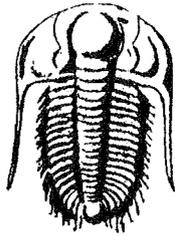


15-009-24744

21-19s-14w



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared for

HJ Inc.
70 N Farmland Rd
Garden City, KS 67846

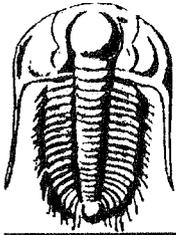
Callahan #1-21
21-19S-14W
Barton Co. Kansas

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JAN 03 2003
KCC WICHITA

ORIGINAL

Trilobite Testing, Inc
PO Box 362 - Hays, Kansas - 67601
ph: 785-625-4778 fax: 785-625-5620
e-mail: trilobite@eaglecom.net

ORIGINAL



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT
HJ Inc.
70N Farmland Rd, Garden City, KS 67846

Well name#:	Callahan #1-21	Date:	11/26/2002
Location#:	21-19S-14W / Barton Co, KS	Ticket #:	16529
		DST#	1

General Informaion:

Formation:	Lansing	Test Type:	Conventional	BHT:	100
Interval:	3203-3230	Tester:	Gary Pevoteaux	OIL API:	
Total Depth:	3230	Elevation:	1894 ft(KB)	H2O Salinity:	
Hole Diameter:	7 7/8"		1885 ft(CF)		

Start Data:	11/26/2002	Tool Weight:	2100	Mud Type:	Chem
Start Time:	2:00:00	Weight Set on Packers:	20000	Mud Weight:	9.3
Time tool opened:	4:16:00	Weight to Pull Loose:	52000	Viscosity:	49
Time Off Btm:	7:22:00	Initial String Weight:	40000	Water Loss:	8
End Date:	11/26/02	Final String Weight:	40000	Resistivity:	
End Time:	9:15:00	Drill Pipe Length:	3198	Salinity:	
		Drill Collar Length:			

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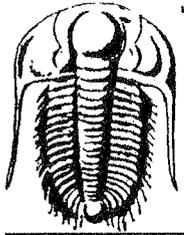
Test Comment:

IF: Weak blow. 1/2" - 1 1/2"
 ISI: No blow.
 FF: Weak blow. 3/4"
 FSI: No Blow.

Recovery Length(ft): 8 Drilling mud
GIP Trace

Gas Volume Report

Recorder #:	13222	Or Min:	Ins. Of water PSIG	Orifice size	MCF/D
Pressure Summary:	Time:(min)				
Initial Hydro-static:	1516				
Open to Flow (1):	24 45				
Shut-in (1):	20 45				
End Shut-in (1):	41				
Open to Flow (2):	20 45				
Shut-in (2):	20 45				
End Shut-in (2):	41				
Final Hydro-static:	1506				



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT
 HJ Inc.
 70N Farmland Rd, Garden City, KS 67846

Well name#:	Callahan #1-21	Date:	11/27/2002
Location#:	21-19S-14W / Barton Co, KS	Ticket #:	16530
		DST#	2

General Informaion:

Formation:	Conglom.	Test Type:	Conventional	BHT:	104
Interval:	3440-3510	Tester:	Gary Pevoteaux	OIL API:	
Total Depth:	3510	Elevation:	1894 ft(KB)	H2O Salinity:	
Hole Diameter:	7 7/8"		1885 ft(CF)		
Start Data:	11/27/2002	Tool Weight:	2100	Mud Type:	Chem
Start Time:	5:30:00	Weight Set on Packers:	20000	Mud Weight:	9.3
Time tool opened:	7:42:00	Weight to Pull Loose:	76000	Viscosity:	56
Time Off Btm:	10:48:00	Initial String Weight:	44000	Water Loss:	8
End Date:	11/27/02	Final String Weight:	44000	Resistivity:	
End Time:	12:50:00	Drill Pipe Length:	3448	Salinity:	
		Drill Collar Length:			

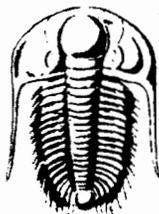
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 JAN 03 2003
 KOC WIGHT

Test Comment: IF: Strong blow. GTS in 4 minutes (see gas volume report)
 ISI: No Blow
 FF: Strom blow (see gas volume report).
 FSI: No blow.

