

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name SHRIWISE 'R' #1 Test No. 1 Date 1/27/95
Company RAYDON EXPLORATION INC Zone MISSISSIPPI
Address 9400 N BROADWAY OKLAHOMA CITY OK 73114 Elevation 2476
Co. Rep./Geo. TOM WILLIAMS Cont. DUKE #2 Est. Ft. of Pay 15
Location: Sec. 8 Twp. 22S Rge. 24W Co. HODGEMAN State KS

Interval Tested 4657-4685 Drill Pipe Size 4.5" XH
Anchor Length 28 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 4652 Drill Collar - 2.25 Ft. Run 30
Bottom Packer Depth 4657 Mud Wt. 9.1 lb/Gal.
Total Depth 4685 Viscosity 45 Filtrate 8.4

Tool Open @ 1:47AM Initial Blow WEAK - BUILDING TO 3"

Final Blow WEAK - BUILDING TO 4"

Recovery - Total Feet 90 Flush Tool? NO

Rec. 90 Feet of GAS IN PIPE
Rec. 30 Feet of MUD CUT OIL 60%OIL/40%MUD
Rec. 60 Feet of OIL CUT MUD 40%OIL/60%MUD
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 118 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 3000 ppm System

(A) Initial Hydrostatic Mud 2345.60 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 39.40 PSI @ (depth) 4661 w / Clock No. 25810

(C) First Final Flow Pressure 32.50 PSI AK1 Recorder No. 13849 Range 4375

(D) Initial Shut-in Pressure 1245.00 PSI @ (depth) 4681 w / Clock No. 27501

(E) Second Initial Flow Pressure 49.20 PSI AK1 Recorder No. _____ Range _____

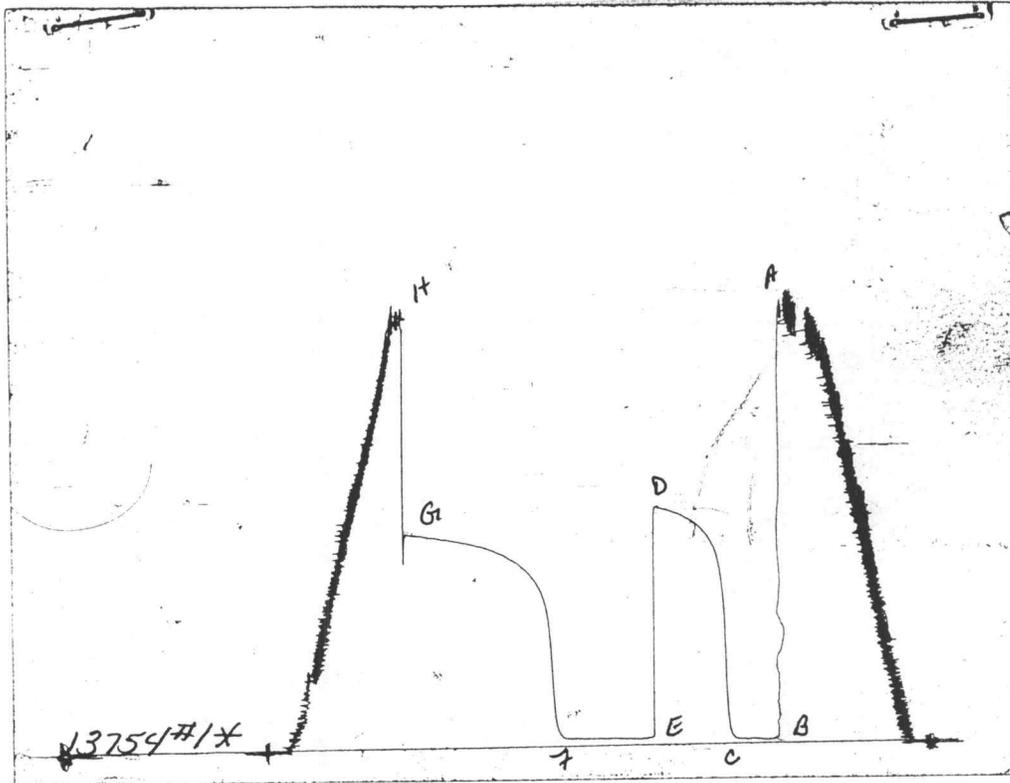
(F) Second Final Flow Pressure 38.40 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 1118.00 PSI Initial Opening 30 Final Flow 60

