15-065-22802 TRILOBITE TESTING L.L.C. 23-8s-23w

OPERATOR : Reilly Oil Company, Inc. DATE 12-5-00
WELL NAME: Justus #1 KB 2158.00 ft TICKET NO: 13920 DST #1
LOCATION : 23-8s-23w Graham co KS GR 2153.00 ft FORMATION: Toronto, LKC
INTERVAL : 3413.00 To 3478.00 ft TD 3478.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins			Field	1	2	3	4
PF	30	Rec.	11085	11085			
SI	30	Range(Psi)	4300.0	4300.0	0.0	0.0	0.0
SF	30	Clock(hrs)	12	12			
FS	30	Depth(ft)	3478.0	3478.0	0.0	0.0	0.0

TIME DATA----------
PF Fr. 1340 to 1410 hr
IS Fr. 1410 to 1440 hr
SF Fr. 1440 to 1510 hr
FS Fr. 1510 to 1540 hr

	Field	1	2	3	4
A. Init Hydro	1679.0	1712.0	0.0	0.0	0.0
B. First Flow	99.0	139.0	0.0	0.0	0.0
B1. Final Flow	407.0	398.0	0.0	0.0	0.0
C. In Shut-in	897.0	890.0	0.0	0.0	0.0
D. Init Flow	451.0	443.0	0.0	0.0	0.0
E. Final Flow	528.0	542.0	0.0	0.0	0.0
F. Fl Shut-in	865.0	856.0	0.0	0.0	0.0
G. Final Hydro	1668.0	1691.0	0.0	0.0	0.0
Inside/Outside	I	I			

T STARTED 1108 hr
T ON BOTM 1335 hr
T OPEN 1340 hr
T PULLED 1540 hr
T OUT 2015 hr

RECOVERY
Tot Fluid 1440.00 ft of 747.00 ft in DC and 693.00 ft in DP
70.00 ft of Muddy gassy oil
0.00 ft of 5% gas 60% oil 35% mud
300.00 ft of Slightly muddy gassy oil
0.00 ft of 5% gas 89% oil 6% mud
1070.00 ft of Clean oil
0.00 ft of 100% oil
0.00 ft of
0.00 ft of
SALINITY 0.00 P.P.M. A.P.I. Gravity 30.00

BLOW DESCRIPTION
Initial Flow:
Strong blow in 2 minutes.
Initial Shut-In:
No blow.
Final Flow:
Strong blow in 4 minutes.
Final Shut-in:
No blow.

SAMPLES:
SENT TO:

Test Successful: Y

TOOL DATA----------

Tool Wt.	2200.00 lbs
Wt Set On Packer	20000.00 lbs
Wt Pulled Loose	45000.00 lbs
Initial Str Wt	32000.00 lbs
Unseated Str Wt	37000.00 lbs
Bot Choke	0.75 in
Hole Size	7.78 in
D Col. ID	0.00 in
D. Pipe ID	3.80 in
D.C. Length	0.00 ft
D.P. Length	2675.00 ft
H.W. I.D	2.70 in
H.W. Length	747.00 ft

MUD DATA----------

Mud Type	Chemical
Weight	9.30 lb/c
Vis.	41.00 S/L
W.L.	10.00 in3
F.C.	0.00 in
Mud Drop	
Amt. of fill	0.00 ft
Btm. H. Temp.	112.00 F
Hole Condition	
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out	
Tool Chased	
Tester	Ray Schwager
Co. Rep.	Kitt Noah
Contr.	A & A Drilling
Rig #	1
Unit #	
Pump T.	

CALCULATED RECOVERY ANALYSIS

DST 1 TICKET 13920

SAMPLE #		TOTAL FEET	GAS %	GAS FEET	OIL %	OIL FEET	WATER %	WATER FEET	MUD %	MUD FEET
DRILL	1	230	100	230	0	0	0	0	0	0
PIPE	2	70	5	3.5	60	42	0	0	35	24.5
	3	300	5	15	89	267	0	0	6	18
	4	323	0	0	100	323	0	0	0	0
	5	0	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0	0
WEIGHT	1	747	0	0	100	747	0	0	0	0
PIPE	2	0	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	0	0	0	0
DRILL	1	0	0	0	0	0	0	0	0	0
COLLARS	2	0	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	0	0	0	0
TOTAL		1670	0	248.5	0	1379	0	0	0	42.5

			HRS OPEN		BBL/DAY
BBL OIL=	14.21604	*	1	=	341.18496
BBL WATER=	0	*		=	0
BBL MUD=	0.60435				
BBL GAS =	3.53367				

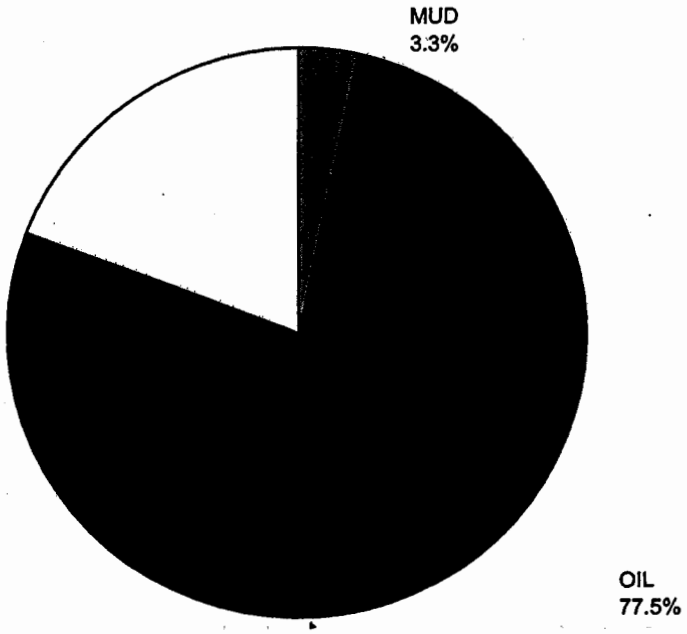
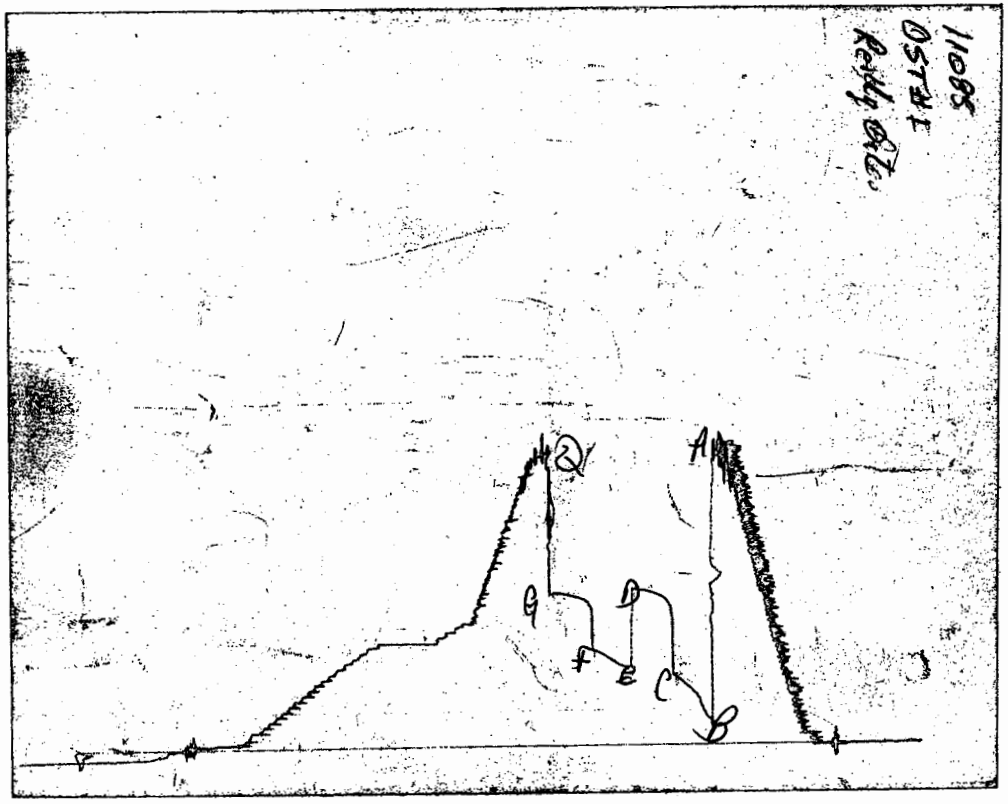


