

15-051-25031

TRILOBITE TESTING L.L.C.

34-14s-18w

OPERATOR : Hertel Oil Co

DATE 4-28-00

WELL NAME: Engel # 1

KB 2035.00 ft

TICKET NO: 12043

DST #1

LOCATION : 34-14-18 Ellis co KS

GR 2028.00 ft

FORMATION: Cong Sd

INTERVAL : 3600.00 To 3636.00 ft

TD 3636.00 ft

TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	13254	13254	3024			PF Fr. 0606 to 0636 hr
SI 30 Range(Psi)	4550.0	4550.0	4995.0	0.0	0.0	IS Fr. 0636 to 0706 hr
SF 30 Clock(hrs)	12	12	elect			SF Fr. 0706 to 0736 hr
FS 30 Depth(ft)	3633.0	3633.0	3602.0	0.0	0.0	FS Fr. 0736 to 0806 hr

	Field	1	2	3	4	
A. Init Hydro	1880.0	1873.0	1869.0	0.0	0.0	T STARTED 0401 hr
B. First Flow	47.0	37.0	13.0	0.0	0.0	T ON BOTM 0603 hr
B1. Final Flow	47.0	32.0	15.0	0.0	0.0	T OPEN 0606 hr
C. In Shut-in	59.0	45.0	47.0	0.0	0.0	T PULLED 0806 hr
D. Init Flow	47.0	39.0	15.0	0.0	0.0	T OUT 0950 hr
E. Final Flow	47.0	30.0	18.0	0.0	0.0	
F. Fl Shut-in	59.0	41.0	34.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	1822.0	1854.0	1829.0	0.0	0.0	Tool Wt. 1000.00 lbs
Inside/Outside	0	0	I			Wt Set On Packer 20000.00 lbs
						Wt Pulled Loose 60000.00 lbs
						Initial Str Wt 50000.00 lbs
						Unseated Str Wt 50000.00 lbs
						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 30.00 ft
						D.P. Length 3571.00 ft

RECOVERY

Tot Fluid	2.00 ft of	2.00 ft in DC and	0.00 ft in DP
2.00	ft of Drilling mud		
0.00	ft of 100% mud		
0.00	ft of		
0.00	ft of		
0.00	ft of		
0.00	ft of		
0.00	ft of		
0.00	ft of		

SALINITY 0.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Initial Flow:

Weak steady surface blow.

Final Flow:

No blow.

MUD DATA-----

Mud Type	Chemical
Weight	9.60 lb/cf
Vis.	49.00 S/L
W.L.	9.60 in3
F.C.	0.00 in
Mud Drop N	

Amt. of fill	0.00 ft
Btm. H. Temp.	109.00 F
Hole Condition	Good
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out N	
Tool Chased N	
Tester	Dan Bangle
Co. Rep.	Randy Kilian
Contr.	Discovery
Rig #	2
Unit #	
Pump T.	

SAMPLES:

SENT TO:

Test Successful: Y

*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Engel # 1

LOCATION : 34-14-18 Ellis co KS

TICKET No. 12043 D.S.T. No. 1 DATE 4-28-00

TOTAL TOOL TO BOTTOM OF TOP PACKERS 20

INTERVAL TOOL

BOTTOM PACKERS AND ANCHOR 36

TOTAL TOOL 56

DRILL COLLAR ANCHOR IN INTERVAL

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands Single Total

TOTAL ASSEMBLY 56

D.C. ABOVE TOOLS.Stands Single 1 Total 30

D.P. ABOVE TOOLS.Stands58 Single Total 3571

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 3657

TOTAL DEPTH 3636

TOTAL DRILL PIPE ABOVE K.B. 21

REMARKS:

	P.O. SUB	3460
	C.O. SUB	3580
	S.I. TOOL	3586
	HMV	3591
	JARS n/a	
	SAFETY JOINT n/a	
	PACKER	3595
	PACKER	3600
	DEPTH 3600	
	1'	3601
	ANCHOR	
	Alpine @ 3602	
	5' Perfs	3606
	5' Perfs	3611
	5' Perfs	3616
	5' Perfs	3621
	5' Perfs	3626
	5' Perfs	3631
	2' Perfs	3633
	AK-1 @ 3633	
	BULLNOSE 3'	3636
	T.D.	3636

TEST HISTORY

Tk# 12043 DST# 1 Engel #1 Hertel Oil Co

Flag Points

t(Min.)	P(PSig)
A: 0.00	1868.67
B: 0.00	12.82
C: 30.00	14.73
D: 28.50	46.55
E: 0.00	14.64
F: 38.50	17.85
G: 22.50	33.71
H: 0.00	1829.69

