

Formation Testing Service Report



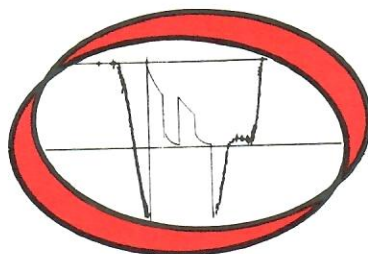
00572821

RECEIVED

MAY - 3 1971

COLD OIL & GAS CONS. COMM.

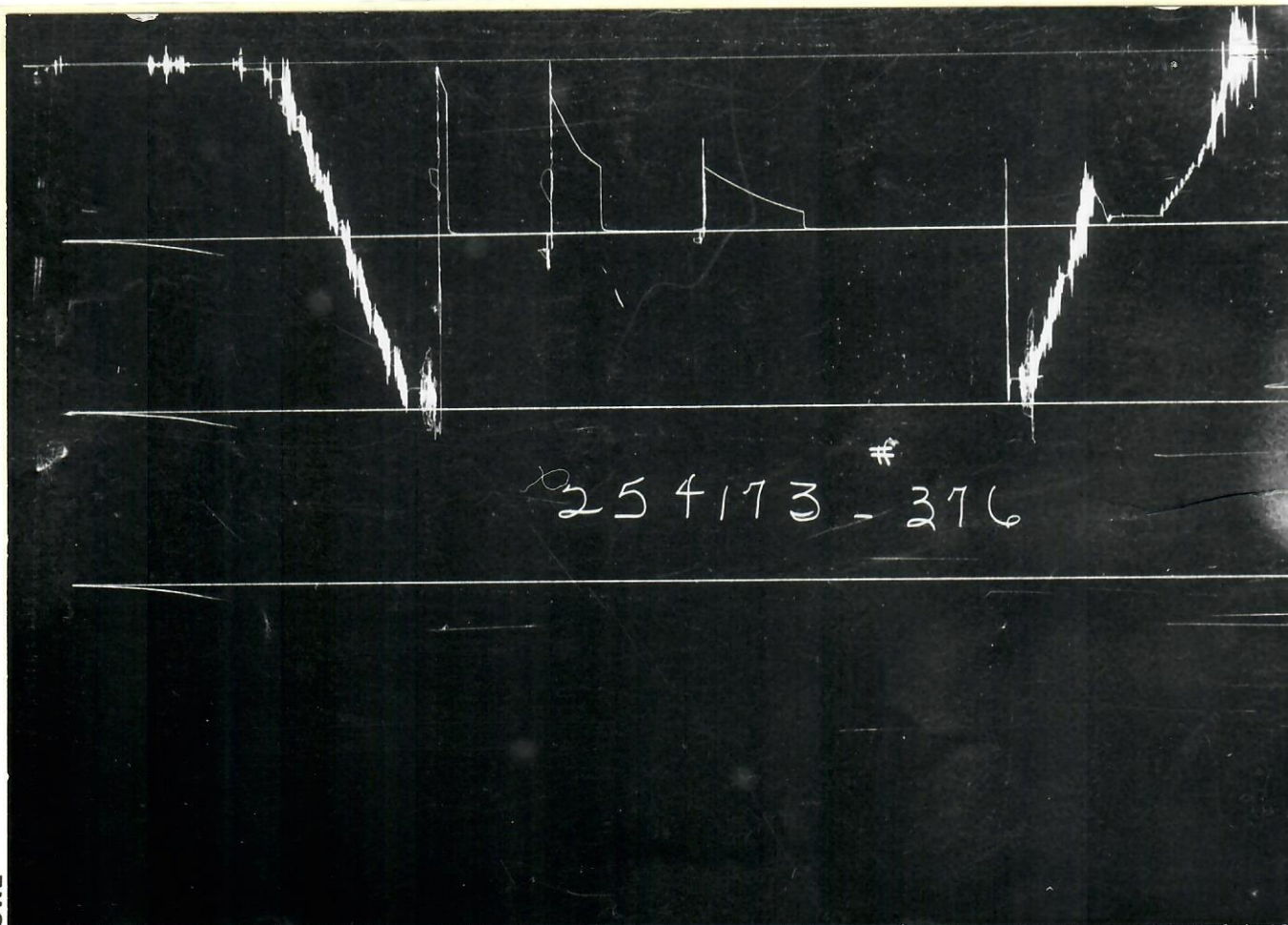
8-195-45 W



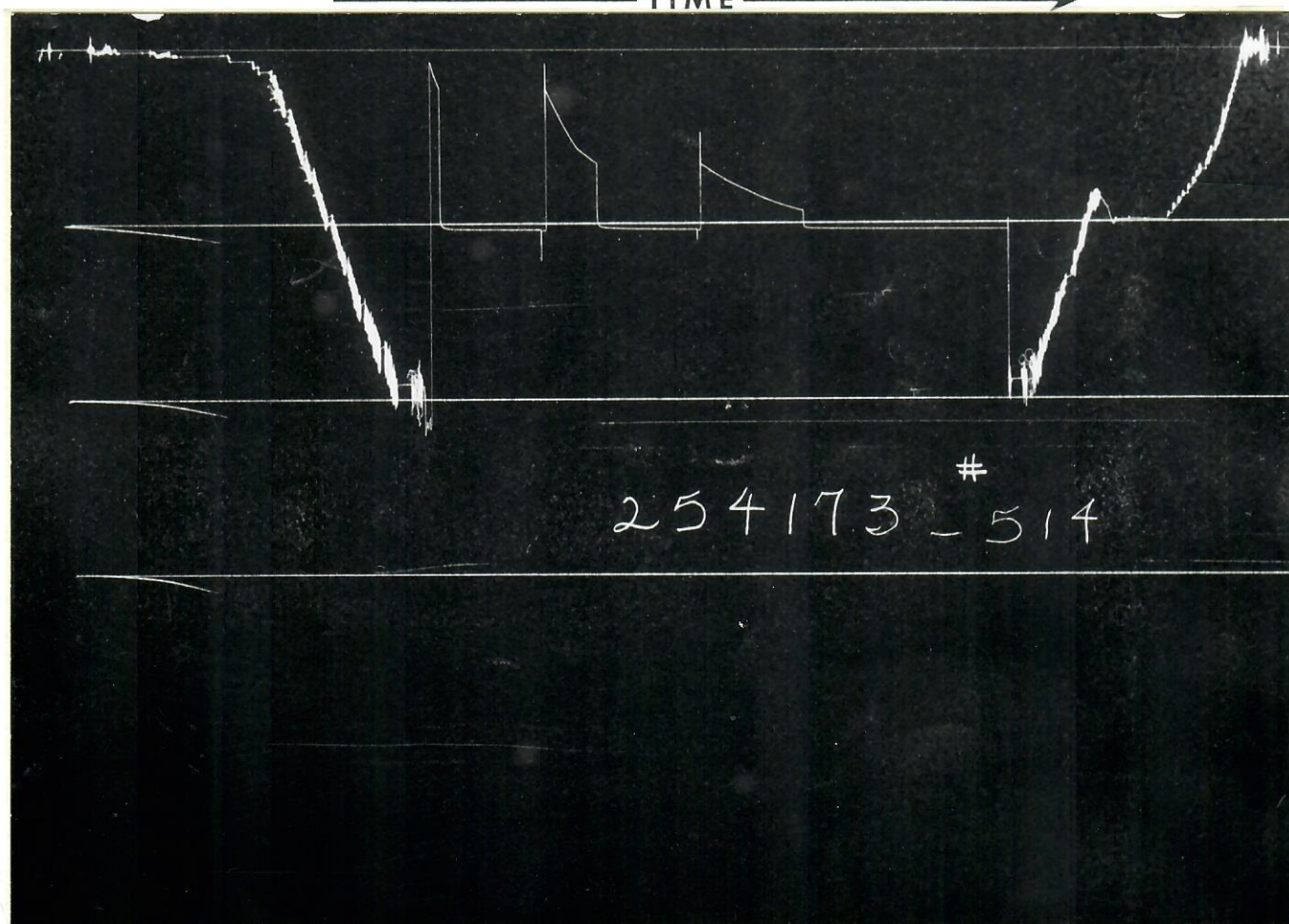
H

HALLIBURTON SERVICES
DUNCAN, OKLAHOMA

PRESSURE



TIME



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

FLUID SAMPLER DATA				Date 4-23-71		Ticket Number 254173	
Sampler Pressure <u>725</u> P.S.I.G. at Surface Recovery: Cu. Ft. Gas _____ cc. Oil _____ cc. Water <u>1850</u> cc. Mud <u>350</u> Tot. Liquid cc. <u>2200</u> Gravity _____ ° API @ _____ °F. Gas/Oil Ratio _____ cu. ft./bbl.				Kind of Job OPEN HOLE Halliburton District LIBERAL Tester G. L. SHAVERS Witness BRADLEY BLY Drilling Contractor MURFIN DRILLING COMPANY NMSM S			
EQUIPMENT & HOLE DATA							
				Formation Tested <u>Lansing Kansas City L-11</u> Elevation <u>4250'</u> Estimated _____ Ft. Net Productive Interval <u>25'</u> Approximately _____ Ft. All Depths Measured From <u>Kelly bushing</u> Total Depth <u>3861'</u> _____ Ft. Main Hole/Casing Size <u>7 7/8"</u> Drill Collar Length <u>185'</u> I.D. <u>2 1/4"</u> Drill Pipe Length <u>971' WP 2614'</u> I.D. <u>3.826"</u> Packer Depth(s) <u>3797-3805'</u> _____ Ft. Depth Tester Valve <u>3767'</u> _____ Ft.			
RESISTIVITY		CHLORIDE CONTENT					
Recovery Water <u>.36 @ 62 °F. 13,800 ppm</u>							
Recovery Mud _____ @ _____ °F.							
Recovery Mud Filtrate _____ @ _____ °F. _____ ppm							
Mud Pit Sample _____ @ _____ °F.							
Mud Pit Sample Filtrate _____ @ _____ °F. <u>66,000 ppm</u>							
Mud Weight <u>9.4</u> vis <u>41</u> cp							
TYPE		AMOUNT		Depth Back		Surface	
Cushion				Ft. Pres. Valve		Choke <u>1/4"</u> Bottom Choke <u>3/4"</u>	
Recovered		<u>1950</u>		Feet of salt water			
Recovered				Feet of			
Recovered				Feet of			
Recovered				Feet of			
Recovered				Feet of			
RECEIVED MAY - 3 1971 COLD OIL & GAS CONDS. COMM.							
Remarks <u>Tool opened with a strong blow for 5 minute first flow. Closed tool for 62 minute first closed in pressure. Tool reopened with strong blow for 30 minute second flow. Closed for 60 minute second closed in