

6-135-33w

TRILOBITE TESTING, L.L.C.

ORIGINAL

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data API # 15-109-20570

CONFIDENTIAL
Computer Inventoried

Well Name RUBY DIRKS #3 Test No. 1 Date 9/26/94
 Company JOHN O FARMER INC Zone TORONTO
 Address P.O. BOX 352 RUSSELL KS 67665 Elevation 3010
 Co. Rep./Geo. MARTIN DUBDIS Cont. EMPHASIS #7 Est. Ft. of Pay _____
 Location: Sec. 6 Twp. 13S Rge. 33W Co. LOGAN State KS

Interval Tested 3877-3908 Drill Pipe Size 4.5" XH
 Anchor Length 31 Wt. Pipe I.D. - 2.7 Ft. Run _____
 Top Packer Depth 3872 Drill Collar - 2.25 Ft. Run 29
 Bottom Packer Depth 3877 Mud Wt. 8.8 lb/Gal.
 Total Depth 3908 Viscosity 46 Filtrate 8.8

Tool Open @ 7:30 A.M. Initial Blow SURFACE TO BOTTOM OF BUCKET IN 3 1/2 MIN - ISI: NO RET

Final Blow SURFACE TO BOTTOM OF BUCKET IN 4 1/2 MIN - FSI: NO RETURN BLOW

RELEASED

Recovery - Total Feet 1320 Flush Tool? NO

Rec. 60 Feet of GAS IN PIPE
 Rec. 2 Feet of CLEAN GAS OIL 5% GAS/95% OIL
 Rec. 180 Feet of GAS OIL WATER CUT MUD 5% GAS/15% OIL/20% WATER 60% MUD
 Rec. 240 Feet of GAS OIL MUD CUT WATER 5% GAS/10% OIL/70% WATER/15% MUD
 Rec. 898 Feet of SLIGHT MUD CUT WATER 95% WATER/5% MUD

BHT 119 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
 RW 0.3 @ 72 °F Chlorides 23000 ppm Recovery Chlorides 4000 ppm System

(A) Initial Hydrostatic Mud 1891.8 PSI AK1 Recorder No. 11086 Range 4350

(B) First Initial Flow Pressure 109.3 PSI @ (depth) 3883 w/ Clock No. 25828

(C) First Final Flow Pressure 373.4 PSI AK1 Recorder No. 10332 Range 4050

(D) Initial Shut-in Pressure 1169.3 PSI @ (depth) 3902' w/ Clock No. 25114

(E) Second Initial Flow Pressure 414.9 PSI AK1 Recorder No. _____ Range _____

(F) Second Final Flow Pressure 606.7 PSI @ (depth) _____ w/ Clock No. _____

(G) Final Shut-in Pressure 1168.3 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 1882.6 PSI Initial Shut-in 30 Final Shut-in 30

Our Representative GARY SPEER

MAR 14 1996

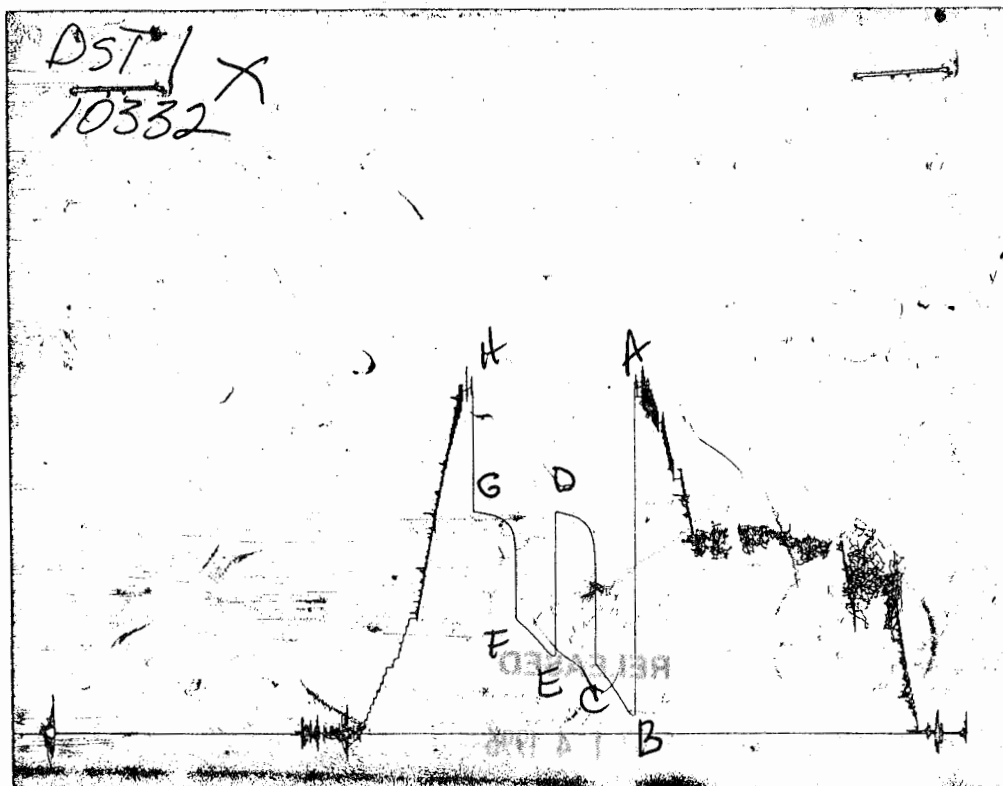
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ORIGINAL

