TRILOBITE TESTING, INC.

RECEIVED
OCT 17 2003
KCC WICHITA

DRILL STEM TEST REPORT

Prepared for

Hart Energies, LLC
11051 S Memorial. Ste 200
Tulsa, OK 74133

KCC
OCT 15 2003
CONFIDENTIAL

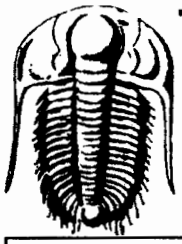
Woodard #1
1-31S-10W
Barber Co Kansas

CONFIDENTIAL

ORIGINAL

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

CONFIDENTIAL ORIGINAL



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT
Hart Energies, LLC
11051 S Memorial. Ste 200
Tulsa, OK 74133

KCC
OCT 15 2003
CONFIDENTIAL

				Date:	6/25/2003
Well name#:	Woodard #1			Ticket #:	17871
Location#:	1-31S-10W	Barber Co Kansas		DST#	1

General Informaion:

Formation:	Miss.	Test Type:	Conventional	BHT:	101
Interval:	4388-4420	Tester:	Darren Amrein	OIL API:	
Total Depth:	4420	Elevation:	1690 ft(KB)	H2O Salinity:	
Hole Diameter:	7 7/8"		1685 ft(CF)		
Start Data:	6/25/2003	Tool Weight:	2100	Mud Type:	Chemical
Start Time:	16:00:00	Weight Set on Packers:	20000	Mud Weight:	9.2
Time tool opened:	17:36:00	Weight to Pull Loose:	75000	Viscosity:	49
Time Off Btm:	22:06:00	Initial String Weight:	68000	Water Loss:	11
End Date:	6/25/03	Final String Weight:	68000	Resistivity;	
End Time:	24:00:00	Drill Pipe Length:	4139.69	Salinity:	
		Drill Collar Length:	247.31		
		Wt. Pipe Length:			

Test Comment:

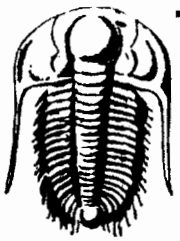
IF: Strong blow, BOB in 30 sec. GTS in 19 mins. Guaged Gas
ISI: Bled down for 5 min. No blow back.
FF: Strong blow, BOB in 10 sec. Guaged Gas
FSI: Bled down for 10 min. No blow back.

Recovery
Length(ft):

4256 GIP
130 SGCM 10%Gas 90%Mud

Gas Volume Report

Recorder #:	10991		Min:	Ins. Of water	Orifice	MCF/D
Pressure Summary:		Time:(min)		PSIG	size	
Initial Hydro-static:	2258.4					
Open to Flow (1):	67.025	30				
Shut-in (1):	68.09	60				
End Shut-in (1):	1521.1					
Open to Flow (2):	71.275	60				
Shut-in (2):	72.34	120				
End Shut-in (2);	1526.385					
Final Hydro-static:	2265.775					



TRILOBITE TESTING, INC.

PO Box 362 - Hays, Kansas 67601 - (785) 625-4778

GAS VOLUME REPORT

Operator: Hart Energies, LLC
Well Name: Woodard #1 DST #: 1

Remarks:

Min:	Ins. Of water	Orifice size	MCF/D	Min:	PSI	Orifice size	MCF/D
24	15	3/8	13900	10	1.5	1/4	11020
29	18	3/8	15100	20	1.5	1/4	11020
				30	2.5	1/4	14300
				40	3	1/4	15700
				50	3.5	1/4	17100
				60	4	1/4	18500

TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

17871

2/02

Test Ticket

Well Name & No. Woodard #1 Test No. #1 Date 6-25-03

Company Hart Energies, LLC. 11051 So. Zone Tested Miss.

