

Computer

316/624-7340

DEAN'S TESTERS

Box 1182, Liberal, Ks.

18-26-34W^{State}

Company Helmerich & Payne, Inc. Date March 14, 1977
Well Name & No. USA "D"-7 Sec. 18 Twp. 26S Rge. 34W
County Finney State Kans Elevation 2987' KB
Test Approved by Bob Marshall Tester Dean Blagrave

DST No. 1 Formation Marmaton Test Interval 4447 to 4470 Total Depth 4470
Anchor Length 23 Anchor Size 4 1/2" OD Surface Choke 1 1/4" Bot. Choke 5/8"
op Packer Depth 4442 Damaged no Bottom Packer Depth 4447 Damaged no
Below Straddle Depth _____ Damaged _____ Bot. Packer Depth _____ Damaged _____
Recorders: Depth 4463 Make Kuster Capacity 6450 Ser. No. 6064 Inside
Depth 4468 Make H&T Capacity 4750 Ser. No. 72 Outside
Below Straddle: Depth _____ Make _____ Capacity _____ Ser. No. _____

PRESSURES:

Tool Open 30 min. IFP 29 psi to 39 psi
Shut-In 60 min. ISIP 1273 psi
Open 60 min. FFP 55 psi to 72 psi
Shut-In 120 min. FSIP 1299 psi

Hydrostatic Pressures: Initial 2175 Final 2169 Temp 118 °F

Blow Weak increasing slightly thruout test.

Recovery 75' slightly oil cut mud, 45' mud(120 PPM- Nitrate, 8,000 PPM- Cl.)

Extra Equipment Sampler, 2 Packers, Jars, Sfty.jnt., Circ.sub.

Lengths: Tool 56 DP 3925 ID 3.8 Wt.P none ID _____ DC 500 ID 2.25
Mud Type Chemical Vis. 44 Wt. 9.2 Wtr. Loss 7.2 Chlorides 6,000 PPM

SAMPLER DATA:

Pressure 35 P.S.I.G.

RECOVERY: Capacity- 2150 cc

Cu. ft. gas --

Total Fluid 2100 cc.

Oil 250 cc.

Water 750 cc. 22,000 PPM-Cl, 35 PPM-Nitrates

Mud 1100 cc.

Oil Gravity _____ at _____ F.

Gas/Oil Ratio _____ cu. ft./bbl.

Nitrates- 130 PPM
Remarks: Tool slid @ 48 min on ISIP

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Initial Flow pressure	<u>29</u>	to	<u>39</u>	Time	Given <u>30</u>	Computed <u>30</u>
Initial Closed in pressure	<u>1273</u>				<u>60</u>	<u>60</u>
Final Flow pressure	<u>55</u>	to	<u>72</u>		<u>60</u>	<u>62</u>
Final Closed-in pressure	<u>1299</u>				<u>120</u>	<u>120</u>
Initial Hydrostatic pressure	<u>2175</u>			Final Hydrostatic press.	<u>2169</u>	Temp <u>118</u>

DT-4

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Helmerich & Payne, Inc.

USA "D"-7
Well Name & No.

Test No. 1

Test Interval 4447' - 4450'



Actual photograph of test chart

Pressure Reading

Initial Flow pressure	29 to 39	PSI
Initial Closed in pressure	1273	PSI
Final Flow pressure	55 to 72	PSI
Final Closed in pressure	1299	PSI
Initial Hydrostatic pressure	2175	PSI
Final Hydrostatic pressure	2169	PSI

Recovery: 75' Slightly oil cut mud, 45' Mud

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DEAN'S TESTERS

Box 1182, Liberal, Ks.

18-^{State}26-34WCompany Helmerich & Payne, Inc. Date March 17, 1977Well Name & No. USA "D"-7 Sec. 18 Twp. 26S Rge. 34WCounty Finney State Kans. Elevation _____Test Approved by Bob Marshall Tester Dean BlagraveDST No. 2 Formation St. Gen. Test Interval 4967 to 5027 Total Depth 5027Anchor Length 60 Anchor Size 31' X 6" OD-D.C. Surface Choke 1/4" Bot. Choke 5/8"
29' X 4 1/2" OD-Perf.Top Packer Depth 4962 Damaged no Bottom Packer Depth 4967 Damaged no

Below Straddle Depth _____ Damaged _____ Bot. Packer Depth _____ Damaged _____

Recorders: Depth 4979 Make Kuster Capacity 6450 Ser. No. 6064 InsideDepth 4984 Make H&T Capacity 4750 Ser. No. 72 Outside

Below Straddle: Depth _____ Make _____ Capacity _____ Ser. No. _____

PRESSURES:Tool Open 30 min. IFP 26 psi to 26 psiShut-In 60 min. ISIP 52 psiOpen 30 min. FFP 26 psi to 26 psiShut-In 60 min. FSIP 78 psiHydrostatic Pressures: Initial 2146 Final 2133 Temp 124 °FBlow Weak on Preflow, No blow on Final FlowRecovery 3' Mud 5,000 PPM-Cl., 80 PPM-N.Extra Equipment Sampler, 2 Packers, Jars, Sfty.jnt., Circ.sub.Lengths: Tool 93 DP 4480 ID 3.8 Wt.P none ID _____ DC 469 ID 2.25Mud Type Chemical Vis. 146 Wt. 9.2 Wtr. Loss 8.0 Chlorides 5,000 PPM**SAMPLER DATA:**Nitrates 110 PPMPressure - P.S.I.G.