CHART PAGE



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

TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601 Nº 13920

Test Ticket

Well Name & No. Justus #1 Test No. 1 Date 12-5-00

Company Reilly Oil Company, Inc. Zone Tested Toronto, LKC

Address P.O. Box 1200 Lawrence, Ks 66044 Elevation 2158 KB 2153 GL

Co. Rep / Geo. Kitt Noah Cont. A+A Drlg Est. Ft. of Pay — Por. — %

Location: Sec. 23 Twp. 8S Rge. 23W Co. Graham State Ks

No. of Copies Reg Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested ~~3355-3420~~ 3413-3478 Initial Str Wt./Lbs. 32000 Unseated Str Wt./Lbs. 37000

Anchor Length 65 Wt. Set Lbs. 20000 Wt. Pulled Loose/Lbs. 45000

Top Packer Depth ~~3350~~ 3408 Tool Weight 2200

Bottom Packer Depth ~~3355~~ 3413 Hole Size — 7 7/8" yes Rubber Size — 6 3/4" yes

Total Depth 3478 Wt. Pipe Run 747 Drill Collar Run —

Mud Wt. 9.3 LCM - Vis. 41 WL 10 Drill Pipe Size 4½FH Ft. Run 2675

Blow Description IFP - Strong Blow in 2 min
FFP - Strong Blow in 4 min
No Blow on Shut-in

Recovery — Total Feet 1440 GIP 230 Ft. in ~~DC~~ 747 Ft. in DP 693

Rec. 70	Feet Of MGO	5 %gas	60 %oil	%water 35	%mud		
Rec. 300	Feet Of SMGO	5 %gas	89 %oil	%water 6	%mud		
Rec. 1070	Feet Of Clean Oil	%gas	%oil	%water	%mud		
Rec.	Feet Of	%gas	%oil	%water	%mud		
Rec.	Feet Of	%gas	%oil	%water	%mud		

BHT 112 °F Gravity 30 °API D@ 60 °F Corrected Gravity 30 °API

RW — @ — °F Chlorides — ppm Recovery Chlorides 1000 ppm System

	AK-1	Alpine				
(A) Initial Hydrostatic Mud	1679	~~1882~~	PSI	Recorder No. 3027	T-On Location	0900
(B) First Initial Flow Pressure	99	~~30~~	PSI	(depth) ~~3356~~ 3414	T-Started	1108
(C) First Final Flow Pressure	407	~~185~~	PSI	Recorder No. 11085	T-Open	1340
(D) Initial Shut-In Pressure	897	~~1142~~	PSI	(depth) ~~3447~~ 3478	T-Pulled	1540
(E) Second Initial Flow Pressure	451	~~191~~	PSI	Recorder No. —	T-Out	2015
(F) Second Final Flow Pressure	528	~~254~~	PSI	(depth) —	T-Off Location	2120
(G) Final Shut-in Pressure	865	~~1120~~	PSI	Initial Opening 30	Test	700
(Q) Final Hydrostatic Mud	1668	~~1847~~	PSI	Initial Shut-in 30	Jars	
				Final Flow 30	Safety Joint	
				Final Shut-in 30	Straddle	
					Circ. Sub	
					Sampler	
					Extra Packer	
					Elec. Rec.	150
					Mileage	60 60
					Other	3hr 90
					TOTAL PRICE $	1000

10:15

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 Kitt Noah

Our Representative Ray Schwager Thank you

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

Reilly Oil Company I

PO Box 1200
Lawrence, Ks 66044

ATTN: Larry Billings

Justus #1

23-8s-23w Graham KS

Job Ticket: 13921 **DST#: 2**

Test Start: 2000.12.06 @ 03:38:00

GENERAL INFORMATION:

Formation: **LKC-E zone**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:43:39
Time Test Ended: 09:40:00

Test Type: Conventional Bottom Hole
Tester: Ray Schwager
Unit No: 16

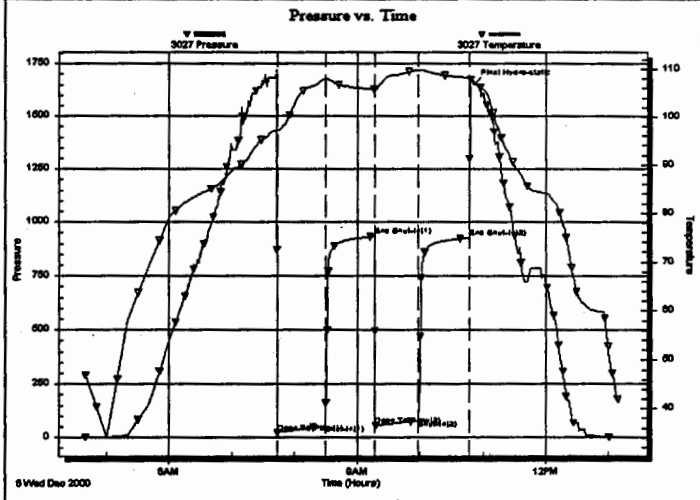
Interval: 3473.00 ft (KB) To 3487.00 ft (KB) (TVD)
Total Depth: 3487.00 ft (KB)
Hole Diameter: 7.85 inches Hole Condition: Poor

