

ORIGINAL

WELL NAME:

COMPANY:

LOCATION:

DATE:

Terry Solomon #32-1

Hal C. Porter

32-11-19

Ellis County Kansas

09/09/97

15-051-24979

Jul

TRILOBITE TESTING L.L.C.

OPERATOR : Hal C. Porter
 WELL NAME: Terry Solomon #32-1
 LOCATION : 32-11-19 Ellis Co Ks
 INTERVAL : 3377.00 To 3466.00 ft

DATE 9-4-97
 KB 2104.00 ft
 GR 2096.00 ft
 TD 3466.00 ft

TICKET NO: 10416
 DST #1
 FORMATION: Lansing KC C-F-G
 TEST TYPE: CONV

RECORDER DATA

Mins		Field	1	2	3	4	TIME DATA-----
PF 30	Rec.	13754	13754	2341			PF Fr. 1125 to 1155 hr
SI 30	Range(Psi)	4000.0	4000.0	4995.0	0.0	0.0	IS Fr. 1155 to 1225 hr
SF 30	Clock(hrs)	12 hr	12 hr	Elec			SF Fr. 1225 to 1255 hr
FS 45	Depth(ft)	3463.0	3463.0	3384.0	0.0	0.0	FS Fr. 1255 to 1340 hr

	Field	1	2	3	4	
1. Init Hydro	1736.0	1666.0	1627.0	0.0	0.0	T STARTED 0945 hr
2. First Flow	98.0	95.0	49.0	0.0	0.0	T ON BOTM 1122 hr
3. Final Flow	137.0	125.0	85.0	0.0	0.0	T OPEN 1125 hr
4. In Shut-in	768.0	762.0	743.0	0.0	0.0	T PULLED 1340 hr
5. Init Flow	157.0	158.0	89.0	0.0	0.0	T OUT 1500 hr
6. Final Flow	177.0	176.0	128.0	0.0	0.0	
7. Fl Shut-in	758.0	752.0	739.0	0.0	0.0	
8. Final Hydro	1666.0	1637.0	1614.0	0.0	0.0	
Inside/Outside	O	O	I			

RECOVERY

248.00	ft of	30.00	ft in DC and	218.00	ft in DP
248.00	ft of	Mud Cut Water			
0.00	ft of	20% mud	80% water		
0.00	ft of				
0.00	ft of				
0.00	ft of				
0.00	ft of				
0.00	ft of				
0.00	ft of				

ALINITY 20000.00 P.P.M. A.P.I. Gravity 0.00

LOW DESCRIPTION

Initial Flow:
 Weak-building to 10" fair blow

Final Flow:
 Weak-building to

SAMPLES:
 SENT TO:

Test Successful: Y

MUD DATA-----

Mud Type	Chemical
Weight	9.20 lb/cf
Vis.	47.00 S/L
W.L.	8.80 in3
F.C.	0.00 in
Mud Drop N	
Amt. of fill	0.00 ft
Btm. H. Temp.	112.00 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 #	1
Unit #	
Pump T.	

*** TOOL DIAGRAM *** CONV

WELL NAME: Terry Solomon #32-1

LOCATION : 32-11-19 Ellis Co Ks

TICKET No. 10416 D.S.T. No. 1 DATE 9-4-97

TOTAL TOOL TO BOTTOM OF TOP PACKERS 20

INTERVAL TOOL

BOTTOM PACKERS AND ANCHOR 28

TOTAL TOOL 48

DRILL COLLAR ANCHOR IN INTERVAL

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands 1 Single Total 61

TOTAL ASSEMBLY 109

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

D.P. ABOVE TOOLS.Stands54 Single 1 Total 3344

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 3483

TOTAL DEPTH 3466

TOTAL DRILL PIPE ABOVE K.B. 17

REMARKS:

P.O. SUB

C.O. SUB

3232

S.I. TOOL

3362

HMV

3368

JARS n\ a

SAFETY JOINT n\ a

PACKER

3372

PACKER

3377

DEPTH 3377

STUBB 1'

3378

ANCHOR 5' Perfs

3383

Alpine Rec. @ 3383

1' Co Sub

3384

1 Std Dp 61'

3445

1' Co Sub

3446

T.C.

DEPTH

5' Perfs

345

5' Perfs

345

5' Perfs

346

AK-1 Rec. @ 3463

BULLNOSE 5' Bullplug

34

T.D.

 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk #10416 DST #1 Terry Solomon #32-1 Hal C. Porter
 DATE: 09/04/97 TIME: 09:45:44

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
***** Initial Hydro.	90.00	1626.6	0.0	105.79		
***** Start Flow 1	0.00	49.1	0.0	106.58		
	10.00	67.0	17.9	106.67		
	21.00	82.6	33.5	106.97		
	22.00	83.9	34.8	107.01		
***** End Flow 1	23.00	85.2	36.2	107.06		
***** Start Shutin 1	0.00	85.2	0.0	107.06	0.0000	0.007
	1.00	116.1	30.8	107.11	24.0000	0.013
	2.00	502.8	417.6	107.17	12.5000	0.253
	3.00	600.6	515.3	107.25	8.6667	0.361
	4.00	630.6	545.3	107.31	6.7500	0.398
	5.00	647.7	562.5	107.38	5.6000	0.420
	6.00	660.0	574.8	107.46	4.8333	0.436
	7.00	669.6	584.4	107.54	4.2857	0.448
	8.00	677.4	592.1	107.60	3.8750	0.459
	9.00	684.0	598.8	107.67	3.5556	0.468
	10.00	689.8	604.5	107.74	3.3000	0.476
	11.00	694.9	609.6	107.80	3.0909	0.483
	12.00	699.4	614.2	107.87	2.9167	0.489
	13.00	703.6	618.4	107.92	2.7692	0.495
	14.00	707.3	622.0	107.98	2.6429	0.500
	15.00	710.7	625.5	108.04	2.5333	0.505
	16.00	713.9	628.7	108.09	2.4375	0.510
	17.00	716.9	631.7	108.14	2.3529	0.514
	18.00	719.7	634.4	108.19	2.2778	0.518
	19.00	722.2	637.0	108.24	2.2105	0.522
	20.00	724.7	639.4	108.28	2.1500	0.525
	21.00	726.9	641.7	108.34	2.0952	0.528
	22.00	729.0	643.8	108.38	2.0455	0.531
	23.00	731.0	645.8	108.44	2.0000	0.534
	24.00	733.0	647.7	108.51	1.9583	0.537
	25.00	734.9	649.7	108.55	1.9200	0.540
	26.00	736.8	651.6	108.64	1.8846	0.543
	27.00	739.0	653.7	108.70	1.8519	0.546
	28.00	741.5	656.3	108.77	1.8214	0.550
	29.00	744.8	659.5	108.83	1.7931	0.555
	30.00	748.6	663.4	108.90	1.7667	0.560
***** End Shut-in 1	31.00	743.2	658.0	108.97	1.7419	0.552
***** Start Flow 2	0.00	89.2	0.0	109.01		
	1.00	90.5	1.3	109.03		
	2.00	92.0	2.8	109.06		
	3.00	93.8	4.6	109.07		
	4.00	95.5	6.4	109.08		
	5.00	97.2	8.0	109.10		
	6.00	98.6	9.4	109.15		
	7.00	100.1	10.9	109.17		
	8.00	101.6	12.4	109.20		
	9.00	103.1	13.9	109.24		
	10.00	104.4	15.2	109.26		
	11.00	105.6	16.4	109.30		
	12.00	106.8	17.6	109.33		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk #10416 DST #1 Terry Solomon #32-1 Hal C. Porter