(H) Final Hydrostatic Mud 2291.60 PSI Initial Shut-in 60 Final Shut-in 120

Our Representative DAN BANGLE

CHART PAGE



This is an actual photograph of an AK1 recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2340	2345.60
(B) FIRST INITIAL FLOW PRESSURE	39	39.40
(C) FIRST FINAL FLOW PRESSURE	39	32.50
(D) INITIAL CLOSED-IN PRESSURE	1236	1245.00
(E) SECOND INITIAL FLOW PRESSURE	49	49.20
(F) SECOND FINAL FLOW PRESSURE	49	38.40
(G) FINAL CLOSED-IN PRESSURE	1116	1118.00
(H) FINAL HYDROSTATIC MUD	2289	2291.60

COMPUTER OIL EVALUATION BY TRILOBITE TESTING, L.L.C.

RAYDON EXPLORATION INC

SHRIWISE 'R' #1	DST 1
8 22S 24W	HODGEMA KS

ELEVATION:	2476	KB	EST. PAY	15 FT
DATUM:	-2186		ZONE TESTED:	MISSISSIPPI
TEST INTERVAL:	4657-4685		TIME INTERVALS:	30-60-60-120
RECORDER DEPTH:	4661		VISCOSITY:	9.95 CP
BOTTOM HOLE TEMP:	118		HOLE SIZE:	7.875 IN

CUBIC FEET OF GAS IN PIPE:	7		
TOTAL FEET OF RECOVERY:	90.00	CORRECTED PIPE FILLUP:	102.400
TOTAL BARRELS OF RECOVERY:	1.00	CORR. BARRELS OF RECOVERY:	1.176 BBL
BARRELS IN DRILL PIPE:	0.85	API GRAVITY:	32
BARRELS IN WEIGHT PIPE:	0.00	FLUID GRADIENT:	0.375
BARRELS IN DRILL COLLARS:	0.15		
GAS OIL RATIO:	7.19	CU.FT/BBL	
BUBBLE POINT PRESSURE:	74		
UNCORRECTED INITIAL PRODUCTION:			16.00 BBL
INITIAL PRODUCTION CORRECTED TO FINAL FLOW PRESSURE:			18.82 BBL/DAY
INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE:			

INITIAL SLOPE	835.41 PSI/CYCLE	FINAL SLOPE	545.16 PSI/CYCLE
INITIAL P*	1386.28 PSI	FINAL P*	1245.59 PSI

TRANSMISSIBILITY	5.61 (MD.-FT./CP.)
PERMEABILITY	3.72 (MD.)
INDICATED FLOW CAPACITY	55.87 (MD.FT)
PRODUCTIVITY INDEX	0.01 (BBL/DAY/PSI)
DAMAGE RATIO	0.41
RADIUS OF INVESTIGATION	18.31 (FT.)
POTENTIOMETRIC SURFACE	703.52 (FT.)
DRAWDOWN FACTOR	10.149 (%)

INITIAL FLOW

DST # 1
RECORDER 13754

<u>TIME(MIN)</u>	<u>PRESSURE</u>	<u>PRESSURE</u>
0	39.4	39.4
3	35.4	-3.9
6	30.5	-4.9
9	30.5	0.0
12	30.5	0.0
15	31.5	1.0
18	32.5	1.0
21	32.5	0.0
24	32.5	0.0
27	32.5	0.0
30	32.5	0.0

FINAL FLOW

DST # 1
RECORDER 11038

<u>TIME(MIN)</u>	<u>PRESSURE</u>	<u>PRESSURE</u>
0	49.2	49.2
3	45.3	-3.9
6	41.3	-3.9
9	38.4	-3.0
12	38.4	0.0
15	38.4	0.0
18	38.4	0.0
21	38.4	0.0
24	38.4	0.0
27	38.4	0.0
30	38.4	0.0
33	38.4	0.0
36	38.4	0.0
39	38.4	0.0
42	38.4	0.0
45	38.4	0.0
48	38.4	0.0
51	38.4	0.0
54	38.4	0.0
57	38.4	0.0
60	38.4	0.0

