



TRILOBITE TESTING L.L.C.

OPERATOR : American Warrior Inc. DATE 11-24-000  
 WELL NAME: Bunnell #2 KB 2158.00 ft TICKET NO: 13219 DST #1  
 LOCATION : 29-32s-18w Comanche co KS GR 2146.00 ft FORMATION: Altamont  
 INTERVAL : 5088.00 To 5122.00 ft TD 5122.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	13254	13254	2342			PF Fr. 1715 to 1745 hr
SI 45 Range(Psi )	4550.0	4550.0	4995.0	0.0	0.0	IS Fr. 1745 to 1830 hr
SF 45 Clock(hrs)	12 hr	12 hr	batt.			SF Fr. 1830 to 1915 hr
FS 60 Depth(ft )	5119.0	5119.0	5094.0	0.0	0.0	FS Fr. 1915 to 2015 hr

	Field	1	2	3	4	
A. Init Hydro	2469.0	0.0	2488.0	0.0	0.0	T STARTED 1230 hr
B. First Flow	36.0	0.0	35.0	0.0	0.0	T ON BOTM 1711 hr
B1. Final Flow	36.0	0.0	39.0	0.0	0.0	T OPEN 1715 hr
C. In Shut-in	509.0	0.0	544.0	0.0	0.0	T PULLED 2016 hr
D. Init Flow	45.0	0.0	30.0	0.0	0.0	T OUT 2235 hr
E. Final Flow	36.0	0.0	52.0	0.0	0.0	
F. Fl Shut-in	1425.0	0.0	1483.0	0.0	0.0	
G. Final Hydro	2395.0	0.0	2437.0	0.0	0.0	

	Field	1	2	3	4	TOOL DATA-----
Inside/Outside	0	0	I	T		Tool Wt. 2100.00 lbs
						Wt Set On Packer 20000.00 lb
						Wt Pulled Loose 112000.00 lb
						Initial Str Wt 78000.00 lbs
						Unseated Str Wt 80000.00 lb

RECOVERY

Tot Fluid 90.00 ft of 90.00 ft in DC and 0.00 ft in DP  
 1910.00 ft of Gas in pipe.  
 90.00 ft of Gas Cut Mud 10%gas 90%mud  
 0.00 ft of  
 0.00 ft of  
 0.00 ft of  
 0.00 ft of  
 0.00 ft of Rw n.c. ohms @ degrees F.  
 0.00 ft of EST.FT. of PAY-----6  
 SALINITY 7000.00 P.P.M. A.P.I. Gravity 0.00

Bot Choke	0.75 in
Hole Size	7.88 in
D Col. ID	2.25 in
D. Pipe ID	3.80 in
D.C. Length	270.00 ft
D.P. Length	4819.00 ft

BLOW DESCRIPTION

Initial flow:  
 Fair to strong blow - bottom of bucket  
 in 19 minutes

Initial shutin: no blow.

FF:Strong blow. B.O.B. in 2 - 3 secs.  
 Strong blow - bottom of bucket in  
 2-3 seconds

Final shutin: No blow.

SAMPLES: none  
 SENT TO:Caraway/Liberal

MUD DATA-----  
 Mud Type Chemical  
 Weight 9.30 lb  
 Vis. 42.00 S/  
 W.L. 9.80 in  
 F.C. 0.20 in  
 Mud Drop N

Amt. of fill	0.00
Btm. H. Temp.	119.00
Hole Condition	good
% Porosity	12.00
Packer Size	6.75
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	None
Reversed Out N	
Tool Chased N	
Tester	Gary Pevoteau
Co. Rep.	Al Downing
Contr.	Abercrombie Dril
Rig #	4
Unit #	
Pump T.	LEV #72

