TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name STETSON "C" #1 Test No. 1 Date 10/13/93

Company CASTLE RESOURCES, INC. Zone KS CITY

Address 1200 E.27th #C HAYS KANSAS 67601 Elevation 2516

Co. Rep./Geo. SCOTT OATSDEAN Cont. EMPHASIS RIG #8 Est. Ft. of Pay

Location: Sec. 5 Twp. 15S Rge. 27W Co. GOVE State KS

Interval Tested 3908-3940 Drill Pipe Size 4.5 XH

Anchor Length 32 Wt. Pipe I.D. - 2.7 Ft. Run

Top Packer Depth 3903 Drill Collar – 2.25 Ft. Run

Bottom Packer Depth 3908 Mud Wt. 8.9 lb/Gal.

Total Depth 3940 Viscosity 46 Filtrate 8.8

Tool Open @ 2:48 PM Initial Blow GOOD BLOW OFF BOTTOM IN 1 MINUTE
OFF BOTTOM IN 4 MINUTES ON SHUTIN

Final Blow GOOD BLOW OFF BOTTOM IN 5 MINUTES
OPEN 2" /GAS TO SURFACE - GOOD GAS

Recovery - Total Feet 1037 Flush Tool? NO

Rec. 2851 Feet of GAS IN PIPE

Rec. 665 Feet of CLEAN OIL-1% GAS/ 99% OIL

Rec. 372 Feet of SLTLY MUD CUT OIL-5% GAS/ 88% OIL/ 7% MUD

Rec. Feet of

Rec. Feet of

BHT 102 °F Gravity 41 °API @ 70 °F Corrected Gravity 40 °API

RW @ °F Chlorides ppm Recovery Chlorides 2000 ppm System

(A) Initial Hydrostatic Mud 1899.3 PSI AK1 Recorder No. 13308 Range 4700

(B) First Initial Flow Pressure 81.8 PSI @ (depth) 3913 w / Clock No. 17652

(C) First Final Flow Pressure 230.9 PSI AK1 Recorder No. 11057 Range 4500

(D) Initial Shut-in Pressure 508.8 PSI @ (depth) 3935 w / Clock No. 27566

(E) Second Initial Flow Pressure 283.6 PSI AK1 Recorder No. Range

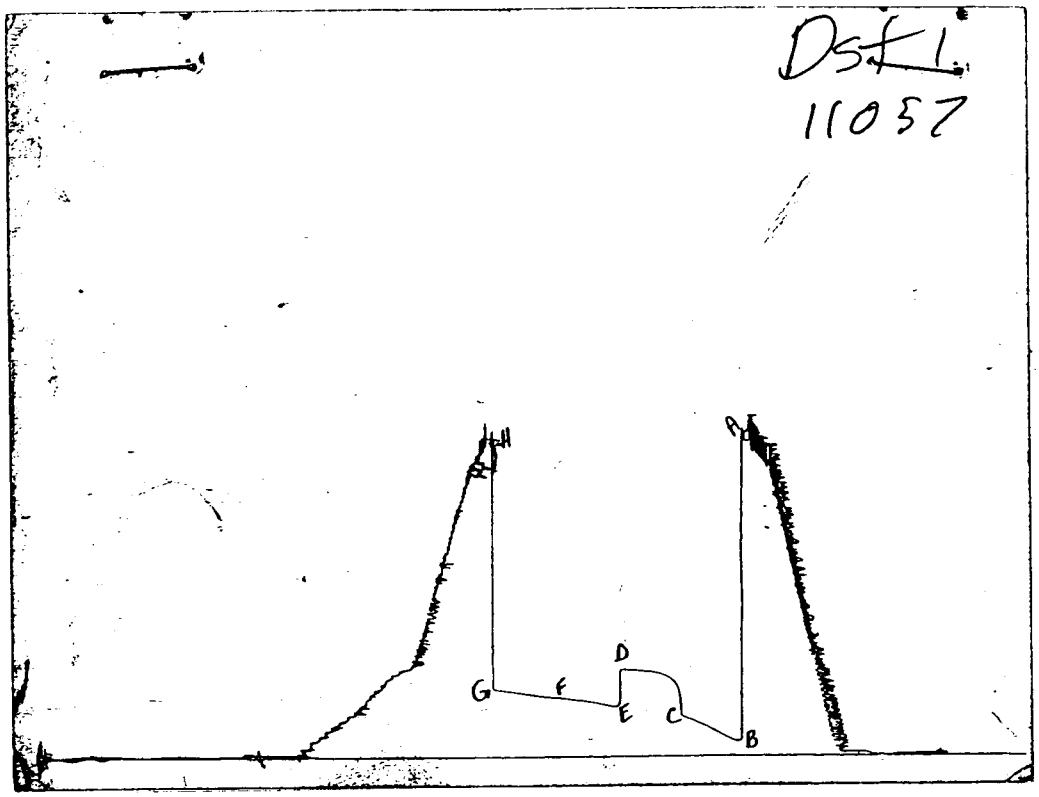
(F) Second Final Flow Pressure 341.9 PSI @ (depth) w / Clock No.