Recovery Length(ft): 70 Drilling mud
 GIP Trace

Gas Volume Report

Recorder #:	13222	Open	Min:	Ins. Of water PSIG	Orifice size	MCF/D
Pressure Summary:	Time:(min)					
Initial Hydro-static:	1657	1	4		3/4"	GTS
Open to Flow (1):	162 30	1	5	31	3/4"	663
Shut-in (1):	142 45	1	10	34	3/4"	707
End Shut-in (1):	609	1	20	29	3/4"	634
Open to Flow (2):	148 45	1	30	29	3/4"	634
Shut-in (2):	142 60	2	10	27	3/4"	605
End Shut-in (2):	609	2	20	27	3/4"	605
Final Hydro-static:	1647	2	30	28	3/4"	619
		2	40	28	3/4"	619
		2	45	28	3/4"	916



TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

INV #52711 #132000

No 16529

Test Ticket

Well Name & No. Callahan # 1-21 Test No. 1 Date 11-26-2007
 Company HJ Inc. Zone Tested Leans
 Address 70 N. Farmland Rd. Garden City, KS 67846 Elevation 1894 KB 1885 GL
 Co. Rep / Geo. James Murgrave Cont. Duke Drey #8 Est. Ft. of Pay Por. %
 Location: Sec. 21 Twp. 19^s Rge. 14^w Co. Barton State Ks.
 No. of Copies 5 Distribution Sheet (Y, N) N Turnkey (Y, N) Evaluation (Y, N)

Interval Tested 3203 - 3230' Initial Str Wt./Lbs. 40,000 Unseated Str Wt./Lbs. 40,000
 Anchor Length 27' Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 52,000
 Top Packer Depth 3298' Tool Weight 2100#
 Bottom Packer Depth 3203' Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Total Depth 3230' Wt. Pipe Run None Drill Collar Run None
 Mud Wt. 9.3 LCM ~ Vis. 49 WL 8.0cc. Drill Pipe Size 4 1/2" x H. Ft. Run 3198
 Blow Description IF: water below 1/2 - 1/2". FSI: No below.

FF: water below 3/4". FSI: No below.

Recovery — Total Feet 8 GIP Trace Ft. in DC 0 Ft. in DP 8
 Rec. 8 Feet Of Dry Mud %gas %oil %water %mud
 Rec. Feet Of %gas %oil %water %mud
 BHT 100 °F Gravity N/A °API D@ ~ °F Corrected Gravity N/A °API
 RW N.C. @ ~ °F Chlorides 2,000 ppm Recovery Chlorides 2000 ppm System

	AK-1	Alpine		
(A) Initial Hydrostatic Mud	<u>1516</u>		PSI Recorder No. <u>10290</u>	T-On Location <u>0045</u>
(B) First Initial Flow Pressure	<u>24</u>		PSI (depth) <u>3222'</u>	T-Started <u>0200</u>
(C) First Final Flow Pressure	<u>20</u>		PSI Recorder No. <u>13222</u>	T-Open <u>0416</u>
(D) Initial Shut-In Pressure	<u>41</u>		PSI (depth) <u>3227'</u>	T-Pulled <u>0722</u>
(E) Second Initial Flow Pressure	<u>20</u>		PSI Recorder No. <u> </u>	T-Out <u>0915</u>
(F) Second Final Flow Pressure	<u>20</u>		PSI (depth) <u> </u>	T-Off Location <u>1005</u>
(G) Final Shut-in Pressure	<u>41</u>		PSI Initial Opening <u>45</u>	Test <u>* 700</u> ⁰⁶⁰⁰
(Q) Final Hydrostatic Mud	<u>1506</u>		PSI Initial Shut-in <u>45</u>	Jars <u> </u>
			Final Flow <u>45</u>	Safety Joint <u> </u>
			Final Shut-in <u>45</u>	Straddle <u> </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]