pressure. Tool reopened with a good to strong blow for 60 minute third flow. Closed tool for 120 minute third closed in pressure. Released tools and started out of hole at 1:13.</u>							
TEMPERATURE		Gauge No. 376		Gauge No. 514		Gauge No.	
		Depth: 3790 Ft.		Depth: 3858 Ft.		Depth: _____ Ft.	
Est. 107 °F.		12 Hour Clock		12 Hour Clock		Hour Clock	
Blanked Off no		Blanked Off yes		Blanked Off			
Actual 110 °F.		Pressures		Pressures		Pressures	
		Field Office		Field Office		Field Office	
Initial Hydrostatic		<u>1879 1881</u>		<u>1897 1915</u>			
First Period	Flow Initial	<u>29 35</u>		<u>75 79</u>			
	Flow Final	<u>173 187</u>		<u>244 224</u>			
	Closed in	<u>1004 1003</u>		<u>1028 1037</u>			
Second Period	Flow Initial	<u>173 199</u>		<u>244 235</u>			
	Flow Final	<u>619 619</u>		<u>658 651</u>			
	Closed in	<u>1004 1002</u>		<u>1028 1033</u>			
Third Period	Flow Initial	<u>619 626</u>		<u>658 658</u>			
	Flow Final	<u>890 893</u>		<u>914 925</u>			
	Closed in	<u>1004 999</u>		<u>1028 1030</u>			
Final Hydrostatic		<u>1850 1856</u>		<u>1883 1886</u>			