(G) Final Shut-in Pressure 393.4 PSI Initial Opening 45 Final Flow 45

(H) Final Hydrostatic Mud 1860.3 PSI Initial Shut-in 45 Final Shut-in 45

Our Representative MARK HERSKOWITZ

CHART PAGE



This is an actual photograph of recorder chart

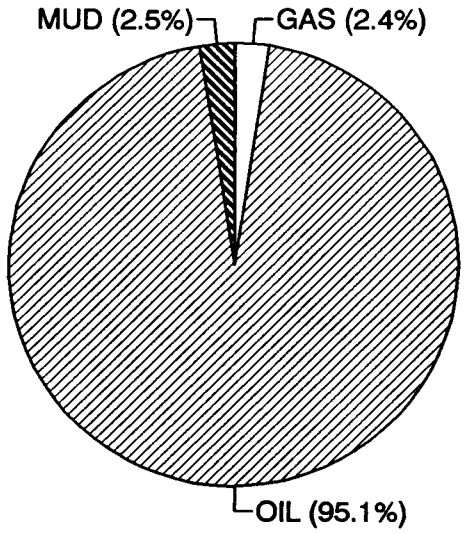
	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1892	1899.3
(B) FIRST INITIAL FLOW PRESSURE	67	81.8
(C) FIRST FINAL FLOW PRESSURE	224	230.9
(D) INITIAL CLOSED-IN PRESSURE	504	508.8
(E) SECOND INITIAL FLOW PRESSURE	280	283.6
(F) SECOND FINAL FLOW PRESSURE	392	341.9
(G) FINAL CLOSED-IN PRESSURE		393.4
(H) FINAL HYDROSTATIC MUD	1858	1860.3

CALCULATED RECOVERY ANALYSIS DRILL PIPE

DST # 1 TICKET 5772

SAMPLE	TOTAL	GAS		OIL		WATER		MUD	
#	FEET	%	FEET	%	FEET	%	FEET	%	FEET
1	665	1	6.65	99	658.35	0	0	0	0
2	372	5	18.6	88	327.36	0	0	7	26.04
3			0		0		0		0
4			0		0		0		0
5			0		0		0		0
TOTAL	1037	2.4349084	25.25	95.1	985.71	0	0	2.51	26.04

			HRS	BBL/DAY
BBL OIL=	14.016796	*	1.5	224.27
BBL WATER=	0	*		0
BBL MUD=	0.3702888			
BBL GAS	0.359055			



INITIAL FLOW

RECORDER 11057 DST # 1

TIME(MIN)	PRESSURE	<> PRESSURE
0	81.8	81.8
3	82.9	1.1
6	89.6	6.7
9	99.7	10.1
12	112.1	12.4
15	124.4	12.3
18	136.7	12.3
21	147.9	11.2
24	161.4	13.5
27	171.5	10.1
30	181.6	10.1
33	192.8	11.2
36	205.1	12.3
39	214.1	9.0
42	226.4	12.3
45	230.9	4.5