DATE: 09/04/97

TIME: 09:45:44

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^4
	13.00	108.3	19.1	109.38		
	14.00	109.8	20.6	109.42		
	15.00	111.0	21.8	109.45		
	16.00	112.2	23.0	109.47		
	17.00	113.4	24.3	109.51		
	18.00	114.7	25.5	109.56		
	19.00	115.9	26.7	109.60		
	20.00	117.5	28.3	109.65		
	21.00	119.0	29.8	109.68		
	22.00	120.2	31.0	109.72		
	23.00	121.7	32.5	109.77		
	24.00	123.1	33.9	109.81		
	25.00	124.5	35.3	109.86		
	26.00	125.6	36.4	109.90		
	27.00	126.7	37.5	109.94		
***** End Flow 2	28.00	127.9	38.7	109.98		
***** Start Shutin 2	0.00	127.9	0.0	109.98	0.0000	0.016
	1.00	265.1	137.2	110.03	52.0000	0.070
	2.00	542.1	414.2	110.10	26.5000	0.294
	3.00	603.5	475.6	110.16	18.0000	0.364
	4.00	626.7	498.7	110.21	13.7500	0.393
	5.00	640.8	512.9	110.28	11.2000	0.411
	6.00	650.9	522.9	110.34	9.5000	0.424
	7.00	658.9	531.0	110.41	8.2857	0.434
	8.00	665.6	537.6	110.46	7.3750	0.443
	9.00	671.3	543.4	110.53	6.6667	0.451
	10.00	676.4	548.5	110.56	6.1000	0.458
	11.00	680.8	552.9	110.64	5.6364	0.464
	12.00	685.0	557.0	110.68	5.2500	0.469
	13.00	688.5	560.6	110.74	4.9231	0.474
	14.00	691.9	564.0	110.78	4.6429	0.479
	15.00	695.0	567.1	110.83	4.4000	0.483
	16.00	697.9	570.0	110.90	4.1875	0.487
	17.00	700.6	572.7	110.94	4.0000	0.491
	18.00	703.1	575.2	110.99	3.8333	0.494
	19.00	705.4	577.5	111.05	3.6842	0.498
	20.00	707.7	579.8	111.08	3.5500	0.501
	21.00	709.8	581.9	111.15	3.4286	0.504
	22.00	711.8	583.9	111.16	3.3182	0.507
	23.00	713.7	585.8	111.22	3.2174	0.509
	24.00	715.4	587.5	111.26	3.1250	0.512
	25.00	717.1	589.2	111.29	3.0400	0.514
	26.00	718.7	590.8	111.34	2.9615	0.517
	27.00	720.4	592.4	111.38	2.8889	0.519
	28.00	721.8	593.9	111.41	2.8214	0.521
	29.00	723.3	595.3	111.45	2.7586	0.523
	30.00	724.6	596.7	111.48	2.7000	0.525
	31.00	725.9	598.0	111.38	2.6452	0.527
	32.00	727.1	599.2	111.54	2.5938	0.529
	33.00	728.3	600.4	111.57	2.5455	0.530
	34.00	729.5	601.6	111.60	2.5000	0.532

 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk #10416 DST #1 Terry Solomon #32-1 Hal C. Porter

DATE: 09/04/97 TIME: 09:45:44

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
	35.00	730.6	602.7	111.63	2.4571	0.534
	36.00	731.6	603.7	111.66	2.4167	0.535
	37.00	732.7	604.8	111.70	2.3784	0.537
	38.00	733.7	605.8	111.71	2.3421	0.538
	39.00	734.6	606.7	111.75	2.3077	0.540
	40.00	735.4	607.5	111.78	2.2750	0.541
	41.00	736.3	608.3	111.80	2.2439	0.542
	42.00	737.1	609.2	111.82	2.2143	0.543
	43.00	737.9	610.0	111.86	2.1860	0.545
	44.00	738.7	610.8	111.87	2.1591	0.546
***** End Shut-in 2	45.00	739.4	611.5	111.90	2.1333	0.547
***** Final Hydro.	229.00	1613.8	0.0	111.97		

TEST HISTORY

Tk #10416 DST #1 Terry Solomon #32-1 Hal C. Porter

Flag Points

t (Min.) P (PSig)

A: 0.00 1626.62
B: 0.00 49.06
C: 23.00 85.23
D: 31.00 743.25
E: 0.00 89.19
F: 28.00 127.92
G: 45.00 739.42
Q: 0.00 1613.75

