

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL —	5. Lease Number SF-007282 Unit Reporting Number	
1b. Type of Well GAS —	6. If Indian, All. or Tribe	
2. Operator BURLINGTON RESOURCES Oil & Gas Company	7. Unit Agreement Name	
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name Grenier A 9. Well Number #8A	
4. Location of Well 1040' FNL, 660' FWL Latitude 36° 46.4, Longitude 107° 51.6	10. Field, Pool, Wildcat WC-30N10W35E Chacra/ Blanco Mesaverde 11. Sec., Twn, Rge, Mer. (NMPM) D Sec. 35, T-30-N, R-10-W API # 30-045- 30326	
14. Distance in Miles from Nearest Town 5 miles from Blanco	12. County San Juan	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 660'	17. Acres Assigned to Well CH: NW/158.42 MV: W/317.18	
16. Acres in Lease	18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 900'	
19. Proposed Depth 5333' —	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 6153' GL —	22. Approx. Date Work will Start	
23. Proposed Casing and Cementing Program See Operations Plan attached	DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS"	
24. Authorized by: <u>[Signature]</u> Regulatory/Compliance Supervisor	Date <u>8-1-00</u>	

PERMIT NO. _____ APPROVAL DATE DEC 4
APPROVED BY /s/ Jim Lovato TITLE _____ DATE _____

Archaeological Report to be submitted

Threatened and Endangered Species Report to be submitted

NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or presentations as to any matter within its jurisdiction.

NMOC

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
PO Drawer DD, Artesia, NM 88211-0719

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

PO Box 2088, Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994

Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

070 FIRMINGHAM, NM

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-30326		*Pool Code 82329 / 72319	*Pool Name WC-30N10W35E Chacra/Blanco Mesaverde
*Property Code 18531	*Property Name GRENIER A		*Well Number 8A
*OGRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY		*Elevation 6153'

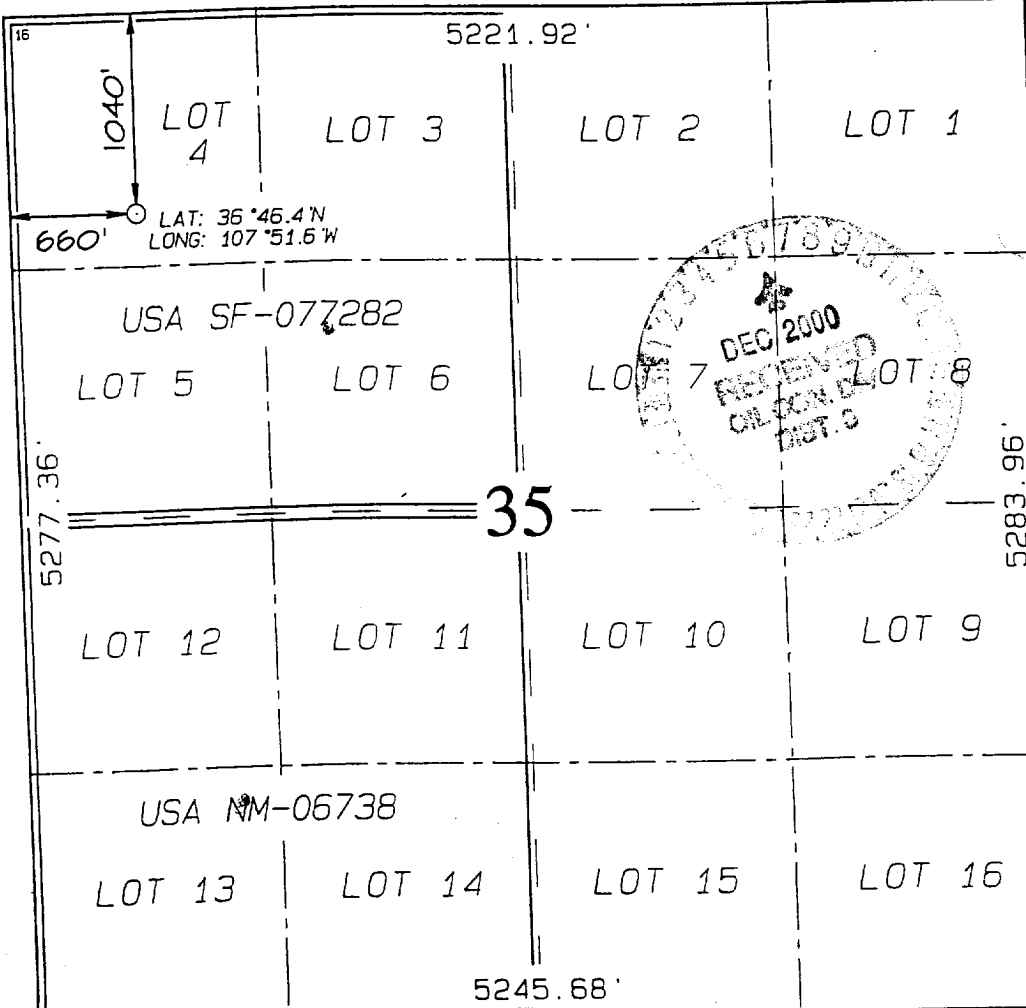
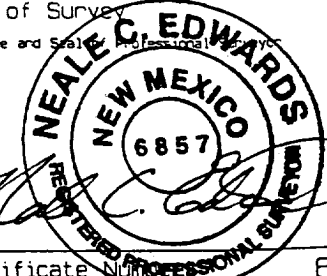
10 Surface Location