FINAL FLOW

RECORDER 11057 DST # 1

TIME(MIN)	PRESSURE	<> PRESSURE
0	283.6	283.6
3	293.7	10.1
6	297.0	3.3
9	300.4	3.4
12	304.9	4.5
15	308.2	3.3
18	311.6	3.4
21	317.2	5.6
24	319.5	2.3
27	322.8	3.3
30	326.2	3.4
33	329.5	3.3
36	332.9	3.4
39	336.3	3.4
42	339.6	3.3
45	341.9	2.3

STETSON "C" #1 DST #1
INITIAL SHUTIN

45 INITIAL FLOW TIME

SLOPE 139.8 PSI/CYCLE
P* 550.89 PSI

	TIME(MIN)	Pws (psi)	Log Horn T	<> PRESSURE	Horn T
	3	409.1	1.204	409.1	16
	6	436.0	0.929	26.9	9
	9	454.0	0.778	18.0	6
	12	464.0	0.677	10.0	5
	15	474.1	0.602	10.1	4
	18	480.8	0.544	6.7	4
	21	488.7	0.497	7.9	3
	24	490.9	0.459	2.2	3
	27	493.1	0.426	2.2	3
	30	495.4	0.398	2.3	3
	33	498.7	0.374	3.3	2
	36	502.1	0.352	3.4	2
X	39	504.3	0.333	2.2	2
	42	506.6	0.316	2.3	2
X	45	508.8	0.301	2.2	2