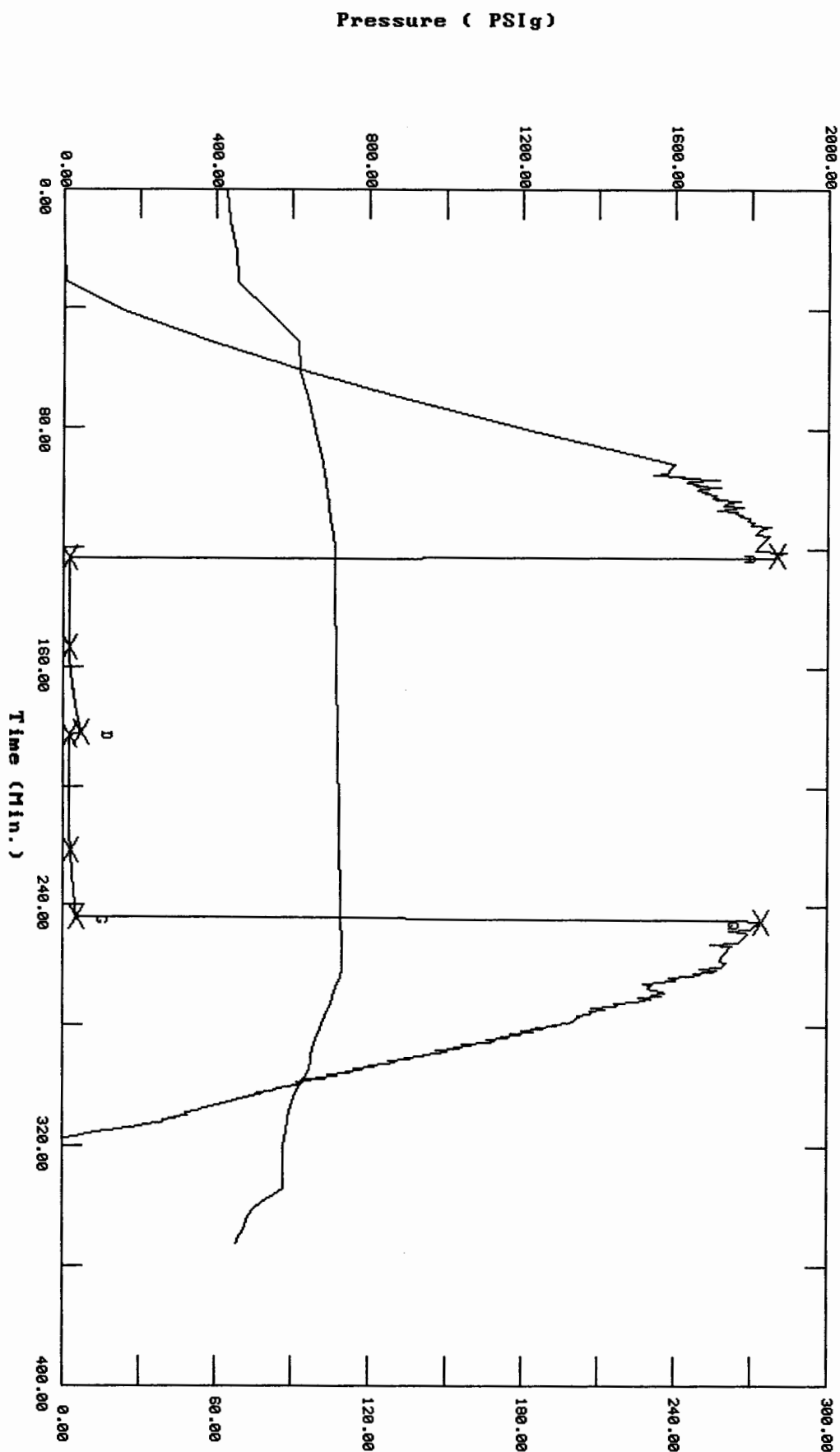
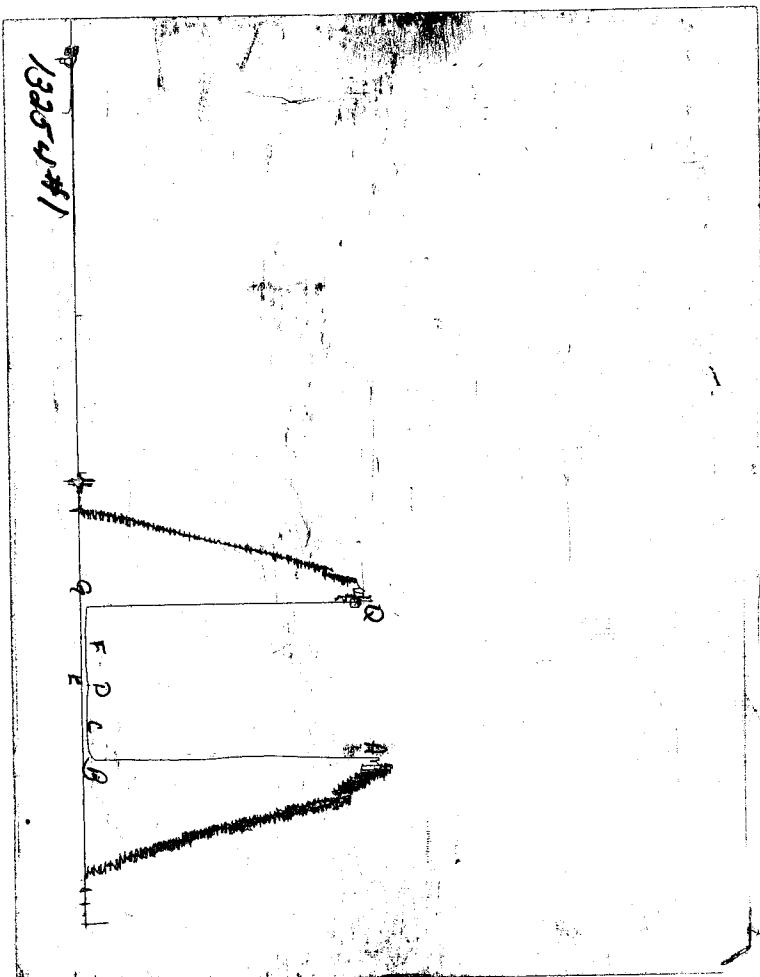