Legal Location Sec. - Twp. - Rng. **C NE SE**
 Lease Name **KING PYLES**
 Well No. **3**
 Test No. **1**
 Tested Interval **3805-3861'**
 Field Area **BRANDON**
 County **KIOWA**
 State **COLORADO**
 Lease Owner/Company Name **I.N.E.X.C.O.**

Gauge No. 376			Depth 3790'			Clock No. 2595			12 hour	Ticket No. 254173					
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"	$\text{Log} \frac{t + \theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log} \frac{t + \theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log} \frac{t + \theta}{\theta}$	PSIG Temp. Corr.
0	.000	35	.000		187	.000	199	.000		619	.000	626	.000		893
1	.0076	65	.0402		993	.033	301	.041		987	.0667	686	.0806		993
2	.0152	105	.0804		996	.066	398	.082		991	.1334	740	.1612		994
3	.0228	135	.1206		997	.099	481	.123		993	.2001	790	.2418		996
4	.0304	163	.1608		997	.132	547	.164		994	.2668	830	.3224		996
5	.038	187	.2010		999	.165	584	.205		994	.3335	864	.4030		996
6			.2412		999	.198	619	.246		996	.400	893	.4836		997
7			.2814		999			.287		996			.5642		997
8			.3216		999			.328		996			.6448		997
9			.3618		999			.369		996			.7254		997
10			.415		1003*			.410		1000			.806		999
11															
12															
13															
14															
15															

Gauge No.			514			Depth		3858'		Clock No.		3461		hour		12	
0	.000	79	.000		224	.000	235	.000		651	.000	658	.000		925		
1	.0074	107	.0412		1028	.034	335	.0415		1023	.0683	718	.082		1026		
2	.0148	146	.0824		1031	.068	430	.0830		1026	.1366	772	.164		1027		
3	.0222	172	.1236		1031	.102	516	.1245		1027	.2049	822	.246		1028		
4	.0296	198	.1648		1033	.136	580	.1660		1027	.2732	862	.328		1028		
5	.037	224	.2060		1033	.170	617	.2075		1028	.3415	897	.410		1028		
6			.2472		1033	.204	651	.2490		1028	.410	925	.492		1028		
7			.2884		1033			.2905		1028			.574		1028		
8			.3296		1034			.3320		1030			.656		1030		
9			.3708		1034			.3735		1031			.738		1030		
10			.426		1037*			.415		1033			.820		1030		
11																	
12																	
13																	
14																	
15																	
Reading Interval 1			6			5		6			10			12 Minutes			

REMARKS:

* INTERVAL = 8 MINUTES.

SPECIAL PRESSURE DATA

	O. D.	I. D.	LENGTH	DEPTH
Reversing Sub	6"	3.8"	1'	
Water Cushion Valve				
Drill Pipe	4 1/2"	3.826"	971'-WP 2614'	
Drill Collars	2 1/4"	2 1/4"	185'	
Handling Sub & Choke Assembly				
Dual CIP Valve				
Dual CIP Sampler				3767'
Hydro-Spring Tester				
Multiple CIP Sampler	5"	.75"	7'	
Extension Joint	5"	.75"	4'	
AP Running Case	5"	3.06"	4'	3790'
Hydraulic Jar	5"	1.75"	5'	
VR Safety Joint	5"	1.00"	3'	
Pressure Equalizing Crossover				
Packer Assembly	6 3/4"	1.53"	5' 10"	3797'
Distributor				
Packer Assembly	6 3/4"	1.53"	5' 10"	3805'
Flush Joint Anchor	5"	2.37"	52'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case				
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor				
Blanked-Off B.T. Running Case	5"	2.44"	4'	3858'

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_{ot}	= 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.