INITIAL SHUT-IN

SHRIWISE 'R' #1

DST # 1

INITIAL FLOW TIME 30

SLOPE

835.4

PSI/CYCLE

P*

1386.28

PSI

	<u>TIME(MIN)</u>	<u>Pws (psi)</u>	<u>Log Horn T</u>	<u><> PRESSURE</u>	<u>Horn T</u>
	3	55.1	1.041	55.1	11
	6	409.3	0.778	354.2	6
	9	694.7	0.637	285.4	4
	12	896.2	0.544	201.6	4
	15	994.1	0.477	97.9	3
	18	1040.1	0.426	45.9	3
	21	1081.0	0.385	41.0	2
	24	1110.0	0.352	29.0	2
	27	1130.0	0.325	20.0	2
	30	1150.0	0.301	20.0	2
	33	1165.0	0.281	15.0	2
	36	1175.0	0.263	10.0	2
	39	1185.0	0.248	10.0	2
	42	1196.0	0.234	11.0	2
	45	1208.0	0.222	12.0	2
	48	1216.0	0.211	8.0	2
	51	1222.0	0.201	6.0	2
X	54	1226.0	0.192	4.0	2
	57	1233.0	0.184	7.0	2
	60	1237.0	0.176	4.0	2
X	63	1245.0	0.169	8.0	1