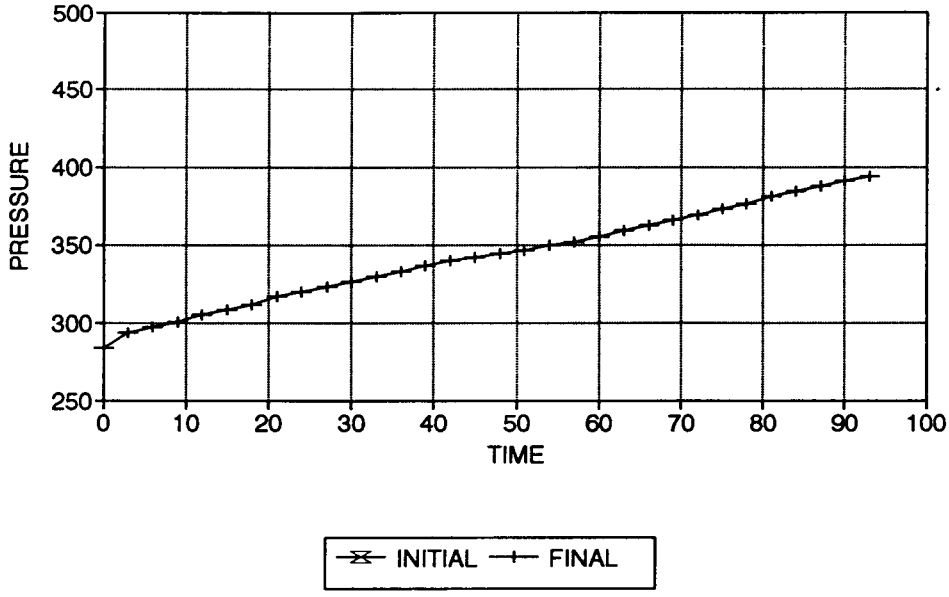
STETSON "C" #1 DST #1
FINAL SHUTIN

90 TOTAL FLOW TIME

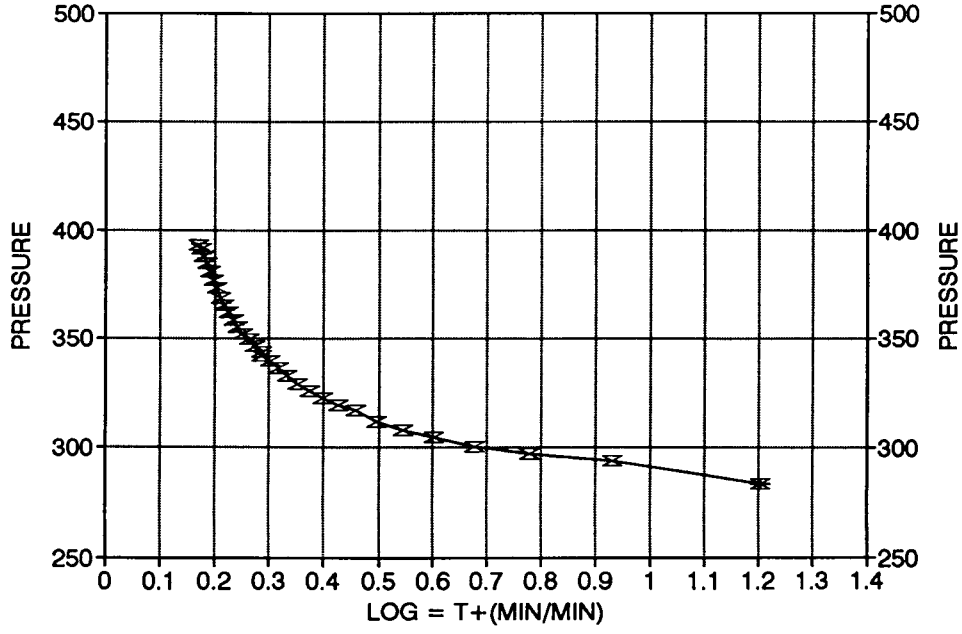
SLOPE 146.2 PSI/CYCLE
P* 460.4 PSI

		Pws (psi)	Log Horn T	<> PRESSURE	Horn T
	3	344.1	1.491	344.1	31
	6	346.4	1.204	2.3	16
	9	349.7	1.041	3.3	11
	12	352.0	0.929	2.3	9
	15	355.3	0.845	3.3	7
	18	358.7	0.778	3.4	6
	21	362.1	0.723	3.4	5
	24	365.4	0.677	3.3	5
	27	368.8	0.637	3.4	4
	30	373.3	0.602	4.5	4
	33	376.6	0.571	3.3	4
	36	381.1	0.544	4.5	4
X	39	384.5	0.520	3.4	3
	42	387.8	0.497	3.3	3
	45	391.2	0.477	3.4	3
X	48	393.4	0.459	2.2	3