CHART PAGE

JAN 1960



This is an actual photograph of recorder chart 10332

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1855	1891.8
(B) FIRST INITIAL FLOW PRESSURE	101	109.3
(C) FIRST FINAL FLOW PRESSURE	374	373.4
(D) INITIAL CLOSED-IN PRESSURE	1175	1169.3
(E) SECOND INITIAL FLOW PRESSURE	425	414.9
(F) SECOND FINAL FLOW PRESSURE	617	606.7
(G) FINAL CLOSED-IN PRESSURE	1175	1168.3
(H) FINAL HYDROSTATIC MUD	1834	1882.6

TRILOBITE TESTING, L.L.C.

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Drill-Stem Test Data

Well Name RUBY DIRKS #3 Test No. 2 Date 9/26/94
Company JOHN O FARMER INC Zone LANSING "A"
Address P.O. BOX 352 RUSSELL KS 67665 Elevation 3010
Co. Rep./Geo. MARTIN DUBDIS Cont. EMPHASIS #7 Est. Ft. of Pay _____
Location: Sec. 6 Twp. 13S Rge. 33W Co. LOGAN State KS

Interval Tested 3917-3930 Drill Pipe Size 4.5" XH
Anchor Length 13 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 3912 Drill Collar - 2.25 Ft. Run 29
Bottom Packer Depth 3917 Mud Wt. _____ 8.8 lb/Gal.
Total Depth 3930 Viscosity 46 Filtrate 8.8

Tool Open @ 7:10 P.M. Initial Blow SURFACE TO BOTTOM OF BUCKET IN 2 1/2 MIN - ISI: NO RET

Final Blow SURFACE TO BOTTOM OF BUCKET IN 4 MIN - FSI: NO RETURN BLOW

Recovery - Total Feet 1210 Flush Tool? NO

Rec. 120 Feet of GAS IN PIPE
Rec. 520 Feet of CLEAN GAS OIL 30%GAS/70%OIL
Rec. 150 Feet of SLIGHT MUD GAS OIL CUT WATER 30%GAS/30%OIL/35%WATER/5%
Rec. 120 Feet of SLIGHT OIL CUT MUD WATER 5%OIL/50%WATER/45%MUD
Rec. 420 Feet of MUD CUT WATER 90%WATER/10%MUD

BHT 122 °F Gravity 32 °API @ 70 °F Corrected Gravity 31 °API
SW 0.38 @ 60 °F Chlorides 21000 ppm Recovery Chlorides 4000 ppm System

(A) Initial Hydrostatic Mud 1879.5 PSI AK1 Recorder No. 11086 Range 4350

(B) First Initial Flow Pressure 156.8 PSI @ (depth) 3919 w / Clock No. 25828

(C) First Final Flow Pressure 340.0 PSI AK1 Recorder No. 10332 Range 4050

(D) Initial Shut-in Pressure 1149.2 PSI @ (depth) 3917' w / Clock No. 25114

(E) Second Initial Flow Pressure 371.4 PSI AK1 Recorder No. _____ Range _____

(F) Second Final Flow Pressure 521.3 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 1139.1 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 1916.3 PSI Initial Shut-in 30 Final Shut-in 30

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Drill-Stem Test Data

Well Name RUBY DIRKS #3 Test No. 3 Date 9/27/94
Company JOHN O FARMER INC Zone LANSING "B"
Address P.O. BOX 352 RUSSELL KS 67665 Elevation 3010
Co. Rep./Geo. MARTIN DUBDIS Cont. EMPHASIS #7 Est. Ft. of Pay _____
Location: Sec. 6 Twp. 13S Rge. 33W Co. LOGAN State KS

