

5/

D. S. T. REPORT

WA. 7-11-01. 5 (6)

Drill Stem Test Data (Test I int:10)

5 1968

BORG WARNER

Well Name	Phillips 7-11-1X	Test No.	1
Well Number	7-11-1X	Zone Tested	I
Company	Phillips Petroleum Company	Interval	10,248 - 10,370
Comp. Rep	Mr. J. Fetters	Tester	H. Price
		Date	May 26-28th, 1968





DRILL-STEM TEST DATA

Well Name Phillips 7-11-1X	Test No. 1
Well Number 7-11-1X	Zone Tested I
Company Phillips Petroleum Company	Interval 10,248 - 10,370
Comp. Rep. Mr. J. Fetters	Tester H. Price
	Date May 26-28th, 1968

Type of Test **Open Hole** RFS Tool No. _____
 Preflow **15** mins. ISI **480** mins. Flow **185** mins. FSI **420** mins.

Specify Inside or Outside	Ins.	REC. No.	2758	Outs.	REC. No.	2759
	10600	RANGE	72	HR. CLOCK	10650	RANGE 72 HR. CLOCK
DEPTH			10,340			10,345
Initial Hydro Mud Press			6754			6756
Initial Shut-In Press			5202	5450		5205 5453
Initial Flow Press			3758			3762
Final Flow Press			3880			3882
Final Shut-in Press			4919			4921
Final Hydro Mud Press			6754			6756

Mud Drop **Nil** Fluid Loss **13.0** Mud Weight **12.6**
 Viscosity **43** Temperature °F **256** Net Pay Tested **20**
 Top Packer Depth _____ Bottom Packer Depth **10,214** Total Depth **10,370**
 Drill Pipe Size **3 1/2" E.V.E.** Wt **9.3** Drill Collar I.D. **2 1/4"** Ft. Run **283.21**
 Surface Choke Size **3"** Bottom Choke Size **2" ID Bumper Sub** Main Hole Size **8 1/2" 9 5/8"**
 Anchor Size **3 1/2" EVE Tubing** Rat Hole Size _____ Feet of Rat Hole _____
 Cushion Amount **10,351** Type **6.9#/gal. Diesel** Rubber Size **8 1/8"**

Fluid Recovery Total Feet **10,351**
 Recovered **10,214** Feet of **Clear diesel oil**
 Recovered **137** Feet of **Dark brown diesel oil containing droplets of crude oil**
 Recovered _____ Feet of _____
 Recovered _____ Feet of _____
 Recovered _____ Feet of _____

Gas Recovery How Measured **Nil** Riser size: _____

_____ mins.	Temp. °F	Press Rdg. _____ psi	Orifice Size _____	= _____	MCF/Day
_____ mins.	Temp. °F	Press Rdg. _____ psi	Orifice Size _____	= _____	MCF/Day
_____ mins.	Temp. °F	Press Rdg. _____ psi	Orifice Size _____	= _____	MCF/Day
_____ mins.	Temp. °F	Press Rdg. _____ psi	Orifice Size _____	= _____	MCF/Day
_____ mins.	Temp. °F	Press Rdg. _____ psi	Orifice Size _____	= _____	MCF/Day
_____ mins.	Temp. °F	Press Rdg. _____ psi	Orifice Size _____	= _____	MCF/Day

Bleed Off Time for Drill Pipe _____
 REMARKS: **1. Preflow rate - 3 Bbls. per hour 2. After 4 hrs. 25 mins. of ISI, a surface leak occurred requiring repair. As a result of leak, 11.5 gals of diesel escaped from test string. This loss of fluid reduced the surface pressure to 321 psi. 3. On final flow, flowed at 3 Bbl. per hr. for 10 mins., reduced to 30 gal. per hr. for 10 mins., reduced to 8 gal per hr. and continued same throughout flow period. Reversed out after pulling tool loose.**

Core Lab Gas Cont. No. _____ Chem - Geo. Lab Gas Cont. No. _____



TESTING REPORT



4S LANDING SUB _____
 4S CHAMBER _____
 4S TOOL OR P.O. SUB _____
 CO SUB Drill pipe-pup joint 185.80
~~XXXXXX~~ P.B. Bumper Sub 22.36
~~XXXXXX~~ CO Sub 0.80
~~XXXXXX~~ 5" Drill pipe 89.00
~~XXXXXXXXXX~~ Otis Test Tree 22.80 2 1/2" - 5000 psi at 321 R.K.B.