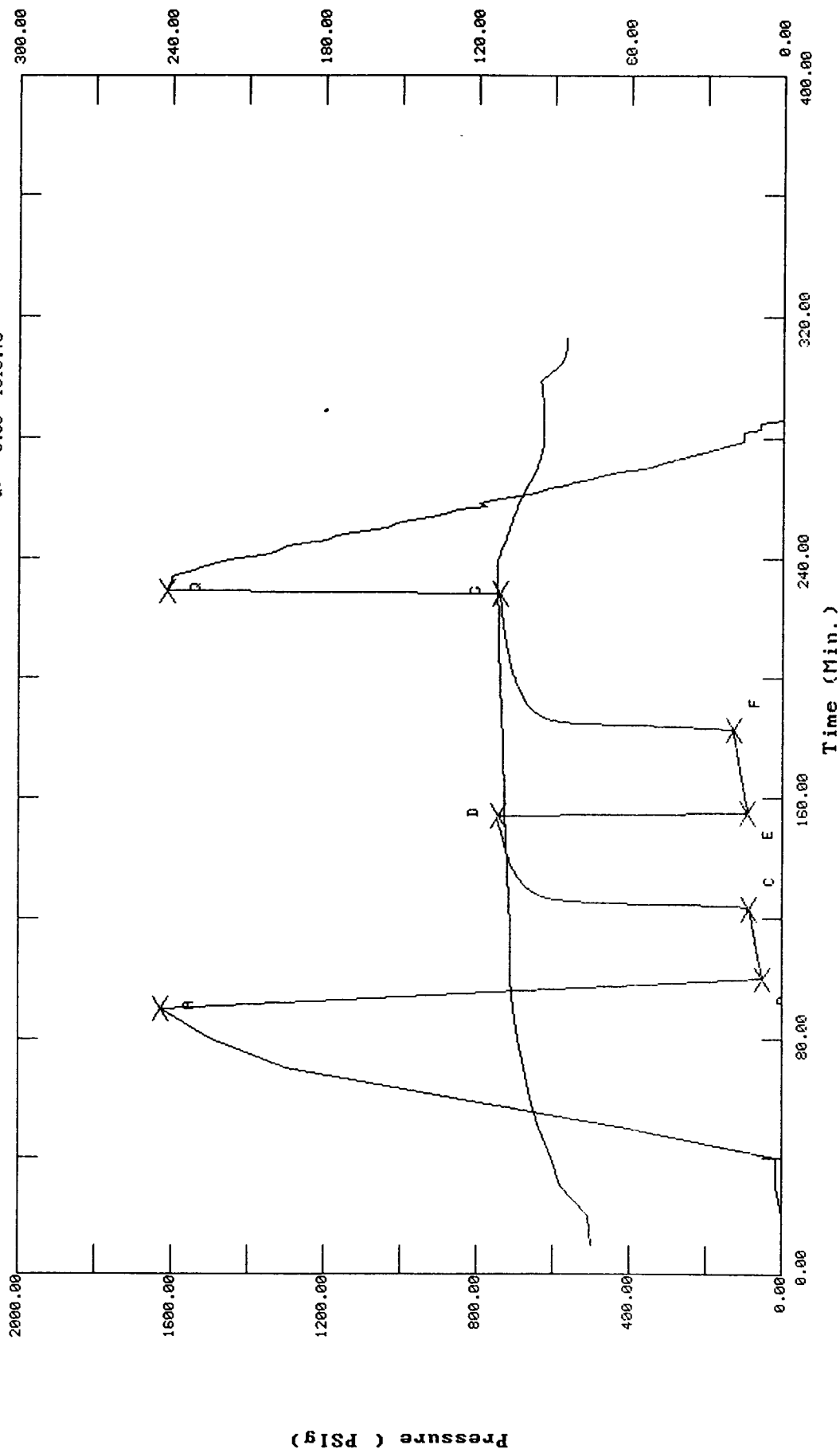
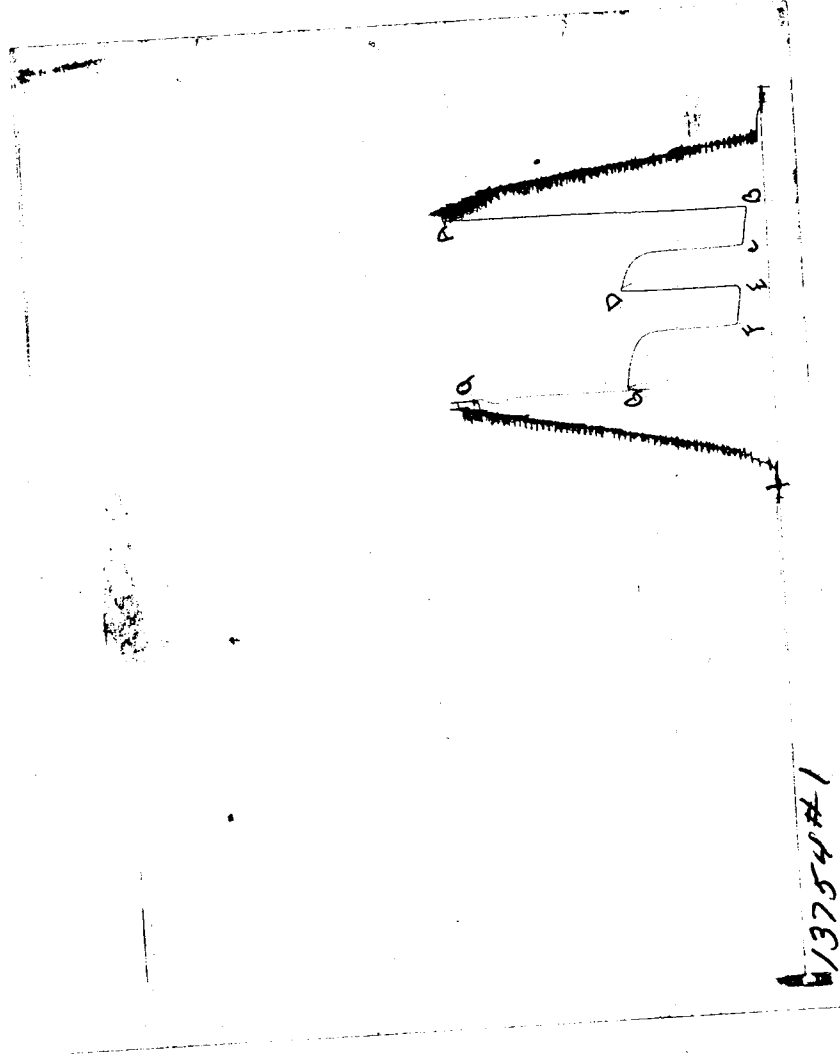


CHART PAGE



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

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No 10416

Well Name & No.	<u>Terry Solomon #32-1</u>	Test No.	<u>1</u>	Date	<u>9-4-97</u>
Company	<u>Hal C. Porter</u>	Zone Tested	<u>C-F-G</u>	<u>LKC</u>	
Address	<u>10004 W. 20th St. N. Wichita, Ks. 67212</u>		Elevation	<u>2104</u>	KB <u>2096</u> GL
Co. Rep / Geo.	<u>Randy Killion</u>	Cont.	<u>Discovery #1</u>	Est. Ft. of Pay	Por. %
Location: Sec.	<u>32</u>	Twp.	<u>11</u>	Rge.	<u>19</u>
		Co.	<u>Ellis</u>	State	<u>Ks</u>
No. of Copies		Distribution Sheet (Y, N)		Turnkey (Y, N)	
		Evaluation (Y, N)			

Interval Tested 3377 - 3466 Initial Str Wt./Lbs. 32,000 Unseated Str Wt./Lbs. 33,000
Anchor Length 89 Wt. Set Lbs. 30,000 Wt. Pulled Loose/Lbs. 40,000
Top Packer Depth 3372 Tool Weight 1000
Bottom Packer Depth 3377 Hole Size — 7 7/8" Rubber Size — 6 3/4"
Total Depth 3466 Wt. Pipe Run Drill Collar Run 30
Mud Wt. 9.2 LCM Vis. 47 WL 8.8 Drill Pipe Size 4.5 XH Ft. Run 3344
Blow Description I.F. weak building to 10" fair blow
E.F. Weak - building to 4"

Recovery — Total Feet	GIP	Ft. in DC	Ft. in DP
<u>248</u>		<u>30</u>	<u>218</u>
Rec. <u>248</u> Feet Of <u>mdy WTR</u>	%gas	%oil	<u>80</u> %water <u>20</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 112 °F Gravity °API D@ °F Corrected Gravity °API
RW 1.33 @ 75 °F Chlorides 20,000 ppm Recovery Chlorides 4,000 ppm System
(A) Initial Hydrostatic Mud 1736 1627 PSI Recorder No. 2341 T-Started 09:45
(B) First Initial Flow Pressure 98 49 PSI (depth) 3384 T-Open 11:25
(C) First Final Flow Pressure 137 88 PSI Recorder No. 13754 T-Pulled 13:40
(D) Initial Shut-in Pressure 768 743 PSI (depth) 3463 T-Out 15:00
(E) Second Initial Flow Pressure 157 89 PSI Recorder No.
(F) Second Final Flow Pressure 177 128 PSI (depth)
(G) Final Shut-in Pressure 758 739 PSI Initial Opening 30 Test
(H) Final Hydrostatic Mud 1666 1613 PSI Initial Shut-in 30 Jars
AK-1 Alpine Final Flow 30 Safety Joint
Final Shut-in 45 Straddle
Circ. Sub
Sampler
Extra Packer
Elect. Rec. X
Other
TOTAL PRICE \$

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 Rodall Killion
Our Representative Dan Bunch

TRILOBITE TESTING L.L.C.