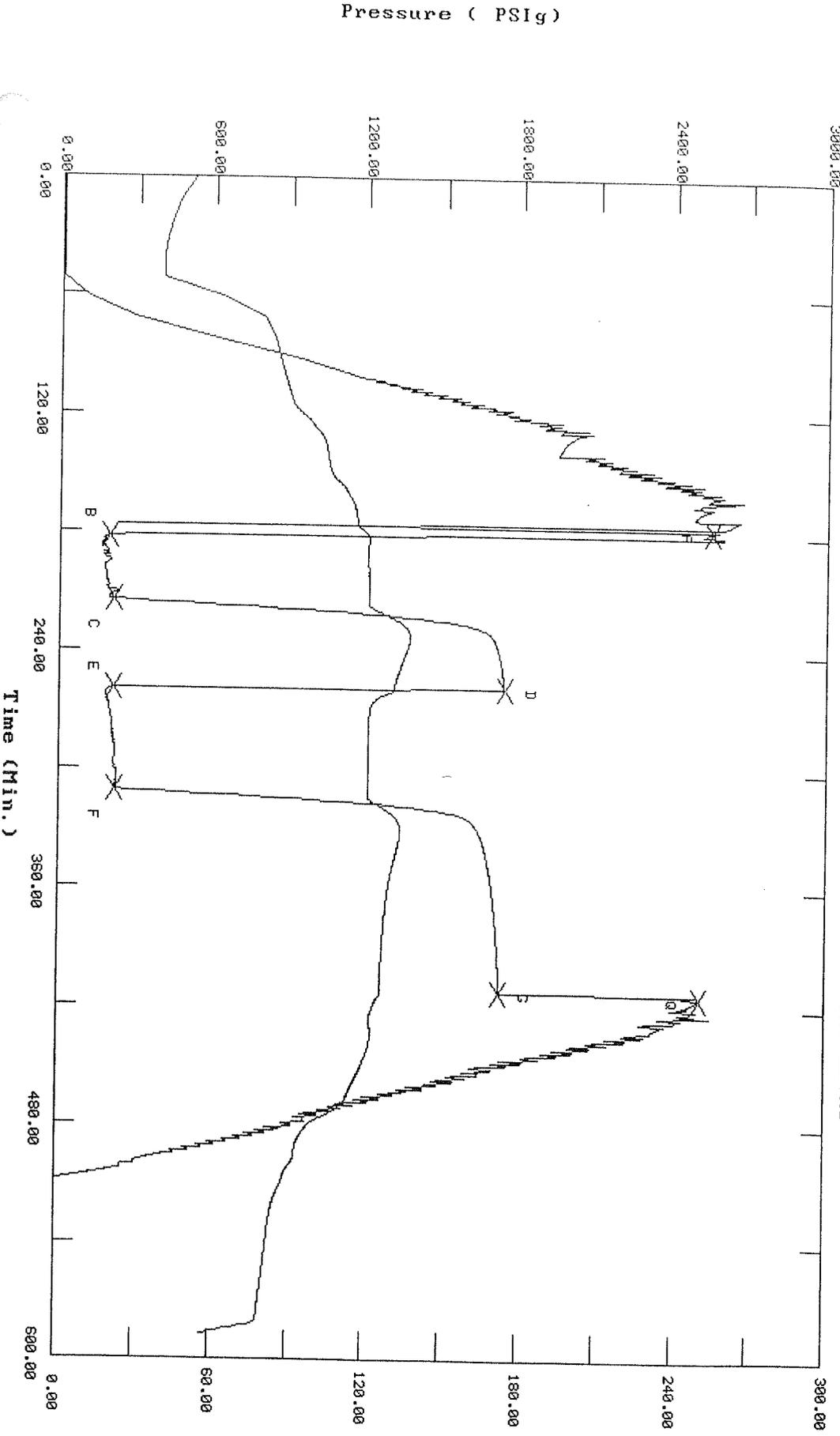
Test Successful: Y



TEST HISTORY  
 13220 DST#2 BUNNELL #2 AMERICAN WARRIOR INC.

Flag Points

t (Min.)	P (PSIg)
R: 0.00	2548.63
B: 0.00	190.84
C: 32.00	205.45
D: 44.00	1737.13
E: 0.00	205.61
F: 51.50	216.36
G: 101.50	1724.71
Q: 0.00	2507.92



