

Company D. R. Lauck Oil Co., Inc. Lease & Well No. Harkness #1
 Elevation ----- Formation Mississippi Effective Pay ----- Ft. Ticket No. 6335
 Date 6/6/80 Sec. 6 Twp. 18S Range 24W County Ness State Kansas
 Test Approved by Bruce Clark Western Representative Dan Delaney

Formation Test No. 1 Interval Tested from 4370 ft. to 4375 ft. Total Depth 4375 ft.
 Packer Depth 4370 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 4365 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 4359 ft. Recorder Number 6234 Cap. 4500
 Bottom Recorder Depth (Outside) 4371 ft. Recorder Number 4339 Cap. 4300
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor D. R. Lauck Drilling Rig #2 Drill Collar Length - I. D. - in.
 Mud Type premix-gel Viscosity 45 Weight Pipe Length 474 I. D. 2.7 in.
 Weight 9.3 Water Loss 11.6 cc. Drill Pipe Length 3867 I. D. 3.8 in.
 Chlorides ---- P.P.M. Test Tool Length 29 ft. Tool Size 4 1/2 in.
 Jars: Make -- Serial Number - Anchor Length 5 ft. Size 5 1/8 in.
 Did Well Flow? No Reversed Out Yes Surface Choke Size 1/2 in. Bottom Choke Size 1/2 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 FH in.

Blow: Initial flow - weak to strong blow.
Final flow -

Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of **PACKER FAILURE**
 Recovered ft. of

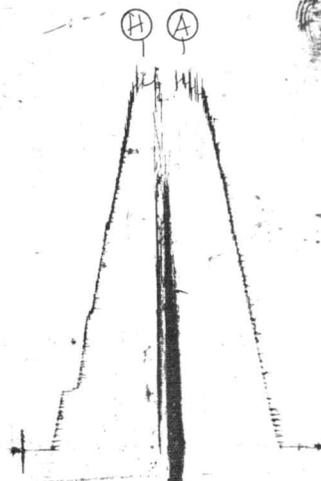
Remarks:

Time Set Packer(s) 12:23 A.M. Time Started Off Bottom 12:31 A.M. Maximum Temperature ?
-P.M. P.M.
 Initial Hydrostatic Pressure (A) 2128 P.S.I.
 Initial Flow Period Minutes (B) -- P.S.I. to (C) -- P.S.I.
 Initial Closed In Period Minutes (D) -- P.S.I.
 Final Flow Period Minutes (E) -- P.S.I. to (F) -- P.S.I.
 Final Closed In Period Minutes (G) -- P.S.I.
 Final Hydrostatic Pressure (H) 2115 P.S.I.

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TRC# 6335

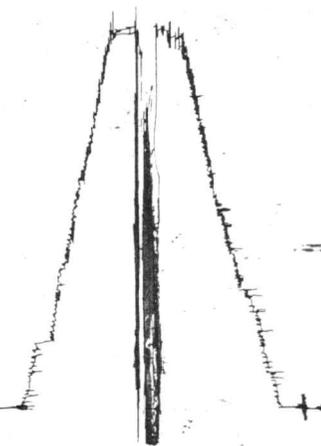
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TRC# 6335

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Company D. R. Lauck Oil Co., Inc. Lease & Well No. Harkness #1
 Elevation ----- Formation Mississippi Effective Pay ----- Ft. Ticket No. 6336
 Date 6/6/80 Sec. 6 Twp. 18S Range 24W County Ness State Kansas
 Test Approved by Bruce Clark Western Representative Dan Delaney

Formation Test No. 2 Interval Tested from 4371 ft. to 4375 ft. Total Depth 4375 ft.
 Packer Depth 4371 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 4366 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 4360 ft. Recorder Number 6234 Cap. 4500
 Bottom Recorder Depth (Outside) - ft. Recorder Number - Cap. -
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor D. R. Lauck Drilling Drill Collar Length - I. D. - in.
 Mud Type premix-gel Viscosity 45 Weight Pipe Length 474 I. D. 2.7 in.
 Weight 9.3 Water Loss 11.6 cc. Drill Pipe Length 3868 I. D. 3.8 in.
 Chlorides -- P.P.M. Test Tool Length 29 ft. Tool Size 4 1/2 in.
 Jars: Make -- Serial Number - Anchor Length 4 ft. Size 5 1/2 in.
 Did Well Flow? NO Reversed Out No Surface Choke Size 1/2 in. Bottom Choke Size 1/2 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 FH in.

Blow: Initial flow - weak blow slowly dying.
Final Flow - no blow.

