

15-051-25424

CONFIDENTIAL
MAR 15 2006

KCC



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **I A Operating Inc**

800 N Tyler Road # 14
Wichita, Ks 67212

ATTN: Randy Killian

16-14s-20w-Ellis

Shelby #16-1

Start Date: 2006.01.23 @ 23:58:54

End Date: 2006.01.24 @ 07:58:09

Job Ticket #: 24639 DST #: 1

RECEIVED

MAR 22 2006

KCC WICHITA



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

I A Operating Inc

Shelby #16-1

16-14s-20w-Ellis

DST # 1

LKC-"A-C"

2006.01.23



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

IA Operating Inc
800 N Tyler Road # 14
Wichita, Ks 67212
ATTN: Randy Killian

Shelby #16-1
16-14s-20w-Ellis
Job Ticket: 24639 DST#: 1
Test Start: 2006.01.23 @ 23:58:54

Tool Information

Drill Pipe:	Length: 3472.00 ft	Diameter: 3.80 inches	Volume: 48.70 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 48.85 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3493.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	52.00 ft			
Tool Length:	73.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3473.00	
Shut In Tool	5.00			3478.00	
Hydraulic tool	5.00			3483.00	
Packer	5.00			3488.00	21.00 Bottom Of Top Packer
Packer	5.00			3493.00	
Stubb	1.00			3494.00	
Perforations	1.00			3495.00	
Change Over Sub	1.00			3496.00	
Recorder	0.00	6741	Inside	3496.00	
Blank Spacing	31.00			3527.00	
Change Over Sub	1.00			3528.00	
Perforations	14.00			3542.00	
Recorder	0.00	13221	Outside	3542.00	
Bullnose	3.00			3545.00	52.00 Bottom Packers & Anchor

Total Tool Length: 73.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

IA Operating Inc
800 N Tyler Road # 14
Wichita, Ks 67212
ATTN: Randy Killian

Shelby #16-1
16-14s-20w-Ellis
Job Ticket: 24639 **DST#: 1**
Test Start: 2006.01.23 @ 23:58:54

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	29 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	43000 ppm
Viscosity:	42.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	11.18 in ³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4000.00 ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
90.00	Muddy Water-70%W-30%M	0.980
330.00	SGO-10%G-90%O	4.629
240.00	GO-50%G-50%O	3.367
60.00	GHOCM-20%G-55%O-25%M	0.842
30.00	OCM-30%O-70%M	0.421

Total Length: 750.00 ft Total Volume: 10.239 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

Serial #: 6741

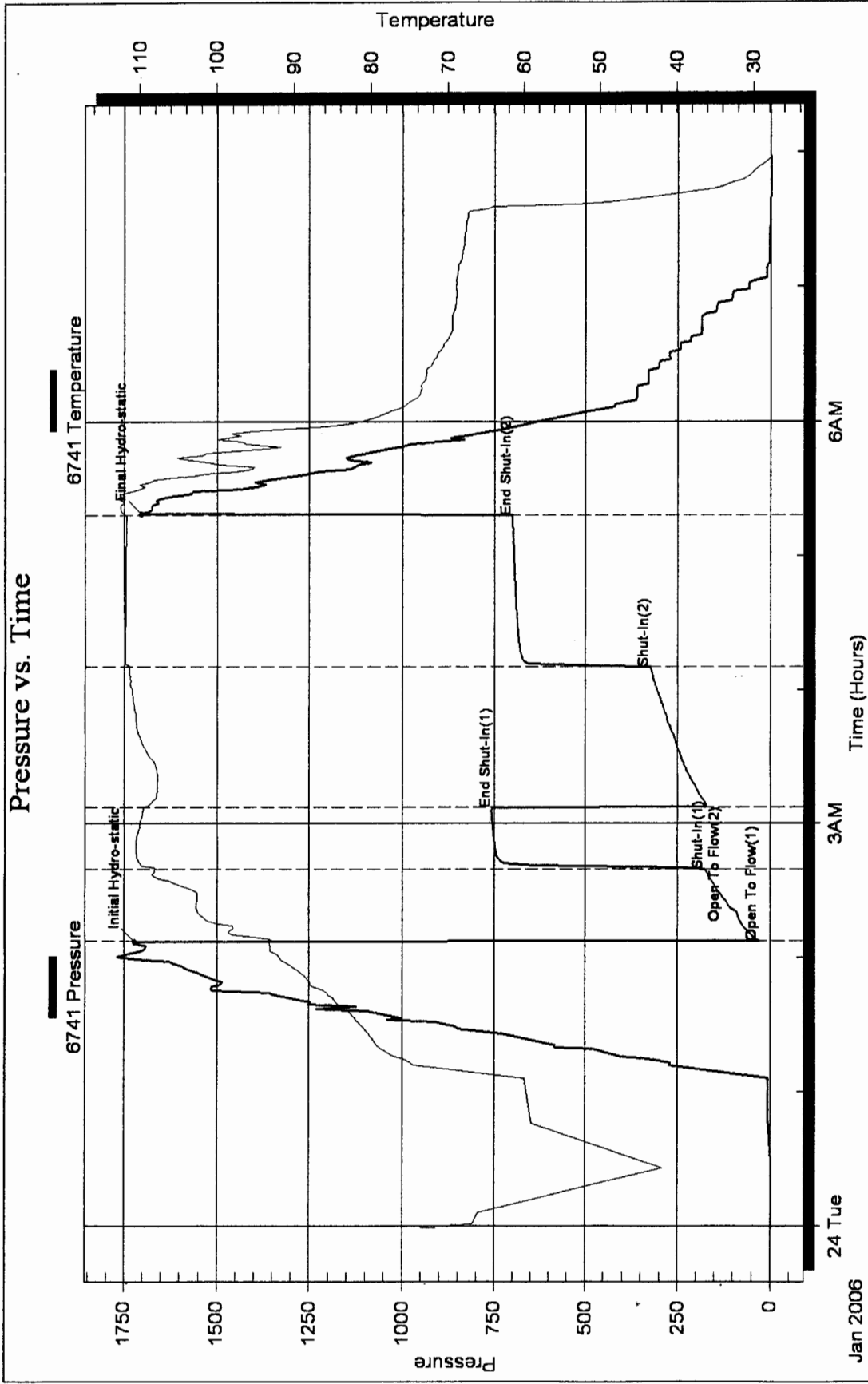
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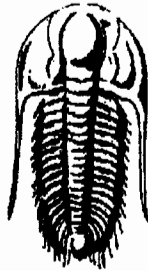
IA Operating Inc

