

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name DOLL FAMILY Test No. 1 Date 9/18/92
Company ENSIGN OPERATING Zone CHEROKEE
Address 621 17th ST #1800 DENVER CO 80293 Elevation 2684 G.L.
Co. Rep./Geo. DUANE MOREDOCK Cont. MURFIN RIG #3 Est. Ft. of Pay _____
Location: Sec. 9 Twp. 16S Rge. 30W Co. LANE State KS

Interval Tested <u>4321-4392</u>	Drill Pipe Size <u>4.5" XH</u>
Anchor Length <u>71</u>	Wt. Pipe I.D. - 2.7 Ft. Run <u>500</u>
Top Packer Depth <u>4316-4321</u>	Drill Collar - 2.25 Ft. Run <u>290</u>
Bottom Packer Depth <u>4392</u>	Mud Wt. <u>9.1</u> lb/Gal.
Total Depth <u>4448</u>	Viscosity <u>40</u> Filtrate <u>11.2</u>

Tool Open @ 8:15 Initial Blow WEAK BLOW DEAD IN 2 MINUTES

Final Blow WEAK SURGE AND THEN DEAD

Recovery - Total Feet 20 Flush Tool? NO

Rec. <u>20</u>	Feet of <u>DRILLING MUD</u>
Rec. _____	Feet of _____
Rec. _____	Feet of _____
Rec. _____	Feet of _____
Rec. _____	Feet of _____

BHT 130 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW 3.5 @ 70 °F Chlorides 1600 ppm Recovery Chlorides 1500 ppm System

(A) Initial Hydrostatic Mud 2140.6 PSI AK1 Recorder No. 13849 Range 4375

(B) First Initial Flow Pressure 91.2 PSI @ (depth) 4309 w / Clock No. 28528

(C) First Final Flow Pressure 96.7 PSI AK1 Recorder No. 13754 Range 4000

(D) Initial Shut-in Pressure 1060.4 PSI @ (depth) 4313 w / Clock No. 8376

(E) Second Initial Flow Pressure 92.3 PSI AK1 Recorder No. 7437 Range 4200

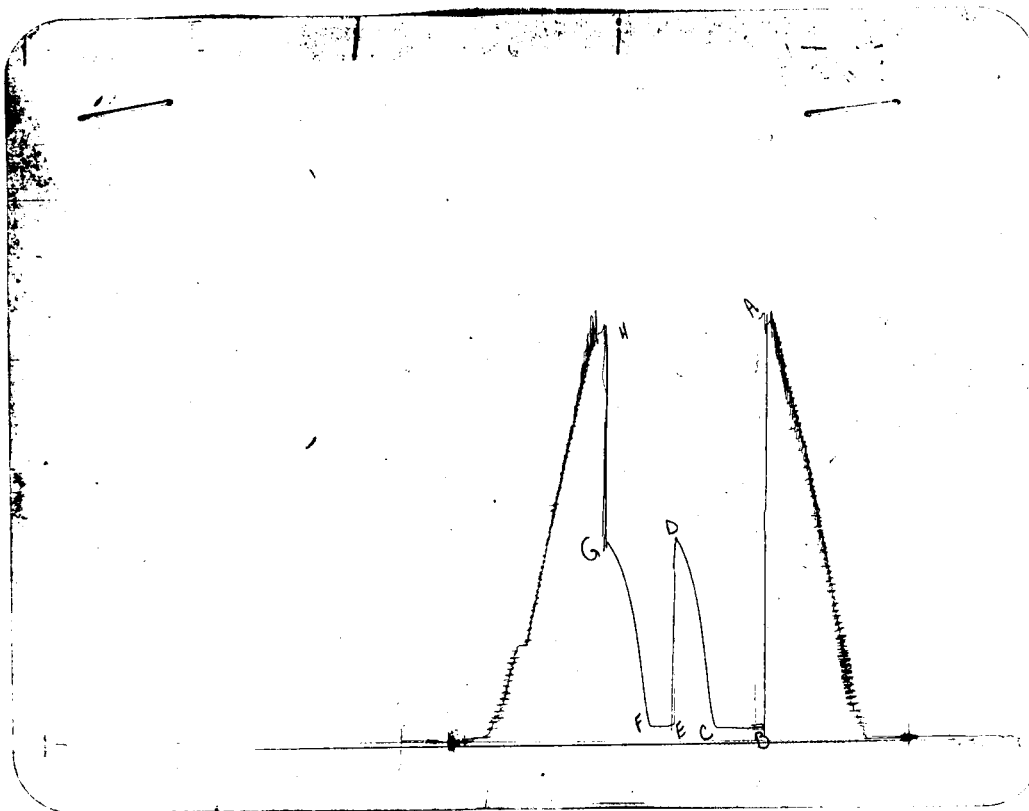
(F) Second Final Flow Pressure 92.3 PSI @ (depth) 4493 w / Clock No. 27567

