

Formation Testing Service Report

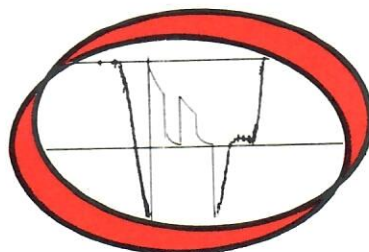


00593309



OPERATIONS DEPT.

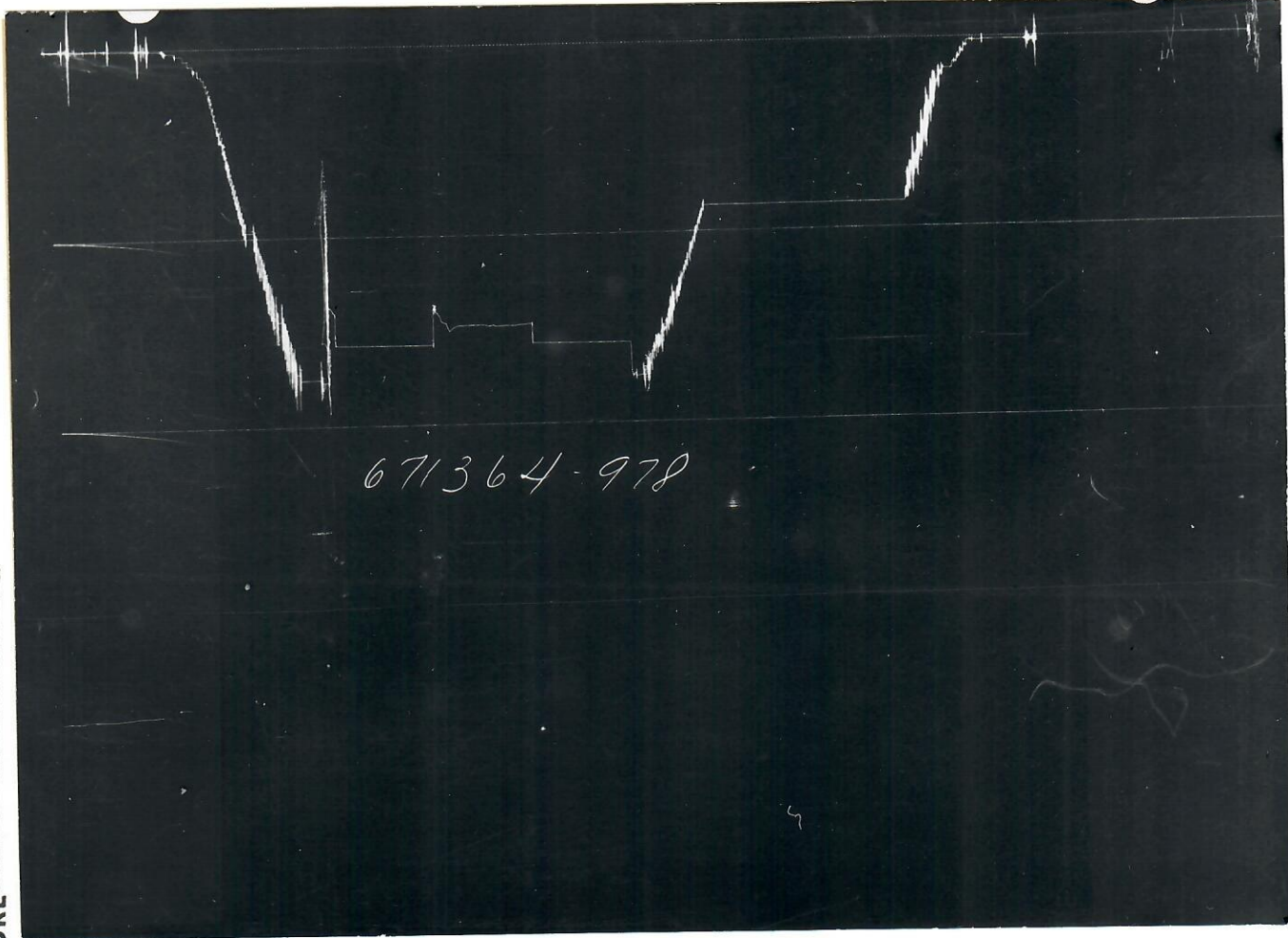
DUDLEY.....	MACKEY.....
McGIRL.....	STRECK.....
CONDIE.....	ARNOLD.....
SCOTT.....
KEITH.....