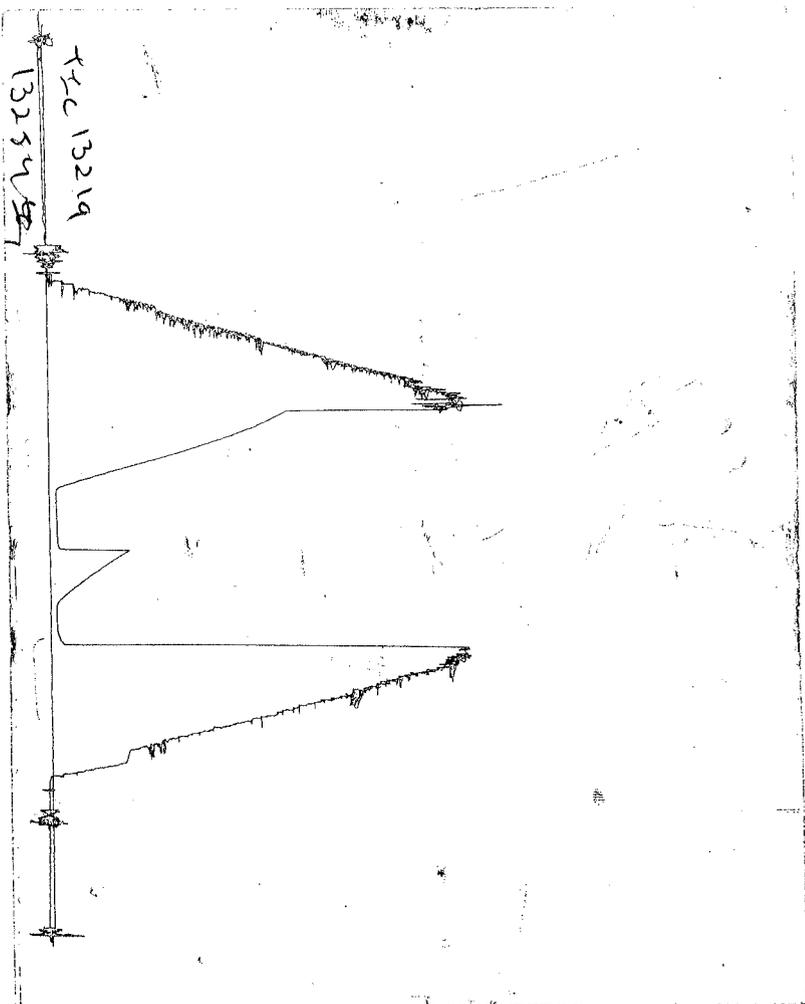
Temperature (DEG F)

Pressure (PSIg)

Time (Min.)

3

CHART PAGE



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

# TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

No 13219

## Test Ticket

Well Name & No. Barnhill Test No. 1 Date 11-24-2002  
 Company American Zone Tested Altamont  
 Address P.O. Box 399, Lawrence, KS Elevation 2158 KB 2146 GL  
 Co. Rep / Geo. Al Downing Cont. Wesley D. Daily Est. Ft. of Pay 6 Por.      %  
 Location: Sec. 29 Twp. 32 Rge. 18 Co. Comanche State Ks  
 No. of Copies 5 Distribution Sheet (Y, N)      Turnkey (Y, N)      Evaluation (Y, N)     

Interval Tested 5088 - 5122'  
 Anchor Length 34'  
 Top Packer Depth 5083'  
 Bottom Packer Depth 5083'  
 Total Depth 5122'  
 Mud Wt. 9.3 LCM 3# Vis. 42 WL 9.8cc  
 Blow Description IF: Fair to strong blow. B.C.B. on 19 min.  
ISI: No blow.  
FF: Strong blow B.C.B. on 2-3 sec. FSI: No blow.

Recovery — Total Feet	Feet Of	Ft. in DC	%gas	%oil	%water	%mud
<u>90</u>	<u>0cm</u>	<u>90</u>				
Rec. <u>    </u>	Feet Of <u>    </u>	<u>10</u>				
Rec. <u>    </u>	Feet Of <u>    </u>					
Rec. <u>    </u>	Feet Of <u>    </u>					
Rec. <u>    </u>	Feet Of <u>    </u>					
BHT <u>119</u>	°F Gravity <u>N/A</u>	°API D@ <u>    </u>				
RW <u>N.C.</u>	°F Chlorides <u>7,000</u>	ppm Recovery Chlorides <u>7,000</u>				

	AK-1	Alpine	PSI Recorder No.	T-On Location
(A) Initial Hydrostatic Mud	<u>2469</u>	<u>2458</u>	<u>2342</u>	<u>1655</u>
(B) First Initial Flow Pressure	<u>36</u>	<u>35</u>	(depth) <u>5094'</u>	T-Started <u>1230</u>
(C) First Final Flow Pressure	<u>36</u>	<u>39</u>	PSI Recorder No. <u>13254</u>	T-Open <u>1715</u>
(D) Initial Shut-In Pressure	<u>509</u>	<u>544</u>	(depth) <u>5119'</u>	T-Pulled <u>2016</u>
(E) Second Initial Flow Pressure	<u>45</u>	<u>36</u>	PSI Recorder No. <u>    </u>	T-Out <u>2235</u>
(F) Second Final Flow Pressure	<u>36</u>	<u>32</u>	(depth) <u>    </u>	T-Off Location <u>2310</u>
(G) Final Shut-in Pressure	<u>1425</u>	<u>1483</u>	PSI Initial Opening <u>30</u>	Test <u>850.00</u>
(Q) Final Hydrostatic Mud	<u>2395</u>	<u>2437</u>	PSI Initial Shut-in <u>45</u>	Jars <u>200.00</u>
			Final Flow <u>45</u>	Safety Joint <u>50.00</u>
			Final Shut-in <u>60</u>	Straddle <u>    </u>
			<u>4</u>	Circ. Sub <u>    </u>
			<u>    </u>	Sampler <u>    </u>
				Extra Packer <u>    </u>
				Elec. Rec. <u>150.00</u>
				Mileage <u>60</u>
				Other <u>30.00</u>
				TOTAL PRICE \$ <u>1340.00</u>

TRILOBITE TESTING L.L.C. 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 Gary P. [Signature]

TRILOBITE TESTING L.L.C.