Remarks: _____

RECOVERY: Capacity- 2150 cc

Cu. ft. gas _____

Total Fluid 2150 cc.

Oil _____ cc.

Water _____ cc.

Mud 2150 cc.5,000 PPM-Cl, 80 PPM-N.

Oil Gravity _____ at _____ F.

Gas/Oil Ratio _____ cu. ft./bbl.

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Actual photograph of test chart

Pressure Reading

Initial Flow pressure	26 to 26	PSI
Initial Closed in pressure	52	PSI
Final Flow pressure	26 to 26	PSI
Final Closed in pressure	78	PSI
Initial Hydrostatic pressure	2446	PSI
Final Hydrostatic pressure	2433	PSI
Recovery:	21 min	

Company Helmerich & Payne, Inc. Date March 18, 1977Well Name & No. USA "D"-7 Sec. 18 Twp. 26S Rge. 34WCounty Finney State Kans. Elevation _____Test Approved by Bob Marshall Tester Dean Blagrove

DST No. 3 Formation St. Louis Test Interval 5083 to 5112 Total Depth 5112
 Anchor Length 29 Anchor Size 1 1/2" OD Surface Choke 1 1/4" Bot. Choke 5/8"
 Top Packer Depth 5078 Damaged no Bottom Packer Depth 5083 Damaged yes
 Below Straddle Depth _____ Damaged _____ Bot. Packer Depth _____ Damaged _____
 Recorders: Depth 5105 Make Kuster Capacity 6450 Ser. No. 6064 Inside
 Depth 5110 Make H&T Capacity 4750 Ser. No. 72 Outside
 Below Straddle: Depth _____ Make _____ Capacity _____ Ser. No. _____

PRESSURES:Tool Open 30 min. IFP 45 psi to 85 psiShut-In 60 min. ISIP 986 psiOpen 62 min. FFP 111 psi to 170 psiShut-In 122 min. FSIP 986 psiHydrostatic Pressures: Initial 2521 Final 2504 Temp 126 °FBlow Weak increasing to Good.Recovery 485' Gas in pipe, 315' Total fluid. 50' Clean oil,145' Heavy oil cut mud- 6,000 PPM- Cl, 80 PPM- N.,120' Slightly oil cut muddy salt water- 15,000 PPM- Cl, 25 PPM- N.**Extra Equipment**Sampler, 2 Packers, Jars, Sfty.jnt., Circ.sub.Lengths: Tool 62 DP 4570 ID 3.8 Wt.P. none ID _____ DC 500 ID 2.25Mud Type Chemical Vis. 50 Wt. 9.3 Wtr. Loss 7.6 Chlorides 5,000 PPM**SAMPLER DATA:**Nitrates- 80 PPMPressure 100 P.S.I.G.

Remarks: _____

RECOVERY: Capacity- 2150 ccCu. ft. gas .07Total Fluid 2050 cc.Oil 400 cc.Water 600 cc.Mud 1050 cc.

Oil Gravity _____ at _____ F.

Gas/Oil Ratio _____ cu. ft./bbl.

23,000 PPM- Cl, 40 PPM- N., Rw- .24 @ 62 F.

Pressure Break Down

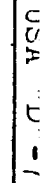
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Test ticket no. 226 Recorder no. 6064 Capacity 6450 Rec. Depth. 5105

	Given	Computed
Initial Flow pressure <u>45</u> to <u>85</u>	<u>30</u>	<u>30</u>
Initial Closed in pressure <u>986</u>	<u>60</u>	<u>60</u>
Final Flow pressure <u>111</u> to <u>170</u>	<u>60</u>	<u>62</u>
Final Closed-in pressure <u>986</u>	<u>120</u>	<u>122</u>
Initial Hydrostatic pressure <u>2521</u>	Final Hydrostatic press. <u>2504</u>	Temp <u>126</u>

Initial Flow Press.		Initial Closed in Press.		Final Flow Press		Final Closed in Press.	
Minutes	Press	Minutes	Press	Minutes	Press	Minutes	Press
0	45	0	85	0	111	0	170
5	45	3	186	5	111	3	321
10	55	6	426	10	114	6	518
15	65	9	672	15	124	9	678
20	72	12	796	20	124	12	783
25	78	15	855	25	134	15	836
30	85	18	895	30	137	18	868
35		21	918	35	144	21	895
40		24	934	40	150	24	908
45		27	944	45	157	27	921
50		30	950	50	160	30	931
55		33	957	55	163	33	941
60		36	963	60	167	36	947
65		39	970	62 66	170	39	954
70		42	973	70		42	957
75		45	977	75		45	960
80		48	980	80		48	963
85		51	980	85		51	967
90		54	983	90		54	970
95		57	983	95		57	970
100		60	986	100		60	973
105		63		105		63	973
110		66		110		66	973
115		69		115		69	977
120		72		120		72	977
		75		125		75	977
		78		130		78	980
		81		135		81	980
		84		140		84	980
		87		145		87	983
		90		150		90	983
		93		155		93	983
		96		160		96	983
		99		165		99	983
		102		170		102	983
		105		175		105	986
		108		180		108	986
		111				111	986
		114				114	986
		117				117	986
		120				120	986
						122	986

nelmerica & rayne, inc.



Pressure Reading

5000-2000