

PHILLIPS PETROLEUM COMPANY

WELL NAME: San Juan 31-6 Unit #51M DK/MV

DRILLING PROGNOSIS

1. Location of Proposed Well: Unit C, 1170' FNL & 2145' FWL
Section 5, T30N, R6W
2. Unprepared Ground Elevation: @ 6349' (unprepared).
3. The geological name of the surface formation is San Jose.
4. Type of drilling tools will be rotary.
5. Proposed drilling depth is 7901'.
6. The estimated tops of important geologic markers are as follows:

<u>Nacimiento - 1041'</u>	<u>Menefee Fm. - 5276'</u>
<u>Ojo Alamo - 2296'</u>	<u>Pt. Lookout - 5561'</u>
<u>Kirtland Sh - 2451'</u>	<u>Mancos Sh - 5866'</u>
<u>Fruitland Fm. -2956'</u>	<u>Gallup Ss. - 6846'</u>
<u>Pictured Cliffs - 3191'</u>	<u>Greenhorn Ls. - 7571'</u>
<u>Lewis Shale - 3496'</u>	<u>Graneros Sh. - 7631'</u>
<u>Cliff House Ss - 5231'</u>	<u>Dakota Ss - 7751'</u>

7. The estimated depths at which anticipated water, oil, gas or other mineral bearing formations are expected to be encountered are as follows:

Water:	<u>Ojo Alamo - 2296' - 2451'</u>
Gas & Water:	<u>Fruitland - 2956' - 3191'</u>
Gas:	<u>Pictured Cliffs - 3191' - 3496'</u>
	<u>Mesaverde - 5231' - 5866'</u>
	<u>Dakota - 7751' - 7901'</u>

8. The proposed casing program is as follows:

Surface String: 9-5/8", 36#, J/K-55 @ 320' *
Intermediate String: 7", 20#, J/K-55 @ 3641' (J-55 will be used, unless the K-55 is the
only casing available.
Production String: 4-1/2", 11.6#, I-80 @ 7901' (TD)

* The surface casing will be set at a minimum of 320', but could be set deeper if required to maintain hole stability.

9. Cement Program:

Surface String: 158.5 sx Type III cement + 2% bwoc Calcium Chloride + 0.25#/sx Cello-flake + 60.6% FW (1.41 yield = 223 cf).

Intermediate String: Lead Cement: 435.2 sx Type III cement (35:65) Poz + 5#/sx Gilsonite + 0.25 #/sx Cello-Flake + 6% bwoc Bentonite + 10#/sx CSE + 3% bwoc KCL + 0.4% bwoc FL-25 + 0.02#/sx static free + 129% FW (2.37 yield = 1031 cf). Cement to surface with 110% excess casing/hole annular volume.

Tail Cement: 50.0 sx Type III cement + 0.25#/sx Cello-Flake + 1% Calcium Chloride + 60.5% FW (1.4 yield = 70 cf). Cement to surface with 110% excess of casing/hole annulus volume.

Production String *: 334.6 sx (35:65) Poz Class H cement + 10#/sx CSE + 0.25#/sx Cello-Flake + 0.2% bwoc CD-32 + 5#/sx Gilsonite + 0.5% bwoc FL-52 + 6% bwoc Bentonite + 112.4% FW (2.13 yield = 713 cf). The production string casing cement is designed to cover openhole section with 60% excess.

*The production casing cement is calculated to cover the openhole interval with 60% excess and annular volume 100' within intermediate shoe. Depending on hole conditions, the well may be cemented in a single stage or two staged.

Centralizer Program:

Surface: Total four (4) 1 @ 10' above shoe & top of 2nd, 4th & 6th joint

Intermediate: Total seven (7) – 10' above shoe, top of 1st, 2nd, 4th, 6th, & 8th jts & 1 jt. above surface casing.

Production: None planned.

Turbulators: Total Three (3) – on intermediate casing at 1st jt. below the Ojo Alamo and next 2 jts up.

10. The minimum specifications for pressure control equipment which are to be used, a schematic diagram thereof showing sizes, pressure ratings (or) API series and the testing procedure and testing frequency are enclosed within the APD packet.

11. Drilling Mud Prognosis: Surface - spud mud on surface casing.
Intermediate - spud mud generated from natural clays with gel sweeps pretreated w/LCM before entering coal interval.
Below Intermediate - air or gas drilled.

BOP AND RELATED EQUIPMENT CHECK LIST

3M SYSTEM:

2 hydr. rams (pipe & blind) or hydr. ram and annular with blind ram on bottom

Kill Line (2-inch minimum)

1 kill line valve (2-inch minimum)

1 choke line valve

2 chokes (refer to diagram in attachment 1) on choke manifold

Upper kelly cock valve in open position with handle available

Safety valve (in open position) and subs to fit all drill strings in use (with handle available)

Pressure gauged on choke manifold

2 inch minimum choke line

Fill-up line above the uppermost preventer

The BOPs will be pressure tested according to Onshore Order #2 III, A 1 and 30% safety factor.