

OPERATIONS PLAN

WELL NAME: San Juan 29-6 Unit #31A

I. LOCATION: NE/4, NW/4, Sec 10, T29N, R6W

LEASE NUMBER: SF 078 278

FIELD: Blanco - Mesa Verde

ELEVATION: 6536' GR

II. GEOLOGY:

A. Formation Tops:

Ojo Alamo:	2520'	Cliff House:	5258'
Kirtland:	2571'	Menefee:	5348'
Fruitland:	3126'	Point Lookout:	5628'
Pictured Cliffs:	3471'	Total Depth:	5828'
Lewis:	3616'		

B. Logging Program: Gamma Ray-Neutron at T.D.

C. Coring Program: None

D. Natural Gauges: Gauge at last connection above and at total depth.
Gauge any noticeable increases in gas flow at depth other than those noted above.

III. DRILLING:

A. Anticipated starting date and duration of activities: August 1, 1977

B. BOP: Blind rams and pipe rams, 10', 900 series, double gate, rated at 3000 PSI.

C. Mud Program:

a) Spud Mud: Water, lime and gel.
b) Surface to 3616
Viscosity: 32-38 sec/qt.
Weight: 8.8-9.2 #/gal.
Water Loss: 8-20 cc
Ph: 8.5-9.5

c) From 3616' to 3816'
Viscosity: 36-45 sec/qt.
Weight: 8.5-9.5 #/gal.
Water Loss: 8-20 cc
Ph: 8.5-9.5

c) From 3816' to total depth with gas.

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IV. MATERIALS:

A. Casing Program:

Hole Size	Depth O.H.	Casing Size	Wt. & Grade	Depth Set
12 1/4"	200'	9 5/8"	32.3# H-40	200'
8 3/4"	3816'	7"	20# K-55	3618'
6 1/4"	3816' to T.D.	4 1/2"	10.5# K-55	3696 - T.D.

B. Float Equipment:

a) Surface casing 9 5/8" - B & W Reg. Pattern Shoe.
b) Intermediate Casing 7" - Dowell guide shoe (Code #50101-070) and self fill insert float collar (Code #53003-070). Seven (7) centralizers

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B. Float Equipment cont.

b) (Code #56011-070 spaced every other joint above the shoe. Place float collar one joint above shoe.

c) Liner 4 1/2" - Larkin geyser shoe (Fig. 222) and Larkin flapper type float collar (Fig. 404). Brown liner hanger with neoprene pack off.

C. Tubing Program: 5750" of 2 3/8", 4.7#, EUE, K-55 tubing with seating nipple on top of bottom joint. Expendable check valve on bottom.

D. Well Head Equipment: Gray well head. Gray representative to set slips and make cut off.

V. CEMENTING:

A. Surface Casing 9 5/8" - Use 125 sks. Cl. "B" w/1/4# gel flake /sk. and 3% CaCl (100% excess to circ.). WOC 12 hours. Test surface csg. to 600 PSI for 30 min.

B. Intermediate Casing 7" - Use 100 sks. Cl. "B" 65/35 poz w/12% gel and 15.52 gal. water/sk. Tail in w/50 sks. Cl. "B" w/2% CaCl (65% excess to cover Ojo Alamo). WOC 12 hours. Run temp. survey after 8 hours. Test csg. to 600 PSI.

C. Production Liner 4 1/2" - Use 210 sks Cl. "B" w/4% gel and 1/4 cu. ft. of fine Gilsonite/sk. Precede cmt. w/20 bbls. water mixed w/3 sks. gel (70% excess to circ. liner). Set liner pack off and reverse out excess cmt. Run 6 1/4" bit to top of liner and pressure test (test 12 hours after plug is down). Lay down DP & run 3 7/8" bit on 2/38" EUE tubing to clean out liner. Perforate 18 hours after plug is down.

JPS/ch