Elec. Rec.
Mileage ✓ 60.00
Other
TOTAL PRICE \$ ✓ 760.00 ⁰⁶⁶⁰

CHART PAGE

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

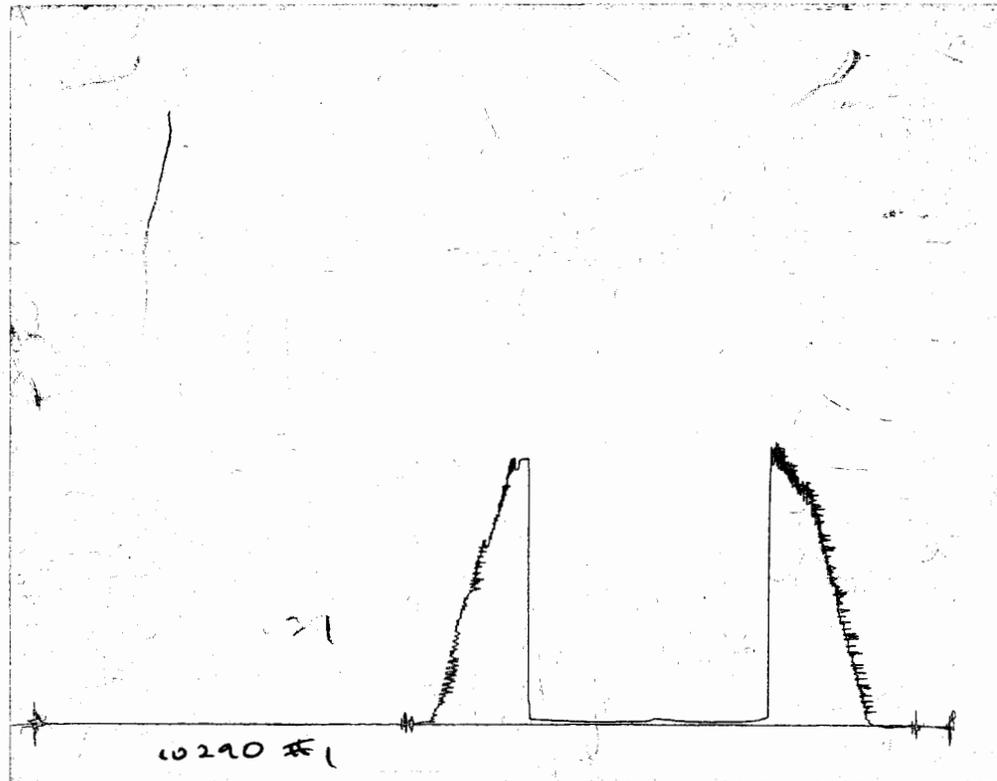
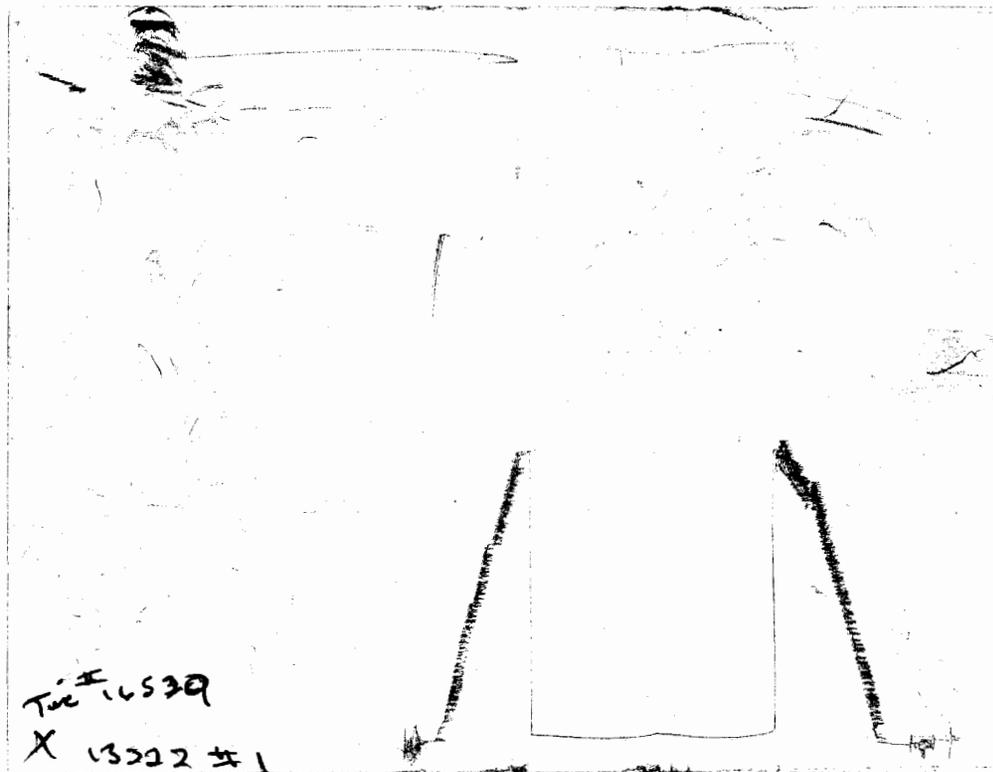
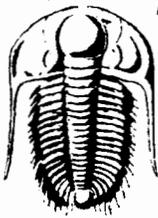


