

CHENEY TESTING COMPANY, INC.

P. O. Box 367

HILL CITY, KANSAS 67642

DRILL-STEM TEST DATA

Company	Ritchie Exploration	Test No.	1
Well Name & Number	Darlene Smith #1	Zone Tested	Mississippi
Company Address	125 N. Market #1000, Wichita, Kan. 67202	Date	5-30-89
Company Rep.	Rocky Milford	Tester	Huck Smith
Contractor	Murfin Drlg. Co.	Elevation	2319 K.B.
Location: Sec. 28 Twp. 22 Rge. 23W Co. Hodgeman State Kan		Est. Feet of Pay	

Recorder No. 7456 Type AK-1 Range 4150 PSI

Recorder Depth 4586 Clock # 22345

(A) Initial Hydrostatic Mud 2382 PSI

(B) First Initial Flow Pressure 57 PSI

(C) First Final Flow Pressure 57 PSI

(D) Initial Shut-in Pressure 57 PSI

(E) Second Initial Flow Pressure 57 PSI

(F) Second Final Flow Pressure 57 PSI

(G) Final Shut-in Pressure 57 PSI

(H) Final Hydrostatic Mud 2373 PSI

Temperature 125

Mud Weight 9.6 Viscosity 46

Fluid Loss 12.2

Interval Tested 4583-4594

Anchor Length 11'

Top Packer Depth 4578

Bottom Packer Depth 4583

Total Depth 4594

Drill Pipe Size 4 1/2 EX.H.

Wt. Pipe I. D. - Ft. Run -

Recovery-Total Feet 4

Recovered 4 Feet Of Mud Trace of oil

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Extra Equipment

Recorder No. 13364 Type AK-1 Range 3825 PSI

Recorder Depth 4589 Clock # 25559

Tool Open Before I.S.I. 30 Mins.

Initial Shut-in 30 Mins.

Flow Period 30 Mins.

Final Shut-in 30 Mins.

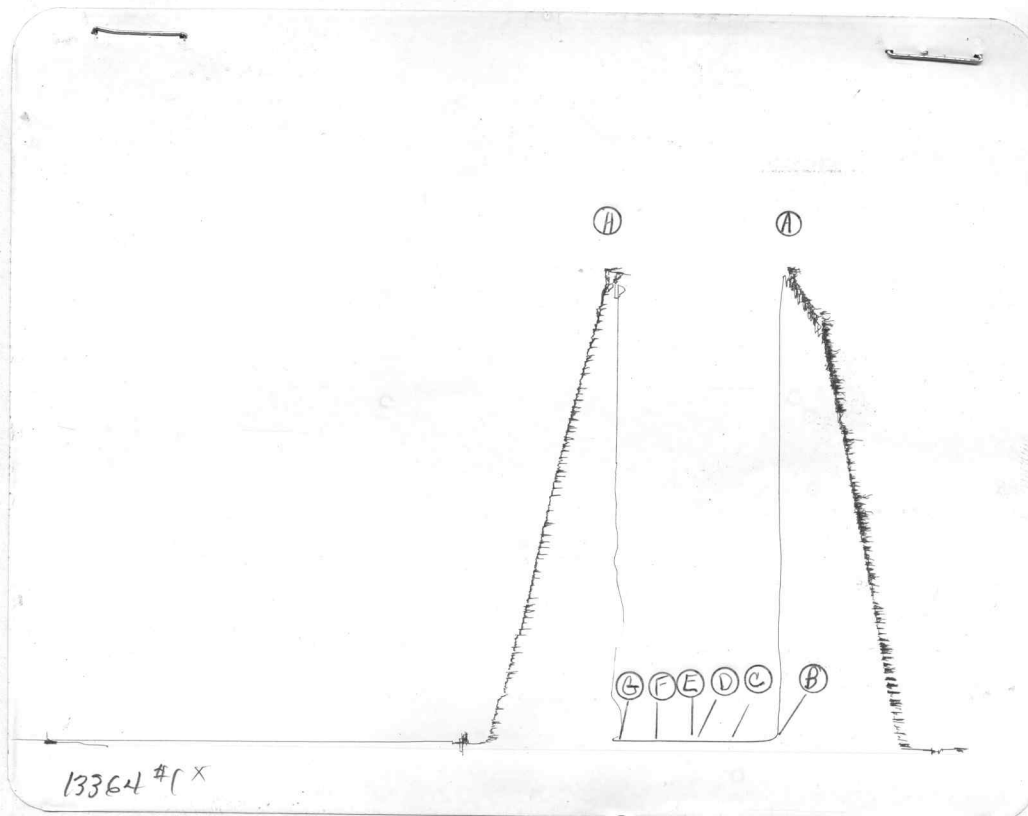
Top Choke Size 1" Hole Size 7 7/8"

Bottom Choke Size 3/4" Rubber Size 6 3/4"

Tool Open @ 2:50 P.M.