Reference Elevations: 2158.00 ft (KB)
2153.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 3027 Inside
Press@RunDepth: 78.55 psig @ 3474.01 ft (KB)
Start Date: 2000.12.06 End Date: 2000.12.06
Start Time: 04:39:44 End Time: 13:11:08

Capacity: 7000.00 psig
Last Calib.: 2000.12.06
Time On Btm:
Time Off Btm: 2000.12.06 @ 10:51:38

TEST COMMENT: times 45-45-45-45- RW .12@50F IFP-weak bl 1/4"to3/4"bl
FFP-weak bl 1/4"bl



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
184	20.73	97.27	Open To Flow (1)
230	53.36	108.02	Shut-In(1)
277	932.87	105.78	End Shut-In(1)
278	55.14	105.83	Open To Flow (2)
319	78.55	109.82	Shut-In(2)
367	926.20	108.25	End Shut-In(2)
372	1653.25	107.45	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
65.00	OCM 15%oil 85%mud	0.46
60.00	SOCMW 1%oil 5%mud 94%mud	0.42

Gas Rates

	Choke(inches)	Pressure (psig)	Gas Rate (Mcf/d)

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Reilly Oil Company I

PO Box 1200
Law rence, Ks 66044

ATTN: Larry Billings

Justus #1

23-8s-23w Graham KS

Job Ticket: 13921 **DST#: 2**

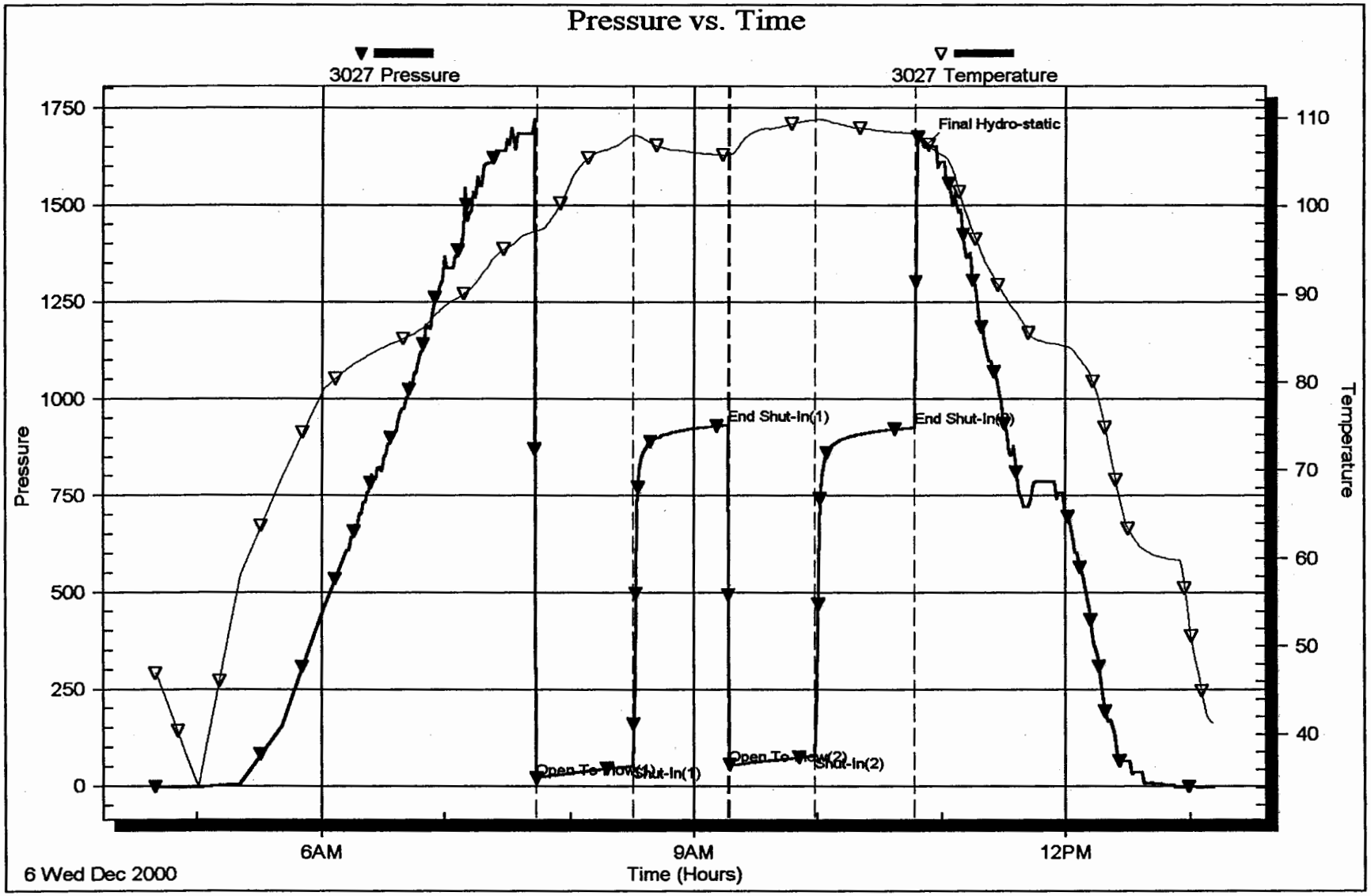
Test Start: 2000.12.06 @ 03:38:00

Tool Information

Drill Pipe:	Length:	2735.00 ft	Diameter:	3.80 inches	Volume:	38.36 bbl	Tool Weight:		2200.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		20000.00 lb
Heavy Wt. Pipe:	Length:	747.00 ft	Diameter:	2.70 inches	Volume:	5.29 bbl	Weight to Pull Loose:		35000.00 lb
Drill Pipe Above KB:		29.00 ft					Tool Chased		0.00 ft
Depth to Top Packer:		3468.00 ft					String Weight:	Initial	33000.00 lb
Depth to Bottom Packer:		ft						Final	33000.00 lb
Interval betw een Packers:		ft							
Tool Length:		34.02 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
S.I. Tool	5.00			3458.00		
HYD S.I. Tool	5.00			3463.00		
Packer	5.00			3468.00	15.00	Bottom Of Top Packer
Packer	5.00			3473.00		
Stubb	1.00			3474.00		
Recorder	0.01	3027	Inside	3474.01		
Perforations	10.00			3484.01		
Recorder	0.01	11085	Outside	3484.02		
Bullnose	3.00			3487.02	19.02	Bottom Packers & Anchor
Total Tool Length:	**34.02**					


Pressure vs. Time
3027 Pressure
3027 Temperature
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure
Temperature
1750
1500
1250
1000
750
500
250
0
110
100
90
80
70
60
50
40
6AM
9AM
12PM
6 Wed Dec 2000
Time (Hours)

TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601 Nº 13921

Test Ticket

Well Name & No. Justus #1 Test No. 2 Date 12-6-00

Company Reilly Oil Company Inc Zone Tested LKC - E zone

Address P.O. Box 1200 Lawrence, Ks 66044 Elevation 2158 KB 2153 GL

Co. Rep / Geo. Kitt Noah Cont. A+A Drlg Est. Ft. of Pay — Por. — %

Location: Sec. 23 Twp. 8s Rge. 23w Co. Graham State Ks

No. of Copies Reg Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 3473-3487 Initial Str Wt./Lbs. 33000 Unseated Str Wt./Lbs. 33000

Anchor Length 14 Wt. Set Lbs. 20000 Wt. Pulled Loose/Lbs. 35000

Top Packer Depth 3468 Tool Weight 2200

Bottom Packer Depth 3473 Hole Size — 7 7/8" yes Rubber Size — 6 3/4" yes

Total Depth 3487 Wt. Pipe Run 747 Drill Collar Run —

Mud Wt. 9.2 LCM TR Vis. 42 WL 8.4 Drill Pipe Size 4½ FH Ft. Run 2735

Blow Description IFP - Weak Blow Throughout ¼" To ¾" Blow

FFP - Weak Blow Throughout ¼" Blow

Recovery — Total Feet 125 GIP — Ft. in WP DC 125 Ft. in DP —

Rec. 65 Feet Of OCM %gas 15 %oil %water 85 %mud

Rec. 60 Feet Of SOCMW %gas 1 %oil 94 %water 5 %mud

Rec. _____ Feet Of _____ %gas %oil %water %mud

Rec. _____ Feet Of _____ %gas %oil %water %mud

Rec. _____ Feet Of _____ %gas %oil %water %mud

BHT 106 °F Gravity — °API D@ — °F Corrected Gravity — °API

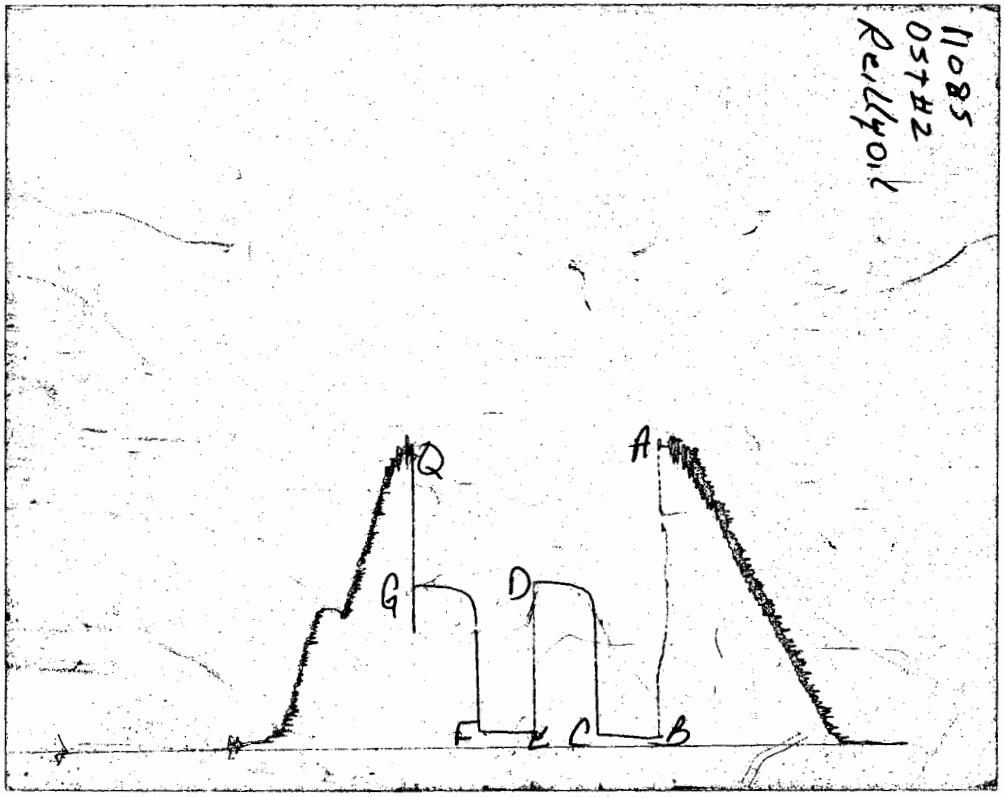
RW .12 @ 50 °F Chlorides 92000 ppm Recovery Chlorides 1400 ppm System

	AK-1	Alpine				
(A) Initial Hydrostatic Mud	1712		PSI	Recorder No.	3027	T-On Location 0245
(B) First Initial Flow Pressure	55		PSI	(depth)	3474	T-Started 0338
(C) First Final Flow Pressure	66		PSI	Recorder No.	11085	T-Open 0640 (9.45)
(D) Initial Shut-In Pressure	930		PSI	(depth)	3484	T-Pulled 0940
(E) Second Initial Flow Pressure	88		PSI	Recorder No.	—	T-Out 1200
(F) Second Final Flow Pressure	88		PSI	(depth)	—	T-Off Location 1220
(G) Final Shut-in Pressure	908		PSI	Initial Opening	45	Test ✓ 700
(Q) Final Hydrostatic Mud	1701		PSI	Initial Shut-in	45	Jars _____
				Final Flow	45	Safety Joint _____
				Final Shut-in	45	Straddle _____
						Circ. Sub _____
						Sampler _____
						Extra Packer _____
						Elec. Rec. ✓ 150
						Mileage _____
						Other 2hr Led
						TOTAL PRICE $ ✓ 910

Approved By Kitt Noah

Our Representative Ray Schwager Thank You

CHART PAGE



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

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

Reilly Oil Company I

PO Box 1200
Law rence, Ks 66044

ATTN: Larry Billings

Justus #1

23-8s-23w Graham KS

Job Ticket: 13922 **DST#: 3**

Test Start: 2000.12.07 @ 01:27:00

GENERAL INFORMATION:

Formation: **LKC-H&I**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:16:42
Time Test Ended: 06:30:00

Test Type: Conventional Bottom Hole
Tester: Ray Schw ager
Unit No: 16

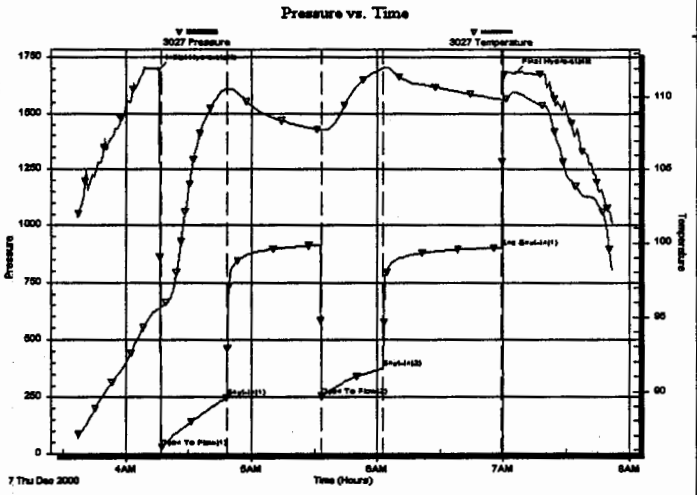
Interval: 3517.00 ft (KB) To 3565.00 ft (KB) (TVD)
Total Depth: 3478.00 ft (KB)
Hole Diameter: 7.85 inches Hole Condition: Fair