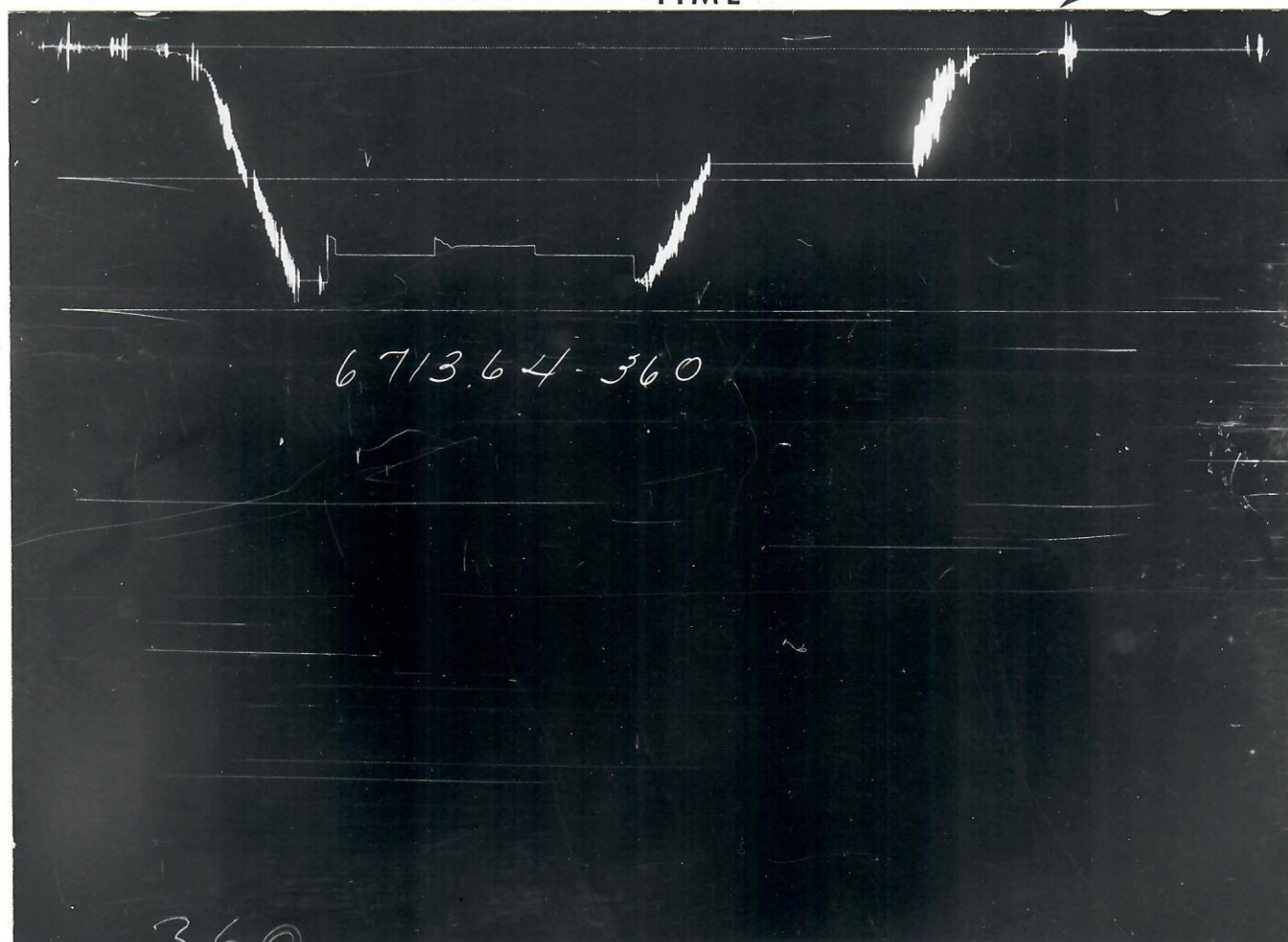
HALLIBURTON SERVICES

DUNCAN, OKLAHOMA

PRESSURE



TIME



Each Horizontal Line Equal to 1000 p.s.i.

