

## Operations Plan - Canyon Largo Unit #286

I. Location: 1100'N, 1800'E, Section 11, T-24-N, R-6-W, Rio Arriba County, N.

Field: Basin Dakota

Elevation: 6435'GL

II. Geology:

A. Formation Tops:	Surface	San Jose	Menefee	3726'
	Ojo Alamo	1590'	Point Lookout	4320'
	Kirtland	1710'	Gallup	5405'
	Fruitland	1901'	Greenhorn	6320'
	Pic.Cliffs	2125'	Graneros	6375'
	Lewis	2265'	Dakota	6510'
	Mesa Verde	3648'	Total Depth	6710'

B. Logging Program: Induction Electric and Gamma Ray Density at TD.

C. Coring: none

D. Samples: none

III. Drilling:

A. Mud Program: mud from surface to Total Depth.

IV. Materials:

A. Casing Program:	<u>Hole Size</u>	<u>Depth</u>	<u>Csg.Size</u>	<u>Wt.&amp;Grade</u>
	13 3/4"	200'	9 5/8"	32.3# H-40
	8 3/4"	5020'	4 1/2"	10.5# J-55
	7 7/8"	6500'	4 1/2"	10.5# J-55
	7 7/8"	6710'	4 1/2"	11.6# J-55

B. Float Equipment: 9 5/8" surface casing - Pathfinder guide shoe  
(Part #2006-1-010)

4 1/2" production casing - Howco guide shoe (Prod. No. 102-1) and self-fill insert valve (Prod. No. 177-13). Two Howco multiple stage cementers (Prod. No.200-03) equipped for three stage cementing. Set tool for second stage at 4920' and tool for third stage at 2465'. Run 20 Howco centralizers (Prod. No. 200-03) spaced as follows: one on each of the bottom 8 joints, one below each stage tool and five above each stage tool spaced every other joint.

C. Tubing: 6710' of 2 3/8", 4.7#, J-55 tubing with a common pump seating nipple and an expendable check valve with drill type guide.

D. Wellhead Equipment: 10" 3000 x 9 5/8" WKM Brewster Type R casing head with 10" x 4 1/2" Type SA casing hanger, 10" 3000 x 6" 3000 Brewster xmas tree (Dwg. #1-004-78). Wellhead representative to set all slips.

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