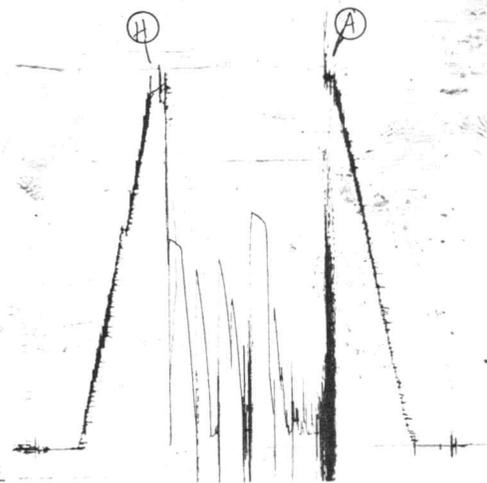
Recovered ft. of
 Recovered ft. of
 Recovered ft. of PLUGGED TOOL
 Recovered ft. of ONLY ONE CHART RECEIVED
 Recovered ft. of

Remarks: Run one recorder only because of very short anchor.

Time Set Packer(s) 4:15 ~~P.M.~~ ^{A.M.} Time Started Off Bottom 6:15 ~~P.M.~~ ^{A.M.} Maximum Temperature
 Initial Hydrostatic Pressure 2196 (A) P.S.I.
 Initial Flow Period Minutes (B) P.S.I. to (C) P.S.I.
 Initial Closed In Period Minutes (D) P.S.I.
 Final Flow Period Minutes (E) P.S.I. to (F) P.S.I.
 Final Closed In Period Minutes (G) P.S.I.
 Final Hydrostatic Pressure 2133 (H) P.S.I.

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Company D. R. Lauck Oil Co., Inc. Lease & Well No. Harkness #1
 Elevation ----- Formation Mississippi Effective Pay ----- Ft. Ticket No. 6337
 Date 6/6/80 Sec. 6 Twp 18S Range 24W County Ness State Kansas
 Test Approved by Bruce Clark Western Representative Dan Delaney

Formation Test No. 3 Interval Tested from 4372 ft. to 4380 ft. Total Depth 4380 ft.
 Packer Depth 4372 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 4367 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 4359 ft. Recorder Number 6234 Cap. 4500
 Bottom Recorder Depth (Outside) 4375 ft. Recorder Number 4339 Cap. 4300
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor D. R. Lauck Drilling Rig #2 Drill Collar Length - I. D. - in.
 Mud Type premix-gel Viscosity 43 Weight Pipe Length 474 I. D. 2.7 in.
 Weight 9.2 Water Loss 11.6 cc. Drill Pipe Length 3769 I. D. 3.8 in.
 Chlorides 15,000 P.P.M. Test Tool Length 29 ft. Tool Size 4 1/2 in.
 Jars: Make -- Serial Number - Anchor Length 8 ft. Size 5 1/2 in.
 Did Well Flow? No Reversed Out No Surface Choke Size 1/2 in. Bottom Choke Size 1/2 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 FH in.

Initial flow == weak blow slowly dying.
 Blow: Final flow - no blow; flushed tool, good surge, no blow.

Recovered 15 ft. of drilling mud
 Recovered 15 ft. of slightly oil cut mud
 Recovered - ft. of -
 Recovered - ft. of -
 Recovered - ft. of -

Remarks: _____

Time Set Packer(s) 4:30 ~~A.M.~~ P.M. Time Started Off Bottom 6:15 ~~A.M.~~ P.M. Maximum Temperature 114°
 Initial Hydrostatic Pressure (A) 2131 P.S.I.
 Initial Flow Period Minutes 30 (B) 28 P.S.I. to (C) 28 P.S.I.
 Initial Closed In Period Minutes 27 (D) 955 P.S.I.
 Final Flow Period Minutes 15 (E) 34 P.S.I. to (F) 28 P.S.I.
 Final Closed In Period Minutes 27 (G) 885 P.S.I.
 Final Hydrostatic Pressure (H) 2097 P.S.I.

WESTERN TESTING CO., INC.
Pressure Data

Date 6/6/80 Recorder No. 6234 Capacity 4500 Test Ticket No. 6337
 Location 4359 Ft.
 Clock No. ----- Elevation ----- Well Temperature 114 °F

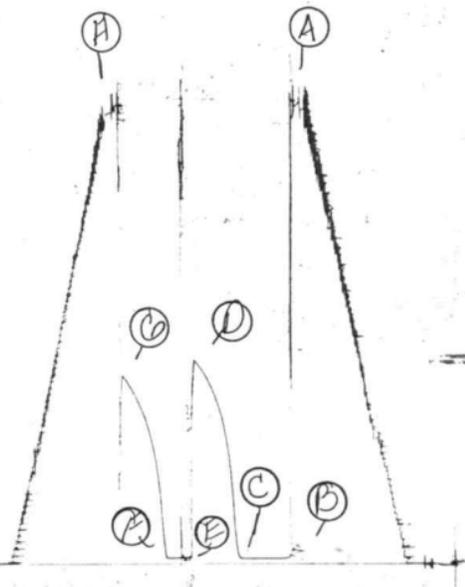
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2131 P.S.I.	Open Tool	4:30P	M
B First Initial Flow Pressure	28 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	28 P.S.I.	Initial Closed-in Pressure	30 Mins.	27 Mins.
D Initial Closed-in Pressure	955 P.S.I.	Second Flow Pressure	15 Mins.	15 Mins.
E Second Initial Flow Pressure	34 P.S.I.	Final Closed-in Pressure	30 Mins.	27 Mins.
F Second Final Flow Pressure	28 P.S.I.			
G Final Closed-in Pressure	885 P.S.I.			
H Final Hydrostatic Mud	2097 P.S.I.			

PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.
	of <u>6</u> mins. and a final inc. of <u>0</u> Min.		of <u>9</u> mins. and a final inc. of <u>0</u> Min.		of <u>3</u> mins. and a final inc. of <u>0</u> Min.		of <u>9</u> mins. and a final inc. of <u>0</u> Min.	
P 1	0	28	0	28	0	34	0	28
P 2	5	28	3	206	5	flushed tool	3	264
P 3	10	28	6	470	10	28	6	459
P 4	15	28	9	617	15	28	9	579
P 5	20	28	12	714			12	662
P 6	25	28	15	777			15	732
P 7	30	28	18	838			18	779
P 8			21	885			21	820
P 9			24	921			24	860
P10			27	955			27	885
P11								
P12								
P13								
P14								
P15								
P16								
P17								
P18								
P19								
P20								

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Company D. R. Lauck Oil Co., Inc. Lease & Well No. Harkness #1
 Elevation ----- Formation Mississippi Effective Pay --- Ft. Ticket No. 6338
 Date 6/7/80 Sec. 6 Twp. 18S Range 24W County Ness State Kansas
 Test Approved by Bruce Clark Western Representative Dan Delaney

Formation Test No. 4 Interval Tested from 4372 ft. to 4388 ft. Total Depth 4388 ft.
 Packer Depth 4372 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 4367 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 4378 ft. Recorder Number 6234 Cap. 4500
 Bottom Recorder Depth (Outside) 4382 ft. Recorder Number 4339 Cap. 4300
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor D. R. Lauck Drilling Rig #2 Drill Collar Length - I. D. - in.
 Mud Type premix-gel-Mospac 44 Weight Pipe Length 474 I. D. 2.7 in.
 Weight 9.4 Water Loss - cc. Drill Pipe Length 3877 I. D. 3.8 in.
 Chlorides ----- P.P.M. Test Tool Length 21 ft. Tool Size 4.5 in.
 Jars: Make -- Serial Number - Anchor Length 16 ft. Size 5.5 in.
 Did Well Flow? No Reversed Out No Surface Choke Size 1/2 in. Bottom Choke Size 1/2 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 FH in.

Blow: Initial flow - weak blow building to strong blow.
Final flow - good blow to strong blow

Recovered 210 ft. of muddy water
 Recovered 480 ft. of water
 Recovered 1 ft. of oily water
 Recovered ft. of
 Recovered ft. of

Remarks:

Time Set Packer(s) 5:20 A.M. Time Started Off Bottom 7:50 P.M. Maximum Temperature 111°
 Initial Hydrostatic Pressure (A) 2118 P.S.I.
 Initial Flow Period Minutes 30 (B) 46 P.S.I. to (C) 216 P.S.I.
 Initial Closed In Period Minutes 42 (D) 1269 P.S.I.
 Final Flow Period Minutes 30 (E) 246 P.S.I. to (F) 326 P.S.I.
 Final Closed In Period Minutes 51 (G) 1265 P.S.I.
 Final Hydrostatic Pressure (H) 2100 P.S.I.

WESTERN TESTING CO., INC.
Pressure Data

Date 6/7/80 Recorder No. 6234 Capacity 4500 Test Ticket No. 6338
4378 Location _____ Ft.
 Clock No. _____ Elevation _____ Well Temperature 111 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2118	P.S.I.	5:20A	M
B First Initial Flow Pressure	46	P.S.I.	30	Mins. 30 Mins.
C First Final Flow Pressure	216	P.S.I.	45	Mins. 42 Mins.
D Initial Closed-in Pressure	1269	P.S.I.	30	Mins. 30 Mins.
E Second Initial Flow Pressure	246	P.S.I.	45	Mins. 51 Mins.
F Second Final Flow Pressure	326	P.S.I.		
G Final Closed-in Pressure	1265	P.S.I.		
H Final Hydrostatic Mud	2100	P.S.I.		

PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.
	of 5 mins. and a final inc. of 0 Min.		of 3 mins. and a final inc. of 0 Min.		of 5 mins. and a final inc. of 0 Min.		of 3 mins. and a final inc. of 0 Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	
P 1 0	46	0	216	0	246	0	326	
P 2 5	60	3	1088	5	250	3	1059	
P 3 10	92	6	1149	10	264	6	1124	
P 4 15	126	9	1170	15	283	9	1154	
P 5 20	157	12	1188	20	303	12	1170	
P 6 25	187	15	1203	25	314	15	1183	
P 7 30	216	18	1218	30	326	18	1197	
P 8		21	1226			21	1208	
P 9		24	1233			24	1215	
P10		27	1241			27	1224	
P11		30	1249			30	1232	
P12		33	1254			33	1238	
P13		36	1260			36	1243	
P14		38	1265			39	1249	
P15		42	1269			42	1253	
P16						45	1258	
P17						48	1262	
P18						51	1265	
P19								
P20								

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