FINAL SHUT-IN

SHRIWISE 'R' #1

DST # 1

TOTAL FLOW TIME 90

SLOPE

545.2

PSI/CYCLE

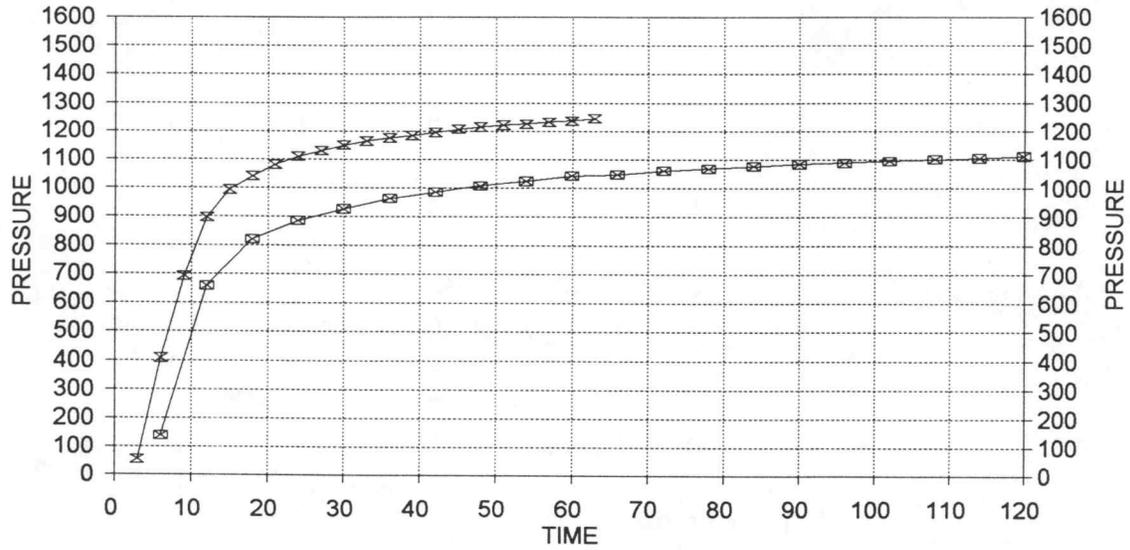
P*

1245.59

PSI

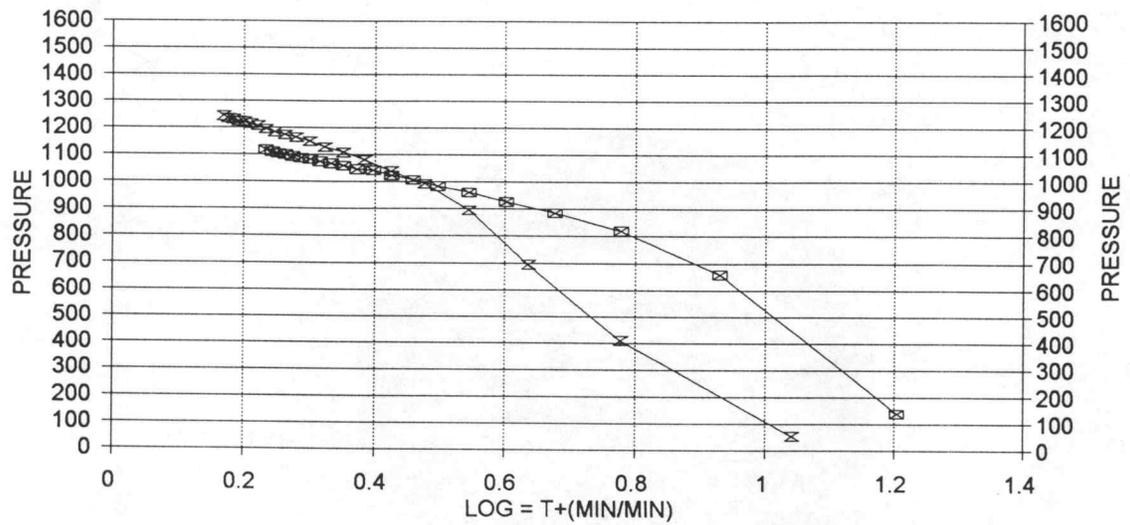
	<u>TIME(MIN)</u>	<u>Pws (psi)</u>	<u>Log Horn T</u>	<u><> PRESSURE</u>	<u>Horn T</u>
	6	139.8	1.204	139.8	16
	12	660.1	0.929	520.3	9
	18	822.1	0.778	162.1	6
	24	886.4	0.677	64.2	5
	30	927.9	0.602	41.5	4
	36	963.4	0.544	35.6	4
	42	986.2	0.497	22.7	3
	48	1008.1	0.459	21.9	3
	54	1025.1	0.426	17.0	3
	60	1043.0	0.398	18.0	3
	66	1047.0	0.374	4.0	2
	72	1060.0	0.352	13.0	2
	78	1069.0	0.333	9.0	2
	84	1076.0	0.316	7.0	2
	90	1084.0	0.301	8.0	2
X	96	1089.0	0.287	5.0	2
	102	1095.0	0.275	6.0	2
	108	1101.0	0.263	6.0	2
	114	1105.0	0.253	4.0	2
	120	1111.0	0.243	6.0	2
X	126	1118.0	0.234	7.0	2