~~XXXX~~ 3 1/2" E.V.E. Tubing 9577.78

RECORDER No. _____ DEPTH _____
 RECORDER No. _____ DEPTH _____
~~XXXXXXXXXX~~ CO Sub. 1.66
~~XXXXXXXXXX~~ P.B. Bumper Sub 21.73

1. PACKER DEPTH _____

~~XXXXXX~~ CO Subs + Drill Collars 285.61

2. PACKER DEPTH 10,214

PACKER Baker Retrievmatic 5.82 TOTAL TOOL ABOVE INTERVAL 10,233.36
1.00
 ANCHOR—SPECIFY _____
3 Joint Tubing 91.02
CO Subs + Perf. Tubing 33.17

BLANK OFF OR BY PASS SUR _____
 RECORDER No. 2758 Ins. 5.00 DEPTH 10,340

3. PACKER DEPTH _____

PACKER _____ TOTAL INTERVAL 156.00

4. PACKER DEPTH _____

PACKER _____
 ANCHOR—SPECIFY _____

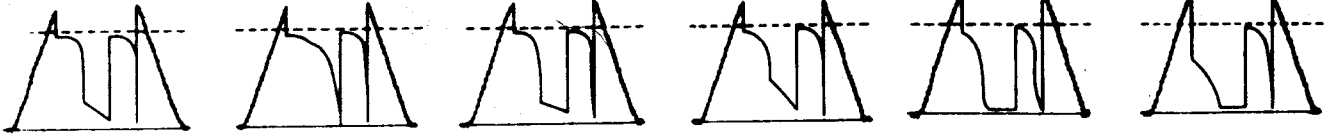
 RECORDER No. 2759 Outs. 5.00 DEPTH 10,345

TOTAL DEPTH 10,351.24
 To 1 Hole Depth 10,370.00

BULLNOSE 2.45

TOTAL TAIL PIPE 137.64
 TOTAL TEST TOOL 10371.00

DST CHARTS FOR COMPARATIVE VISUAL ANALYSIS



B HIGH PERMEABILITY STRONG DAMAGE EFFECT
 HIGH PERMEABILITY NO DAMAGE EFFECT
 MEDIUM PERMEABILITY STRONG DAMAGE EFFECT
 MEDIUM PERMEABILITY NO DAMAGE EFFECT
 LOW PERMEABILITY STRONG DAMAGE EFFECT
 LOW PERMEABILITY NO DAMAGE EFFECT



DST PRESSURE INCREMENTS OF INITIAL SHUT-IN

Recorder No. 2758

Depth 10,340

Points	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG	Time Defl. "	T+θ	$\frac{T+\theta}{\theta}$	PSIG
1	0			3799	360		1.0417	5113 ✓
2	15		2.0000	3962 ✓	375		1.0400	5159 ✓
3	30		1.5000	4121 ✓	390		1.0385	5202 ✓
4	45		1.3333	4248 ✓	405		1.0370	5245 ✓
5	60		1.2500	4356 ✓	420		1.0357	5288 ✓
6	75		1.2000	4453 ✓	435		1.0345	5326
7	90		1.1667	4534 ✓	450		1.0333	5369
8	105		1.1428	4607 ✓	465		1.0323	5410
9	120		1.1250	4677 ✓	480		1.0313	5450
10	135		1.1111	4741 ✓				
11	150		1.1000	4803 ✓				
12	165		1.0909	4860 ✓				
13	180		1.0833	4908 ✓				
14	195		1.0769	4962 ✓				
15	210		1.0714	5013 ✓				
16	225		1.0667	5059 ✓				
17	240		1.0625	5105 ✓				
18	255		1.0588	5148 ✓				
19	270	Surface leak	1.0556	5202 ✓				
20	285		1.0526	4695 ✓				
21	300		1.0500	4878 ✓				
22	315		1.0476	4940 ✓				
23	330		1.0455	5000 ✓				
24	345		1.0435	5056 ✓				



