

A. P. D. (cont.)
Thirteen Point Surface Use Plan
INDIAN HILLS UNIT # 36

DRILLING PROGRAM
MARATHON OIL COMPANY
INDIAN HILLS UNIT # 36

1. Estimated KB Elevation: 3685' KB

<u>FORMATION</u>	<u>-----TOP-----</u>		<u>-----BASE-----</u>		<u>FLUID CONTENT</u>
	<u>MEASURED</u>	<u>SUBSEA</u>	<u>MEASURED</u>	<u>SUBSEA</u>	
Queen	Surface	+3685'	650'	+3035'	water
San Andres	650'	+3035'	705'	+2980'	water
Glorietta	705'	+2980'	2375'	+1310'	
Yeso	2375'	+1310'	2535'	+1150'	
Bone Spring	2535'	+1150'	6720'	-3035'	oil gas
Wolfcamp	6720'	-3035'	6782'	-3097'	oil gas
Cisco	6782'	-3097'	7504'	-3819'	
U. Penn	7504'	-3819'	7685'	-4000'	gas, oil, water
Strawn	7685'	-4000'	8185'	-4500'	
Atoka	8185'	-4500'	8908'	-5224'	
Morrow	8909'	-5224'	9259'	-5574'	gas, oil, water
Barnett Shale	9259'	-5574'	9827'	-6143'	
Mississippian Lime	9827'	-6143'	10023'	-6338'	gas,oil,water
T.D.	10023'	-6338'	10440'	-6510'	

<u>FORMATION</u>	<u>---EST PSIG</u>	<u>SBHP--- PPG EMW</u>	<u>EST DEG f</u>	<u>SBHT PPM</u>	<u>H2S</u>	<u>---SIGNIFICANCE--- (obj, marker, etc.)</u>
Bone Springs	1210	8.5		500		marker
Wolfcamp	1680	9.0		5000		marker
B/Permian Shale	1810	9.0				marker
U. Penn	2050	9.0		500		objective pay
Morrow	3460	9.2				objective pay
Mississippian	3520	9.2				objective pay

2. See (1) above.
 If any unexpected water or mineral bearing zones are encountered, they will be reported, evaluated, and protected as circumstances and regulations require.

3. **Pressure Control Equipment:**

9-5/8" Surface: 11" 3M annular tested to 300# PSI/3000# PSI, 11" 3M dual rams, choke manifold and mud cross, tested to 300# PSI/3000# PSI.

Auxiliary Equipment:

Surface Hole: Annular or rotating head w/air rig.

Intermediate Hole: N/A

Production Hole: Flow indicator, PVT, H₂S Sensors, air packs, stroke counter, rotating head.