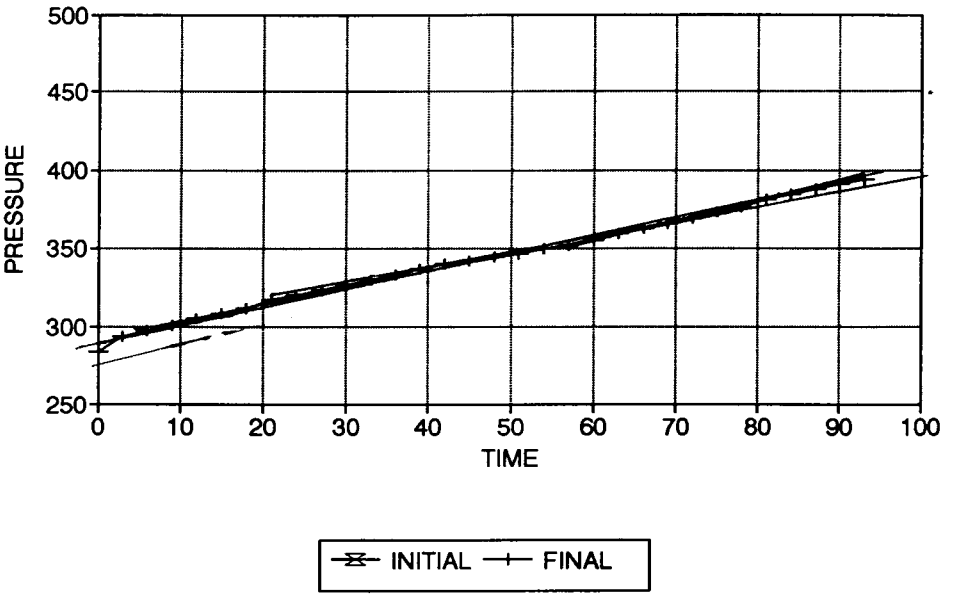
STETSON "C" #1 / DST #1
DELTA T DELTA P



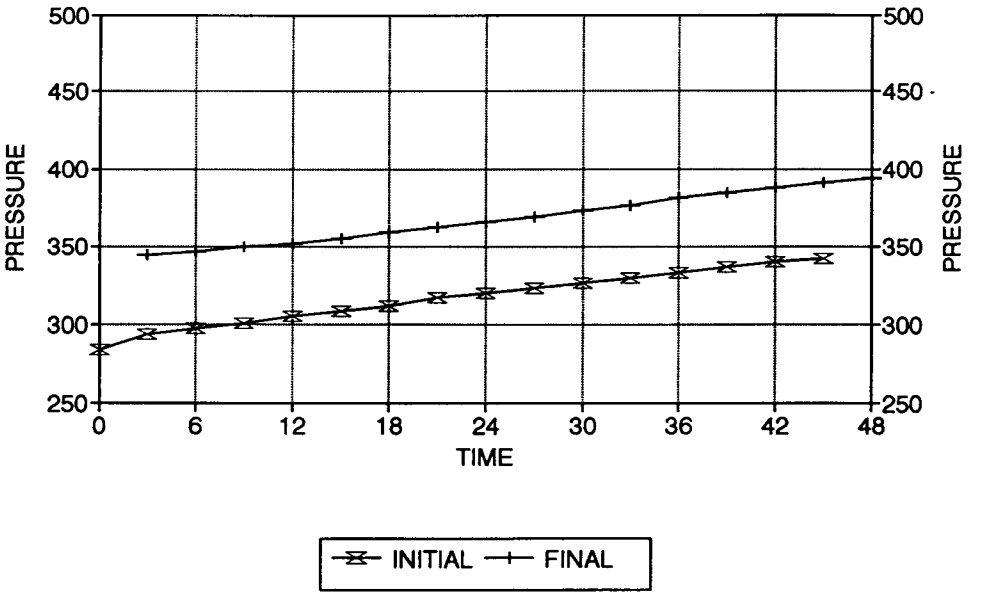
HORNER PLOT



STETSON "C" #1 / DST #1
DELTA T DELTA P



STETSON "C" #1 / DST #1
DELTA T DELTA P



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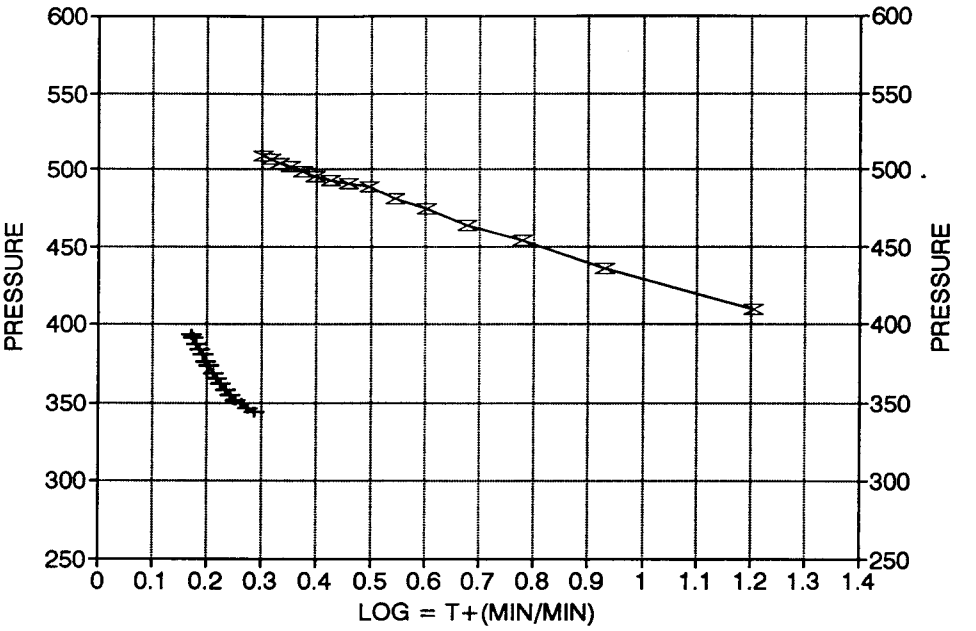
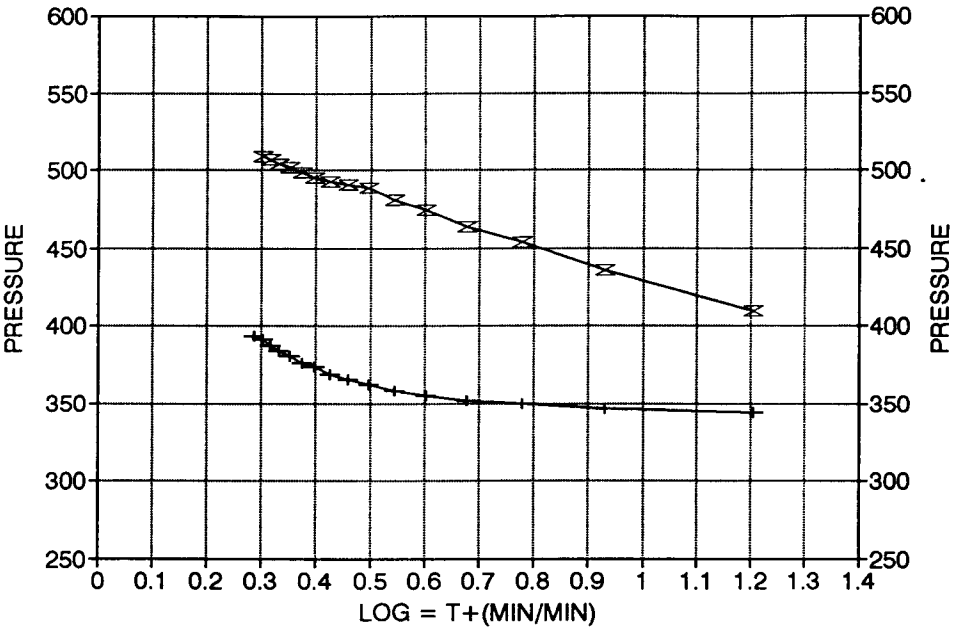


