

**A. P. D. (cont.)**  
**Thirteen Point Surface Use Plan**  
**Indian Hills Unit # 36**

Centralizer Program:

9-5/8" Conventional centralizers. Bottom 3 joints and every fourth joint to surface.

7.0" Conventional centralizers middle of 1<sup>st</sup> joint, then every joint to 7500', and 1 cent. Every 4<sup>th</sup> joint thereafter to 9600'

5. Mud Program

---DEPTH---			WEIGHT		WL		VISUAL
FROM	TO	MUD TYPE	(PPG)	VIS	CC	ADDITIVES	MONTR.
0	1200'	fresh water	8.3	28	N/A	Gel, Lime	Reserve
1200'	7800'	fresh	8.5	28-32	N/C	Gel, caustic, H <sub>2</sub> S Scavenger	Reserve
7800'	8200'	Cut Brine	9.0	32-36	>20	Gel, Starch, Caustic	Steel Pits
8200'	9600'	Cut Brine	9.0	32-36	> 20	Gel, Starch, Caustic	Steel Pits

*Sufficient quantities of additives will be on location to maintain above mud properties for any anticipated well conditions.*

6. Logging, Testing & Coring Programs:

<u>LOG/TEST/CORE/MUDLOG/OTHER</u>	<u>--INTERVAL--</u>		<u>REMARKS</u>
	<u>FROM</u>	<u>TO</u>	
DLL/MSFL/GR/CNL/LDT/CAL	TD	5000'	
LDT/CNL/GR/CAL	TD	surf casing	
MUD LOGGER	6000'	TD	ROP, Lithology, Gas Analysis, Chromatograph
NO CORES OR DST'S			

7. Abnormal Pressures, Temperatures or Potential Hazards:

None anticipated. Possible H<sub>2</sub>S in Cisco & Upper Penn. See H<sub>2</sub>S Drilling Operations Plan.

8. Other Information:

Anticipated Starting Date: December 2001.

Duration of Well: drilling - 25 days, completion - 10 days.