#1 HUGHES

Lease Name

32-5

2

3556 - 3626'

CHAMPLIN PETROLEUM COMPANY

Lease Owner/Company Name

Legal Location
Sec. - Twp. - Rng.

FIELD

SW NE

S T 27 S R 20 W

Field Area

WILDCAT

County

HUERFANO

State

COLORADO

Date	6-19-74	Ticket Number	671364
Kind of Job	OPEN HOLE	Halliburton District	STERLING
Tester	D. SUTER	Witness	MR. STUBBLEFIELD
Drilling Contractor	EXETER DRILLING COMPANY	SM	S

EQUIPMENT & HOLE DATA	
Formation Tested	Dakota
Elevation	7596' Ft.
Net Productive Interval	70' Ft.
All Depths Measured From	Kelly bushing
Total Depth	3626' Ft.
Main Hole/Casing Size	7 7/8"
Drill Collar Length	225' I.D. 2 1/4"
Drill Pipe Length	3296' I.D. 3.826"
Packer Depth(s)	3548-3556' Ft.
Depth Tester Valve	3530' Ft.

FLUID SAMPLE DATA	
Sampler Pressure	900 P.S.I.G. at Surface
Recovery: Cu. Ft. Gas	18.3 CO ₂
cc. Oil	0
cc. Water	0
cc. Mud	0
Tot. Liquid cc.	0
Gravity	1.020 API @ 70 °F.
Gas/Oil Ratio	cu. ft./bbl.

RESISTIVITY		CHLORIDE CONTENT	
Water in drill collars	2.46 @ 68 °F.	2500	ppm
Recovery Water	— @ — °F.	—	ppm
Recovery Mud	— @ — °F.	—	ppm
Recovery Mud Filtrate	3.44 @ 70 °F.	—	ppm
Mud Pit Sample	2.87 @ 70 °F.	2000	ppm
Mud Pit Sample Filtrate	— @ — °F.	—	ppm
Mud Weight	9.1 vis 42	cp	

TYPE	AMOUNT	Depth Back Pres. Valve	Surface Choke	Bottom Choke
Cushion			1/4-2"	3/4"
Recovered	60 Feet of water			
Recovered	Feet of			
Recovered	Feet of			
Recovered	Feet of			
Recovered	Feet of			

Remarks SEE PRODUCTION TEST DATA SHEET

UNABLE TO PERFORM CALCULATION SERVICE - INSUFFICIENT PRESSURE CHANGE DURING BUILDUP FOR EXTRAPOLATION OF THE CLOSED IN PRESSURE.

TEMPERATURE	Gauge No. 978	Gauge No. 360	Gauge No.	TIME
	Depth: 3533 Ft.	Depth: 3585 Ft.	Depth: Ft.	
Est. °F.	12 Hour Clock	12 Hour Clock	Hour Clock	Tool
	Blanked Off no	Blanked Off yes	Blanked Off	Opened 1130 P.M.
Actual 139 °F.	Pressures	Pressures	Pressures	Opened A.M.
	Field Office	Field Office	Field Office	Bypass 2:35 P.M.
Initial Hydrostatic	1761 1767	- 1783		Reported
Flow Initial	1385 1385	- 1435		Minutes
Flow Final	1412 1418	- 1468		Minutes
Closed in	1438 1589	- 1586		5 5
Flow Initial	1385 1393	- 1449		60 60
Flow Final	1492 1483	- 1509		60 60
Closed in	1438 1587	- 1584		60 60
Flow Initial				
Flow Final				
Closed in				
Final Hydrostatic	1761 1762	- 1778		

FORMATION TEST DATA

LITTLE'S 93974 SM 8/73

Casing perms. _____ Bottom choke _____ Surf. temp _____ °F Ticket No. 671364
Gas gravity _____ Oil gravity _____ GOR _____
Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F

INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED.