3.05

DST PRESSURE INCREMENTS
OF FINAL SHUT-IN

Recorder No. 2758

Depth 10,340

Points	Time Defl.	T+G	$\frac{T+G}{G}$	PSIG	Time Defl.	T+G	$\frac{T+G}{G}$	PSIG
1	0			3880	360		1.5	4814 ✓
2	15		13.2	3889	375		1.48	4841 ✓
3	30		7.1	3918 ✓	390		1.46	4868 ✓
4	45		5.0	3967 ✓	405		1.45	4895 ✓
5	60		4.05	4021 ✓	420		1.43	4919 ✓
6	75		3.4	4081 ✓				
7	90		3.0	4127 ✓				
8	105		2.7	4180 ✓				
9	120		2.5	4226 ✓				
10	135		2.3	4275 ✓				
11	150		2.2	4321 ✓				
12	165		2.1	4361 ✓				
13	180		2.01	4404 ✓				
14	195		1.93	4447 ✓				
15	210		1.87	4485 ✓				
16	225		1.81	4523 ✓				
17	240		1.76	4558 ✓				
18	255		1.71	4593 ✓				
19	270		1.67	4628 ✓				
20	285		1.64	4660 ✓				
21	300		1.61	4690 ✓				
22	315		1.58	4725 ✓				
23	330		1.55	4755 ✓				
24	345		1.53	4787 ✓				

PHILLIPS PETROLEUM COMPANY

WELL PRODUCTION TEST

Well: 7/11-1X
DST No: 1
Interval: 10248' - 10370' RKB
Date of Test: May 27 and 28, 1968
Hole Size: See caliper log. Test interval was formation immediately
below 9 5/8" casing. (9 5/8" casing set at 10248' RKB)
Top of open hole cement plug at 10370' RKB.

Test String Makeup

Bottom to Top

- a) Bullnose Plug
- b) BJ Outside Recorder
- c) Hanger Sub
- d) B J Inside Recorder
- e) Hanger Sub
- f) Cross over Sub
- g) Perforeted Joint
- h) 3-Jts. 3½" tubing
- i) 9 5/8" Baker Retrieuzmatic Packer
- j) Cross over Sub
- k) 283 feet of 6½ " X 2 1/4" drill collers
- l) Cross over Sub
- m) Pressure Balanced Bumper Sub (2" I.D.)
- n) Cross over Sub
- o) 9578' of 3½" 9.3 lb/ft. N-80 EUE 8RD+ bg.
- p) Otis Test Tree
- q) 90 feet of 5" drill pipe
- r) Pressure Balanced Bumper Sub (2" I.D.)
- s) 186 feet of 5" drill pipe

Test Procedure

Time

- | | |
|---|-----------|
| 1) Flowed well for Initial Flow Period | 0925-0940 |
| 2) Conducted Initial Shut-in Pressure Buildup | 0940-1740 |
| 3) Flowed well for Final Flow Period | 1740-2043 |
| 4) Conducted Final Shut-in Pressure Buildup | 2043-0353 |

The following are attached to this report:

- 1) Wellhead pressure measurements
- 2) B J DST Report

DATE May 27&28, 1968

PHILLIPS PETROLEUM CO.

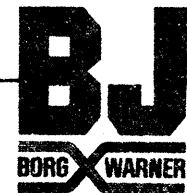
LEASE Blk 7/11

SURFACE PRESSURE

INTERVAL 10248'-10370'WELL NO. 7/11-1XTEST NO. DST No.1

TIME	WELL HEAD		REMARKS
	TEMP OF	PRESS PSIG	
0925		0	Opened Well for Initial Flow
0940		0	Closed well for pressure build-up
0945		30	
1000		160	
1015		315	
1030		444	
1045		545	
1100		645	
1115		727	
1130		802	
1145		878	
1200		939	
1215		998	
1230		1050	
1245		1150	
1300		1155	
1315		1203	
1330		1255	
1345		1297	
1400		1339	
1405		1355	Leak developed in surface chicsan line. Lost
1424		N.R.	approximately 11.5 gallons fluid before leak was repaired
1430		1034	