Blow Remarks 1st open; Weak blow died in 5 minutes.

2nd open; No blow



POINT	PRESSURE	
	Field Reading	Office Reading
(A) Initial Hydrostatic Mud	2382	PSI
(B) First Initial Flow Pressure	57	PSI
(C) First Final Flow Pressure	57	PSI
(D) Initial Closed-in Pressure	57	PSI
(E) Second Initial Flow Pressure	57	PSI
(F) Second Final Flow Pressure	57	PSI
(G) Final Closed-in Pressure	57	PSI
(H) Final Hydrostatic Mud	2373	PSI

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DRILL-STEM TEST DATA

Company	Ritchie Exploration	Test No.	2
Well Name & Number	Darlene Smith #1	Zone Tested	Mississippi
Company Address	125 N. Market #1000, Wichita, Kan. 67202	Date	5-31-89
Company Rep.	Rocky Milford	Tester	Huck Smith
Contractor	Murfin Drlg. Co.	Elevation	2319 K.B.
Location: Sec. 28 Twp. 22 Rge. 23W Co. Hodgeman State Kan		Est. Feet of Pay	

Recorder No. 7456 Type AK-1 Range 4150 PSI
 Recorder Depth 4594 Clock # 22345
 (A) Initial Hydrostatic Mud 2345 PSI
 (B) First Initial Flow Pressure 84 PSI
 (C) First Final Flow Pressure 84 PSI
 (D) Initial Shut-in Pressure 1406 PSI
 (E) Second Initial Flow Pressure 95 PSI
 (F) Second Final Flow Pressure 95 PSI
 (G) Final Shut-in Pressure 1375 PSI
 (H) Final Hydrostatic Mud 2292 PSI
 Temperature 131
 Mud Weight 9.6 Viscosity 46
 Fluid Loss 12.2
 Interval Tested 4591-4602
 Anchor Length 11'
 Top Packer Depth 4586
 Bottom Packer Depth 4591
 Total Depth 4602
 Drill Pipe Size 4 1/2 EX.H.
 Wt. Pipe I. D. - Ft. Run -

Recorder No. 13364 Type AK-1 Range 3825 PSI
 Recorder Depth 4597 Clock # 25559
 Tool Open Before I.S.I. 45 Mins.
 Initial Shut-in 45 Mins.
 Flow Period 45 Mins.
 Final Shut-in 45 Mins.
 Top Choke Size 1" Hole Size 7 7/8"
 Bottom Choke Size 3/4" Rubber Size 6 3/4"
 Tool Open @ 4:50 A.M.
 Blow Remarks 1st open ; Weak blow 1 1/2"

2nd open; 1" blow

Recovery-Total Feet 45
 Recovered 45 Feet Of O.C.M. (15% Oil 5% Wtr. 80% Mud)
 Recovered Feet Of
 Recovered Feet Of
 Recovered Feet Of
 Recovered Feet Of
 Recovered Feet Of

Extra Equipment Price of Job

CHENEY TESTING CO, INC.
CALCULATION OF FORMATION CHARACTERISTICS
FROM DST DATA

FOR: RITCHIE EXPLORATION
D. SMITH #1
28-22S-23W
HODGEMAN CO., KS.

DST # 2
FORMATION: MISSISSIPPI
ELEVATION: 2319 KB

TEST PARAMETERS

TEST INTERVAL: 4591 - 4602	EST PAY: 11
TIME INTERVAL: 45 - 45 - 45 - 45	VISCOSITY OF FLUID: 3.5
INITIAL FLOW PRESS: 76.3- 76.3	HOLE SIZE: 7.875
FINAL FLOW PRESS: 77.3- 77.3	D.C. CAPACITY: 0.00000
SHUT-IN PRESS(I-F): 1414.2-1397.2	W.P. CAPACITY: 0.00000
BOTTOM HOLE TEMPERATURE: 131	D.P. CAPACITY: 0.01402
TOTAL FEET OF RECOVERY: 45	TOTAL BARRELS RECOVERY: 0.6309

EXTRAPOLATED INITIAL SHUT-IN PRESSURE (PSI): 1540
SLOPE (PSI-CYCLE): 390 POINTS USED: 3

EXTRAPOLATED FINAL SHUT-IN PRESSURE (PSI): 1520
SLOPE (PSI-CYCLE): 250 POINTS USED: 3

CALCULATIONS

PRODUCTION POTENTIAL (B/D)	: 10.09
TRANSMISSIBILITY (MD-FT/CP)	: 6.57
EFFECTIVE PERMEABILITY (MD)	: 2.09
PRODUCTIVITY INDEX (B/D/PSI)	: 0.0074
DAMAGE RATIO	: 1.056
APPROXIMATE RADIUS OF INVESTIGATION (FT)	: 13.7
DRAWDOWN FACTOR (%)	: 1.299
POTENTIOMETRIC SURFACE (FT)	: 1241.88

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INITIAL SHUT-IN

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RECORDER NO: 7456 DEPTH: 4602 FT.
INITIAL FLOW TIME (T): 45 MIN.