OPERATOR : Hal C. Porter
 WELL NAME: Terry Solomon #32-1
 LOCATION : 32-11-19 Ellis Co Ks
 INTERVAL : 3652.00 To 3669.00 ft

DATE 9-5-97
 KB 2104.00 ft
 GR 2096.00 ft
 TD 3669.00 ft

TICKET NO: 10417
 FORMATION: Arbuckle
 TEST TYPE: CONV

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
30	Rec.	13248	13248	2341		PF Fr. 1120 to 1150 hr
45	Range (Psi)	4250.0	4250.0	4995.0	0.0	IS Fr. 1150 to 1235 hr
60	Clock (hrs)	12 hr	12 hr	Elec		SF Fr. 1235 to 1335 hr
60	Depth (ft)	3666.0	3666.0	3654.0	0.0	FS Fr. 1335 to 1435 hr

	Field	1	2	3	4	
Init Hydro	1743.0	1765.0	1813.0	0.0	0.0	T STARTED 0943 hr
First Flow	138.0	149.0	57.0	0.0	0.0	T ON BOTM 1118 hr
Final Flow	223.0	233.0	292.0	0.0	0.0	T OPEN 1120 hr
In Shut-in	804.0	803.0	832.0	0.0	0.0	T PULLED 1435 hr
Init Flow	351.0	365.0	304.0	0.0	0.0	T OUT 1800 hr
Final Flow	531.0	520.0	572.0	0.0	0.0	
Fl Shut-in	794.0	780.0	813.0	0.0	0.0	
Final Hydro	1690.0	1729.0	1778.0	0.0	0.0	
Inside/Outside	0	0	I			

RECOVERY

Fluid 1518.00 ft of 30.00 ft in DC and 1488.00 ft in DP
 508.00 ft of Clean Oil 150%
 0.00 ft of Heavy Oil Cut Mud 10
 0.00 ft of 40%oil 60%mud
 0.00 ft of
 0.00 ft of
 0.00 ft of
 0.00 ft of
 0.00 ft of

LINEITY 0.00 P.P.M. A.P.I. Gravity 26.00

FLOW DESCRIPTION

Initial Flow:
 Strong blow, bottom of bucket in 5 min

Initial Shut In:
 Bled off blow, blow back in 10 mins
 weak surface blow

Final Flow:
 Strong blow, bottom of bucket in

Final Shut In:
 Bled off blow, blow back in 11 mins
 weak surface

PLES:

IT TO:

Test Successful: Y

MUD DATA-----

Mud Type	Chemical
Weight	9.30 lb/cf
Vis.	49.00 S/L
W.L.	8.80 in3
F.C.	0.00 in
Mud Drop N	
Amt. of fill	0.00 ft
Btm. H. Temp.	126.00 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 #	1
Unit #	
Pump T.	

*** TOOL DIAGRAM *** CONV

WELL NAME: Terry Solomon #32-1

LOCATION : 32-11-19-Ellis Co Ks

TICKET No. 10417 D.S.T. No. 2 DATE 9-5-97

TOTAL TOOL TO BOTTOM OF TOP PACKERS 25

INTERVAL TOOL

BOTTOM PACKERS AND ANCHOR 17

TOTAL TOOL 42

DRILL COLLAR ANCHOR IN INTERVAL

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands Single Total

TOTAL ASSEMBLY 42

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

D.P. ABOVE TOOLS.Stands58 Single 1 Total 3624

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 3696

TOTAL DEPTH 3669

TOTAL DRILL PIPE ABOVE K.B. 27

REMARKS:

P.O. SUB

3503

C.O. SUB

3627

S.I. TOOL

3633

HMV

3638

JARS

3643

SAFETY JOINT n/a

PACKER

364

PACKER

365

DEPTH 3652

STUBB 1'

365

ANCHOR 1' Perfs

366

Alpine @ 3654

T.C.

DEPTH

5' Perfs

5' Perfs

AK-1 @ 3666

BULLNOSE 5' Bullplug

T.D.

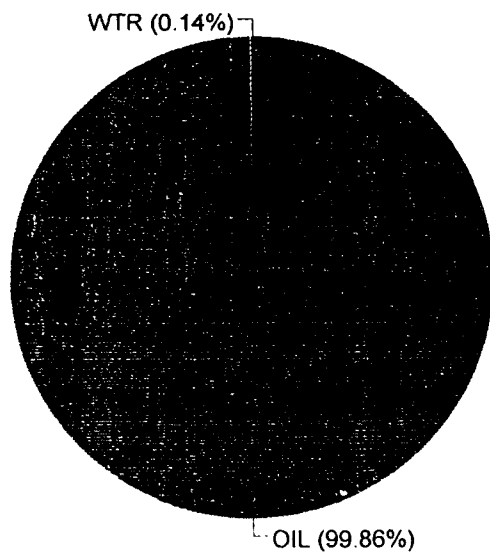
CALCULATED RECOVERY ANALYSIS

DST # 2 TICKET 10417

Drill Pipe	TOTAL	GAS	OIL		WATER		MUD	
#	FEET	%	FEET	%	FEET	%	FEET	%
1	1488		0	100	1488		0	0
2			0		0		0	0
3			0		0		0	0
4			0		0		0	0
5			0		0		0	0
6			0		0		0	0
Drill Collars								
1	20		0	100	20		0	0
2	10		0	40	4		0	60
3			0		0		0	0
4			0		0		0	0
5			0		0		0	0
TOTAL	1518	0.00	0	99.60	1512	0.00	0	0.395

HRS OP BBL/DAY

BBL OIL= 21.27672 * 1.5 340.428
 BBL WATER= 0 * 0
 BBL MUD= 0.02934
 BBL GAS 0



Operator.....: Hal C Porter
Well Name.....: Terry Solomon #32-1
DST Number.....: 2

Location.: 32-11S-19W Ellis Co. KS Recorder No....: 2341
Test Type: conv Recorder Depth: 3654
Formation: Arbuckle Test Interval.: 3652-3669

RESERVOIR CALCULATIONS: Fluid calculations based on shut-in #2

RESERVOIR PARAMETERS USED:

Net Pay.....	7.00 ft
Porosity.....	19.00 %
Bottom Hole Temp.....	126.00 F
Specific Gravity.....	0.041
API Gravity.....	26.00
Compressibility.....	0.000002 /psi
Viscosity.....	30.0000 cp
Total Recovery.....	1518.00 ft
Total Flowing Time.....	90.00 min.
Flow Rate.....	340.40 bbls/d
Final Flowing Pressure.....	572.00 psi
Horner Slope.....	44.3630 psi/cycle
Extrapolated Pressure.....	830.41 psi
Formation Volume Factor.....	1.04 Reservoir/Surface
Well Bore Radius.....	3.94 in

RESULTS:

Effective Permeability.....	5555.561349 md
Flow Capacity.....	38888.9294 md.ft
Transmissibility.....	1296.2976 md.ft/cp
Skin Factor.....	-0.4588
Radius of Investigation.....	784.07061 ft
Damage Ratio.....	0.9360
Productivity Index.....	1.3173 bbls/psi.d
Productivity Index W/O Damage..	1.2329 bbls/psi.d

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk #10417 DST #2 Terry Solomon #32-1 Hal C. Porter

