

WARRFIELD STATE

Lease Name

Well No.

Test No.

10,324' - 10,434'

HARPER OIL COMPANY

Lease Owner/Company Name

Legal Location
Sec. - Twp. - Rng.

31 - 12S - 34E

Field Area
RANGER LAKE

County

LEA

State
NEW MEXICO

FLUID SAMPLE DATA				Date		Ticket Number	
Sampler Pressure <u>70</u> P.S.I.G. at Surface				5-14-81		116167	
Recovery: Cu. Ft. Gas <u>.350</u>				Kind of D.S.T. <u>OPEN HOLE</u>		Halliburton Location <u>HOBBS</u>	
cc. Oil <u>0</u>				Tester <u>NORRIS MANNEY</u>		Witness <u>HANSON</u>	
cc. Water <u>1950</u>				Drilling Contractor <u>WARTON DRILLING COMPANY RIG # 2 NM</u>		SM	
cc. Mud <u>0</u>				EQUIPMENT & HOLE DATA			
Tot. Liquid cc. <u>1950</u>				Formation Tested <u>Ranger Lake (Lower)</u>			
Gravity _____ ° API @ _____ ° F.				Elevation <u>4203' GL - 4218' KB</u> Ft.			
Gas/Oil Ratio _____ cu. ft./bbl.				Net Productive Interval <u>110'</u> Ft.			
RESISTIVITY _____ CHLORIDE CONTENT _____				All Depths Measured From <u>Kelly Bushing</u>			
Recovery Water _____ @ _____ ° F. _____ ppm				Total Depth <u>10,434'</u> Ft.			
Recovery Mud _____ @ _____ ° F. _____ ppm				Main Hole/Casing Size <u>7 7/8"</u>			
Recovery Mud Filtrate _____ @ _____ ° F. _____ ppm				Drill Collar Length <u>567'</u> I.D. <u>2.25"</u>			
Mud Pit Sample _____ @ _____ ° F. _____ ppm				Drill Pipe Length <u>9713'</u> I.D. <u>3.826"</u>			
Mud Pit Sample Filtrate _____ @ _____ ° F. _____ ppm				Packer Depth(s) <u>10,317' - 10,324'</u> Ft.			
Mud Weight <u>9.3</u> vis <u>39</u> sec.				Depth Tester Valve <u>10,285'</u> Ft.			
Cushion		TYPE	AMOUNT	Depth Back Pres. Valve	Surface Choke	Bottom Choke	
		NONE		NONE	1" ADJ.	.75"	
Recovered	250'	Feet of	lightly gas cut drilling fluid				
Recovered	1247'	Feet of	formation water				
Recovered		Feet of					
Recovered		Feet of					
Recovered		Feet of					
Remarks SEE PRODUCTION TEST DATA SHEET...							
TEMPERATURE		Gauge No. <u>1516</u>	Gauge No. <u>1496</u>	Gauge No.	TIME (00:00-24:00 hrs.)		
Depth: <u>10,302'</u> Ft.		Depth: <u>10,430'</u> Ft.	Depth:	Ft.			
24 Hour Clock		24 Hour Clock	Hour Clock		Tool Opened <u>1540</u>		
Est. ° F. Blanked Off <u>NO</u>		Blanked Off <u>YES</u>		Blanked Off		Opened Bypass <u>2140</u>	
Actual <u>155° F.</u>		Pressures		Pressures		Pressures	
		Field	Office	Field	Office	Field	Office
Initial Hydrostatic		<u>5166</u>	<u>5223.1</u>	<u>5205</u>	<u>5280.0</u>		
First Period	Flow Initial	<u>66</u>	<u>88.5</u>	<u>222</u>	<u>250.6</u>		
	Flow Final	<u>376</u>	<u>369.9</u>	<u>444</u>	<u>460.8</u>		
	Closed in	<u>3659</u>	<u>3700.2</u>	<u>3696</u>	<u>3742.1</u>		
Second Period	Flow Initial	<u>398</u>	<u>426.8</u>	<u>466</u>	<u>514.2</u>		
	Flow Final	<u>708</u>	<u>725.9</u>	<u>754</u>	<u>778.9</u>		
	Closed in	<u>3637</u>	<u>3683.6</u>	<u>3674</u>	<u>3732.4</u>		
Third Period	Flow Initial	* SEE SPECIAL READING SHEET...					
	Flow Final						
	Closed in						
Final Hydrostatic		<u>5166</u>	<u>5243.3</u>	<u>5205</u>	<u>5303.3</u>		

