

DRILLING PROGRAM

LEASE

Pecos Irrigation Company #.

DISTRICT	Oklahoma City	FIELD	NE Loving	CO.	XPR	Eddy	STATE	NM									
DEPTH	13.000	MD	13,000	COMPLETION	SINGLE	X	DUAL	OTHER	GAS	X	OIL	CLASS	D	X	PW	EW	OTHER

LOCATION	SURFACE	1980' FNL & 2130' FEL, Section 10-T23S-R28E
	BOTTOM HOLE	
		GR. ELEV. 3025

DRILLING TIME & COST	DAYS FROM SPUD TO DRILL PLUG OF:						
		SURFACE CASING	10-3/4" INTER	7-5/8" INTER	TD	OIL STRING	RR
	DAYS	2	13	45	80	81	85
	BITS	1	2	8	14	14	15
	TAN	32,000	92,000	350,000	350,000	422,000	500,000
	INTAN	130,000	290,000	950,000	1,570,000	1,620,000	1,610,000

VENDORS	MUD CO.	Baroid	TESTING	-	CORING	-
	CMTG. CO.	HOWCO	MUD LOGGER	TBD	DH COMP. EQPT.	TBD
	SCRAT. & CENT.	HOWCO	RENTAL CO.	TBD	WELLHEAD	Natl. or OCT
	LINER EQPT.	MWI	FLOATING EQPT.	HOWCO	PERF.	TBD
	BITS	Supply Store	LOGGING	Schlumberger	STIMULATION	TBD

SUBSURFACE DATA	ZONE	DEPTH	ANTIC. BHP	EQV. MW	REMARKS
	Bone Springs	6,500			See attached geologic procedure for logging program.
	Strawn	11,250			
	Atoka	11,600	7700	12.7	
	Morrow	12,275	5950	9.3*	Strawn possibly overpressured. Atoka likely overpressured.

*Morrow normally pressured but has been holding the heavier mud used to control the Atoka.

MUD PROGRAM	FROM	TO	TYPE MUD	WEIGHT	FUNNEL VIS	MAX WL	PV	YP
	30	400	Native mud, gel & lime sweeps, LCM	8.5-9.5		NC		
	400	2650	Brine, salt gel sweeps	9.0-10.0		NC		
	2650	10000	Cut brine, salt gel	8.5-9.2		20-30		
	10000	13000	Brine, polymer, 3-4% KCl	11-13.0		5-8		
			Possible key seating problems in anhydrite 425-2650'.					

REMARKS Use desander & desilter from 2650-10,000 to control solids. After drilling Atoka, keep mud weight as low as possible to drill Morrow. By 9000', PVT & hydraulic choke in operation along with flow sensor, mud gas separator & bulk barite hoppers.

Mud logger in service @ 6,000'.

HOLE SIZE	SIZE	20	14-3/4	9-1/2	6-1/2	
	FROM / TO	30 400	400 2650	2650 10,000	10,000 TD	
	REMARKS	Set 30' conductor prior to MIRU. Cmt with redimix.				

PREPARED BY

DATE

APPROVED BY

DATE