DATE: 09/05/97

TIME: 09:44:02

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
***** Initial Hydro.	87.00	1813.4	0.0	110.52		
***** Start Flow 1	0.00	56.8	0.0	110.87		
	1.00	71.7	15.0	110.99		
	2.00	74.6	17.9	111.44		
	3.00	81.4	24.6	112.29		
	4.00	87.4	30.7	113.29		
	5.00	96.3	39.5	114.34		
	6.00	105.0	48.3	115.32		
	7.00	113.8	57.0	116.15		
	8.00	122.0	65.3	116.84		
	9.00	130.2	73.4	117.40		
	10.00	138.6	81.9	117.88		
	11.00	147.0	90.2	118.26		
	12.00	155.2	98.5	118.58		
	13.00	163.1	106.4	118.83		
	14.00	170.8	114.0	119.07		
	15.00	178.6	121.8	119.26		
	16.00	186.4	129.7	119.43		
	17.00	194.0	137.2	119.58		
	18.00	201.7	145.0	119.73		
	19.00	209.3	152.6	119.86		
	20.00	216.8	160.1	119.99		
	21.00	224.1	167.4	120.09		
	22.00	231.7	175.0	120.21		
	23.00	238.9	182.2	120.31		
	24.00	246.1	189.3	120.40		
	25.00	252.9	196.1	120.45		
	26.00	259.8	203.0	120.57		
	27.00	266.1	209.3	120.69		
	28.00	272.7	216.0	120.79		
	29.00	278.9	222.2	120.89		
	30.00	285.6	228.8	121.00		
***** End Flow 1	31.00	291.9	235.2	121.10		
***** Start Shutin 1	0.00	291.9	0.0	121.10	0.0000	0.085
	1.00	701.5	409.6	121.21	32.0000	0.492
	2.00	751.9	459.9	121.42	16.5000	0.565
	3.00	769.3	477.4	121.71	11.3333	0.592
	4.00	779.7	487.8	122.10	8.7500	0.608
	5.00	787.0	495.1	122.50	7.2000	0.619
	6.00	792.7	500.8	122.82	6.1667	0.628
	7.00	797.0	505.1	123.11	5.4286	0.635
	8.00	800.7	508.8	123.35	4.8750	0.641
	9.00	803.8	511.8	123.59	4.4444	0.646
	10.00	806.3	514.4	123.78	4.1000	0.650
	11.00	808.7	516.7	123.96	3.8182	0.654
	12.00	810.7	518.7	124.09	3.5833	0.657
	13.00	812.4	520.5	124.25	3.3846	0.660
	14.00	814.0	522.1	124.38	3.2143	0.663
	15.00	815.4	523.5	124.50	3.0667	0.665
	16.00	816.7	524.8	124.64	2.9375	0.667
	17.00	817.9	526.0	124.75	2.8235	0.669

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk #10417 DST #2 Terry Solomon #32-1 Hal C. Porter

DATE: 09/05/97

TIME: 09:44:02

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
	18.00	818.9	527.0	124.86	2.7222	0.671
	19.00	819.9	528.0	124.97	2.6316	0.672
	20.00	820.9	528.9	125.05	2.5500	0.674
	21.00	821.7	529.8	125.14	2.4762	0.675
	22.00	822.4	530.5	125.25	2.4091	0.676
	23.00	823.2	531.2	125.28	2.3478	0.678
	24.00	823.9	531.9	125.35	2.2917	0.679
	25.00	824.5	532.6	125.39	2.2400	0.680
	26.00	825.1	533.2	125.44	2.1923	0.681
	27.00	825.7	533.8	125.49	2.1481	0.682
	28.00	826.3	534.3	125.52	2.1071	0.683
	29.00	826.7	534.8	125.57	2.0690	0.684
	30.00	827.2	535.3	125.61	2.0333	0.684
	31.00	827.6	535.7	125.64	2.0000	0.685
	32.00	828.1	536.2	125.67	1.9688	0.686
	33.00	828.5	536.6	125.69	1.9394	0.686
	34.00	829.0	537.1	125.72	1.9118	0.687
	35.00	829.3	537.4	125.74	1.8857	0.688
	36.00	829.8	537.8	125.75	1.8611	0.689
	37.00	830.0	538.1	125.77	1.8378	0.689
	38.00	830.4	538.5	125.80	1.8158	0.690
	39.00	830.8	538.8	125.81	1.7949	0.690
	40.00	831.1	539.1	125.81	1.7750	0.691
	41.00	831.4	539.5	125.83	1.7561	0.691
	42.00	831.7	539.8	125.85	1.7381	0.692
***** End Shut-in 1	43.00	832.0	540.1	125.86	1.7209	0.692
***** Start Flow 2	0.00	303.6	0.0	125.84		
	1.00	310.0	6.5	125.78		
	2.00	316.7	13.1	125.72		
	3.00	322.9	19.4	125.69		
	4.00	329.2	25.7	125.68		
	5.00	335.6	32.0	125.68		
	6.00	341.7	38.2	125.70		
	7.00	347.9	44.3	125.74		
	8.00	353.8	50.2	125.75		
	9.00	359.8	56.3	125.79		
	10.00	365.6	62.0	125.82		
	11.00	371.3	67.7	125.87		
	12.00	376.8	73.3	125.89		
	13.00	382.5	78.9	125.91		
	14.00	387.8	84.3	125.94		
	15.00	393.1	89.6	125.97		
	16.00	398.6	95.0	125.99		
	17.00	403.7	100.2	126.03		
	18.00	408.9	105.4	126.05		
	19.00	413.9	110.3	126.07		
	20.00	419.0	115.5	126.10		
	21.00	423.8	120.3	126.11		
	22.00	428.7	125.2	126.14		
	23.00	433.5	130.0	126.16		
	24.00	438.2	134.7	126.18		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk #10417 DST #2 Terry Solomon #32-1 Hal C. Porter

DATE: 09/05/97

TIME: 09:44:02

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	25.00	442.8	139.3	126.19		
	26.00	447.4	143.8	126.20		
	27.00	451.9	148.3	126.21		
	28.00	456.4	152.9	126.22		
	29.00	460.8	157.3	126.23		
	30.00	465.3	161.7	126.24		
	31.00	469.5	165.9	126.25		
	32.00	473.7	170.1	126.25		
	33.00	477.9	174.4	126.25		
	34.00	482.0	178.4	126.26		
	35.00	485.9	182.4	126.26		
	36.00	490.1	186.5	126.26		
	37.00	494.0	190.4	126.28		
	38.00	497.7	194.2	126.27		
	39.00	501.8	198.3	126.28		
	40.00	505.5	202.0	126.27		
	41.00	509.2	205.7	126.28		
	42.00	513.1	209.5	126.28		
	43.00	516.6	213.1	126.28		
	44.00	520.2	216.6	126.29		
	45.00	523.8	220.3	126.28		
	46.00	527.3	223.8	126.29		
	47.00	530.7	227.1	126.29		
	48.00	534.0	230.4	126.29		
	49.00	537.5	233.9	126.30		
	50.00	540.8	237.2	126.29		
	51.00	544.2	240.6	126.30		
	52.00	547.5	244.0	126.30		
	53.00	550.7	247.1	126.31		
	54.00	553.7	250.2	126.31		
	55.00	556.8	253.2	126.32		
	56.00	559.8	256.3	126.33		
	57.00	562.9	259.3	126.32		
	58.00	565.9	262.3	126.33		
	59.00	568.8	265.3	126.33		
**** End Flow 2	60.00	572.2	268.7	126.33		
**** Start Shutin 2	0.00	572.2	0.0	126.33	0.0000	0.327
	1.00	748.9	176.7	126.35	92.0000	0.561
	2.00	763.6	191.3	126.36	46.5000	0.583
	3.00	770.6	198.4	126.38	31.3333	0.594
	4.00	775.3	203.1	126.40	23.7500	0.601
	5.00	778.9	206.6	126.42	19.2000	0.607
	6.00	781.6	209.4	126.44	16.1667	0.611
	7.00	784.0	211.7	126.45	14.0000	0.615
	8.00	785.9	213.6	126.47	12.3750	0.618
	9.00	787.6	215.4	126.49	11.1111	0.620
	10.00	789.0	216.8	126.50	10.1000	0.623
	11.00	790.4	218.2	126.51	9.2727	0.625
	12.00	791.6	219.3	126.52	8.5833	0.627
	13.00	792.6	220.4	126.54	8.0000	0.628
	14.00	793.7	221.5	126.55	7.5000	0.630