DT(MIN)	LOG((T+DT)/DT)	PRESSURE(PSIG)
0	0.000	76.3
5	1.000	296.6
10	0.740	1221.4
15	0.602	1316.7
20	0.512	1350.6
25	0.447	1369.7
30	0.398	1382.4
35	0.359	1394.1
40	0.327	1404.7
45	0.301	1414.2

FINAL SHUT-IN

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RECORDER NO: 7456 DEPTH: 4602 FT.
TOTAL FLOW TIME: 90 MIN.

DT(MIN)	LOG((T+DT)/DT)	PRESSURE(PSIG)
0	0.000	77.3
5	1.279	85.8
10	1.000	131.4
15	0.845	932.2
20	0.740	1281.8
25	0.663	1332.6
30	0.602	1360.2
35	0.553	1377.1
40	0.512	1388.8
45	0.477	1397.2

HORNER PLOT
 RITCHIE EXPLORATION
 D. SMITH #1
 DST # 2 DEPTH: 4602
 RECORDER NO, 7456
 INITIAL SHUT-IN: $\diamond$
 FINAL SHUT-IN: $\square$

1.0 0.9 0.8 0.7 0.6 0.5 0.4 0.3 0.2 0.1 0.0

LOG ((T+D)/T) / 2.303

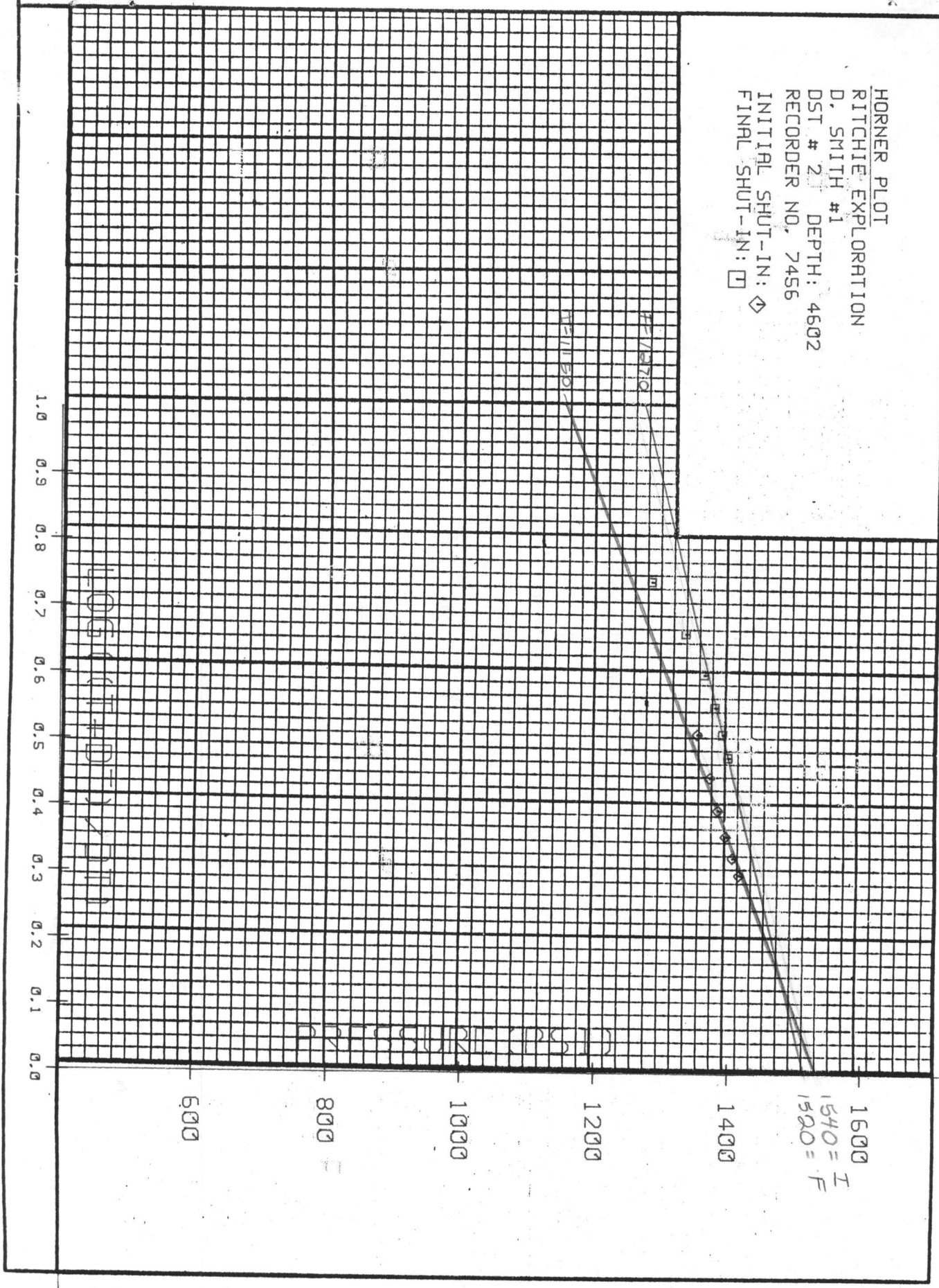
PRESSURE (PSID)