Interval Tested 3942-3966 Drill Pipe Size 4.5" XH
Anchor Length 24 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 3935 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 3942 Mud Wt. 8.9 lb/Gal.
Total Depth 3966 Viscosity 49 Filtrate 8.8

Tool Open @ 10:30 Initial Blow FAIR STEADY BLOW FROM SURFACE TO 12" IN 30 MIN
ISI: NO RETURN BLOW
Final Blow FAIR STEADY BLOW FROM SURFACE TO 12" IN 35 MIN
FSI: NO RETURN BLOW

Recovery - Total Feet 545 Flush Tool? NO

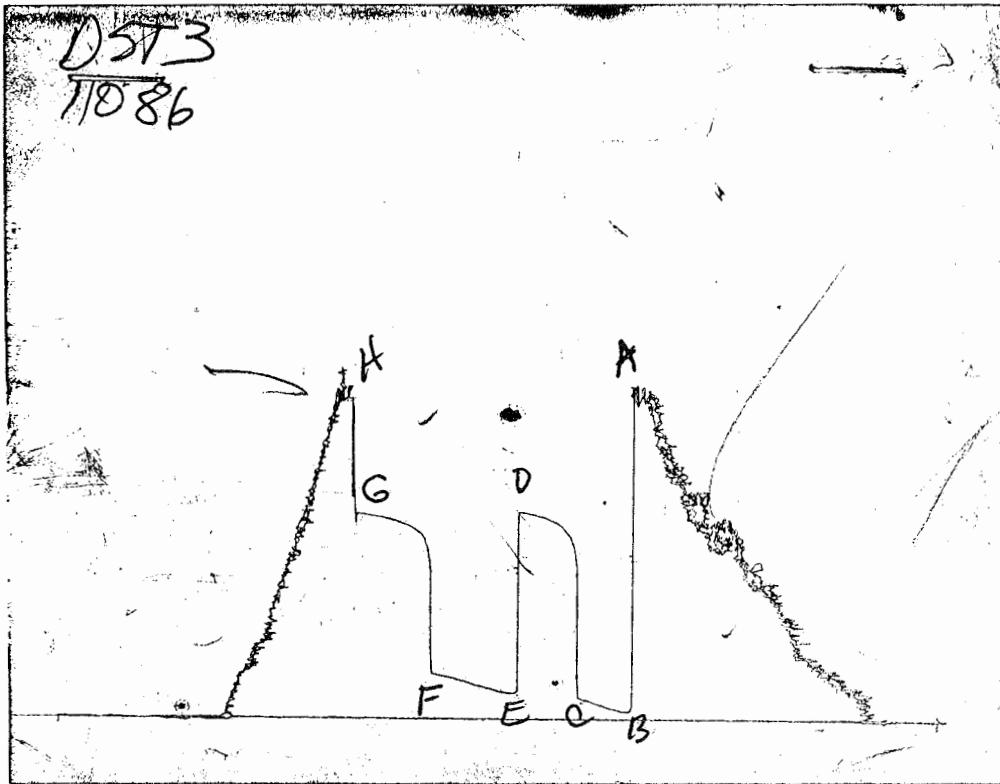
Sec. 185 Feet of WATER CUT MUD 40%WATER/60%MUD
Rec. 360 Feet of SLIGHT MUD CUT STAINED WATER 95%WATER/5%MUD
Sec. _____ Feet of SLIGHT SHOW OF OIL
Sec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 122 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW 0.19 @ _____ °F Chlorides 30000 ppm Recovery Chlorides 6000 ppm System

(A) Initial Hydrostatic Mud 1819.5 PSI AK1 Recorder No. 11086 Range 4350
(B) First Initial Flow Pressure 46.9 PSI @ (depth) 3945 w / Clock No. 25828
(C) First Final Flow Pressure 122.2 PSI AK1 Recorder No. 10332 Range 4050
(D) Initial Shut-in Pressure 1180.1 PSI @ (depth) 3960 w / Clock No. 25114
(E) Second Initial Flow Pressure 149.5 PSI AK1 Recorder No. _____ Range _____
(F) Second Final Flow Pressure 258.7 PSI @ (depth) _____ w / Clock No. _____
(G) Final Shut-in Pressure 1168.1 PSI Initial Opening _____ Final Flow _____
(H) Final Hydrostatic Mud 1786.9 PSI Initial Shut-in _____ Final Shut-in _____