16-14s-20w-Ellis

DST Test Number: 1

Pressure vs. Time





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **IA Operating Inc**

800 N Tyler Road # 14
Wichita, Ks 67212

ATTN: Randy Killian

16-14s-20w-Ellis

Shelby #16-1

Start Date: 2006.01.24 @ 21:01:50

End Date: 2006.01.25 @ 03:36:35

Job Ticket #: 24640 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

IA Operating Inc

Shelby #16-1

16-14s-20w-Ellis

DST # 2

LKC-"H-J"

2006.01.24



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

1A Operating Inc
800 N Tyler Road # 14
Wichita, Ks 67212
ATTN: Randy Killian

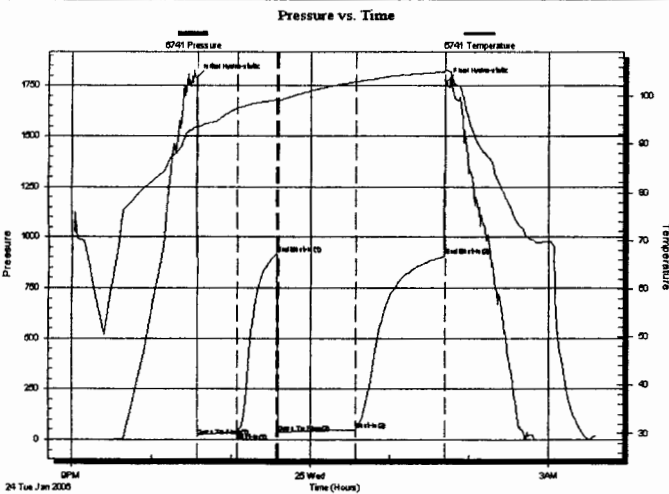
Shelby #16-1
16-14s-20w-Ellis
Job Ticket: 24640 **DST#: 2**
Test Start: 2006.01.24 @ 21:01:50

GENERAL INFORMATION:

Formation: **LKC-"H-J"**
Deviated: **No** Whipstock: **ft (KB)**
Time Tool Opened: **22:34:05**
Time Test Ended: **03:36:35**
Interval: **3611.00 ft (KB) To 3700.00 ft (KB) (TVD)**
Total Depth: **3700.00 ft (KB) (TVD)**
Hole Diameter: **7.80 inches** Hole Condition: **Good**
Test Type: **Conventional Bottom Hole**
Tester: **Jason McLemore**
Unit No: **32**
Reference Elevations: **2221.00 ft (KB)**
2216.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6741 **Inside**
Press@RunDepth: **48.49 psig @ 3614.00 ft (KB)**
Start Date: **2006.01.24** End Date: **2006.01.25**
Start Time: **21:01:52** End Time: **03:36:35**
Capacity: **7000.00 psig**
Last Calib.: **2006.01.25**
Time On Btrr: **2006.01.24 @ 22:33:50**
Time Off Btrr: **2006.01.25 @ 01:42:20**