Reference Elevations: 2158.00 ft (KB)
2153.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 3027 Inside
Press@RunDepth: 249.28 psig @ 3518.01 ft (KB)
Start Date: 2000.12.07 End Date: 2000.12.07
Start Time: 03:36:42 End Time: 07:51:42

Capacity: 7000.00 psig
Last Calib.: 2000.12.07
Time On Btm: 2000.12.07 @ 04:15:42
Time Off Btm: 2000.12.07 @ 07:05:42

TEST COMMENT: times 30-45-30-45,had a slight blow back on shut-in IFP-strong blow in 10min
FFP-w eak to fair 1/2"to4"bl



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
39	1696.35	95.52	Initial Hydro-static
41	22.95	95.66	Open To Flow (1)
72	249.28	110.52	Shut-In(1)
117	252.43	107.75	Open To Flow (2)
146	374.99	111.98	Shut-In(2)
202	902.49	109.84	End Shut-In(1)
209	1680.43	110.35	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	CO	0.04
120.00	MGO 5%oil 65%oil 25%mud	0.85
310.00	OCMW 8%oil 67%water 25%mud	2.20
124.00	SOCMW 3%oil 87%water 10%mud	0.88
186.00	SOCW 3%oil 97%water RW .16@50F	1.32

Gas Rates

	Choke(inches)	Pressure (psig)	Gas Rate (Mcf/d)

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Reilly Oil Company I

PO Box 1200
Law rence, Ks 66044

ATTN: Larry Billings

Justus #1

23-8s-23w Graham KS

Job Ticket: 13922 **DST#: 3**

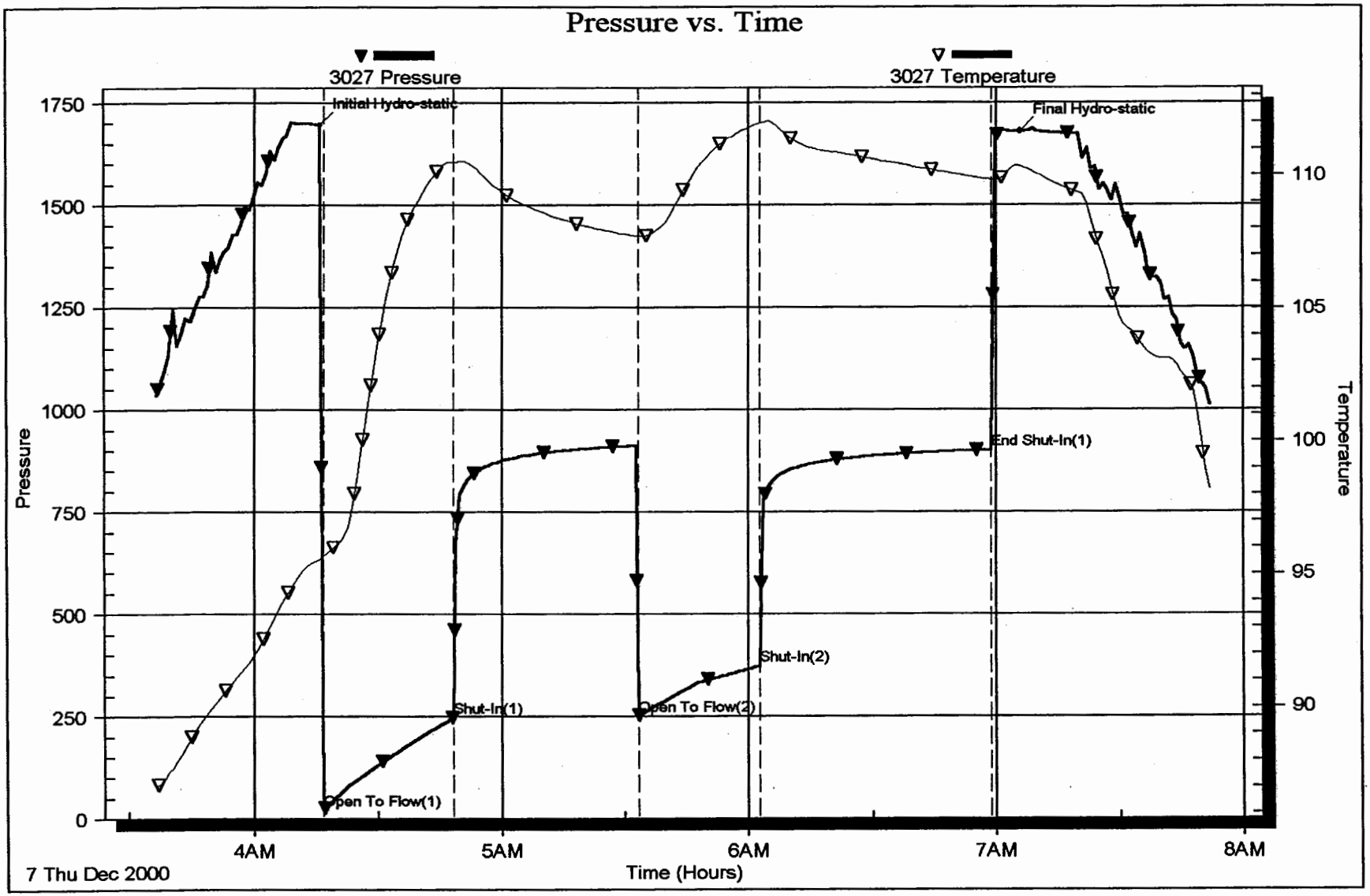
Test Start: 2000.12.07 @ 01:27:00

Tool Information

Drill Pipe:	Length:	2767.00 ft	Diameter:	3.80 inches	Volume:	38.81 bbl	Tool Weight:		2200.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		20000.00 lb
Heavy Wt. Pipe:	Length:	747.00 ft	Diameter:	2.70 inches	Volume:	5.29 bbl	Weight to Pull Loose:		45000.00 lb
Drill Pipe Above KB:		17.00 ft					Tool Chased		0.00 ft
Depth to Top Packer:		3512.00 ft					String Weight:	Initial	33000.00 lb
Depth to Bottom Packer:		ft						Final	38000.00 lb
Interval betw een Packers:		ft							
Tool Length:		68.02 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
S.I. Tool	5.00			3502.00		
HYD S.I. Tool	5.00			3507.00		
Packer	5.00			3512.00	15.00	Bottom Of Top Packer
Packer	5.00			3517.00		
Stubb	1.00			3518.00		
Recorder	0.01	3027	Inside	3518.01		
Perforations	1.00			3519.01		
Blank Spacing	31.00			3550.01		
Perforations	12.00			3562.01		
Recorder	0.01	11085	Outside	3562.02		
Bullnose	3.00			3565.02	53.02	Bottom Packers & Anchor
Total Tool Length:	**68.02**					