Address Memorial, #200 Tulsa, OK. 74133 Elevation 1690 KB 1685 GL

Co. Rep / Geo. Bill Hart Cont. Mallard Est. Ft. of Pay _____ Por. _____ %

Location: Sec. 1 Twp. 31S Rge. 10W Co. Barber, Co. State KS

No. of Copies 5 Disbtribution Sheet (Y, N) — Turnkey (Y, N) — Evaluation (Y, N) —

nterval Tested	4388' - 4420'	Initial Str Wt./Lbs. 68000	Unseated Str Wt/Lbs. 68,000
nchor Length	32	Wt. Set Lbs. 20,000	Wt. Pulled Loose/Lbs. 75,000
op Packer Depth	4383'	Tool Weight 2100	
ottom Packer Depth	4388'	Hole Size 7 7/8" ✓	Rubber Size 6 3/4" ✓
otal Depth	4420'	Wt. Pipe Run N/A	Drill Collar Run 247.31
lud Wt. 9.2 LCM 0 Vis. 49 WL 11.0		Drill Pipe Size 4½ x H	Ft. Run 4139.69

low Description IF: Strong blow b.o.b in 30 sec. GTS in 19 mins. Gauge gas
TSI: Bled down for 5 mins. No blow back.
FF: Strong blow b.o.b in 10 sec. Gauge gas
FSI: Bled down for 10 mins. No blow back.

ecovery - Total Feet 130' GIP 4256' Ft. in DC 130' Ft. in DP N/A

ec. 130 Feet of SGCM 10% Gas 90% Mud

ec. 4256 Feet of GIP

ec. _____ Feet of _____

ec. _____ Feet of _____

ec. _____ Feet of _____

HT 101° °F Gravity _____ °API D @ _____ °F Corrected Gravity _____ °API

W _____ @ _____ °F Chlorides _____ ppm Recovery _____ Chlorides 3500 ppm System

	AK-1	Alpine				
A) Initital Hydrostatic Mud	2324	PSI	Recorder No.	13769	Test	✓
B) First Initial Flow Pressure	85	PSI	(depth)	4390'	Elec. Rec.	
C) First Final Flow Pressure	96	PSI	Recorder No.	10991 *	Jars	
D) Initial Shut-In Pressure	1544	PSI	(depth)	4417'	Safety Jt.	
E) Second Initial Flow Pressure	96	PSI	Recorder No.		Circ Sub	
F) Second Final Flow Pressure	106	PSI	(depth)		Sampler	
G) Final Shut-In Pressure	1565	PSI	**Initial Opening**	30	Straddle	
Q) Final Hydrostatic Mud	2345	PSI	Initial Shut-In	60	Ext. Packer	
			Final Flow	60	Shale Packer	
			Final Shut-In	120	Mileage	44
			T-On Location	1500	Sub Total:	
			T-Started	1600	Std. By	
			T-Open	1736	Other	
			T-Pulled	2206	Total:	
			T-Out	0000		

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

pproved By [signature]

ur Representative [signature]

TRILOBITE TESTING INC.
P.O. Box 362 • Hays, Kansas 67601 • (785) 625-4778

GAS VOLUME REPORT

Hart Energies, L.L.C. (OPERATOR) | Woodard #1 (WELL NAME AND NO.) | #1 (DST NO.)

TS in 19 mins on Initial Flow Final Flow

In.	Ins. of Water PSIG	Orifice Size	CF/D	Min.	Ins. of Water PSIG	Orifice Size	CF/D
4	15"	3/8	13,900	10	#1.5	1/4"	11,020
9	18"	3/8	15,100	20	1.5	1/4"	11.020
				30	2.5	1/4"	14,300
				40	3	1/4"	15,700
				50	3.5	1/4"	17,100
				60	4.0	1/4"	18,500

Remarks:

NATURAL GAS ANALYSIS REPORT

Sampled by:
Trilobite Testing, Inc.
Hays, Kansas
Scott City, Kansas
Phone: 800-728-5369
Fax: 785-625-5620

Analyzed by:
Caraway Analytical, Inc
P. O. Box 2137
Liberal, Kansas 67905
Phone: 620-624-5389
Fax: 620-626-7108