TEST COMMENT: **FP-Weak Blow ,Built to 5"**
ISI-Dead
FFP-Good Blow ,Built To 11"



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1789.30	93.63	Initial Hydro-static
1	14.79	92.98	Open To Flow (1)
31	34.76	97.50	Shut-In(1)
61	918.00	99.24	End Shut-In(1)
62	35.72	99.07	Open To Flow (2)
120	48.49	102.97	Shut-In(2)
188	905.65	105.09	End Shut-In(2)
189	1771.69	105.45	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
70.00	SOCMM-10%G-10%O-40%W-40%M	0.70
20.00	Free Oil	0.28

Gas Rates

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



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DRILL STEM TEST REPORT

TOOL DIAGRAM

IA Operating Inc
800 N Tyler Road # 14
Wichita, Ks 67212

ATTN: Randy Killian

Shelby #16-1
16-14s-20w-Ellis
Job Ticket: 24640 **DST#: 2**
Test Start: 2006.01.24 @ 21:01:50

Tool Information

Drill Pipe:	Length: 3565.00 ft	Diameter: 3.80 inches	Volume: 50.01 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 50.16 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3611.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	89.00 ft			
Tool Length:	110.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3591.00	
Shut In Tool	5.00			3596.00	
Hydraulic tool	5.00			3601.00	
Packer	5.00			3606.00	21.00 Bottom Of Top Packer
Packer	5.00			3611.00	
Stubb	1.00			3612.00	
Perforations	1.00			3613.00	
Change Over Sub	1.00			3614.00	
Recorder	0.00	6741	Inside	3614.00	
Blank Spacing	61.00			3675.00	
Change Over Sub	1.00			3676.00	
Perforations	21.00			3697.00	
Recorder	0.00	13221	Outside	3697.00	
Bullnose	3.00			3700.00	89.00 Bottom Packers & Anchor

Total Tool Length: 110.00



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ATTN: Randy Killian

Shelby #16-1
16-14s-20w-Ellis
Job Ticket: 24640 **DST#: 2**
Test Start: 2006.01.24 @ 21:01:50

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 42 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 35000 ppm
Viscosity: 42.00 sec/qt	Cushion Volume: bbl	
Water Loss: 11.18 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 4000.00 ppm		
Filter Cake: inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
70.00	SOCMM-10%G-10%O-40%W-40%M	0.700
20.00	Free Oil	0.281

Total Length: 90.00 ft Total Volume: 0.981 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