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: Tk #10417 DST #2 Terry Solomon #32-1 Hal C. Porter

DATE: 09/05/97

TIME: 09:44:02

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
	15.00	794.6	222.4	126.55	7.0667	0.631
	16.00	795.5	223.3	126.54	6.6875	0.633
	17.00	796.2	224.0	126.55	6.3529	0.634
	18.00	797.0	224.8	126.56	6.0556	0.635
	19.00	797.7	225.5	126.56	5.7895	0.636
	20.00	798.3	226.1	126.57	5.5500	0.637
	21.00	798.9	226.7	126.57	5.3333	0.638
	22.00	799.5	227.3	126.57	5.1364	0.639
	23.00	800.2	228.0	126.57	4.9565	0.640
	24.00	800.8	228.5	126.58	4.7917	0.641
	25.00	801.3	229.1	126.58	4.6400	0.642
	26.00	801.8	229.6	126.56	4.5000	0.643
	27.00	802.3	230.0	126.58	4.3704	0.644
	28.00	802.7	230.4	126.56	4.2500	0.644
	29.00	803.1	230.9	126.58	4.1379	0.645
	30.00	803.5	231.3	126.56	4.0333	0.646
	31.00	804.0	231.7	126.57	3.9355	0.646
	32.00	804.4	232.1	126.58	3.8438	0.647
	33.00	804.8	232.5	126.56	3.7576	0.648
	34.00	805.2	232.9	126.57	3.6765	0.648
	35.00	805.6	233.4	126.56	3.6000	0.649
	36.00	805.9	233.6	126.56	3.5278	0.649
	37.00	806.2	234.0	126.58	3.4595	0.650
	38.00	806.7	234.4	126.56	3.3947	0.651
	39.00	807.0	234.8	126.56	3.3333	0.651
	40.00	807.3	235.1	126.58	3.2750	0.652
	41.00	807.7	235.4	126.56	3.2195	0.652
	42.00	807.9	235.7	126.56	3.1667	0.653
	43.00	808.4	236.1	126.56	3.1163	0.653
	44.00	808.7	236.5	126.55	3.0682	0.654
	45.00	809.0	236.8	126.56	3.0222	0.654
	46.00	809.3	237.0	126.55	2.9783	0.655
	47.00	809.6	237.3	126.55	2.9362	0.655
	48.00	809.9	237.7	126.54	2.8958	0.656
	49.00	810.2	237.9	126.53	2.8571	0.656
	50.00	810.4	238.2	126.54	2.8200	0.657
	51.00	810.7	238.5	126.54	2.7843	0.657
	52.00	811.0	238.8	126.53	2.7500	0.658
	53.00	811.2	239.0	126.52	2.7170	0.658
	54.00	811.6	239.3	126.52	2.6852	0.659
	55.00	811.7	239.5	126.51	2.6545	0.659
	56.00	812.0	239.8	126.52	2.6250	0.659
	57.00	812.3	240.0	126.51	2.5965	0.660
	58.00	812.5	240.3	126.52	2.5690	0.660
***** End Shut-in 2	59.00	812.7	240.5	126.51	2.5424	0.661
***** Final Hydro.	288.00	1777.5	0.0	126.53		

TEST HISTORY

k #10417 DST #2 Terry Solomon #32-1 Hal C. Porter

Flag Points

	t (Min.)	P (PSig)
A:	0.00	1813.42
B:	0.00	56.75
C:	31.00	291.92
D:	43.00	832.00
E:	0.00	303.55
F:	60.00	572.23
G:	59.00	812.73
Q:	0.00	1777.52