OPERATOR : American Warrior Inc. DATE 11-26-000  
 WELL NAME: Bunnell #2 KB 2158.00 ft TICKET NO: 13220 DST #2  
 LOCATION : 29-32s-18w Comanche co KS GR 2146.00 ft FORMATION: Mississippi  
 INTERVAL : 5220.00 To 5310.00 ft TD 5310.00 ft TEST TYPE: CONV/STRADDLE

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	13254	13254	2342	10248		PF Fr. 2345 to 0030 hr
SI 45 Range(Psi )	4550.0	4550.0	4995.0	4400.0	0.0	IS Fr. 0030 to 0115 hr
SF 50 Clock(hrs)	12 hr	12 hr	batt.	12 hr		SF Fr. 0115 to 0205 hr
FS 90 Depth(ft )	5303.0	5303.0	5232.0	5449.0	0.0	FS Fr. 0205 to 0335 hr

	Field	1	2	3	4	
A. Init Hydro	2687.0	0.0	2549.0	0.0	0.0	T STARTED 2042 hr
B. First Flow	261.0	0.0	191.0	0.0	0.0	T ON BOTM 2340 hr
B1. Final Flow	271.0	0.0	205.0	0.0	0.0	T OPEN 2345 hr
C. In Shut-in	1764.0	0.0	1737.0	0.0	0.0	T PULLED 0331 hr
D. Init Flow	261.0	0.0	206.0	0.0	0.0	T OUT 0720 hr
E. Final Flow	273.0	0.0	216.0	0.0	0.0	
F. Fl Shut-in	1752.0	0.0	1725.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	2582.0	0.0	2508.0	0.0	0.0	Tool Wt. 2100.00 lbs
Inside/Outside	0	0	I	T		Wt Set On Packer 20000.00 lb
						Wt Pulled Loose 96000.00 lb
						Initial Str Wt 81000.00 lbs
						Unseated Str Wt 86000.00 lb
						Bot Choke 0.75 in
						Hole Size 7.88 in
						D Col. ID 2.25 in
						D. Pipe ID 3.80 in
						D.C. Length 270.00 ft
						D.P. Length 4936.00 ft

RECOVERY

Tot Fluid 450.00 ft of 270.00 ft in DC and 180.00 ft in DP  
 450.00 ft of Gas cut mud  
 0.00 ft of 18% gas 82% mud  
 0.00 ft of  
 0.00 ft of  
 0.00 ft of  
 0.00 ft of  
 0.00 ft of Rw n.c. ohms @ degrees F.  
 0.00 ft of EST.FT. of PAY-----16  
 SALINITY 7000.00 P.P.M. A.P.I. Gravity 0.00

MUD DATA-----  
 Mud Type Chemical  
 Weight 9.30 lb  
 Vis. 52.00 S/I  
 W.L. 9.80 in  
 F.C. 0.20 in  
 Mud Drop N  
 Amt. of fill 2.00 ft  
 Btm. H. Temp. 137.00 F  
 Hole Condition good  
 % Porosity 16.00  
 Packer Size 6.75 in  
 No. of Packers 2  
 Cushion Amt. 0.00 N  
 Cushion Type None  
 Reversed Out N  
 Tool Chased N  
 Tester Gary Pevoteaux  
 Co. Rep. Al Downing  
 Contr. Abercrombie Drlg  
 Rig # 4  
 Unit #  
 Pump T. LCM 2 #/bl

BLOW DESCRIPTION

Initial Flow:  
 Strong blow. Gas to surface in 7 minutes. (see gas volume report).  
 Initial Shut-In:  
 No blow.  
 Final Flow:  
 Strong blow. (see gas volume report)  
 Final Shut-In:  
 Weak blow. 3 - 4"

SAMPLES: Gas sample  
 SENT TO: Caraway/Liberal

Test Successful: Y

GAS RECOVERY

COMPANY: American Warrior Inc.