X final flow if tool not shut-in Extrapolated to 495
last 45 min of 90 min flow + shutin

⧖ initial flow extrapolated to 550

HORNER PLOT



X Final flow if tool is shut-in. Extrapolated to 460

⧖ initial flow Extrapolated to 550

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No. 5772

Well Name & No. Stetson 'C' 1 Test No. 1 Date 10-13-93

Company Castle Resources Inc Zone Tested KC '180'

Address 1200 E 27th Ste C Hays KS Elevation 2516 KB

Co. Rep./Geo. Scott Oatsdean Cont. Emphasis Rig 8 Est. Ft. of Pay

Location: Sec. 5 Twp. 15s Rge. 27W Co. Gove State KS

No. of Copies Distribution Sheet Yes No Turnkey Yes No Evaluation

Interval Tested 3908 - 3940 Drill Pipe Size 4½ XH

Anchor Length 32 Top Choke — 1" Bottom Choke — ¾"

Top Packer Depth 3905 Hole Size — 7⅞" Rubber Size — 6¾"

Bottom Packer Depth 3908 Wt. Pipe I.D. — 2.7 Ft. Run

Total Depth 3940 Drill Collar — 2.25 Ft. Run

Mud Wt. 8.9 LCM TR lb / gal Viscosity 46 Filtrate 8.8

Tool Open @ 2:48 PM Initial Blow Good Blow OFF Bottom in 1 Min (OFF Bottom in 4 Min on Shut-in)

Final Blow [redacted] Good Blow OFF Bottom 5 Min (Open 2" Gas to Surface) (Good Gas)

Recovery — Total Feet 1037 Feet of Gas in Pipe 2851 Flush Tool?