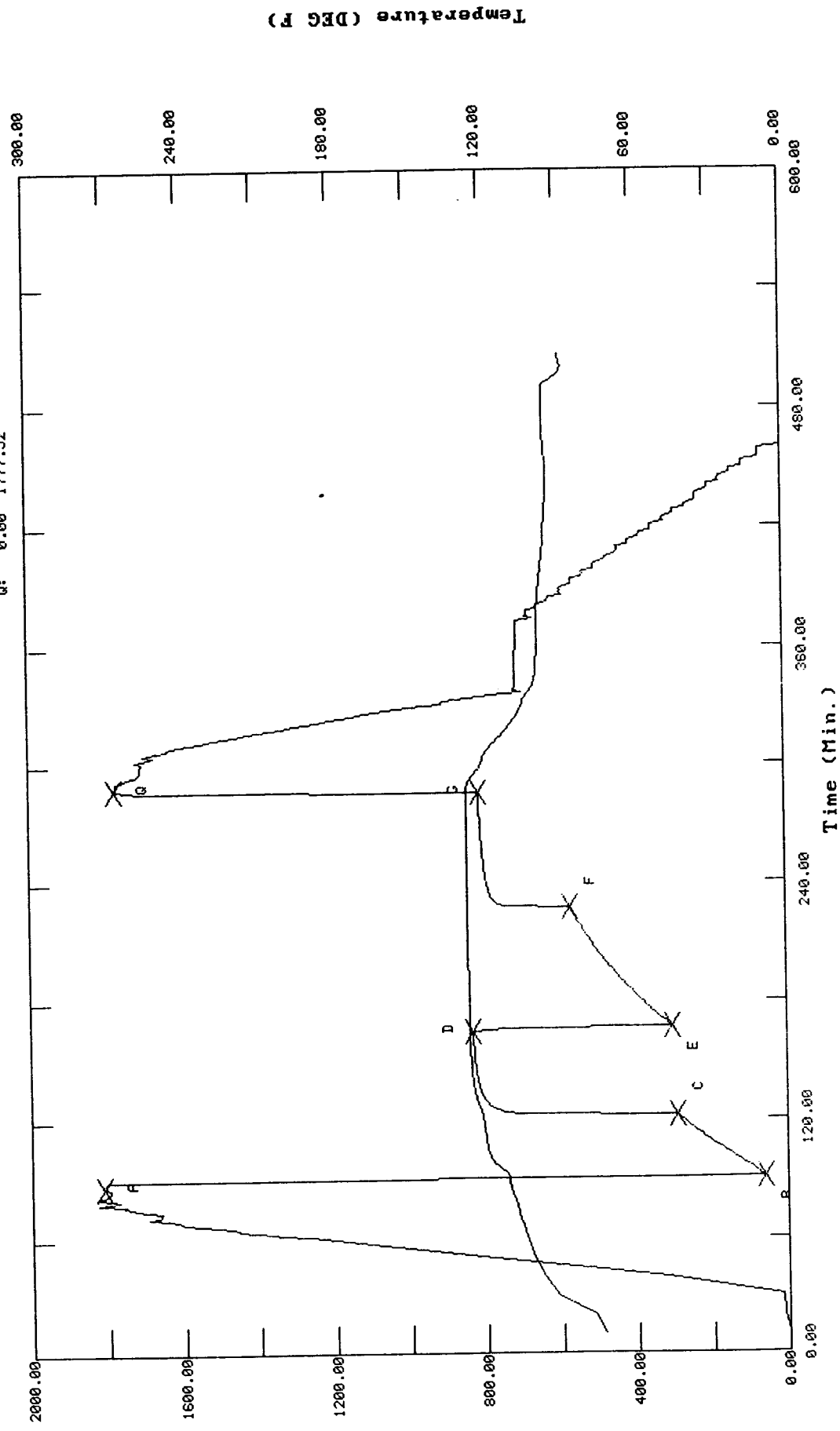
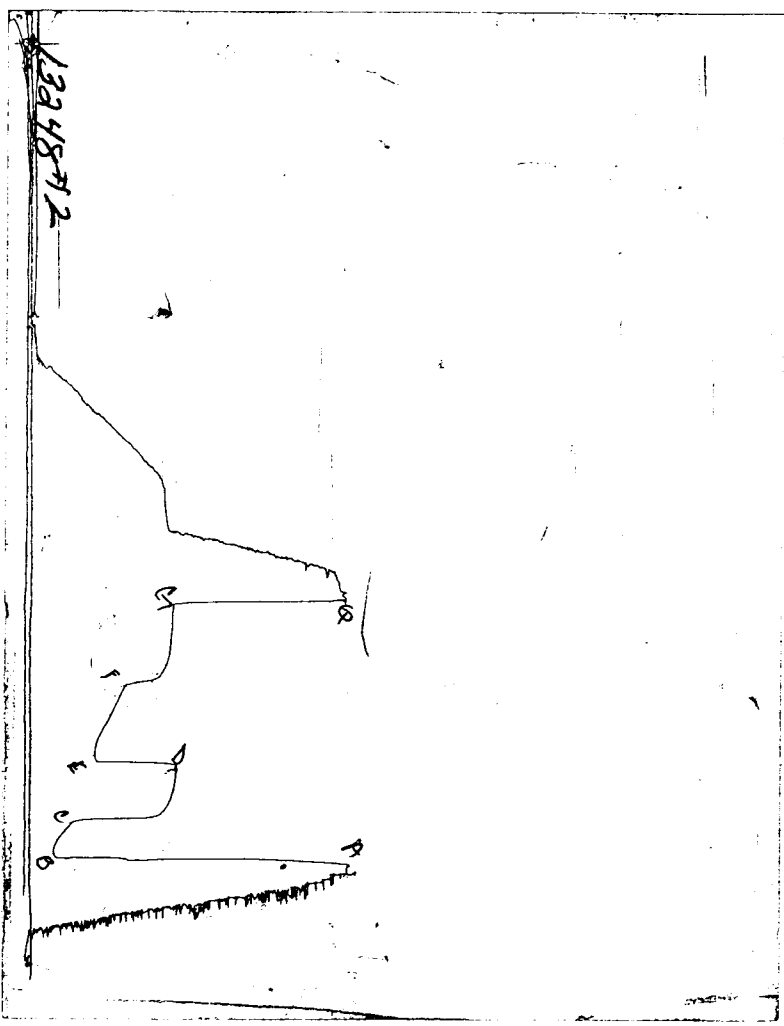