Serial #: 6741

Inside

I A Operating Inc

16-14s-20w-Ellis

DST Test Number: 2

Pressure vs. Time

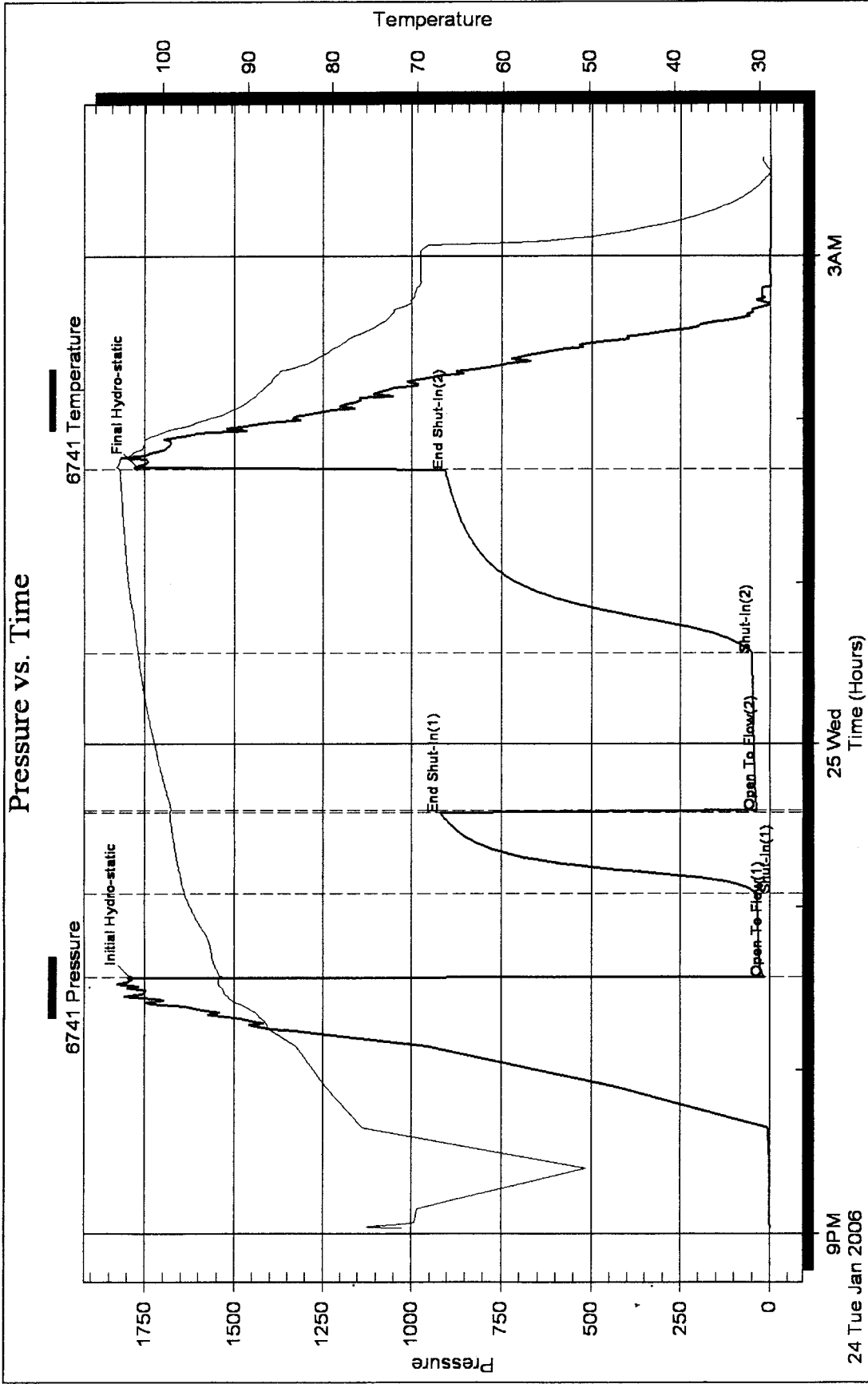


CHART PAGE

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

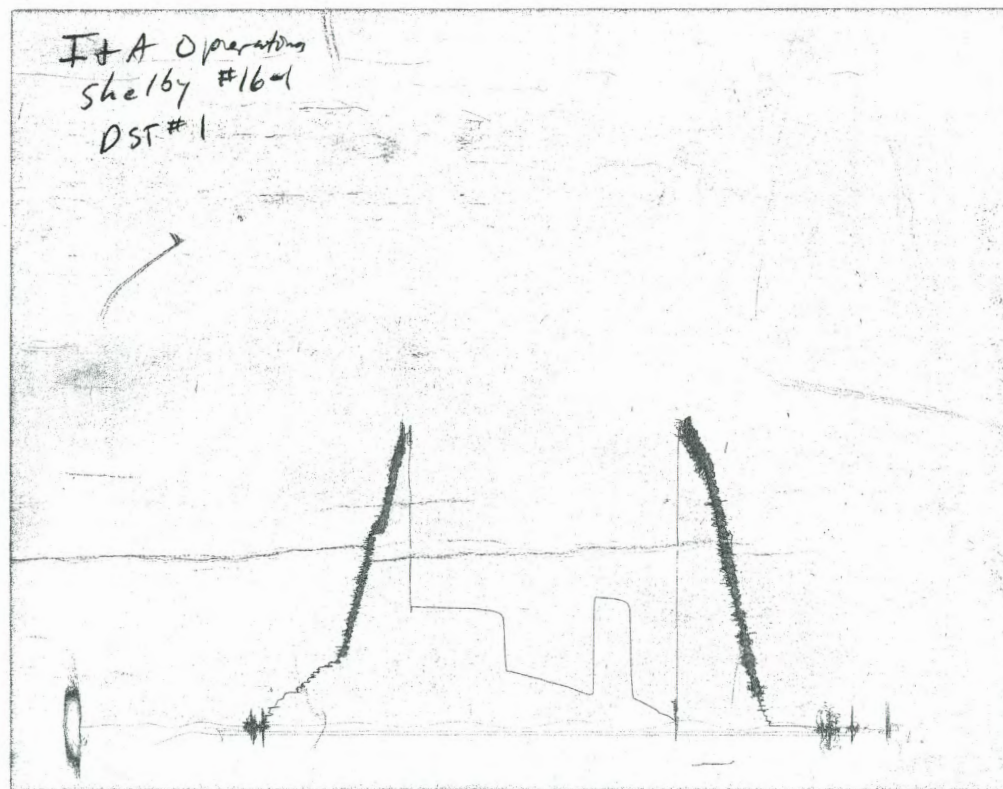


CHART PAGE

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