Rec. 665	Feet Of	C Oil	10 %gas	90 %oil	%water	%mud
Rec. 372	Feet Of	SMCO C Oil	5 %gas	88 %oil	%water 7	%mud
Rec.	Feet Of		%gas	%oil	%water	%mud
Rec.	Feet Of		%gas	%oil	%water	%mud
Rec.	Feet Of		%gas	%oil	%water	%mud

BHT 102 °F Gravity 41 °API @ 70 °F Corrected Gravity 40 °API

RW — @ °F Chlorides ppm Recovery Chlorides 2000 ppm System

(A) Initial Hydrostatic Mud	1892 PSI	AK1 Recorder No.	13308	Range	4700
(B) First Initial Flow Pressure	67 PSI	@ (depth)	3917	w/Clock No.	17652
(C) First Final Flow Pressure	224 PSI	AK1 Recorder No.	11057	Range	4500
(D) Initial Shut-In Pressure	504 PSI	@ (depth)	3935	w/Clock No.	27564
(E) Second Initial Flow Pressure	280 PSI	AK1 Recorder No.		Range	
(F) Second Final Flow Pressure	392 PSI	@ (depth)		w/Clock No.	
(G) Final Shut-In Pressure	PSI	Initial Opening	[redacted]45	Test	✓
(H) Final Hydrostatic Mud	1858 PSI	Initial Shut-In	45	Jars	
		Final Flow	45	Safety Joint	✓
		Final Shut-In	45	Straddle	
				Circ. Sub	✓ NC
				Sampler	
				Extra Packer	
				Other	

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 Scott A Oatsdean

Our Representative Mark Kershaw

TOTAL PRICE $

Printcraft Printers - Hays KS

Castle

WELL NAME Castle DST # 1 RECORDER # 11057

INIT. HYD. MUD. ——— ——— FINAL HYD. MUD 1.670 ———

INITIAL FLOW MINUTES 45 INTERVAL		INITIAL SHUTIN MINUTES 45 INTERVAL			FINAL FLOW MINUTES 45 INTERVAL		FINAL SHUTIN MINUTES 45 INTERVAL	
.073	816	—	—	1	.253	283 6		
074		.365		2	262		.307	
.080		389		3	265		309	
089		405		4	268		312	
.100		414		5	272		314	
.111		423		6	275		318	
.122		429		7	278		320	
132		436		8	283		323	
144		438		9	285		326	
153		440		10	288		329	
162		442		11	291		332	
172		445		12	294		336	
183		448		13	297		340	
191		450		14	300		343	
202		452		15	303		346	
X .206	230.9	.454	508.8	16	.305	341.9	349	393.4
				17			351	
				18				
				19				
				20				
				21				
				22				
				23				
				24				
				25				
				26				
				27				

Cast 1

1	0.365	409.1913
2	0.389	436.0978
3	0.405	454.0245
4	0.414	464.094
5	0.423	474.1627
6	0.429	480.8746
7	0.436	488.7047
8	0.438	490.9418
9	0.44	493.1788
10	0.442	495.4158
11	0.445	498.7712
12	0.448	502.1266
13	0.45	504.3634
14	0.452	506.6002
15	0.454	508.8369

1	0.307	344.1676
2	0.309	346.4098
3	0.312	349.7731
4	0.314	352.0153
5	0.317	355.3786
6	0.32	358.7419
7	0.323	362.1052
8	0.326	365.4684
9	0.329	368.8317
10	0.333	373.3161
11	0.336	376.6794
12	0.34	381.1638
13	0.343	384.5271
14	0.346	387.8904
15	0.349	391.2537
16	0.351	393.4959

IF

Castle

1	0.073	81.83893
2	0.074	82.96048
3	0.08	89.69
4	0.089	99.77912
5	0.1	112.11
6	0.111	124.4413
7	0.122	136.7724
8	0.132	147.9824
9	0.144	161.4342
10	0.153	171.5235
11	0.162	181.6141
12	0.172	192.826
13	0.183	205.1592
14	0.191	214.129
15	0.202	226.4621
16	0.206	230.9462

FF

1	0.253	283.6338
2	0.262	293.7228
3	0.265	297.0858
4	0.268	300.4487
5	0.272	304.9327
6	0.275	308.2956
7	0.278	311.6586
8	0.283	317.2635
9	0.285	319.5054
10	0.288	322.8684
11	0.291	326.2313
12	0.294	329.5942
13	0.297	332.9571
14	0.3	336.32
15	0.303	339.6833
16	0.305	341.9255

VST 1
13308