DELTA T DELTA P SHRIWISE 'R' #1



598.9 0.277

HORNER PLOT



—x— INITIAL —□— FINAL

CALCULATED RECOVERY ANALYSIS

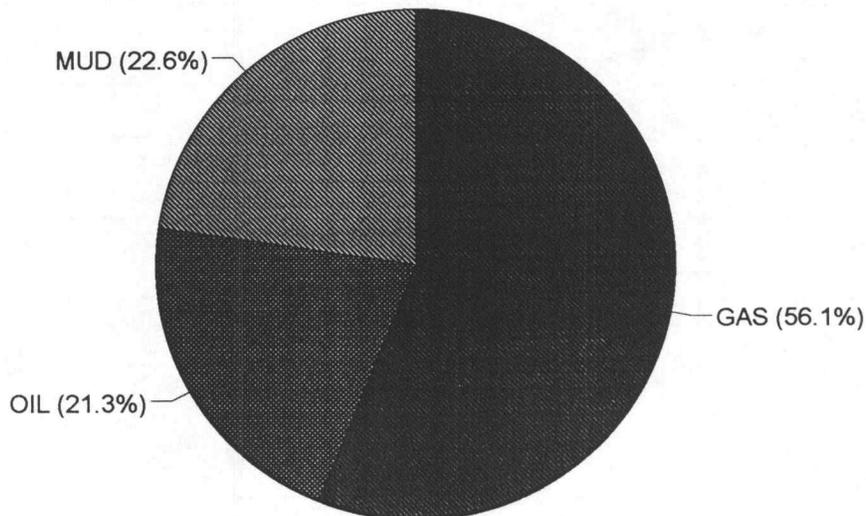
DST # 1

TICKET # 8389

SAMPLE #	TOTAL FEET	GAS		OIL		WATER		MUD	
		%	FEET	%	FEET	%	FEET	%	FEET
DRILL PIPE	1	90	100	90	0	0	0	0	0
	2	30		0	60	18	0	40	12
	3	30		0	40	12	0	60	18
	4			0		0	0		0
	5			0		0	0		0
	6			0		0	0		0
WEIGHT PIPE	1			0		0	0		0
	2			0		0	0		0
	3			0		0	0		0
	4			0		0	0		0
DRL COLLAR	1	30		0	40	12	0	60	18
	2			0		0	0		0
	3			0		0	0		0
	4			0		0	0		0
	5			0		0	0		0
TOTAL	180			0		0		0	0

HRS OPE BBL/DAY

BBL OIL=	0.48528	*	1.50	7.76448
BBL WATER=	0	*		0
BBL MUD=	0.51462			
BBL GAS =	1.2798			



TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No 8389

Well Name & No. Shriwise "R" #1 Test No. 1 Date 1-27-95
Company Rayden Exploration, Inc Zone Tested Miss.
Address 9400 N. Broadway, Okla City, OK 73114 Elevation 2476 K.B.
Co. Rep./Geo. Tom Williams Cont. Duke #2 Est. Ft. of Pay 15
Location: Sec. 16 Twp. 22 Rge. 24 Co. Hodgeman State Ks
No. of Copies 8 Distribution Sheet _____ Yes No Turnkey _____ Yes No Evaluation _____

Interval Tested 4657-4685 Drill Pipe Size 4.5 XH
Anchor Length 28 Top Choke — 1" _____ Bottom Choke — 3/4" _____
Top Packer Depth 4652 Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
Bottom Packer Depth 4657 Wt. Pipe I.D. — 2.7 Ft. Run _____
Total Depth 4685 Drill Collar — 2.25 Ft. Run 30'
Mud Wt. 9.1 lb/gal. Viscosity 45 Filtrate 8.4
Tool Open @ 1:47 a.m. Initial Blow Weak-building to 3"

Final Blow Weak-building to 4"

Recovery — Total Feet	Feet of Gas in Pipe	Flush Tool?
Rec. <u>30</u> Feet Of <u>MCO</u>	<u>90</u>	
Rec. <u>60</u> Feet Of <u>OCM</u>		
Rec. _____ Feet Of _____		
Rec. _____ Feet Of _____		
Rec. _____ Feet Of _____		

BHT 118 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 3,000 ppm System

- (A) Initial Hydrostatic Mud 2340 PSI AK1 Recorder No. 13754 Range 4000
- (B) First Initial Flow Pressure 39 PSI @ (depth) 4661 w/Clock No. 25810
- (C) First Final Flow Pressure 39 PSI AK1 Recorder No. 13849 Range 4375
- (D) Initial Shut-In Pressure 1236 PSI @ (depth) 4681 w/Clock No. 22501
- (E) Second Initial Flow Pressure 49 PSI AK1 Recorder No. _____ Range _____
- (F) Second Final Flow Pressure 49 PSI @ (depth) _____ w/Clock No. _____
- (G) Final Shut-In Pressure 1116 PSI Initial Opening 30 Test 600
- (H) Final Hydrostatic Mud 2289 PSI Initial Shut-In 60 Jars 200

Final Flow 60 Safety Joint 50
Final Shut-In 120 Straddle _____
Circ. Sub _____
Sampler _____

Approved By Thomas M. Williams
Our Representative Dan Banke
Extra Packer _____
Other wal 50
TOTAL PRICE \$ 900