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CHART PAGE



This is an actual photograph of recorder chart 11086

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1804	1819.5
(B) FIRST INITIAL FLOW PRESSURE	32	46.9
(C) FIRST FINAL FLOW PRESSURE	109	122.2
(D) INITIAL CLOSED-IN PRESSURE	1172	1180.1
(E) SECOND INITIAL FLOW PRESSURE	141	149.5
(F) SECOND FINAL FLOW PRESSURE	240	258.7
(G) FINAL CLOSED-IN PRESSURE	1205	1168.1
(H) FINAL HYDROSTATIC MUD	1793	1786.9

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Drill-Stem Test Data

Well Name RUBY DIRKS #3 Test No. 4 Date 9/28/94
Company JOHN O FARMER INC Zone KC "D&E"
Address P.O. BOX 352 RUSSELL KS 67665 Elevation 3010
Co. Rep./Geo. MARTIN DUBDIS Cont. EMPHASIS #7 Est. Ft. of Pay _____
Location: Sec. 6 Twp. 13S Rge. 33W Co. LOGAN State KS

Interval Tested 3971-4017 Drill Pipe Size 4.5" XH
Anchor Length 46 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 3966 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 3971 Mud Wt. 8.9 lb/Gal.
Total Depth 4017 Viscosity 49 Filtrate 8.8

Tool Open @ 2:55 A.M. Initial Blow FAIR STEADY BLOW FROM SURFACE TO 11"
ISI: NO RETURN BLOW
Final Blow FAIR STEADY BLOW FROM SURFACE TO 11"
FSI: NO RETURN BLOW

Recovery - Total Feet 235 Flush Tool? NO

Rec. 125 Feet of GAS IN PIPE
Rec. 195 Feet of CLEAN GAS & OIL 15%GAS/85%OIL
Rec. 40 Feet of GAS OIL CUT MUD 10%GAS/10%OIL/80%MUD
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 120 °F Gravity 37 °API @ 80 °F Corrected Gravity 35 °API
W 0.8 @ 90 °F Chlorides 6000 ppm Recovery Chlorides 6000 ppm System

(A) Initial Hydrostatic Mud 1928.5 PSI AK1 Recorder No. 11086 Range 4350

(B) First Initial Flow Pressure 69.8 PSI @ (depth) 3974 w / Clock No. 25828

(C) First Final Flow Pressure 87.0 PSI AK1 Recorder No. 10332 Range 4050

(D) Initial Shut-in Pressure 1283.2 PSI @ (depth) 3965' w / Clock No. 25114

(E) Second Initial Flow Pressure 108.3 PSI AK1 Recorder No. _____ Range _____

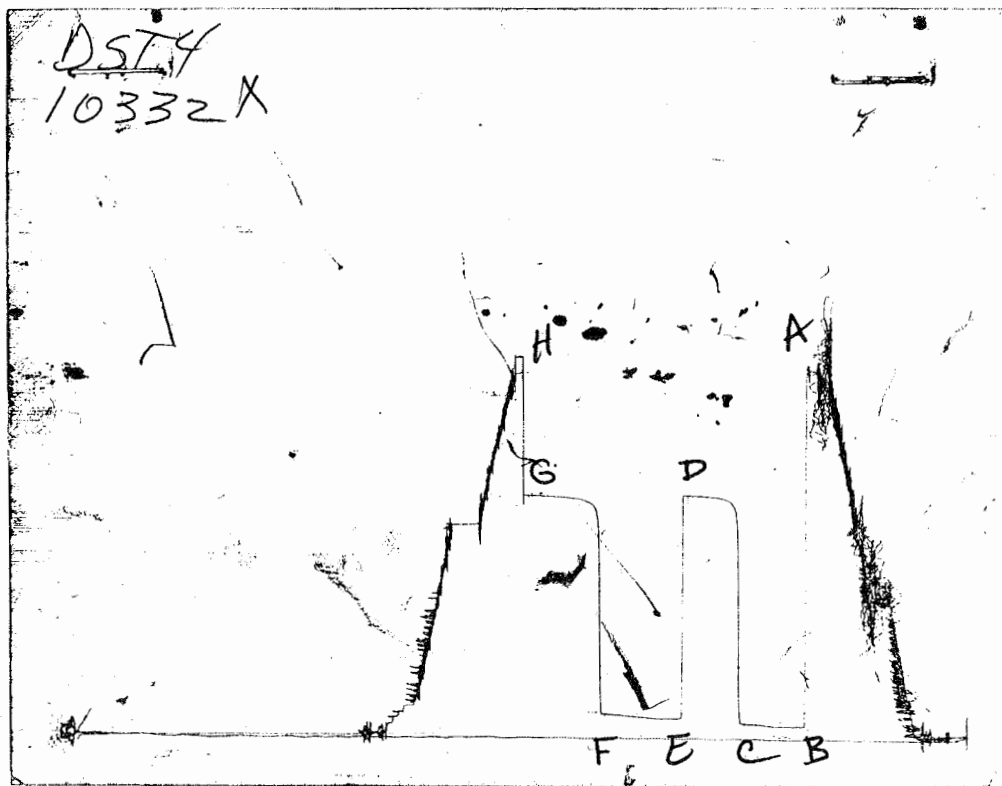
(F) Second Final Flow Pressure 134.6 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 1280.2 PSI Initial Opening 45 Final Flow 60