Pressure vs. Time
3027 Pressure
3027 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
Shut-In(2)
Shut-In(1)
Open To Flow(1)
Open To Flow(2)
Pressure
Temperature
Time (Hours)
7 Thu Dec 2000
1750
1500
1250
1000
750
500
250
0
110
105
100
95
90
4AM
5AM
6AM
7AM
8AM

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601 Nº 13922

Test Ticket

Well Name & No. Justus #1 Test No. 3 Date 12-7-00

Company Reilly Oil Company, Inc Zone Tested LKC - H+I

Address P.O. Box 1200 Lawrence, Ks 66044 Elevation 2158 KB 2153 GL

Co. Rep / Geo. KITT Noah Cont. A+A Drlg Est. Ft. of Pay — Por. — %

Location: Sec. 23 Twp. 8S Rge. 23W Co. Graham State Ks

No. of Copies Reg Distribution Sheet (Y, N) — Turnkey (Y, N) — Evaluation (Y, N) —

Interval Tested 3517-3565 Initial Str Wt./Lbs. 33000 Unseated Str Wt./Lbs. 38000

Anchor Length 48 Wt. Set Lbs. 20000 Wt. Pulled Loose/Lbs. 42000

Top Packer Depth 3512 Tool Weight 2200

Bottom Packer Depth 3517 Hole Size — 7 7/8" yes Rubber Size — 6 3/4" yes

Total Depth 3565 Wt. Pipe Run 747 Drill Collar Run —

Mud Wt. 9.2 LCM Tr. Vis. 48 WL 8 Drill Pipe Size 4½FH Ft. Run 2767

Blow Description IFP - Weak to a strong blow in 10 min

FFP - Weak to a fair blow ½" to 4" blow

had a slight blowback on shut-in

Recovery — Total Feet 745 GIP — Ft. in DC 745 Ft. in DP —

Rec. 5	Feet Of Clean Oil	%gas	%oil	%water	%mud
Rec. 310	Feet Of OCMW	%gas	8 %oil	67 %water	25 %mud
Rec. 120	Feet Of MGO	5 %gas	65 %oil	%water	30 %mud
Rec. 124	Feet Of SOCMW	%gas	3 %oil	87 %water	10 %mud
Rec. 186	Feet Of SOCW	%gas	3 %oil	97 %water	%mud

BHT — °F Gravity — °API D@ — °F Corrected Gravity — °API

RW .16 @ 50 °F Chlorides 70000 ppm Recovery Chlorides 1400 ppm System

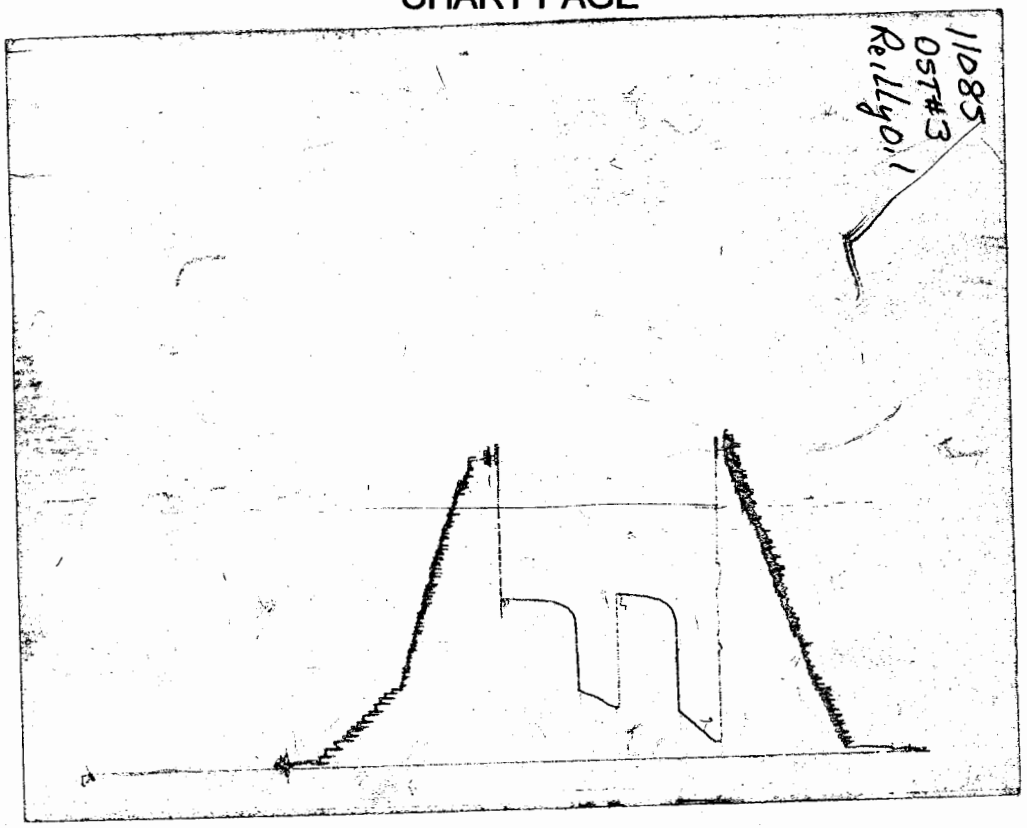
	AK-1	Alpine				
(A) Initial Hydrostatic Mud	1722		PSI	Recorder No.	3027	T-On Location 0030
(B) First Initial Flow Pressure	77		PSI	(depth)	3518	T-Started 0127
(C) First Final Flow Pressure	264		PSI	Recorder No.	11085	T-Open 0400
(D) Initial Shut-In Pressure	930		PSI	(depth)	3562	T-Pulled 0630
(E) Second Initial Flow Pressure	286		PSI	Recorder No.	—	T-Out 0945
(F) Second Final Flow Pressure	407		PSI	(depth)	—	T-Off Location
(G) Final Shut-in Pressure	908		PSI	Initial Opening	30	Test ✓ 700
(Q) Final Hydrostatic Mud	1712		PSI	Initial Shut-in	45	Jars
				Final Flow	30	Safety Joint
				Final Shut-in	45	Straddle
						Circ. Sub
						Sampler
						Extra Packer
						Elec. Rec. ✓ 150
						Mileage
						Other 1hr 30
						TOTAL PRICE $ ✓ 880

9.15

Approved By Kitt Noah

Our Representative Ray Schwager Thank you

CHART PAGE



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

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

Reilly Oil Company I

PO Box 1200
Law rence, Ks 66044

ATTN: Larry Billings

Justus #1

23-8s-23w Graham KS

Job Ticket: 13923 **DST#: 4**

Test Start: 2000.12.07 @ 19:25:00

GENERAL INFORMATION:

Formation: **LKC-J&K**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 21:30:47
Time Test Ended: 23:37:00