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name SHRIWISE "R" #1 Test No. 2 Date 1/27/95
Company RAYDON EXPLORATION INC. Zone MISS DOLO
Address 9400 N. BROADWAY #400, OKLAHOMA CITY, OK 73114 Elevation 2476
Co. Rep./Geo. TOM WILLIAMS Cont. DUKE #2 Est. Ft. of Pay _____
Location: Sec. 16 Twp. 22S Rge. 24W Co. HODGEMAN State KS

Interval Tested 4685-4694 Drill Pipe Size 4.5" XH
Anchor Length 9 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 4680 Drill Collar - 2.25 Ft. Run 30
Bottom Packer Depth 4685 Mud Wt. 9 lb/Gal.
Total Depth 4694 Viscosity 37 Filtrate 8.4

Tool Open @ 4:10PM Initial Blow STRONG - BOTTOM OF BUCKET IN 10 MINUTES.

Final Blow STRONG - BOTTOM OF BUCKET IN 28 MINUTES.

Recovery - Total Feet 710 Flush Tool? NO

Rec. 120 Feet of GAS IN PIPE.

Rec. 40 Feet of CLEAN OIL. 100% OIL.

Rec. 670 Feet of MUDDY WATER. 90% WATER; 10% MUD.

Rec. _____ Feet of _____

Rec. _____ Feet of _____

BHT 120 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API

RW 0.13 @ 80 °F Chlorides 52000 ppm Recovery Chlorides 5200 ppm System

(A) Initial Hydrostatic Mud 2288.50 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 66.90 PSI @ (depth) 4687 w / Clock No. 25810

(C) First Final Flow Pressure 156.50 PSI AK1 Recorder No. 13849 Range 4375

(D) Initial Shut-in Pressure 1196.00 PSI @ (depth) 4690 w / Clock No. 27501

(E) Second Initial Flow Pressure 185.00 PSI AK1 Recorder No. _____ Range _____

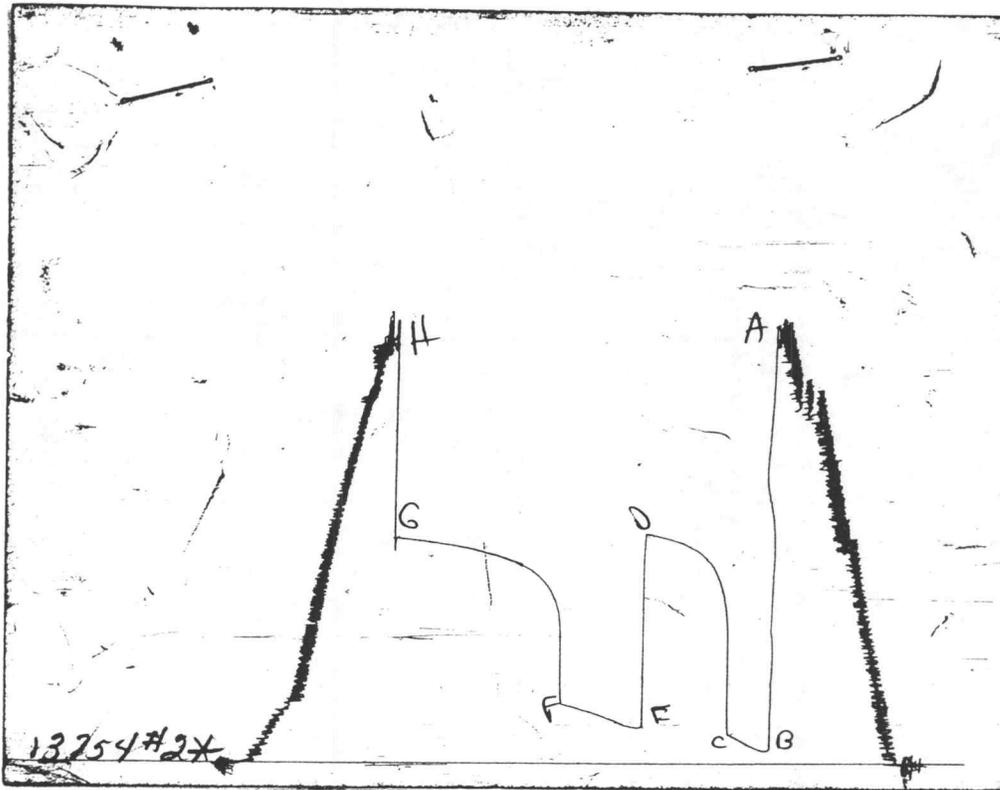
(F) Second Final Flow Pressure 311.00 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 1165.00 PSI Initial Opening 30 Final Flow 60