(H) Final Hydrostatic Mud 1910.1 PSI Initial Shut-in 45 Final Shut-in 60

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CHART PAGE



This is an actual photograph of recorder chart 10332

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1936	1928.5
(B) FIRST INITIAL FLOW PRESSURE	70	69.8
(C) FIRST FINAL FLOW PRESSURE	80	87
(D) INITIAL CLOSED-IN PRESSURE	1276	1283.2
(E) SECOND INITIAL FLOW PRESSURE	101	108.3
(F) SECOND FINAL FLOW PRESSURE	121	134.6
(G) FINAL CLOSED-IN PRESSURE	1276	1280.2
(H) FINAL HYDROSTATIC MUD	1926	1910.1

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Drill-Stem Test Data

Well Name RUBY DIRKS #3 Test No. 5 Date 9/28/94
Company JOHN O FARMER INC Zone KC "I"
Address P.O. BOX 352 RUSSELL KS 67665 Elevation 3010
Co. Rep./Geo. MARTIN DUBOIS Cont. EMPHASIS #7 Est. Ft. of Pay _____
Location: Sec. 6 Twp. 13S Rge. 33W Co. LOGAN State KS

Interval Tested 4108-4140 Drill Pipe Size 4.5" XH
Anchor Length 32 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 4103 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 4108 Mud Wt. 9.0 lb/Gal.
Total Depth 4140 Viscosity 45 Filtrate 8.4

Tool Open @ 12:10 A.M. Initial Blow FAIR STEADY BUILDING BLOW FROM SURFACE TO BOTTOM OF BU
IN 22 MIN ISI:-NO RETURN BLOW
Final Blow FAIR STEADY BUILDING BLOW FROM SURFACE TO BOTTOM OF BUCKET IN 37 M
FSI: NO RETURN BLOW

Recovery - Total Feet _____ Flush Tool? NO

Rec. 40 Feet of GAS IN PIPE
Rec. 50 Feet of CLEAN GAS OIL 10%GAS/90%OIL
Rec. 120 Feet of GAS OIL WATER CUT MUD 10%GAS/10%OIL/10%WATER/70%MUD
Rec. 180 Feet of SLIGHT GAS OIL MUD CUT WATER 5%GAS/5%OIL/60%WATER/30%M
Rec. _____ Feet of _____

BHT 122 °F Gravity 35 °API @ 70 °F Corrected Gravity 34 °API
RW 0.27 @ 57 °F Chlorides 30000 ppm Recovery Chlorides 6500 ppm System