DATE: 11-26-000

WELL NAME: Bunnell #2

KB Elev: 2158.00 ft TICKET #13220 DST #2

WELL LOCATION: 29-32s-18w Comanche co KS

GR Elev: 2146.00 ft FORMATION: Mississippi

INTERVAL Fr.: 5220.00 To 5310.00 T.D.: 5310.00 ft TEST TYPE: CONV/STRADDLE

GAS RECOVERY MEASURED WITH Adjusting Choke

\*\*\*\*\* GAS RATES FOR FLOW #1

Time (min)	Orifice (in)	Pressure (Psi)	H2O (in)	Rate (cf/d)
10	0.50	3	0	110000.0
20	0.50	6	0	129000.0
30	0.50	7	0	135000.0

\*\*\*\*\* GAS RATES FOR FLOW #2

Time (min)	Orifice (in)	Pressure (Psi)	H2O (in)	Rate (cf/d)
10	0.50	17	0	198000.0
20	0.50	11	0	160000.0
30	0.50	8	0	141500.0
40	0.50	8	0	141500.0

\*\*\* TOOL DIAGRAM \*\*\* CONV/STRADDLE

WELL NAME: Bunnell #2

LOCATION : 29-32s-18w Comanche co KS

TICKET No. 13220 D.S.T. No. 2 DATE 11-26-000

TOTAL TOOL TO BOTTOM OF TOP PACKERS ..... 27

INTERVAL TOOL .....

BOTTOM PACKERS AND ANCHOR ..... 45

TOTAL TOOL ..... 72

DRILL COLLAR ANCHOR IN INTERVAL .....

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands 1 Single 3 Total 187

TOTAL ASSEMBLY ..... 259

D.C. ABOVE TOOLS.Stands3 Single Total 270

D.P. ABOVE TOOLS.Stands52 Single 2 Total 4936

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 5465

TOTAL DEPTH ..... 5452

TOTAL DRILL PIPE ABOVE K.B. .... 13

REMARKS:

Comments:Lost mud on back side when first opened. Picked up and re-set tool.

FLUID SAMPLER DATA (not run)

GAS-----  
 OIL----- ML.  
 MUD----- ML.  
 WATER----- ML.  
 OTHER-----  
 PRESSURE----- PSI  
 Rw ----- ohms @ deg. F.  
 CHLORIDES----- ppm.  
 GRAVITY----- n/a deg.API

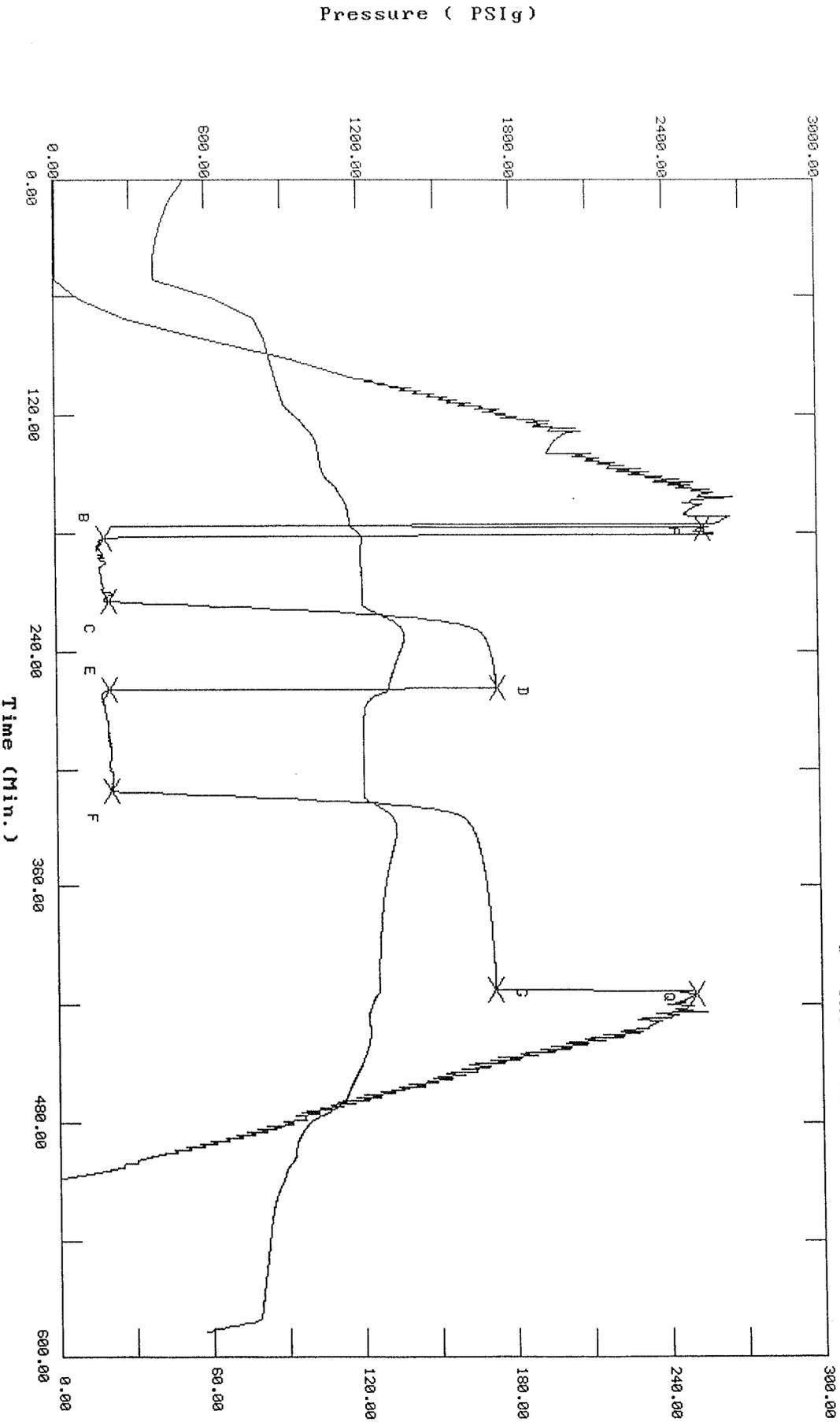
H	P.O. SUB	
H	C.O. SUB @ top of tool	5198
H	S.I. TOOL Sterling	5204
H		
H	HMV Sterling	5209
H	JARS bowen	5214
H		
H	SAFETY JOINT bowen	5216
H	none	
H	PACKER Btm.	5220
H	DEPTH 5220	
H	1 ft.	5221
H	ANCHOR	
H	6'perfs & sub to	5227
H	Alpine rec. @ 5232	
H		
H	2 jts. pipe to	5289
H	AK-1 rec @ 5303	
H	17' perfs & sub to	5306
H	1 ft. blank sub to	5307
H		
H	3' to	5310
H	5310	
H	stubb	5311
H		
H	10' perfs & sub to	5321
H		
H	125 ft.pipe + sub	5447
H	AK-1 rec. @ 5449	
H	BULLNOSE 5 ft. perforated	5452
H	T.D.	