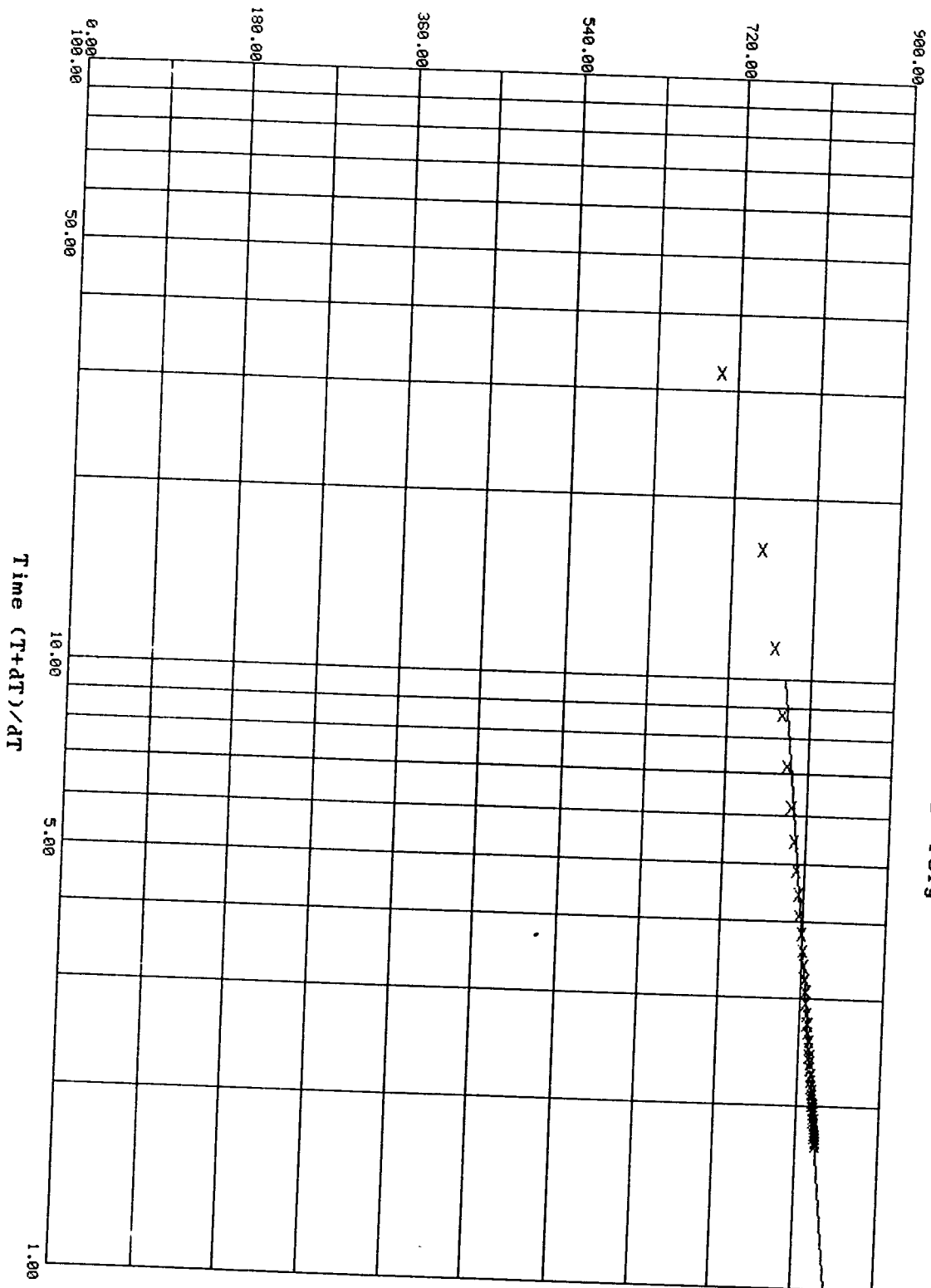
CHART PAGE



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

Horner Plot: shut-in #1 Tk #10417 DST #2 Terry Solomon #32-1 Hal C. Porter

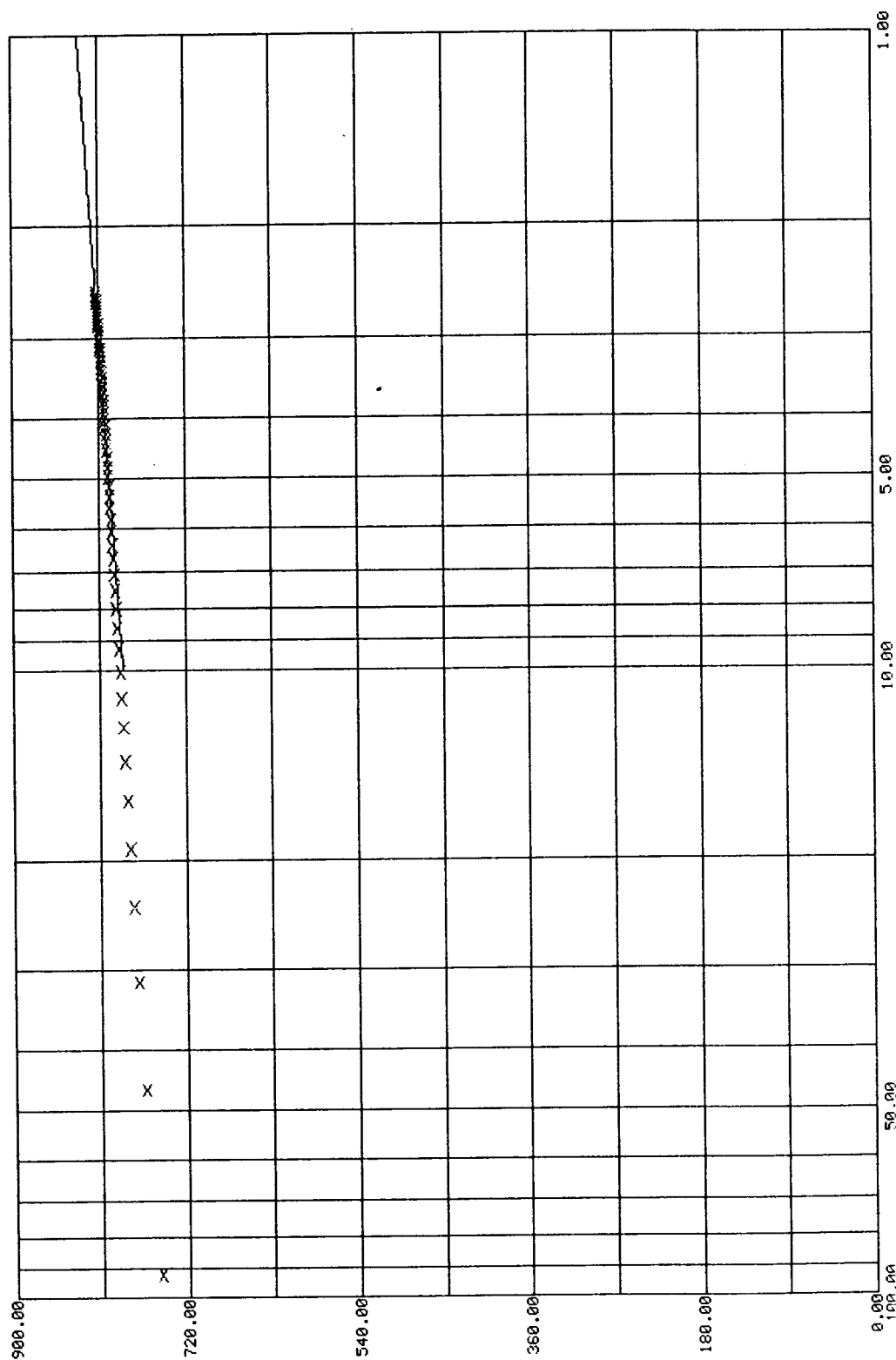
Slope: 65.2592 PSig/cycle
 Ext. Pressure: 847.3331 PSig



Horner Plot: shut-in #2

Tk #10417 DST #2 Terry Solomon #32-1 Hal C. Porter

Slope: 44.3630 PSig/cycle
Ext. Pressure: 830.4086 PSig



TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No 10417

Well Name & No. Terry Solomon #32-1 Test No. 2 Date 9-5-97
 Company Hal C. Porter Zone Tested Archbuckle
 Address _____ Elevation 2104 KB 2096 GL
 Co. Rep / Geo. Randy Kilian Cont. Discovery #1 Est. Ft. of Pay 7 Por. 19 %
 Location: Sec. 32 Twp. 11 Rge. 19 Co. Ellis State Ks
 No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) Y

Interval Tested 3652 - 3669 Initial Str Wt./Lbs. 33,000 Unseated Str Wt./Lbs. 38,000
 Anchor Length 17 Wt. Set Lbs. 30,000 Wt. Pulled Loose/Lbs. 40,000
 Top Packer Depth 3647 Tool Weight 1000
 Bottom Packer Depth 3652 Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Total Depth 3669 Wt. Pipe Run _____ Drill Collar Run 30
 Mud Wt. 9.3 LCM Y4# Vis. 49 WL 8.8 Drill Pipe Size 4-5 X 14 Ft. Run 3624
 Blow Description I.F. Strong - B.O.B in 5 min.
I-S-I-Bled off blow - blow came back in 10 min - Weak surface
E.F. Strong - B.O.B in 6 min.
E-S-I-Bled off blow - blow came back in 11 min - Weak surface
 Recovery — Total Feet 1518 GIP _____ Ft. in DC 30 Ft. in DP 1488
 Rec. 1508 Feet Of CO %gas 100 %oil _____ %water _____ %mud _____
 Rec. 10 Feet Of OCM %gas 40 %oil _____ %water 60 %mud _____
 Rec. _____ Feet Of _____ %gas _____ %oil _____ %water _____ %mud _____
 Rec. _____ Feet Of _____ %gas _____ %oil _____ %water _____ %mud _____
 Rec. _____ Feet Of _____ %gas _____ %oil _____ %water _____ %mud _____
 BHT 126 °F Gravity _____ °API D@ _____ °F Corrected Gravity 26 °API
 RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 4,000 ppm System
 (A) Initial Hydrostatic Mud 1743 | 1803 PSI Recorder No. 2341 T-Started 09:43
 (B) First Initial Flow Pressure 138 | 57 PSI (depth) 3654 T-Open 11:20
 (C) First Final Flow Pressure 223 | 292 PSI Recorder No. 13248 T-Pulled 14:35
 (D) Initial Shut-in Pressure 804 | 832 PSI (depth) 3666 T-Out 18:00
 (E) Second Initial Flow Pressure 351 | 304 PSI Recorder No. _____
 (F) Second Final Flow Pressure 531 | 572 PSI (depth) _____
 (G) Final Shut-in Pressure 794 | 813 PSI Initial Opening 30 Test _____
 (H) Final Hydrostatic Mud 1690 | 1778 PSI Initial Shut-in 45 Jars X
AK-1 Alpine Final Flow 60 Safety Joint _____
 Final Shut-in 60 Straddle _____
 _____ Circ. Sub _____
 _____ Sampler _____
 Extra Packer _____
 Elect. Rec. X
 Other _____

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Approved By Randy Kilian
 Our Representative Dan Bando