(A) Initial Hydrostatic Mud 1982.3 PSI AK1 Recorder No. 11086 Range 4350

(B) First Initial Flow Pressure 50.6 PSI @ (depth) 4111 w / Clock No. 26199

(C) First Final Flow Pressure 112.3 PSI AK1 Recorder No. 10332 Range 4050

(D) Initial Shut-in Pressure 1208.6 PSI @ (depth) 4136 w / Clock No. 25114

(E) Second Initial Flow Pressure 131.5 PSI AK1 Recorder No. _____ Range _____

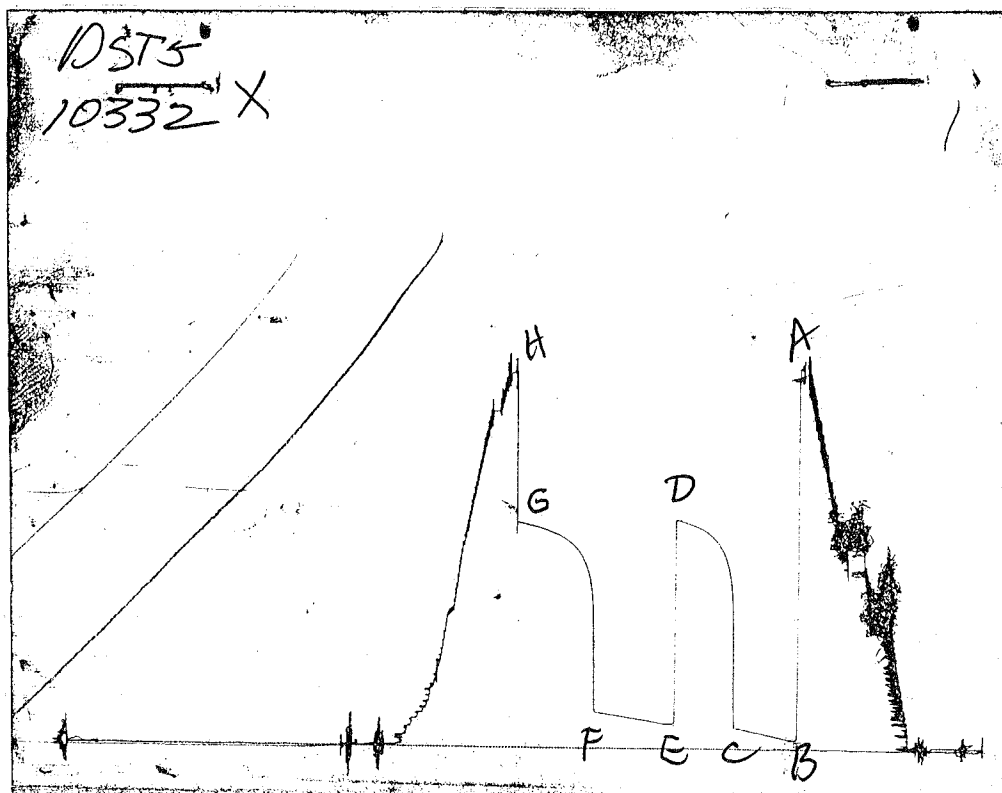
(F) Second Final Flow Pressure 192.3 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 1190.5 PSI Initial Opening 45 Final Flow 60

(H) Final Hydrostatic Mud 1982.3 PSI Initial Shut-in 45 Final Shut-in 60

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CHART PAGE



This is an actual photograph of recorder chart 10332

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1977	1982.3
(B) FIRST INITIAL FLOW PRESSURE	40	50.6
(C) FIRST FINAL FLOW PRESSURE	111	112.3
(D) INITIAL CLOSED-IN PRESSURE	1195	1208.6
(E) SECOND INITIAL FLOW PRESSURE	121	131.5
(F) SECOND FINAL FLOW PRESSURE	202	192.3
(G) FINAL CLOSED-IN PRESSURE	1195	1190.5
(H) FINAL HYDROSTATIC MUD	1977	1982.3

TRILOBITE TESTING, L.L.C.

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Drill-Stem Test Data

Well Name RUBY DIRKS #3 Test No. 6 Date 9/29/94
Company JOHN O FARMER INC Zone KC "K"
Address P.O. BOX 352 RUSSELL KS 67665 Elevation 3010
Co. Rep./Geo. MARTIN DUBOIS Cont. EMPHASIS #7 Est. Ft. of Pay _____
Location: Sec. 6 Twp. 13S Rge. 33W Co. LOGAN State KS

Interval Tested 4166-4190 Drill Pipe Size 4.5" XH
Anchor Length 24 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 4161 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 4166 Mud Wt. 9.1 lb/Gal.
Total Depth 4190 Viscosity 45 Filtrate 8.8

Tool Open @ 3:45 P.M. Initial Blow FROM SURFACE TO BOTTOM OF BUCKET IN 4 1/2 MIN
ISI: WEAK BLOW FROM SURFACE TO 2"
Final Blow FROM SURFACE TO BOTTOM OF BUCKET IN 5 MIN
FSI: WEAK STEADY BUILED TO 4"

Recovery - Total Feet 860 Flush Tool? NO

Rec. 280 Feet of GAS IN PIPE
Rec. 620 Feet of CLEAN GAS & OIL 20%GAS/80%OIL
Rec. 240 Feet of OIL & GAS CUT MUD & WATER 20%GAS/15%OIL/30%WATER/35%MU
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 123 °F Gravity 31 °API @ 70 °F Corrected Gravity 30 °API
RW 0.23 @ 70 °F Chlorides 30000 ppm Recovery Chlorides 6000 ppm System