13220 DST#2 BUNNELL #2 AMERICAN WARRIOR INC.

# TEST HISTORY

Flag Points

t (Min.)	P (PSIG)
A: 0.00	2548.63
B: 0.00	190.84
C: 32.00	205.45
D: 44.00	1737.13
E: 0.00	205.61
F: 51.50	216.36
G: 101.50	1724.71
Q: 0.00	2507.92

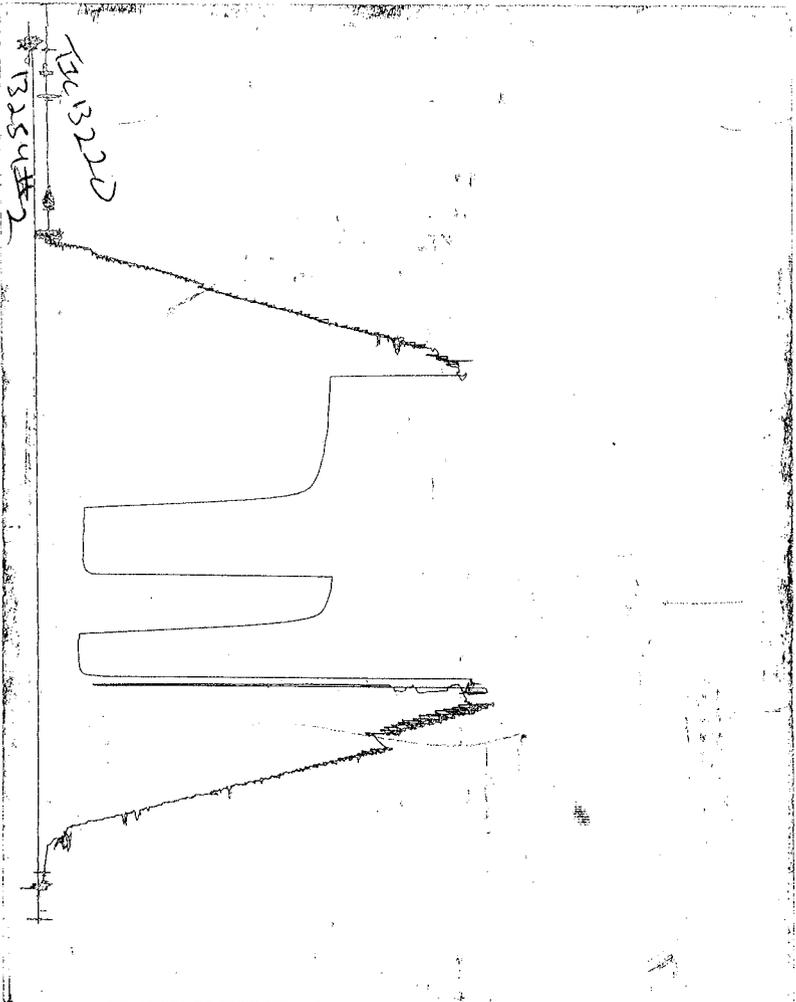


Pressure ( PSIG )

Temperature ( DEG F )

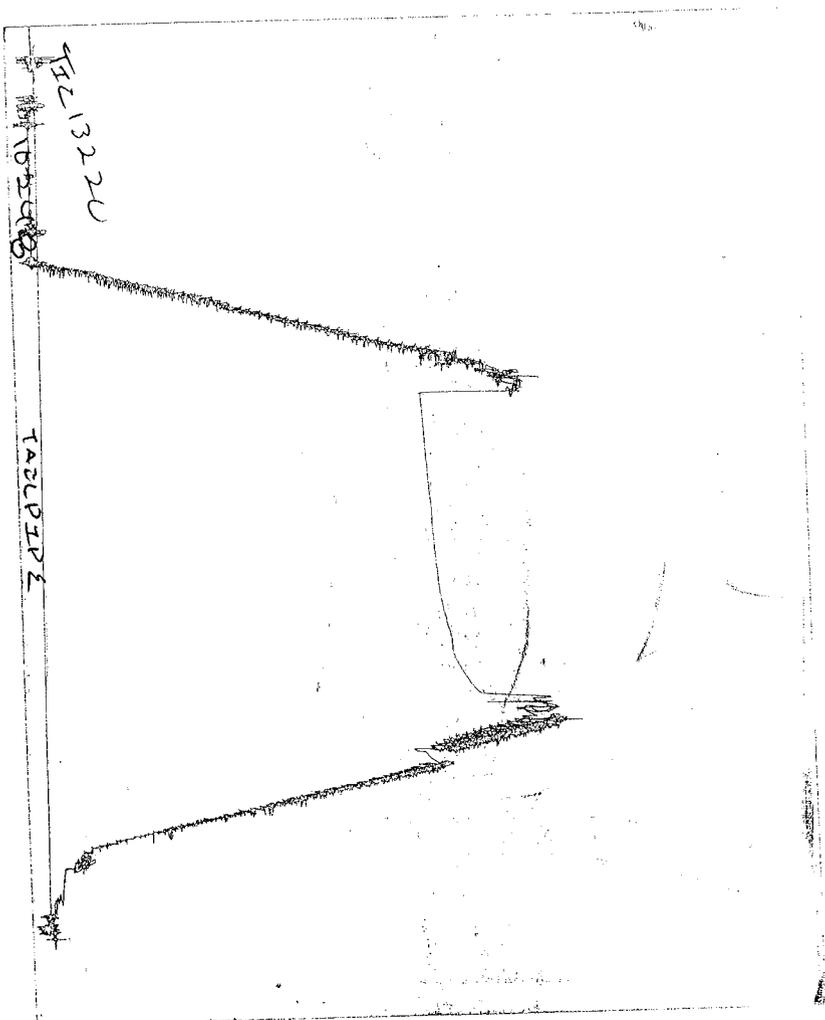
Time (Min.)

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



# TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

N<sup>o</sup> 13220

## Test Ticket

*standby*

Well Name & No. Bunnell # 3 Test No. 2 Date 11-20-2008  
 Company American Well Service Inc Zone Tested Miss.  
 Address Carroll City, La Elevation 2158 KB 2116 GL  
 Co. Rep / Geo. Al Downing Cont. Abbeombia Dwyer (Est. Ft. of Pay 16 Por.      %  
 Location: Sec. 29 Twp. 32 Rge. 18 Co. Comanche State Ks.  
 No. of Copies 5 Distribution Sheet (Y, N) N Turnkey (Y, N)      Evaluation (Y, N)     

Interval Tested 5220 - 5310' Initial Str Wt./Lbs. 8100 Unseated Str Wt./Lbs. 8600  
 Anchor Length 10' Wt. Set Lbs. 20000 Wt. Pulled Loose/Lbs. 96000  
 Top Packer Depth 5220' Tool Weight 2100  
 Bottom Packer Depth 5310' Hole Size — 7 7/8"  Rubber Size — 6 3/4"   
 Total Depth 5452' Wt. Pipe Run None Drill Collar Run 270  
 Mud Wt. 9.3 LCM 2<sup>nd</sup> Vis. 52 WL 9.800 Drill Pipe Size 4 1/2" x 4.75" Ft. Run 4936'