Casing perms. _____ Bottom choke _____ Surf. temp. _____ °F Ticket No. 116167
 Gas gravity _____ Oil gravity _____ GOR _____
 Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F
 INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED _____

Date Time	a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
0530						Tester on location.
0900						Picked up the tools.
1015						Run in the hole.
1540		BUBBLE HOSE	0			Opened tool - weak blow.
1545		"	0			Increased - 6" bubble hose in bucket.
1550		"	0			" - 8" in the bucket.
1555		"	1/8			" - 10" in the bucket.
1600		"	1/8+			Increased - 10" in the bucket.
1605		"	1/4			"
1610		"	1/4			Closed tool.
1709		"	0			Opened tool - fair blow.
1713		"	1/8			Increased to bottom of the bucket.
1715		"	1/8+			"
1725		"	1/4			"
1730		"	1/2			"
1740		"	3/4			"
1750		"	1			"
1752		1/4"	1			Opened on 1/4" choke.
1800		1/4"	3/4			Decreased.
1810		1/4"	1/2			"
1820		1/4"	1/4			"
1830		1/4"	1/8			"
1840		1/4"	1/8			Closed tool.
2140						Opened bypass.
2143						Jarred on the tools.
2210						Jarred loose.

INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED.

PRODUCTION TEST DATA

HARPER OIL COMPANY

116167

Lease Owner/Company Name

Ticket Number

B.T. 1516

B.T. 1496

B.T.

Depth 10302' 24 Hour

Depth 10430 24 Hour

Depth

Minutes	$\text{Log} \frac{t + \theta}{\theta}$	PSIG Temp. Corr.	Minutes	$\text{Log} \frac{t + \theta}{\theta}$	PSIG Temp. Corr.		$\text{Log} \frac{t + \theta}{\theta}$	PSIG Temp. Corr.
FIRST FLOW PERIOD			FIRST FLOW PERIOD					
0		88.5	0		250.6			
5		182.7	5		317.7			
10		254.2	10		338.8			
15		303.3	15		396.9			
20		333.2	20		431.7			
25		356.2	25		453.4			
28.3		369.9	28.5		460.8			
FIRST CIP PERIOD			FIRST CIP PERIOD					
0		369.9	0		460.8			
5		3251.1	5		3293.6			
10		3424.8	10		3464.7			
15		3498.0	15		3541.7			
20		3548.9	20		3589.1			
25		3585.4	25		3626.2			
30		3612.6	30		3651.9			
35		3634.5	35		3674.5			
40		3652.4	40		3693.6			
45		3667.3	45		3709.1			
50		3680.1	50		3722.4			
55		3691.4	55		3733.7			
59.9		3700.2	59.3		3742.1			
SECOND FLOW PERIOD			SECOND FLOW PERIOD					
0		426.8	0		514.2			
15		474.8	15		526.2			
30		537.8	30		590.2			
45		593.6	45		645.9			
60		638.5	60		694.5			
75		683.6	75		738.1			
89.3		725.9	89.9		778.9			
See page 2								

Remarks:

HARPER OIL COMPANY

116167 Page 2

Ticket Number

B.T. 1496

B.T. _____

Depth _____

[illegible]

Remarks:

	O. D.		LENGTH	DEPTH
Drill Pipe or Tubing				
Drill Collars				
Reversing Sub	6"	3"	1'	
Water Cushion Valve				
Drill Pipe	4.50"	3.826"	9713'	
Drill Collars	6.50"	2.25"	567'	
Handling Sub & Choke Assembly				
Dual CIP Valve				
Side Well Anchor X-OVER	5.75"	2.25"	1'	
Hydro-Spring Tester	5.00"	.75"	4'	10,285'
Multiple CIP Sampler	5"	.75"	5'	
Extension Joint (2 EACH)	5"	.87"	10'	
AP Running Case	5"	3.25"	5'	10,302'
Hydraulic Jar	5"	1.75"	5'	
VR Safety Joint	5"	1"	3'	
Pressure Equalizing Crossover				
Packer Assembly	7"	1.53"	5'	10,317'
Distributor (4500 PSI)	5"	1.68"	2'	
Packer Assembly	7"	1.53"	5'	10,324'
Flush Joint Anchor				
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case				
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint	5.75"	1.50"	4'	
Side Well Anchor X-OVER	5.75"	2.25"	1'	
Drill Collars	6.50"	2.25"	87'	
X-OVER	5.75"	2.25"	1'	
Flush Joint Anchor	5.75"	3.50"	10'	
Blanked-Off B.T. Running Case	5.75"	3.50"	5'	10,430'
Total Depth				10,434'