

A. P. D. (cont.)
Thirteen Point Surface Use Plan
Indian Hills Unit # 46

Test Frequency

1. When installed.
2. Anytime a pressure seal is broken (test confined only to affected equipment).
3. At least every 20 days.
4. Blind and pipe rams shall be activated each trip but not more than once/day.

4. Casing and Cement Program:

---DEPTH---	SECTION	HOLE	CSG	WT.		THREADS	NEW
FROM TO	LENGTH	SIZE	SIZE	PPF	GRADE	COUPLINGS	USED
0 1200'	1200'	12.25"	9-5/8"	36.00#	K-55	8rd, STC	New
0 4800'	4800'	8.750"	7.00"	23.00#	K-55	8rd, LT&C	New
4800' 9600'	4800'	8.750"	7.00"	26.00#	K-55	8rd, LT&C	New

Casing String	DV Depth	Stg.	Lead Tail	Amt SXS	Type Cement	Yield CF/SX	Wt. PPG.	TOC	Additives
9.625"	none	1	L	300	Foam Cmt.	1.78	11.2	100' *	
9.625"	none		T	140	"C" Neat	1.35	14.8	900'	3% Cacl

after 500' * NOTE: Pump 55 sks. Class "C" dn. Annulus W/ 3% CACL2, Yield: 1.35cf/sk, Density 14.8 ppg coverage, Surface To 100'.

This surface casing program has been approved by the OCD in Artesia by Mr. Tim Gum and Mr. Van Barton as of 11/29/01.

7.0"	6300'	1	L	340	Prem.	1.44	13.0	5600'	Foamers, N2
7.0"		2	L	840	Interfill "C"	2.47	11.9	Surface	1/4pps Cello, 3pps Gilsonite, 0.2% Halad 322
7.0		2	T	100	"C" Neat	1.32	14.8	6000'	N/A