Test Type: Conventional Bottom Hole
Tester: Ray Schw ager
Unit No: 16

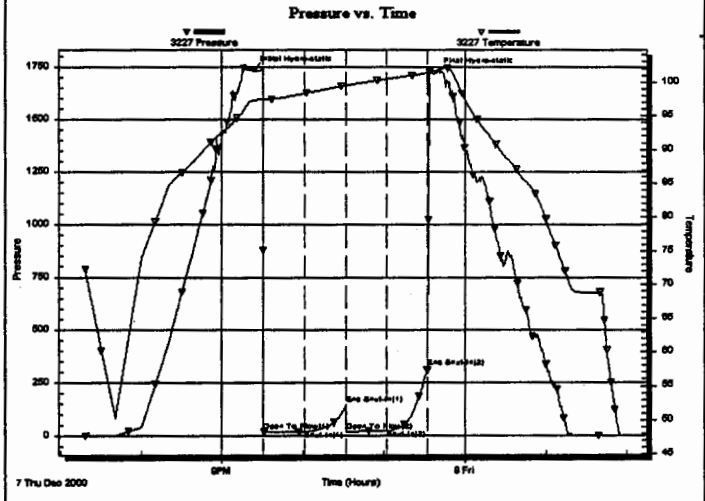
Interval: 3563.00 ft (KB) To 3600.00 ft (KB) (TVD)
Total Depth: 3600.00 ft (KB)
Hole Diameter: 7.85 inches Hole Condition: Fair

Reference Elevations: 2158.00 ft (KB)
2153.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 3227 Inside
Press@RunDepth: 22.71 psig @ 3568.01 ft (KB)
Start Date: 2000.12.07 End Date: 2000.12.08
Start Time: 19:18:22 End Time: 01:54:16

Capacity: 7000.00 psig
Last Calib.: 2000.12.08
Time On Btm: 2000.12.07 @ 21:23:17
Time Off Btm: 2000.12.07 @ 23:39:16

TEST COMMENT: times 30-30-30-30 IFP-w eak bl died in 6 min
FFP-no bl flushed tool



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
125	1733.15	97.25	Initial Hydro-static
133	16.92	97.35	Open To Flow (1)
163	18.77	98.32	Shut-In(1)
194	143.27	99.49	End Shut-In(1)
194	19.36	99.50	Open To Flow (2)
224	22.71	100.47	Shut-In(2)
254	316.41	101.34	End Shut-In(2)
261	1723.84	101.74	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud	0.04

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Reilly Oil Company I

PO Box 1200
Lawrence, Ks 66044

ATTN: Larry Billings

Justus #1

23-8s-23w Graham KS

Job Ticket: 13923 **DST#: 4**

Test Start: 2000.12.07 @ 19:25:00

Tool Information

Drill Pipe:	Length:	2819.00 ft	Diameter:	3.80 inches	Volume:	39.54 bbl	Tool Weight:		2200.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		20000.00 lb
Heavy Wt. Pipe:	Length:	747.00 ft	Diameter:	2.70 inches	Volume:	5.29 bbl	Weight to Pull Loose:		40000.00 lb
Drill Pipe Above KB:		23.00 ft					Tool Chased		0.00 ft
Depth to Top Packer:		3558.00 ft					String Weight:	Initial	35000.00 lb
Depth to Bottom Packer:		ft						Final	35000.00 lb
Interval betw een Packers:		ft							
Tool Length:		57.02 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
S.I. Tool	5.00			3548.00		
HYD S.I. Tool	5.00			3553.00		
Packer	5.00			3558.00	15.00	Bottom Of Top Packer
Packer	5.00			3563.00		
Stubb	1.00			3564.00		
Perforations	4.00			3568.00		
Recorder	0.01	3227	Inside	3568.01		
Perforations	29.00			3597.01		
Recorder	0.01	11085	Outside	3597.02		
Bullnose	3.00			3600.02	42.02	Bottom Packers & Anchor
Total Tool Length:	**57.02**					