CHART PAGE

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TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 16530

Test Ticket

Well Name & No. Callahan # 1-21 Test No. 2 Date 11-27-2002
 Company HS Inc. Zone Tested Conglomerate
 Address 70 N. Farmland Rd. Garden City, Mo. 67846 Elevation 1894 KB 1885GL
 Co. Rep / Geo. James Musgrave Cont. Duke Dalg. #8 Est. Ft. of Pay Por. %
 Location: Sec. 21 Twp. 19S Rge. 14W Co. Barton State Ks
 No. of Copies 5 Distribution Sheet (Y, N) N Turnkey (Y, N) Evaluation (Y, N)

Interval Tested 3440 - 3510' Initial Str Wt./Lbs. 44,000 Unseated Str Wt./Lbs. 44,000
 Anchor Length 70' Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 76,000
 Top Packer Depth 3435' Tool Weight 2100#
 Bottom Packer Depth 3440' Hole Size — 7 7/8" ✓ Rubber Size — 6 3/4" ✓
 Total Depth 3510' Wt. Pipe Run None Drill Collar Run None
 Mud Wt. 9.3 LCM — Vis. SL WL 8.0cc Drill Pipe Size 4 1/2" x H. Ft. Run 3448
 Blow Description IF: Strong below. GTS in 4 mins. (see gas volume report) & ISI: No below.
FF: Strong below. (see gas volume report) FSI: No below.

Recovery — Total Feet 70 GIP yes Ft. in DC 0 Ft. in DP 70
 Rec. 70 Feet Of Dalg. Mud %gas %oil %water %mud
 Rec. Feet Of %gas %oil %water %mud
 BHT 104 °F Gravity N/A °API D@ °F Corrected Gravity N/A °API
 RW N.C. @ °F Chlorides 2,000 ppm Recovery Chlorides 2,000 ppm System

	AK-1	Alpine	PSI Recorder No.	T-On Location
(A) Initial Hydrostatic Mud	1657		10290	0500
(B) First Initial Flow Pressure	162		(depth) 3502'	T-Started 0530
(C) First Final Flow Pressure	142		PSI Recorder No. 13222	T-Open 0747
(D) Initial Shut-In Pressure	609		PSI (depth) 3567'	T-Pulled 1048
(E) Second Initial Flow Pressure	148		PSI Recorder No. <u> </u>	T-Out 1250
(F) Second Final Flow Pressure	142		PSI (depth) <u> </u>	T-Off Location 1330
(G) Final Shut-in Pressure	609		PSI Initial Opening 30	Test * <u> </u> ✓ 700° 600
(Q) Final Hydrostatic Mud	1647		PSI Initial Shut-in 45	Jars <u> </u>
			Final Flow 45	Safety Joint <u> </u>
			Final Shut-in 60	Straddle <u> </u>

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Approved By [Signature]
 Our Representative [Signature]

Circ. Sub
 Sampler
 Extra Packer
 Elec. Rec.
 Mileage ✓ 60.00 60
 Other 660
 TOTAL PRICE \$ ✓ 760.00 660

