

## DRILLING PLAN

COVERING  
BURNETT OIL CO., INC.  
LEASE # LC 029339 (A)  
GRAYBURG JACKSON (SAN ANDRES) UNIT WELL # 49  
UNIT LETTER O  
2570' FEL, 1245' FSL  
SECTION 13, TOWNSHIP 17 SOUTH, RANGE 30 EAST  
EDDY COUNTY, NEW MEXICO

### (A) DRILLING PROGRAM

#### (1) Estimated tops of geologic markers:

Alluvium.....	Surface
Anhydrite.....	350'
Salt.....	520'
Base Salt.....	1290'
Red Sand.....	2282'
Grayburg.....	2683'
San Andres.....	3004'

#### (2) Estimated depths of producing formations:

Fresh water.....	None
Saltwater flows..(?)	*
Oil and Gas.....	1850', 3400'-3500' **

\*As waterflows, if any, are encountered, their depth will be recorded, and drilling will continue to Total Depth. Multiple stage cementers will be placed in the oil string to enable us to confine, by cementing, the waterflows to their respective depths.

\*\*Oil and gas bearing zones, if any, will be determined by log analysis, (except the Fren interval from +/- 1850'-1925' may be cored for future evaluation) confined by cementing, perforated, stimulated and produced in a conventional manner.

#### (3) Blowout Preventer Specifications

3000 psi Double Ram unit with hydraulic closing equipment. (See Exhibit D schematic). The preventer will be tested before drilling out below surface pipe setting depth. The exact description of the preventer and related equipment will depend on the successful contractor, who has not yet been selected. No high pressure hydrocarbon zones are anticipated.

(4) Supplementary drilling equipment information: Not available at this time.

Supplementary casing program information:

a. Surface casing: Surface casing will consist of new 8-5/8" OD 24# K-55 ST&C R3 pipe and will be run into a 12-1/4" hole with notched Texas Pattern shoe on bottom, insert float valve in first collar, 2 centralizers around shoe joint and first collar. Bottom 3 joints will be collar tacked and thread locked. Setting depth will be +/- 500', depending on where suitable casing seat can be found in the Rustler anhydrite. Cement will be circulated back to the Surface. Initial cement volume will be calculated to be 100% excess of the calculated annular volume between the 8-5/8" casing and the hole. If circulation of cement is not achieved due to lost circulation zone(s), annular space will be cemented via 1" from the surface as per BLM specifications. 12 hours WOC will be allowed. Casing will be tested to 800 psi before drilling out.

b. Production casing: Production casing will consist of new 5-1/2" OD 17# K 8rd. R3 inspected pipe being run to Total Depth with float shoe on bottom, float collar in first collar, centralizers throughout pay intervals and above and below any multiple stage cementers, and being cemented with sufficient volume to bring top of cement to base of salt. If water flow is encountered, we will cement from TD back to the stage cementer, open stage cementer, cement from stage center with sufficient volume of Class C or equivalent to bring cement up to the base of the salt, then balancing hydrostatic weight of the cement by adjusting the flow of water to surface through the 5-1/2" casing, enabling the 2nd stage of cement to set up. Casing will be shut in after 12 hours. If there is no flow of water to surface around the 5-1/2" casing, we will cement the water flow proper through the stage cementer with +/- 400 sacks. In case the 2nd stage is not successful in shutting off any annular flow, we will repeat the 2nd stage until successful. After drilling out and testing the casing to 2000 psi, a cement bond log will be run to evaluate the cement job.

(5) Mud program: Native mud (red beds and shale) will be used to Total Depth. After drilling surface hole with fresh water, salinity of water will rise throughout rest of the hole (if the Fren interval is cored, we will mud up and lower our water loss). If no water flows are encountered, we may mud up lightly to drill the various pay sections. If water flow(s) are encountered, no control will be used until Total Depth is reached, at which time we will sweep the hole with 50 viscosity gelled water.

(6) Logging program: If no water flow(s) are encountered, we will run GR/CN-D-DLL logs. If water flow(s) are encountered, no open hole logging will be attempted, and after casing is set, cased hole GR/CN logs will be run. No testing or coring is anticipated.

(7) Abnormal pressures or hazards: No abnormal pressures or potential hazards are anticipated.