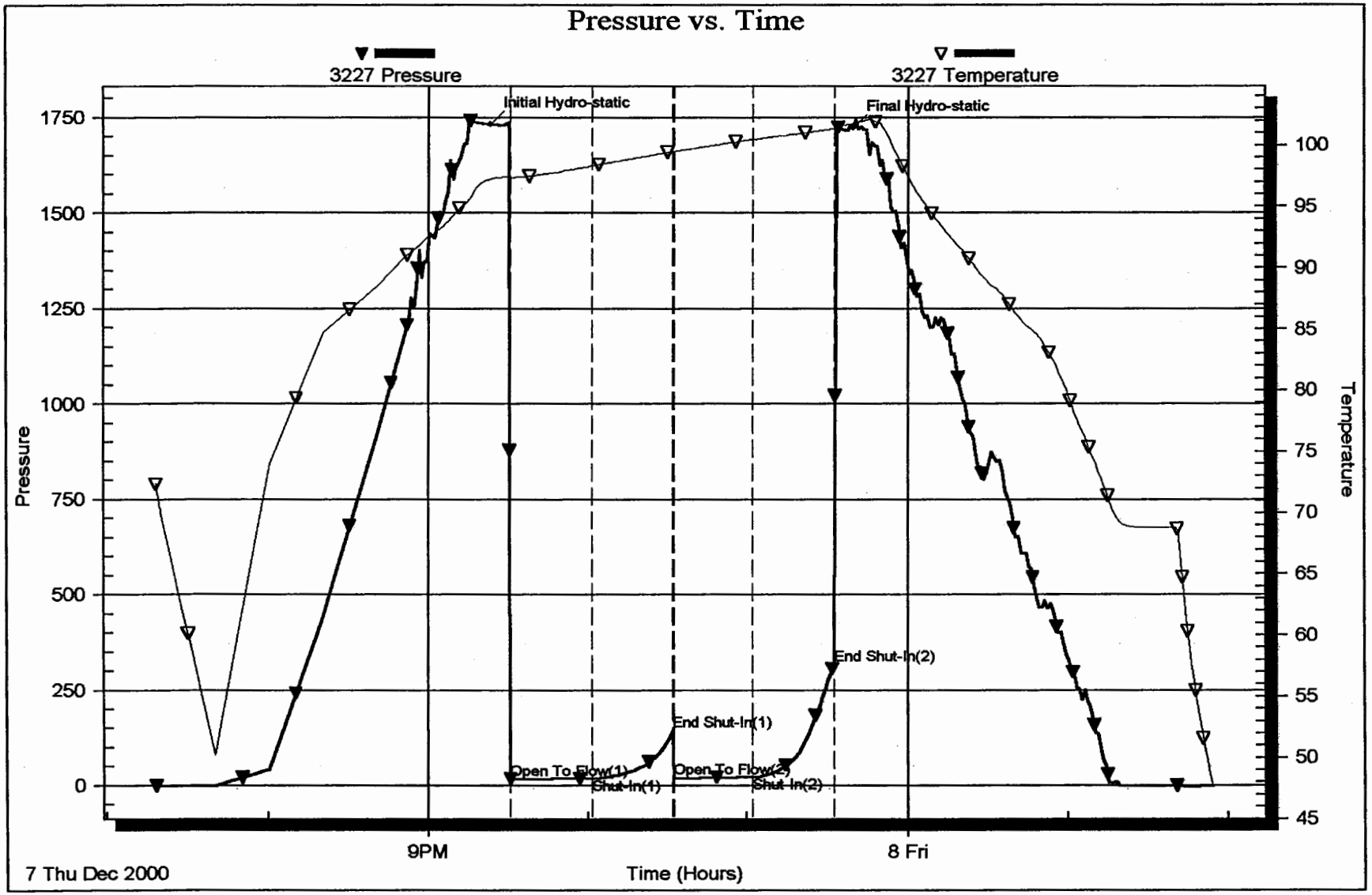
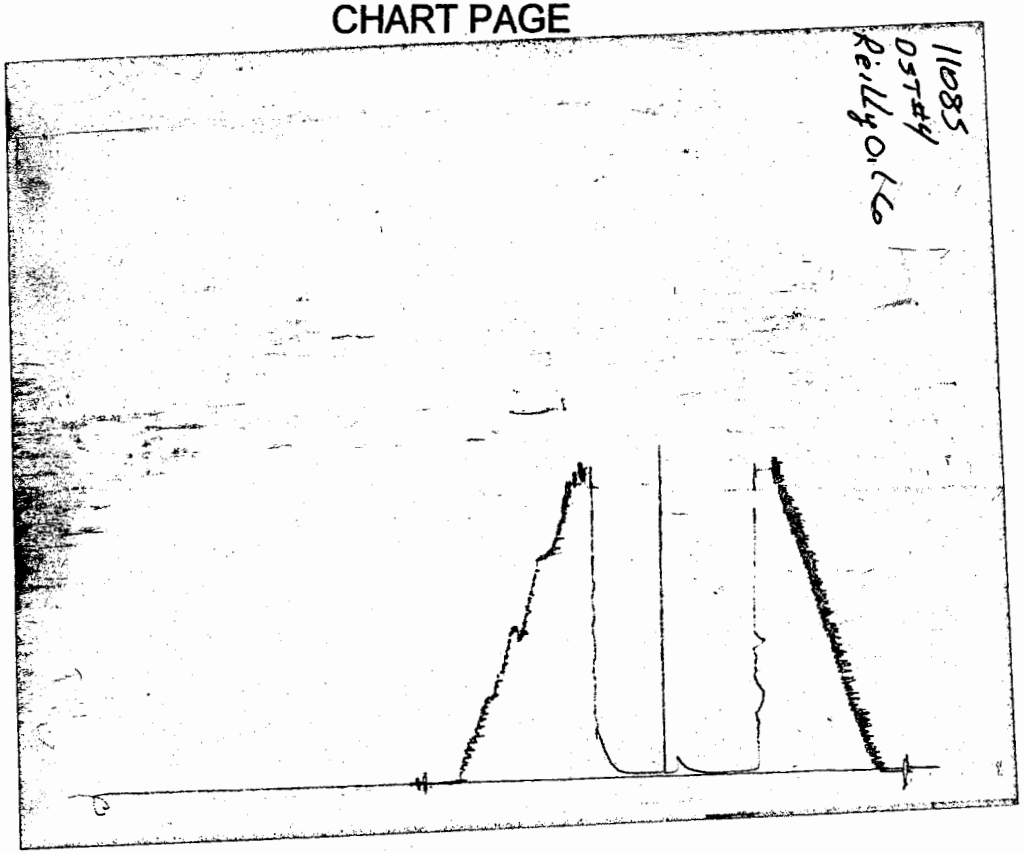

Pressure vs. Time
3227 Pressure
3227 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(2)
End Shut-In(1)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure
Temperature
1750
1500
1250
1000
750
500
250
0
100
95
90
85
80
75
70
65
60
55
50
45
9PM
8 Fri
7 Thu Dec 2000
Time (Hours)

CHART PAGE



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

TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601 Nº 13923

Test Ticket

Well Name & No. Justus #1 Test No. 4 Date 12-7-00

Company Reilly Oil Company, Inc Zone Tested LKC - J+K

Address PO Box 1200 Lawrence, Ks 66044 Elevation 2158 KB 2153 GL

Co. Rep / Geo. Kitt Noah Cont. A+A Drlg Est. Ft. of Pay - Por. - %

Location: Sec. 23 Twp. 8S Rge. 23W Co. Graham State Ks

No. of Copies Req Distribution Sheet (Y, N) - Turnkey (Y, N) - Evaluation (Y, N) -

Interval Tested 3563-3600 Initial Str Wt./Lbs. 35000 Unseated Str Wt./Lbs. 35000

Anchor Length 37 Wt. Set Lbs. 20000 Wt. Pulled Loose/Lbs. 40000

Top Packer Depth 3558 Tool Weight 2200

Bottom Packer Depth 3563 Hole Size — 7 7/8" yes Rubber Size — 6 3/4" yes

Total Depth 3600 Wt. Pipe Run 747 Drill Collar Run -

Mud Wt. 9.2 LCM Tr Vis. 44 WL 8 Drill Pipe Size 4½FH Ft. Run 2819

Blow Description IFP- Very Weak Blow died in 6 min

FFP- NO Blow Flushed Tool

Recovery — Total Feet 5 GIP - Ft. in BC WP 5 Ft. in DP -

Rec. 5	Feet Of Mud	%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
Rec.	Feet Of	%gas	%oil	%water	%mud

BHT 101 °F Gravity - °API D@ - °F Corrected Gravity - °API

RW - @ - °F Chlorides - ppm Recovery Chlorides 1400 ppm System

	AK-1	Alpine				
(A) Initial Hydrostatic Mud		1733	PSI	Recorder No.	3227	T-On Location 1900
(B) First Initial Flow Pressure		16	PSI	(depth)	3569	T-Started 1925
(C) First Final Flow Pressure		18	PSI	Recorder No.	11085	T-Open 2137
(D) Initial Shut-In Pressure		143	PSI	(depth)	3597	T-Pulled 2337
(E) Second Initial Flow Pressure		19	PSI	Recorder No.	-	T-Out 0200
(F) Second Final Flow Pressure		22	PSI	(depth)	-	T-Off Location 0230
(G) Final Shut-in Pressure		316	PSI	Initial Opening	30	Test ✓ 700
(Q) Final Hydrostatic Mud		1723	PSI	Initial Shut-in	30	Jars
				Final Flow	30	Safety Joint
				Final Shut-in	30	Straddle
						Circ. Sub
						Sampler
						Extra Packer
						Elec. Rec. ✓ 150
						Mileage
						Other
						TOTAL PRICE $ ✓ 850

Approved By Kitt Noah

Our Representative Ray Schwager Thank you