(H) Final Hydrostatic Mud 2208.50 PSI Initial Shut-in 60 Final Shut-in 120

Our Representative DAN BANGLE

CHART PAGE



This is an actual photograph of an AK1 recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2299	2288.50
(B) FIRST INITIAL FLOW PRESSURE	68	66.90
(C) FIRST FINAL FLOW PRESSURE	167	156.50
(D) INITIAL CLOSED-IN PRESSURE	1196	1196.00
(E) SECOND INITIAL FLOW PRESSURE	196	185.00
(F) SECOND FINAL FLOW PRESSURE	314	311.00
(G) FINAL CLOSED-IN PRESSURE	1186	1165.00
(H) FINAL HYDROSTATIC MUD	2238	2208.50

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No 8390

Well Name & No. Shriwise "R" #1 Test No. 2 Date 1-27-95
Company Raydon Exploration, Inc Zone Tested Miss Dolo.
Address _____ Elevation 2476 K.B.
Co. Rep./Geo. Tom Williams Cont. Duke #2 Est. Ft. of Pay _____
Location: Sec. 16 Twp. 22 Rge. 24 Co. Hodgeman State Ks.
No. of Copies 8 Distribution Sheet _____ Yes X No Turnkey _____ Yes X No _____ Evaluation _____

Interval Tested 4685 - 4694 Drill Pipe Size 4.5 XH
Anchor Length 9 Top Choke — 1" _____ Bottom Choke — 3/4" _____
Top Packer Depth 4680 Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
Bottom Packer Depth 4685 Wt. Pipe I.D. — 2.7 Ft. Run _____
Total Depth 4694 Drill Collar — 2.25 Ft. Run 30'
Mud Wt. 9 lb / gal. Viscosity 37 Filtrate 8.4
Tool Open @ 4:10 p.m. Initial Blow Strong - B.O.B. in 10 min.
Final Blow Strong - B.O.B. in 28 min.

Recovery — Total Feet	Feet of Gas in Pipe	Flush Tool?
Rec. <u>40</u> Feet Of <u>CO</u>	<u>120</u>	% gas <u>100%</u> oil _____ % water _____ % mud _____
Rec. <u>670</u> Feet Of <u>mdy wtr.</u>		% gas _____ % oil <u>90%</u> % water <u>10%</u> % mud _____
Rec. _____ Feet Of _____		% gas _____ % oil _____ % water _____ % mud _____
Rec. _____ Feet Of _____		% gas _____ % oil _____ % water _____ % mud _____
Rec. _____ Feet Of _____		% gas _____ % oil _____ % water _____ % mud _____

BHT 120 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW 13 @ 80 °F Chlorides 52,000 ppm Recovery Chlorides 5200 ppm System
(A) Initial Hydrostatic Mud 2299 PSI AK1 Recorder No. 13754 Range 4000
(B) First Initial Flow Pressure 68 PSI @ (depth) 4687 w/Clock No. 25810
(C) First Final Flow Pressure 167 PSI AK1 Recorder No. 13849 Range 4375
(D) Initial Shut-In Pressure 1196 PSI @ (depth) 4690 w/Clock No. 22501
(E) Second Initial Flow Pressure 196 PSI AK1 Recorder No. _____ Range _____
(F) Second Final Flow Pressure 314 PSI @ (depth) _____ w/Clock No. _____
(G) Final Shut-In Pressure 1186 PSI Initial Opening 30 Test 600
(H) Final Hydrostatic Mud 2238 PSI Initial Shut-In 60 Jars X 200

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.

Final Flow 60 Safety Joint X 50
Final Shut-In 120 Straddle _____

Approved By Thomas M. Williams
Our Representative Dan Banje

Circ. Sub _____
Sampler _____
Extra Packer _____
Other _____
TOTAL PRICE \$ 850