(G) Final Shut-in Pressure 1040.2 PSI Initial Opening 30 Final Flow 15

(H) Final Hydrostatic Mud 2115.9 PSI Initial Shut-in 30 Final Shut-in 30

Our Representative JOHN RIEDL

CHART PAGE



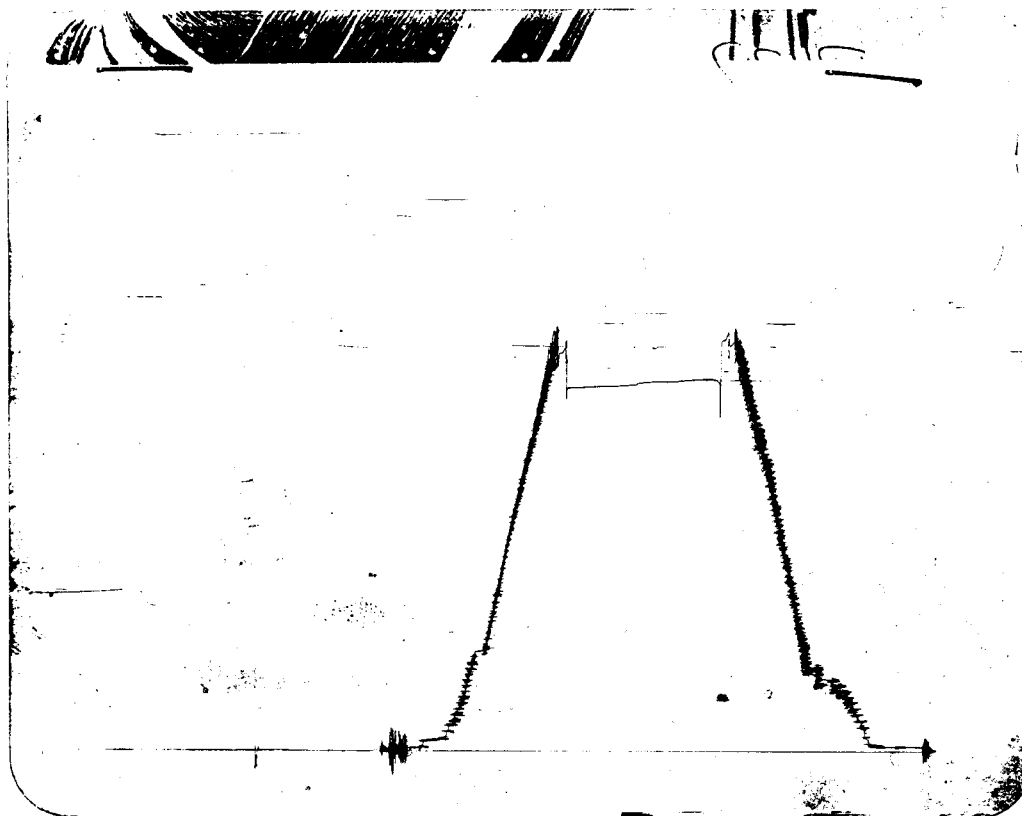
This is an actual photograph of recorder chart

FIELD
READING

OFFICE
READING

(A) INITIAL HYDROSTATIC MUD	2138	2140.6
(B) FIRST INITIAL FLOW PRESSURE	88	91.2
(C) FIRST FINAL FLOW PRESSURE	90	96.7
(D) INITIAL CLOSED-IN PRESSURE	1056	1060.4
(E) SECOND INITIAL FLOW PRESSURE	93	92.3
(F) SECOND FINAL FLOW PRESSURE	93	92.3
(G) FINAL CLOSED-IN PRESSURE	1038	1040.2
(H) FINAL HYDROSTATIC MUD	2112	2115.9