[illegible]

Gauge No.			978		Depth		3533'		Clock No.			10568		12 hour	Ticket No.		671364	
First Flow Period			First Closed In Pressure			Second Flow Period		Second Closed In Pressure			Third Flow Period		Third Closed In Pressure					
	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t + \theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t + \theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t + \theta}{\theta}$	PSIG Temp. Corr.			
0	.0000	1385	.0000		1418	.0000	1393	.0000		1483								
1	.0058	1387	.0067		1586	.0667 M	1516	.0066		1583								
2	.0116	1389	.0133		1587	.1334	1487	.0132		1585								
3	.0174	1398	.0200		1587	.2001	1485	.0198		1585								
4	.0232	1413	.0267		1587	.2668	1492	.0265		1585								
5	.0290	1418	.0333		1587	.3335	1491	.0331		1585								
6			.0400		1587	.4000	1483	.0397		1585								
7			.0467		1587			.0463		1585								
8			.0533		1587			.0529		1585								
9			.0600		1587			.0595		1585								
10			.0667		1587			.0662		1585								
11			.1333		1589			.1323		1586								
12			.2000		1589			.1985		1586								
13			.2667		1589			.2647		1586								
14			.3333		1589			.3308		1587								
15			.4000		1589			.3970		1587								

Gauge No. 360			Depth 3585'			Clock No. 10566			12 hour			
	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t + \theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.					
0	.0000	1435	.0000		1468	.0000	1449		.0000		1509	
1	.0064	1449	.0067		1582	.0667 M	1530		.0066		1578	
2	.0128	1447	.0133		1584	.1334	1511		.0132		1580	
3	.0192	1453	.0200		1584	.2001	1511		.0197		1580	
4	.0256	1462	.0267		1586	.2668	1514		.0263		1582	
5	.0320	1468	.0333		1586	.3335	1514		.0329		1582	
6			.0400		1586	.4000	1509		.0395		1582	
7			.0467		1586				.0461		1582	
8			.0533		1586				.0527		1582	
9			.0600		1586				.0592		1582	
10			.0667		1586				.0658		1582	
11			.1333		1586				.1317		1582	
12			.2000		1586				.1975		1584	
13			.2667		1586				.2633		1584	
14			.3333		1586				.3292		1584	
15			.4000		1586				.3950		1584	

Reading Interval 1

*

10

**

Minutes

REMARKS: M = maximum flow pressure *First 10 intervals are equal to 1 minute each, next 5 intervals are equal to 10 minutes each. **First 10 intervals are equal to 1 minute each, last 5 intervals are equal to 10 minutes each.

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	5 3/4"	2"	1'	
Water Cushion Valve				
Drill Pipe	4 1/2"	3.826"	3296'	
Drill Collars	6"	2 1/4"	225'	
Handling Sub & Choke Assembly				
Dual CIP Valve				
Dual CIP Sampler	5"	.87"	7'	
Hydro-Spring Tester	5"	3/4"	5'	3530'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3"	4'	3533'
Hydraulic Jar	5"	1.75"	5'	
VR Safety Joint	5"	1"	3'	
Pressure Equalizing Crossover				
Packer Assembly	7"	1.50"	5.80'	3548'
Distributor				
Packer Assembly	7"	1.50"	4.60'	3556'
Flush Joint Anchor	5"	2.37"	30'	
Pressure Equalizing Tube				
Drill collars	4 1/2"	3.826"	31.84'	
Blanked-Off B.T. Running Case	5"		4'	3585'
Drill Collars				
Anchor Pipe Safety Joint	5"	1.50"	4'	
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor				
Blanked-Off B.T. Running Case				
Total Depth				3626'

LYNES UNITED SERVICES LTD.