TIME	WELL HEAD		REMARKS
	TEMP °F	PRESS PSIG	
1445		1107	
1500		1172	
1515		1232	
1530		1290	
1545		1332	
1600		1382	
1615		1424	
1630		1462	
1645		1494	Discontinued taking surface pressure recordings due to occurrence of 2nd chucksanleak. Closed valve at tree and allowed bhp to continue building.
1740			Opened well for final flow period. Well flowed at 8 gal per hour rate and zero surface pressure
2040			Closed well for final pressure buildup
2100		25	
2130		89	
2145		142	
2200		196	
2215		247	
2230		300	
2245		347	
2300		392	
2315		439	



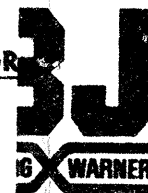
TESTING REPORT



TESTING REPORT



TESTING REPORT



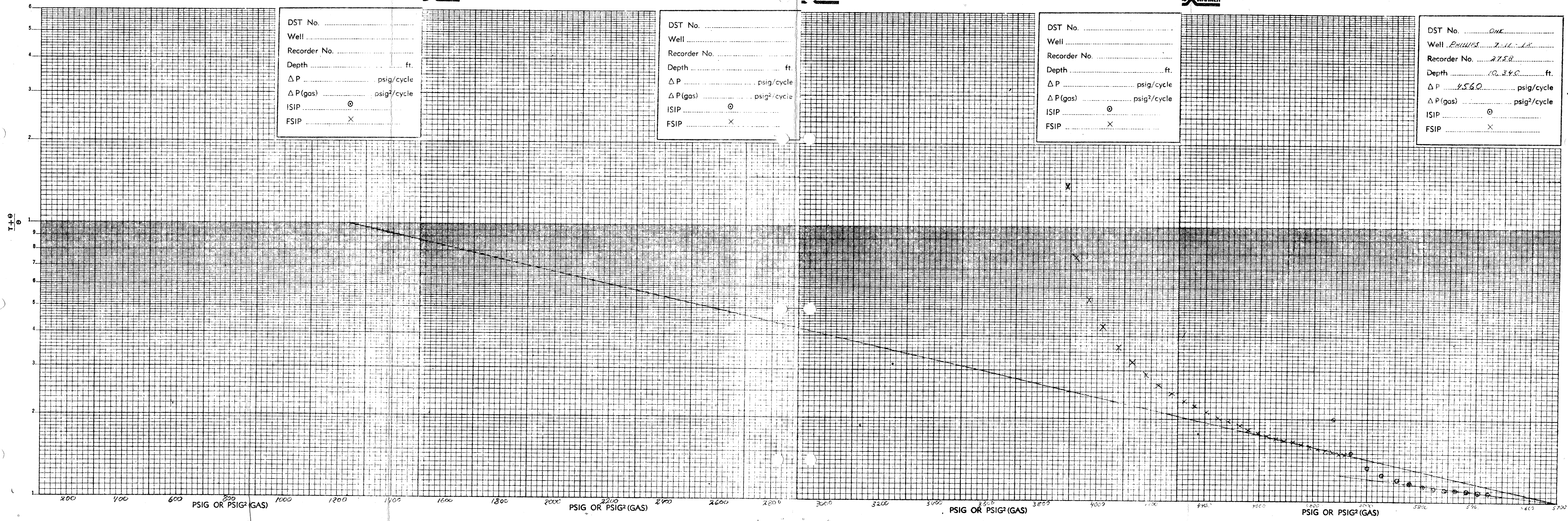
TESTING REPORT

DST No. _____
 Well _____
 Recorder No. _____
 Depth _____ ft.
 ΔP _____ psig/cycle
 ΔP (gas) _____ psig²/cycle
 ISIP \odot
 FSIP \times