Lab Number:	20033159	Analyzed:	07/02/03
Sample From:	Woodward 1	Pressure:	
Producer:	Hart Energies, L.L.C.	Temperature:	
Date:		Location:	1-31-10
Time:		County:	Barber
Sampler:		State:	Kansas
Source:	DST 1	Formation:	Miss

		Mole %	GPM
Helium	He:	0.167	0.000
Hydrogen	H2:	0.003	0.000
Oxygen	O2:	0.000	0.000
Nitrogen	N2:	2.544	0.000
Carbon Dioxide	CO2:	0.015	0.000
Methane	C1:	86.394	0.000
Ethane	C2:	5.431	1.453
Propane	C3:	2.888	0.796
Iso Butane	iC4:	0.400	0.131
Normal Butane	nC4:	0.941	0.297
Iso Pentane	iC5:	0.250	0.091
Normal Pentane	nC5:	0.308	0.112
Hexanes Plus	C6+:	0.659	0.288
	TOTAL:	100.000	3.166
	Z Fact:	0.9972	
	SP.GR.:	0.6681	
	BTU (SAT):	1127.0 @ 14.73 psia	
	BTU (DRY):	1147.0 @ 14.73 psia	
	OCTANE RATING:	122.4	

COMMENTS: 0.000

CHART PAGE

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

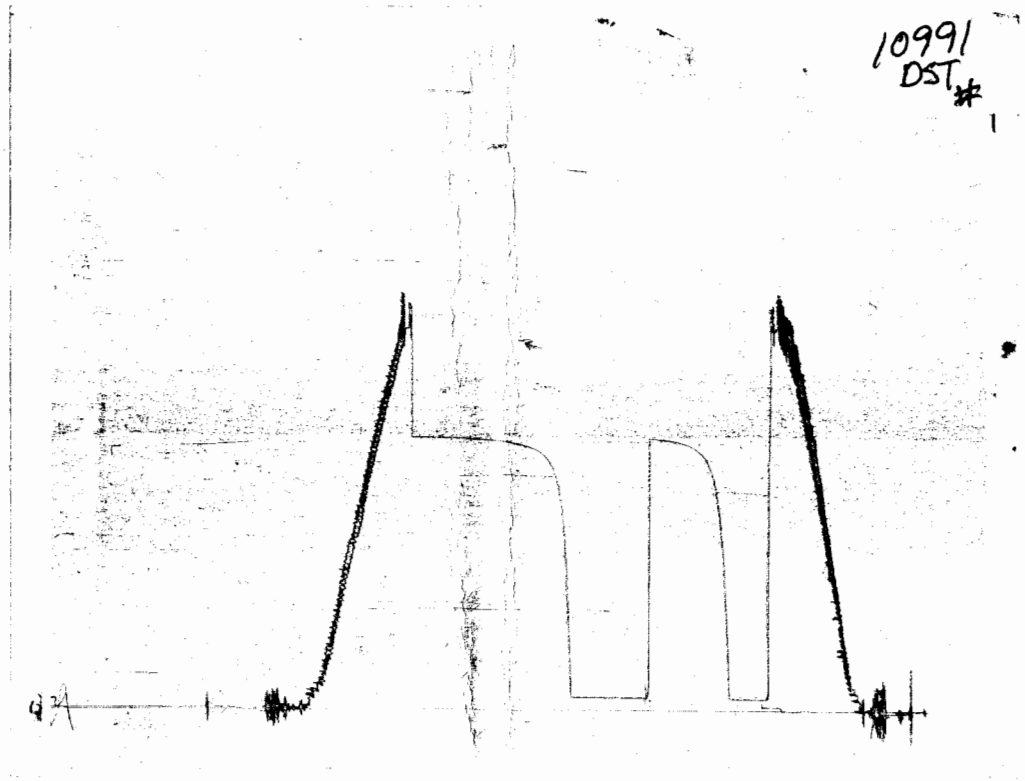


CHART PAGE

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