CHART PAGE

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

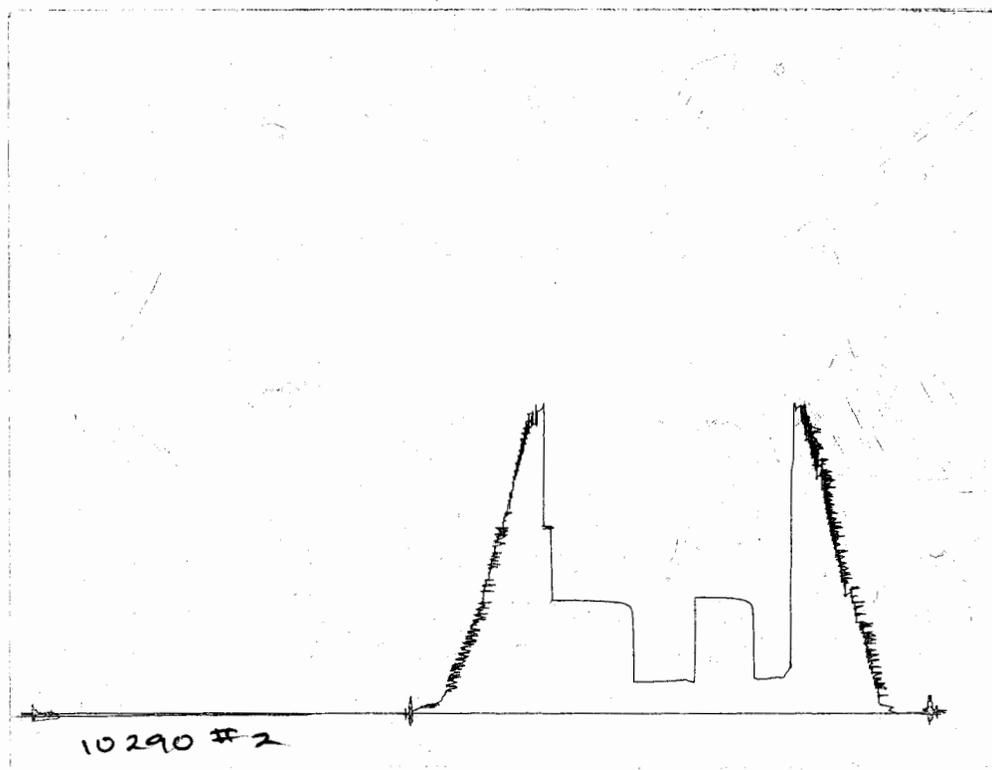
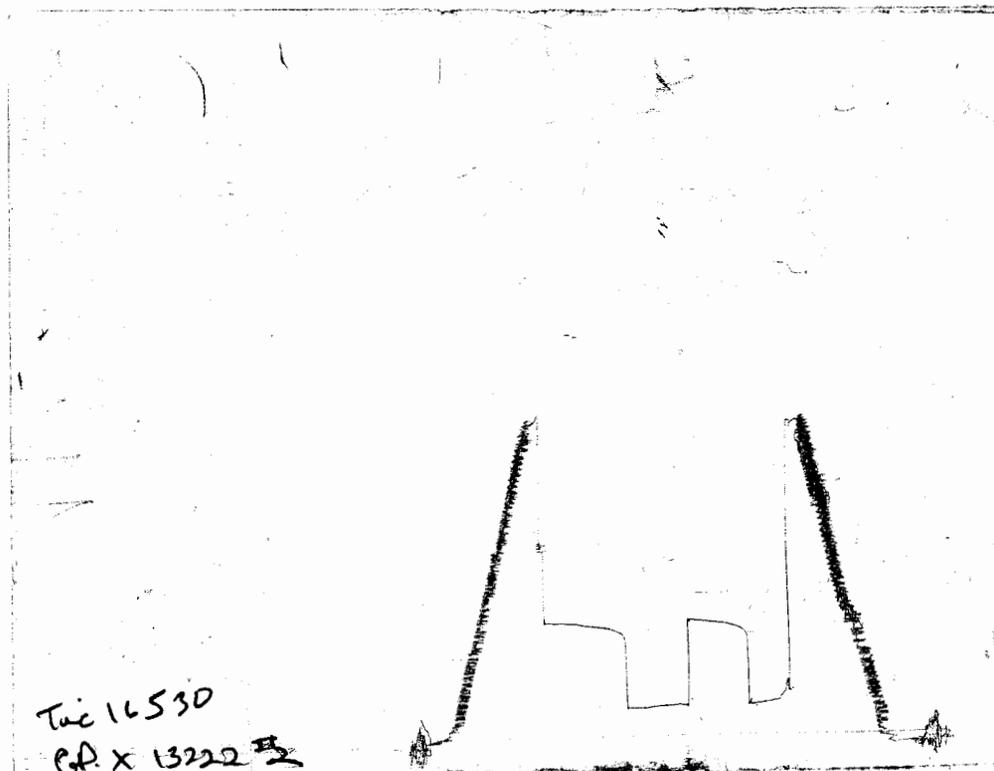


CHART PAGE

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



Well Name Callahan # 1-21
DST Number #1
Recorder Number 13222

A: 1.532
B: 0.047
C: 0.013
D: 0.036
E: 0.016
F: 0.016
G: 0.037
Q: 1.536

Well Name Callahan # 1-21
DST Number #2
Recorder Number 13222

A: 1.658
B: 0.232
C: 0.166
D: 0.614
E: 0.160
F: 0.147
G: 0.596
Q: 1.696