TEST DATA				GENERAL INFORMATION			
Test No.		3 - B		Lynes Test		One	
Formation		T.D.		Ft.		Company	
Interval Tested		Ft. to		Ft.		Address	
Interval Tested		Ft.		Net Pay Tested		Ft.	
Type of Test		Conventional		Well Name		#1 Hughes	
Cushion		Amount		Ft.		Well Number	
Started in Hole at		Hrs.		Tool Open at		Hrs.	
Pre-Flow		Mins.		Initial Shut-in		Mins.	
2nd Flow		Mins.		Second Shut-in		Mins.	
Final Flow		30		Final Shut-in		60	
Remarks:				Tester			
				Contractor			
Blow:				Ticket No.			
				Service Reports To:			
				7 - distribution list			
GAS BLOW MEASUREMENTS				MUD AND HOLE DATA			
Measured with				Mud Type			
Time	Surface Choke	Reading Inches	Cubic Feet/Day	Weight	Viscosity	Water Loss	
				Filter Cake	Bottom Hole Temperature		
				Drill Pipe Size	4 1/2	Weight 14.00	
				Drill Collars	I.D.		Feet 'Run
				Main Hole or Casing Size	7 7/8		
				Rathole or Liner Size	No. of Feet		
				Bottom Hole Choke Size	1/4		
				Surface Choke Size	1/4		
				Packer Rubber Size	7"		
				REMARKS			
				Shut-in pressures suggest average permeability within the interval tested.			
RECOVERY				TOTAL FLUID RECOVERED			
				750 Ft. Consisting of:			
750 Ft. of				no available due to tight			
				Ft. of			
				Ft. of			
				Ft. of			
Test was/was not Reverse Circulated							
Oil Recovery A.P.I.				Water Specific Gravity			
Salinity							
PRESSURE READINGS							
Inside		Outside		Inside		Outside	
Recorder No.		7097		Recorder No.		8889	
Capacity		4000		Capacity		3000	
Depth		4145		Depth		4145	
Inside		Outside		Inside		Outside	
Recorder No.		6651		Recorder No.			
Capacity		60 - 303°		Capacity			
Depth		4145		Depth			
NUMBER KEY:							
1 - INITIAL HYDROSTATIC				2007			
2 - PRE-FLOW				2039			
3 - INITIAL SHUT-IN							
4a - 2nd INITIAL FLOW				141°			
4b - 2nd FINAL FLOW							
4c - 2nd SHUT-IN							
5 - 3rd INITIAL FLOW				197			
6 - FINAL FLOW				293			
7 - FINAL SHUT-IN				1637			
8 - FINAL HYDROSTATIC				1985			

Champlin Petroleum Co.

Hughes #1 32 - 5

Well Name and Description

Three - B

June 26/74

Date of Test

RECEIVED

AUG 2 1974

COLORADO OIL & GAS CORP. COMM.

NOMENCLATURE

b	= Approximate Radius of Investigation	Feet
b₁	= Approximate Radius of Investigation (Net Pay Zone h ₁)	Feet
D.R.	= Damage Ratio	—
EI	= Elevation	Feet
GD	= B.T. Gauge Depth (From Surface Reference)	Feet
h	= Interval Tested	Feet
h₁	= Net Pay Thickness	Feet
K	= Permeability	md
K₁	= Permeability (From Net Pay Zone h ₁)	md
m	= Slope Extrapolated Pressure Plot (Psi ² /cycle Gas)	psi/cycle
OF₁	= Maximum Indicated Flow Rate	MCF/D
OF₂	= Minimum Indicated Flow Rate	MCF/D
OF₃	= Theoretical Open Flow Potential with/Damage Removed Max.	MCF/D
OF₄	= Theoretical Open Flow Potential with/Damage Removed Min.	MCF/D
P_s	= Extrapolated Static Pressure	Psig.
P_f	= Final Flow Pressure	Psig.
P_{or}	= Potentiometric Surface (Fresh Water *)	Feet
Q	= Average Adjusted Production Rate During Test	bbls/day
Q₁	= Theoretical Production w/Damage Removed	bbls/day
Q_g	= Measured Gas Production Rate	MCF/D
R	= Corrected Recovery	bbls
r_w	= Radius of Well Bore	Feet
t	= Flow Time	Minutes
t_o	= Total Flow Time	Minutes
T	= Temperature Rankine	°R
Z	= Compressibility Factor	—
μ	= Viscosity Gas or Liquid	CP
Log	= Common Log	

* Potentiometric Surface Reference to Rotary Table When Elevation Not Given,
Fresh Water Corrected to 100° F.