(A) Initial Hydrostatic Mud 2079.0 PSI AK1 Recorder No. 11086 Range 4350

(B) First Initial Flow Pressure 80.9 PSI @ (depth) 4169 w / Clock No. 25828

(C) First Final Flow Pressure 191.2 PSI AK1 Recorder No. 10332 Range 4050

(D) Initial Shut-in Pressure 1243.9 PSI @ (depth) 4184 w / Clock No. 25114

(E) Second Initial Flow Pressure 218.6 PSI AK1 Recorder No. _____ Range _____

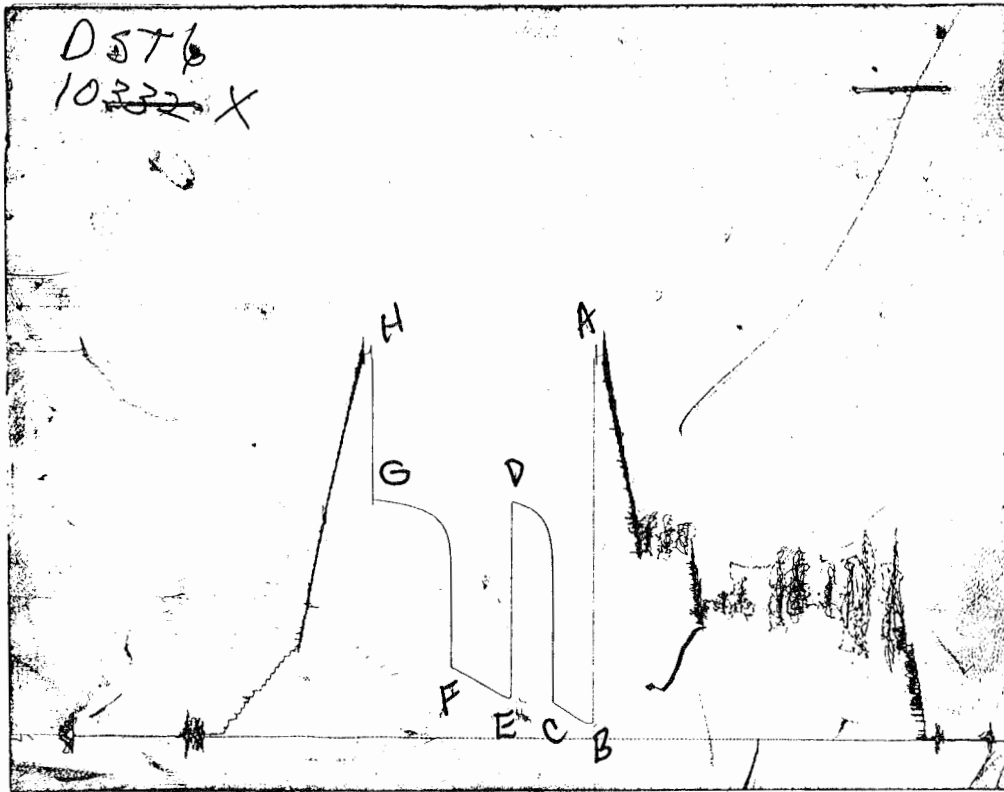
(F) Second Final Flow Pressure 371.4 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 1247.9 PSI Initial Opening 30 Final Flow 45

(H) Final Hydrostatic Mud 2065.0 PSI Initial Shut-in 30 Final Shut-in 60

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CHART PAGE



This is an actual photograph of recorder chart 10332

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2028	2079
(B) FIRST INITIAL FLOW PRESSURE	80	80.9
(C) FIRST FINAL FLOW PRESSURE	202	191.2
(D) INITIAL CLOSED-IN PRESSURE	1215	1243.9
(E) SECOND INITIAL FLOW PRESSURE	202	218.6
(F) SECOND FINAL FLOW PRESSURE	354	371.4
(G) FINAL CLOSED-IN PRESSURE	1225	1247.9
(H) FINAL HYDROSTATIC MUD	2028	2065

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name RUBY DIRKS #3 Test No. 7 Date 10/1/94
Company JOHN O FARMER INC Zone JOHNSON
Address P.O. BOX 352 RUSSELL KS 67665 Elevation 3010
Co. Rep./Geo. MARTIN DUBOIS Cont. EMPHASIS #7 Est. Ft. of Pay _____
Location: Sec. 6 Twp. 13S Rge. 33W Co. LOGAN State KS

Interval Tested 4464-4510 Drill Pipe Size 4.5" XH
Anchor Length 46 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 4459 Drill Collar -- 2.25 Ft. Run _____
Bottom Packer Depth 4464 Mud Wt. _____ 9.1 lb/Gal.
Total Depth 4510 Viscosity 46 Filtrate 8.8