CHART PAGE



This is an actual photograph of recorder chart

FIELD
READING

OFFICE
READING

- (A) INITIAL HYDROSTATIC MUD
- (B) FIRST INITIAL FLOW PRESSURE
- (C) FIRST FINAL FLOW PRESSURE
- (D) INITIAL CLOSED-IN PRESSURE
- (E) SECOND INITIAL FLOW PRESSURE
- (F) SECOND FINAL FLOW PRESSURE
- (G) FINAL CLOSED-IN PRESSURE
- (H) FINAL HYDROSTATIC MUD

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Test Ticket

No 5412

Well Name & No.	<u>DOLL FAMILY</u>		Test No.	<u>1</u>	Date	<u>9-18-92</u>
Company	<u>EDISON OPERATING</u>		Zone Tested	<u>CHEYENNE</u>		
Address	<u>621 17TH STREET SUITE 100 DENVER CO. 80203</u>		Elevation	<u>2624 G.L.</u>		
Co. Rep./Geo.	<u>DUANE MCKEON</u>	Cont.	<u>MURFIN RIL 3</u>	Est. Ft. of Pay		
Location: Sec.	<u>9</u>	Twp.	<u>16S</u>	Rge.	<u>30W</u>	Co. <u>LANE</u> State <u>KS</u>
No. of Copies	<u>8</u>	Distribution Sheet	<u>X</u>	Yes	No	Turnkey <u>NO</u> Yes <u>X</u> No <u>NO</u> Evaluation

Interval Tested	<u>4321-4392</u>	Drill Pipe Size	<u>4 1/2 XH</u>
Anchor Length	<u>71 FT</u>	Top Choke — 1"	Bottom Choke — 3/4"
Top Packer Depth	<u>4316 + 4321</u>	Hole Size — 7 7/8"	Rubber Size — 6 3/4"
Bottom Packer Depth	<u>4392</u>	Wt. Pipe I.D. — 2.7 Ft. Run	<u>500 FT</u>
Total Depth	<u>4448</u>	Drill Collar — 2.25 Ft. Run	<u>296 FT</u>
Mud Wt.	<u>9.1</u>	lb/gal.	Viscosity <u>40</u> Filtrate <u>11.2</u>
Tool Open @	<u>8:15</u>	Initial Blow	<u>WEAK BLOW DEAD IN 2 MINUTES</u>

Final Blow WEAK SURGE THEN DEAD

Recovery — Total Feet	<u>20 DRILLING MUD</u>	Feet of Gas in Pipe	<u>—</u>	Flush Tool?	<u>NO</u>
Rec.	<u>20</u>	Feet Of	<u>DRILLING MUD</u>	%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	<u>130</u>	°F Gravity	<u>—</u>	°API @	<u>—</u>
RW	<u>3.5</u>	@	<u>20</u>	°F Chlorides	<u>1600</u>
(A) Initial Hydrostatic Mud	<u>2138</u>	PSI	AK1 Recorder No.	<u>13249</u>	Range <u>43750</u>
(B) First Initial Flow Pressure	<u>88</u>	PSI	@ (depth)	<u>4309</u>	w/Clock No. <u>25823</u>
(C) First Final Flow Pressure	<u>90</u>	PSI	AK1 Recorder No.	<u>13254</u>	Range <u>4600 PSI</u>
(D) Initial Shut-In Pressure	<u>1056</u>	PSI	@ (depth)	<u>4313</u>	w/Clock No. <u>8376</u>
(E) Second Initial Flow Pressure	<u>93</u>	PSI	AK1 Recorder No.	<u>7437</u>	Range <u>4200</u>
(F) Second Final Flow Pressure	<u>93</u>	PSI	@ (depth)	<u>4493</u>	w/Clock No. <u>27567</u>
(G) Final Shut-In Pressure	<u>1038</u>	PSI	Initial Opening	<u>30</u>	Test <u>✓</u> <u>SSC</u>
(H) Final Hydrostatic Mud	<u>2112</u>	PSI	Initial Shut-In	<u>30</u>	Jars

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	<u>15</u>	Safety Joint	
Final Shut-In	<u>30</u>	Straddle	<u>✓</u> <u>250"</u>
		Circ. Sub	<u>✓</u> <u>NC</u>
		Sampler	
		Extra Packer	<u>✓</u> <u>150"</u>
		Other	<u>3 extra cop</u>
		TOTAL PRICE \$	<u>958.00</u>

Approved By Duane E. McKee
 Our Representative John Reed