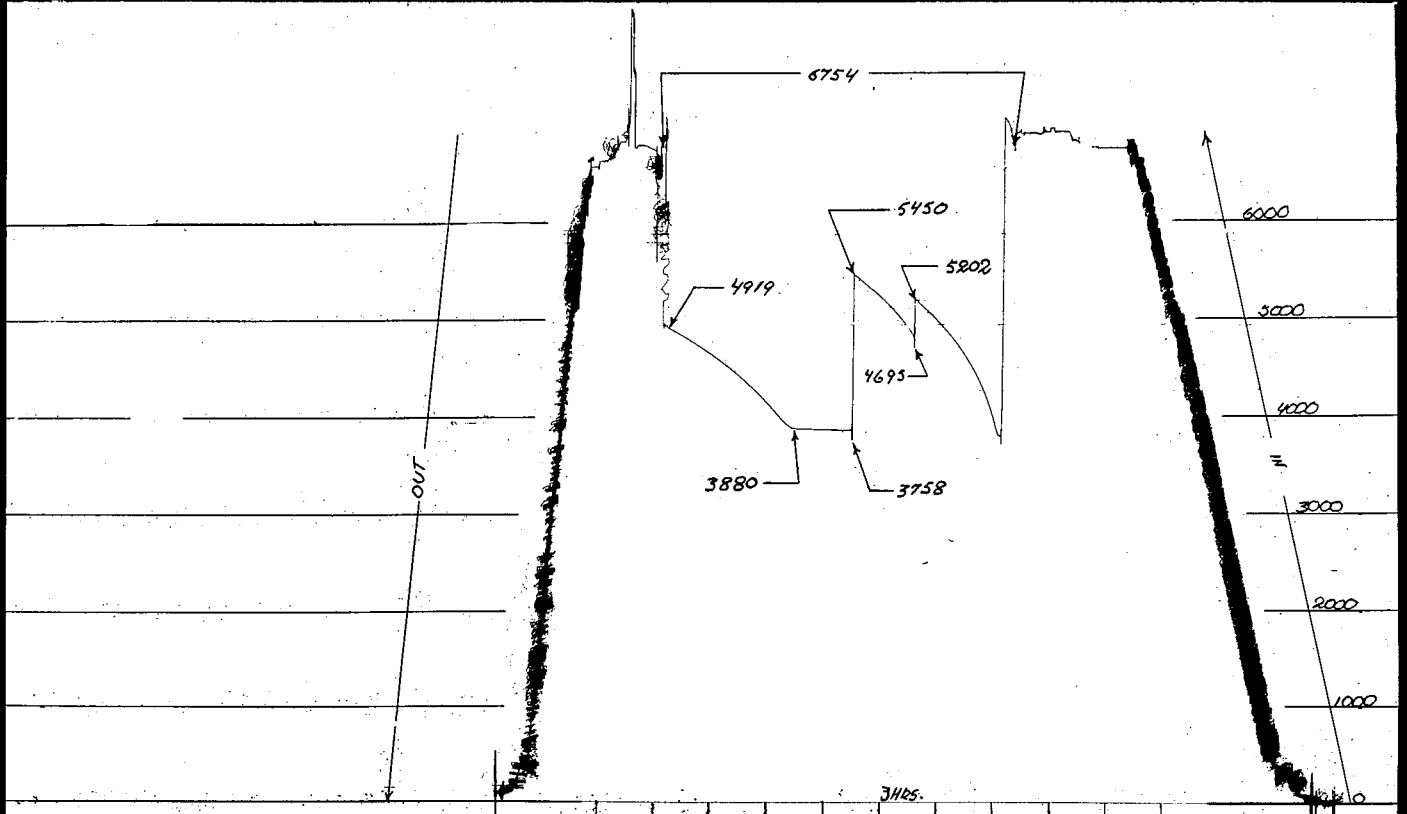
DST No. _____
 Well _____
 Recorder No. _____
 Depth _____ ft.
 ΔP _____ psig/cycle
 ΔP (gas) _____ psig²/cycle
 ISIP \odot
 FSIP \times

DST No. _____
 Well _____
 Recorder No. _____
 Depth _____ ft.
 ΔP _____ psig/cycle
 ΔP (gas) _____ psig²/cycle
 ISIP \odot
 FSIP \times

DST No. ONE
 Well PHILIPS 7-11-1A
 Recorder No. 2758
 Depth 10,340 ft.
 ΔP 4560 psig/cycle
 ΔP (gas) _____ psig²/cycle
 ISIP \odot
 FSIP \times



Phillips 7-11-1X
Ins. Recorder #2758 Test #1



Phillips 7-11-1X
Outs. Recorder #2759 Test #1