Tool Open @ 3:25 A.M. Initial Blow VERY WEAK SURFACE BLOW-DIED IN 25 MIN
Final Blow 1/2" BLOW DECLINING TO A VERY WEAK SURFACE BLOW

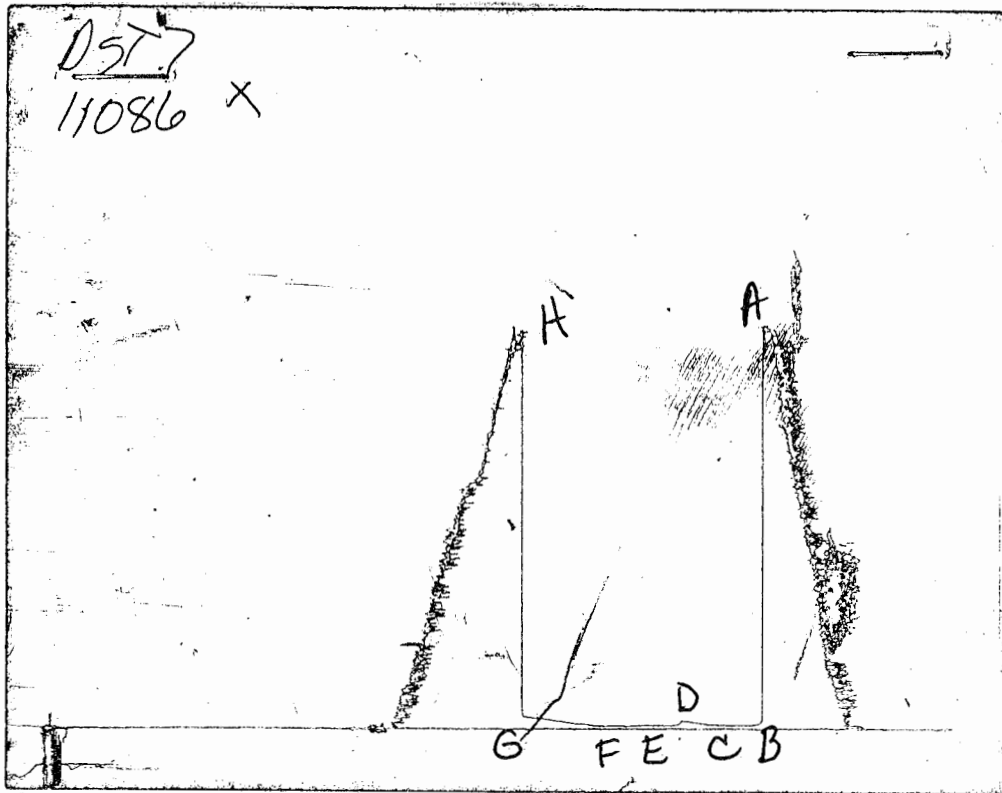
Recovery - Total Feet 30 Flush Tool? NO
Rec. 30 Feet of OIL CUT MUD 10%OIL/90%MUD
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 124 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 9500 ppm System

(A) Initial Hydrostatic Mud 2280.5 PSI AK1 Recorder No. 11086 Range 4350
(B) First Initial Flow Pressure 16.3 PSI @ (depth) 4467 w / Clock No. 25828
(C) First Final Flow Pressure 16.3 PSI AK1 Recorder No. 10332 Range 4050
(D) Initial Shut-in Pressure 41.4 PSI @ (depth) 4458' w / Clock No. 25114
(E) Second Initial Flow Pressure 18.5 PSI AK1 Recorder No. _____ Range _____
(F) Second Final Flow Pressure 18.5 PSI @ (depth) _____ w / Clock No. _____
(G) Final Shut-in Pressure 69.8 PSI Initial Opening 30 Final Flow 60
(H) Final Hydrostatic Mud 2255.4 PSI Initial Shut-in 30 Final Shut-in 60

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CHART PAGE



This is an actual photograph of recorder chart 11086

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2294	2280.5
(B) FIRST INITIAL FLOW PRESSURE	21	16.3
(C) FIRST FINAL FLOW PRESSURE	21	16.3
(D) INITIAL CLOSED-IN PRESSURE	54	41.4
(E) SECOND INITIAL FLOW PRESSURE	21	18.5
(F) SECOND FINAL FLOW PRESSURE	21	18.5
(G) FINAL CLOSED-IN PRESSURE	65	69.8
(H) FINAL HYDROSTATIC MUD	2240	2255.4