CHART PAGE



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

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Nº 12043

Test Ticket

Well Name & No. <u>Engel #1</u>	Test No. <u>1</u>	Date <u>4-28-00</u>
Company <u>Hertel Oil Co.</u>	Zone Tested <u>Cong Sd</u>	
Address <u>704 E. 12th St. Hays, Ks 67601</u>	Elevation <u>2035</u> KB <u>2028</u> GL	
Co. Rep / Geo. <u>Randy Kilian</u>	Cont. <u>Discovery #2</u>	Est. Ft. of Pay <u> </u> Por. <u> </u> %
Location: Sec. <u>34</u> Twp. <u>14</u> Rge. <u>18</u> Co. <u>Ellis</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>3600 - 3636</u>	Initial Str Wt./Lbs. <u>50,000</u>	Unseated Str Wt./Lbs. <u>50,000</u>
Anchor Length <u>36</u>	Wt. Set Lbs. <u>29,000</u>	Wt. Pulled Loose/Lbs. <u>60,000</u>
Top Packer Depth <u>3595</u>	Tool Weight <u>1000</u>	
Bottom Packer Depth <u>3600</u>	Hole Size — 7 7/8" <u> </u>	Rubber Size — 6 3/4" <u> </u>
Total Depth <u>3636</u>	Wt. Pipe Run <u> </u>	Drill Collar Run <u>30</u>
Mud Wt. <u>9.6</u> LCM <u>1#</u> Vis. <u>49</u> WL <u>9.6</u>	Drill Pipe Size <u>4.5 XH</u>	Ft. Run <u>3571</u>
Blow Description <u>I.F. Weak steady surface blow</u>		

F.F. No blow.

Recovery — Total Feet <u>2</u>	GIP <u> </u>	Ft. in DC <u>2</u>	Ft. in DP <u> </u>
Rec. <u>2</u> Feet Of <u>D.M.</u>	%gas <u> </u>	%oil <u> </u>	%water <u> </u>
Rec. <u> </u> Feet Of <u> </u>	%gas <u> </u>	%oil <u> </u>	%water <u> </u>
Rec. <u> </u> Feet Of <u> </u>	%gas <u> </u>	%oil <u> </u>	%water <u> </u>
Rec. <u> </u> Feet Of <u> </u>	%gas <u> </u>	%oil <u> </u>	%water <u> </u>
Rec. <u> </u> Feet Of <u> </u>	%gas <u> </u>	%oil <u> </u>	%water <u> </u>
BHT <u>109</u> °F Gravity <u> </u>	°API D@ <u> </u>	°F Corrected Gravity <u> </u>	°API <u> </u>
RW <u> </u> @ <u> </u> °F Chlorides <u> </u> ppm Recovery	Chlorides <u>3,000</u> ppm System		

	AK-1	Alpine		
(A) Initial Hydrostatic Mud	<u>1880</u>	<u>1869</u>	PSI Recorder No. <u>3024</u>	T-On Location <u>03:30</u>
(B) First Initial Flow Pressure	<u>47</u>	<u>13</u>	PSI (depth) <u>3602</u>	T-Started <u>04:01</u>
(C) First Final Flow Pressure	<u>47</u>	<u>15</u>	PSI Recorder No. <u>13254</u>	T-Open <u>06:06</u>
(D) Initial Shut-In Pressure	<u>59</u>	<u>47</u>	PSI (depth) <u>3633</u>	T-Pulled <u>08:06</u>
(E) Second Initial Flow Pressure	<u>47</u>	<u>15</u>	PSI Recorder No. <u> </u>	T-Out <u>09:50</u>
(F) Second Final Flow Pressure	<u>47</u>	<u>18</u>	PSI (depth) <u> </u>	T-Off Location <u>10:10</u>
(G) Final Shut-in Pressure	<u>59</u>	<u>34</u>	PSI Initial Opening <u>30</u>	Test <u>600</u>
(Q) Final Hydrostatic Mud	<u>1822</u>	<u>1829</u>	PSI Initial Shut-in <u>30</u>	Jars <u> </u>
			Final Flow <u>30</u>	Safety Joint <u> </u>
			Final Shut-in <u>30</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> </u>
				Other <u> </u>
				TOTAL PRICE \$ <u>750</u>

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Approved By

Our Representative

Don Rangle