Blow Description FF: Strong blow. GTS in 7 minutes. (see gas volume report)

FF: Strong blow. (see gas volume report) FSI: Weak blow 39"

Comment: Lost mud on both side when first opened. Picked up

Recovery — Total Feet	<u>450</u>	GIP	<u>yes</u>	Ft. in DC	<u>270</u>	Ft. in DP	<u>180</u>
Rec.	<u>450</u>	Feet Of	<u>6CM</u>	<u>18</u>	%gas	%oil	%water <u>82</u> %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 137 °F Gravity N/A °API D<sub>40</sub>      °F Corrected Gravity N/A °API  
 RW N.C. @      °F Chlorides 7,000 ppm Recovery Chlorides 7,000 ppm System

	AK-1	Alpine	PSI	Recorder No.	T-On Location
(A) Initial Hydrostatic Mud	<u>2687</u>	<u>2549</u>		<u>2342</u>	<u>1810</u>
(B) First Initial Flow Pressure	<u>261</u>	<u>211</u>		<u>2232</u>	<u>2042</u>
(C) First Final Flow Pressure	<u>271</u>	<u>205</u>		<u>13254</u>	<u>2345</u>
(D) Initial Shut-In Pressure	<u>1764</u>	<u>1737</u>		<u>5303</u>	<u>0331</u>
(E) Second Initial Flow Pressure	<u>261</u>	<u>206</u>		<u>10248</u>	<u>0720</u>
(F) Second Final Flow Pressure	<u>273</u>	<u>216</u>		<u>5449</u>	<u>0845</u>
(G) Final Shut-in Pressure	<u>1752</u>	<u>1725</u>		<u>30</u>	Test <input checked="" type="checkbox"/> <u>850<sup>00</sup></u>
(Q) Final Hydrostatic Mud	<u>2582</u>	<u>2508</u>		<u>45</u>	Jars <input checked="" type="checkbox"/> <u>200<sup>00</sup></u>
				<u>90</u>	Safety Joint <input checked="" type="checkbox"/> <u>50<sup>00</sup></u>
				<u>4</u>	Straddle <input checked="" type="checkbox"/> <u>250<sup>00</sup></u>
					Circ. Sub <u>    </u>
					Sampler <u>    </u>

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Approved By [Signature]  
 Our Representative [Signature]

Extra Packer       
 Elec. Rec.  150<sup>00</sup>  
 Mileage  65<sup>00</sup>  
 Other STAND BY  60<sup>00</sup>  
 TOTAL PRICE \$ 1625<sup>00</sup>

# NATURAL GAS ANALYSIS REPORT

Sampled by:  
 Trilobite Testing, L. L. C.  
 Hays, Kansas  
 Scott City, Kansas  
 Phone: 800-728-5369  
 Fax: 913-625-5620

Analyzed by:  
 Caraway Analytical, Inc  
 P. O. Box 2137  
 Liberal, Kansas 67905  
 Phone: 316-624-5389  
 Fax: 316-626-7108

<b>Lab Number:</b> 20006099	<b>Analyzed:</b> 12/05/00
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Sample From: Bunnell #2 DST 3	Pressure:	
Producer: American Warrior, Inc.	Temperature:	

<b>Date:</b> 29-32-18	<b>Location:</b>
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Time:	County:	Comanche
Sampler:	State:	Kansas
Source:	Formation:	Miss

	Mole %	GPM
Helium	He: 0.149	0.000
Hydrogen	H2: 0.009	0.000
Oxygen	O2: 0.000	0.000
Nitrogen	N2: 2.693	0.000
Carbon Dioxide	CO2: 0.057	0.000
Methane	C1: 90.812	0.000
Ethane	C2: 3.436	0.919
Propane	C3: 1.263	0.348
Iso Butane	iC4: 0.193	0.063
Normal Butane	nC4: 0.476	0.150
Iso Pentane	iC5: 0.155	0.057
Normal Pentane	nC5: 0.184	0.067
Hexanes Plus	C6+: 0.573	0.250

TOTAL: 100.000    1.854

Z Fact: 0.9976

SP.GR.: 0.6271

BTU (SAT): 1060.8 @ 14.73 psia

BTU (DRY): 1079.6 @ 14.73 psia

**OCTANE RATING: 123.8**

COMMENTS:

0.000