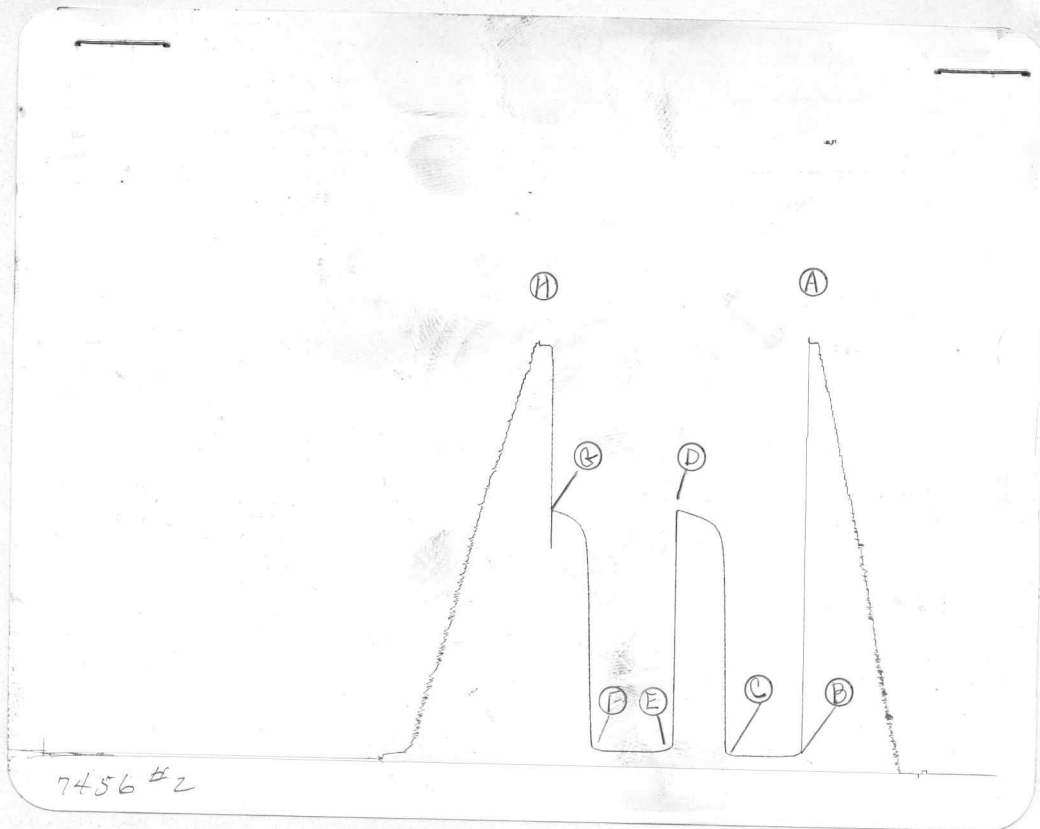
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POINT	PRESSURE	
	Field Reading	Office Reading
(A) Initial Hydrostatic Mud	2345	2336.82
(B) First Initial Flow Pressure	84	84.7
(C) First Final Flow Pressure	84	153.6
(D) Initial Closed-in Pressure	1406	1419.5
(E) Second Initial Flow Pressure	95	211.9
(F) Second Final Flow Pressure	95	261.7
(G) Final Closed-in Pressure	1375	1405.7
(H) Final Hydrostatic Mud	2292	2282.42