(8) Other facets of the operation to be pointed out: None.

## (B) SURFACE USE PROGRAM

(1) Existing roads: Exhibit A shows a map of the general area. From Loco Hills, New Mexico, go east on U.S. Highway 82 approximately 2 miles. Turn north on Eddy County Road 220 (Square Lake Road) approximately 1.1 miles. Turn east on caliche road approximately .6 miles to location. The proposed access road will be constructed to match the established lease roads. All access roads will be maintained in the same or better condition than before drilling operations began, in accordance with SMA standards.

(2) Access roads to be constructed: Approximately 700' of new access road will be constructed (see Exhibit A). This road will be 12' wide surfaced with compacted caliche. Maximum grade should be +/- 1%. No major cuts or fills, turnouts, culverts, drainage problems, bridges, fences, or cattleguards are anticipated. Existing access roads will be watered and bladed, with only minor repairs indicated. No other existing facilities will be modified.

(3) Location of existing wells: See Exhibit B.

(4) Location of existing or proposed production facilities: See Exhibit B for location of existing facilities. No new facilities are anticipated, with the exception of approximately 200' of flowline to be connected to an existing flowline. See Exhibit A.

(5) Location and type of water supply: All water to be used in drilling the well will be fresh water trucked from Loco Hills, New Mexico or fresh water furnished by our waterflood facilities.

(6) Construction materials: Construction material will be caliche, either from the location itself, or from an existing open quarry approximately 1/2 mile to the south, in the NE/NE of Section 23.

(7) Methods of handling waste disposal: Drill cuttings will be disposed of in the lined reserve drilling pit. Auxiliary emergency water containment pits may be necessitated by large volume water flows and these pits, which will hold only water, will not be lined. All drilling fluids will be allowed to evaporate after drilling is completed, at which time pits will be backfilled, leveled and reseeded. Trash, waste paper, garbage and junk will be buried in a separate small trash pit and covered with a minimum of 24" of dirt. Location of proposed pits are shown in Exhibit C. All trash and debris not disposed of in trash pit will be removed from the site and transported to an authorized disposal station within 30 days following completion activities. Oil and/or water produced during testing operations will be stored in steel tanks until either sold or disposed of through one of our approved disposal methods.

(8) Ancillary Facilities: There are no planned ancillary facilities.

(9) Well site layout: Exhibit C shows the relative location and dimensions of the drilling pad and related components. Only minor differences, if any, in length and/or width of the drilling pad are anticipated, depending on which drilling contractor is selected to drill the well. Only minor leveling of the drilling site is anticipated.

(10) Plans for restoration of the surface:

(a) After drilling and successful completion operations are finished, all equipment and other materials not required for normal production operations will be removed. Pits will be backfilled, leveled and reseeded. Wellsite will be left in a neat condition.

(b) Any unguarded pits containing fluid will be fenced until backfilled.

(c) After abandonment of the well, surface restoration will be in accordance with regulations of the SMA. Pits will be backfilled and location will be cleaned. The pit area, well pad and all unneeded access roads will be ripped to promote revegetation. Rehabilitation should be accomplished within 90 days after abandonment.

(11) Surface ownership: All lands are Federal.

(12) Other information: The topography of the area is relatively flat, with small hills and sand dunes. The soil is fine, deep sand underlain by caliche. Vegetation cover is generally sparse and consists of mesquite, yucca, oak shinnery and sparse native grasses. Wildlife in the area is typical of that of semi-arid lands and includes coyotes, rabbits, rodents, reptiles, dove and quail. There are no ponds, streams or residences in the area. There is intermittent cattle grazing and hunting in the area; however, the principal land use is for oil and gas production. An archaeological clearance report will be sent to you by New Mexico Archaeological Service recommending archaeological clearance for the road, flowline and drilling pad.

(13) Operator's representative: Our field representative responsible for compliance with the approved surface use and operations plan is: Mr. Rayford Starkey, District Superintendent  
P.O. Box 188  
Loco Hills, New Mexico 88255  
Office phone: 505-677-2313  
Home phone: 505-746-4619

I hereby certify that I, or persons under my direct supervision have inspected the drill site and access route; that I am familiar with the conditions that currently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by Burnett Oil Co., Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Date: 2/11/92

by:

  
John C. McPhaul, Production Supt.