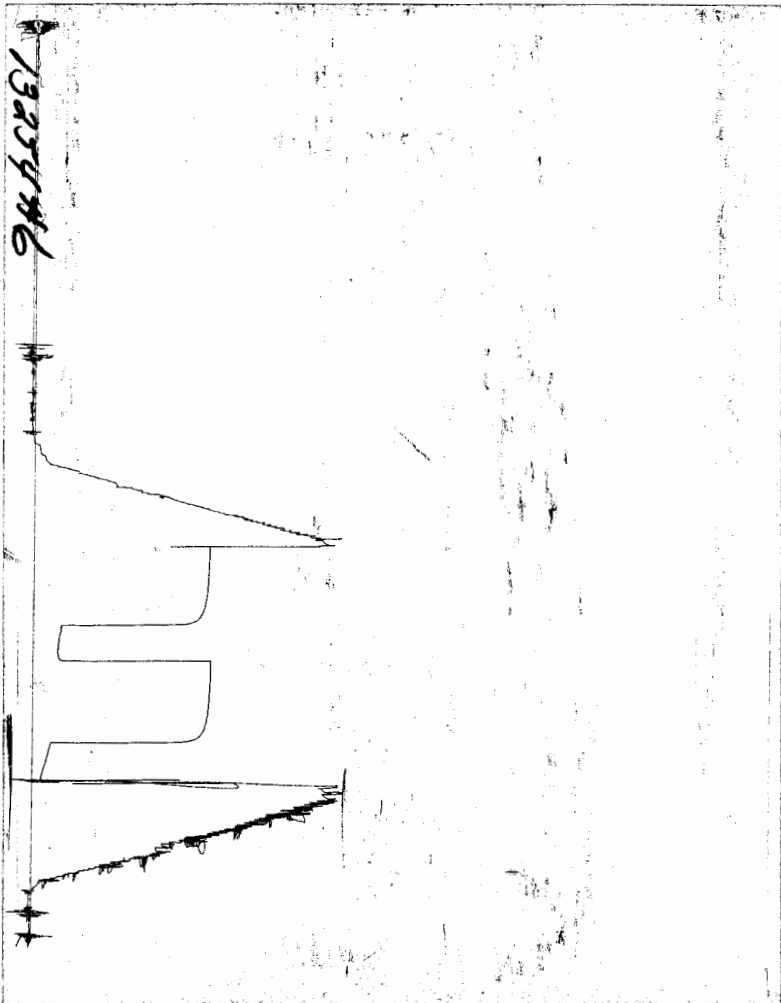
TRILOBITE TESTING INC. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE. OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

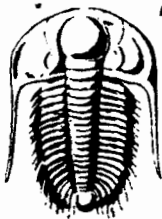
Approved By [Signature]

Our Representative [Signature]

CHART PAGE

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





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 16817

Test Ticket

Well Name & No. <u>Irene 2 #1-28</u>	Test No. <u>7</u>	Date <u>1-1-03</u>
Company <u>Murfin Drilg Co. Inc</u>	Zone Tested <u>Archuckle</u>	
Address _____	Elevation <u>2195</u>	KB <u>2190</u> GL
Co. Rep / Geo. <u>Kris Kennedy</u>	Cont. <u>Murfin #8</u>	Est. Ft. of Pay _____ Por. _____ %
Location: Sec. <u>28</u> Twp. <u>10</u> Rge. <u>19</u>	Co. <u>Rocks</u>	State <u>KS</u>
No. of Copies _____	Distribution Sheet (Y, N) _____	Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested <u>3741 — 3750</u>	Initial Str Wt./Lbs. <u>44,000</u>	Unseated Str Wt./Lbs. <u>32,000</u>
Anchor Length <u>9</u>	Wt. Set Lbs. <u>25,000</u>	Wt. Pulled Loose/Lbs. <u>7,000</u>
Top Packer Depth _____	Tool Weight <u>900</u>	
Bottom Packer Depth <u>3741</u>	Hole Size — <u>7 7/8"</u>	Rubber Size — <u>6 3/4"</u>
Total Depth <u>3750</u>	Wt. Pipe Run _____	Drill Collar Run <u>124</u>
Mud Wt. <u>9.1</u> LCM _____ Vis. <u>60</u> WL <u>8.4</u>	Drill Pipe Size <u>4.5XH</u>	Ft. Run <u>3621</u>
Blow Description <u>T.F. Strong - B.O.B. in 1.5 min</u>		

T.F. Strong - B.O.B. in 1.5 min.

Recovery — Total Feet <u>2170</u>	GIP _____	Ft. in DC <u>124</u>	Ft. in DP <u>2046</u>
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 _____		
Rec. _____ Feet Of _____	%gas _____ %oil _____ %water _____ %mud _____		
BHT <u>120</u> °F Gravity _____ °API D@ _____ °F Corrected Gravity _____ °API			
RW <u>120</u> @ <u>80</u> °F Chlorides <u>29,000</u> ppm Recovery Chlorides <u>9500</u> ppm System			

(A) Initial Hydrostatic Mud _____	AK-1 <u>1917</u> Alpine	PSI Recorder No. <u>2357</u>	T-On Location <u>10'45"</u>
(B) First Initial Flow Pressure _____	<u>77</u> PSI	(depth) <u>3742</u>	T-Started <u>11:24</u>
(C) First Final Flow Pressure _____	<u>640</u> PSI	Recorder No. <u>13254</u>	T-Open <u>13:15</u>
(D) Initial Shut-In Pressure _____	<u>1166</u> PSI	(depth) <u>3747</u>	T-Pulled <u>15:15</u>
(E) Second Initial Flow Pressure _____	<u>653</u> PSI	Recorder No. _____	T-Out <u>17:27</u>
(F) Second Final Flow Pressure _____	<u>967</u> PSI	(depth) _____	T-Off Location <u>18:00</u>
(G) Final Shut-in Pressure _____	<u>1166</u> PSI	Initial Opening <u>30</u>	Test _____ 700
(Q) Final Hydrostatic Mud _____	<u>1824</u> PSI	Initial Shut-in <u>30</u>	Jars _____
		Final Flow <u>30</u>	Safety Joint <u>X</u> 50
		Final Shut-in <u>30</u>	Straddle _____
			Circ. Sub <u>X</u> 35
			Sampler _____

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Approved By _____

Our Representative Dan Bangle

8 extra
copies
@ \$2.50

Extra Packer _____
Elec. Rec. X 150
Mileage 28 20
Other Single packer 963
TOTAL PRICE \$ 983

CHART PAGE

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