U. or lot no.	Section	Township	Range	Lot Ion	Feet from the	North/South line	Feet from the	East/West line	County
D	35	30N	10W		1040	NORTH	660	WEST	SAN JUAN

11 Bottom Hole Location If Different From Surface

U. or lot no.	Section	Township	Range	Lot Ion	Feet from the	North/South line	Feet from the	East/West line	County
12 Dedicated Acres CH: NW/158.42 MV: W/317.18		13 Joint or Infill		14 Consolidation Code		15 Order No.			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

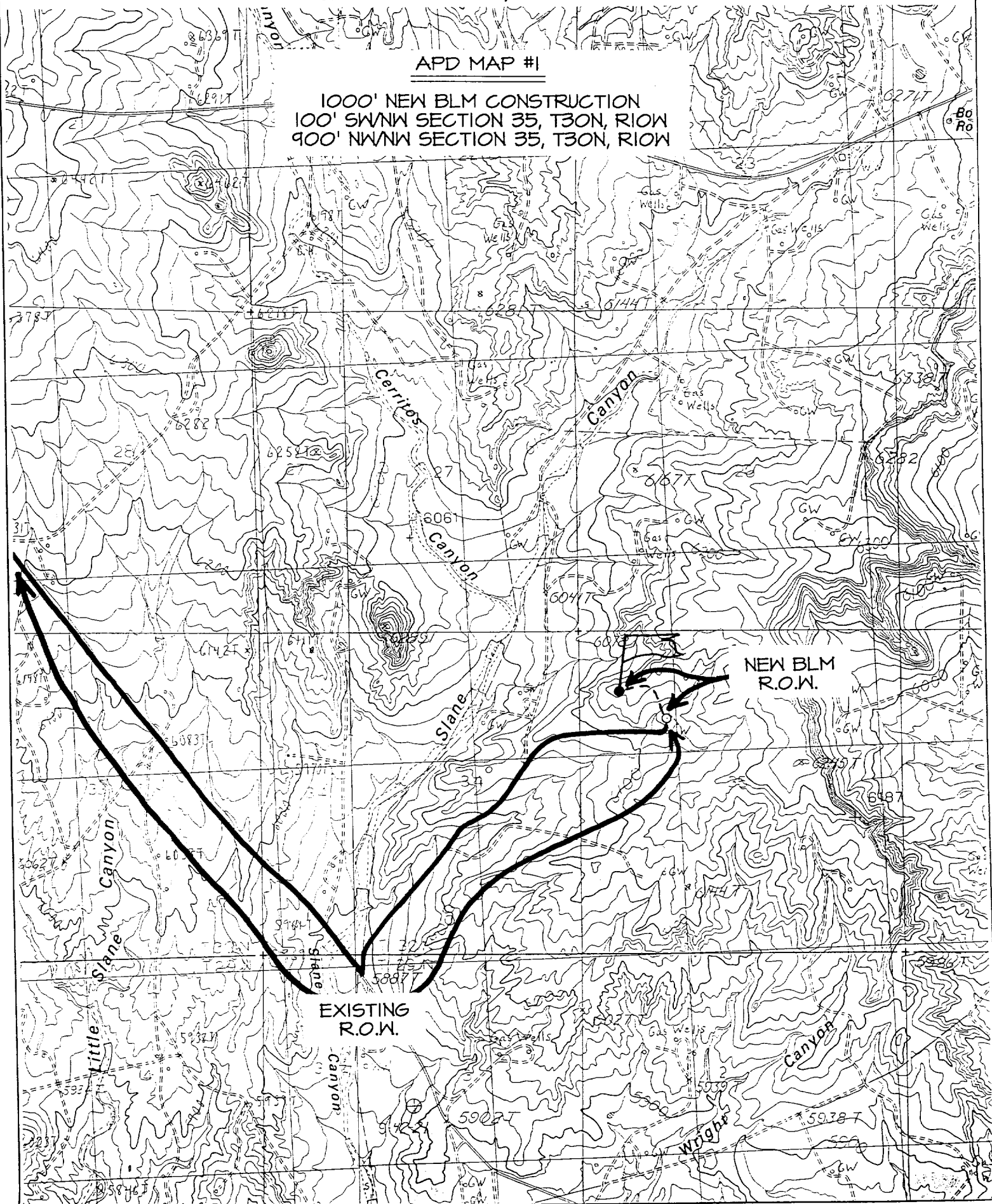
16				17 OPERATOR CERTIFICATION			
				I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.			
				Signature <u>Peggy Cole</u>			
				Printed Name <u>Peggy Cole</u>			
				Regulatory Supervisor <u>9-1-00</u>			
				Title <u>9-1-00</u>			
				Date <u>9-1-00</u>			
				18 SURVEYOR CERTIFICATION			
				I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.			
				MAY 30, 2000			
				Date of Survey			
				Signature and Seal 			
				Certificate No. 6857			

BURLINGTON RESOURCES OIL & GAS COMPANY GRENIER A #8A

1040' FNL & 660' FWL, SECTION 35, T30N, R10W, N.M.P.M.
SAN JUAN COUNTY, NEW MEXICO

APD MAP #1

1000' NEW BLM CONSTRUCTION
100' SWNW SECTION 35, T30N, R10W
900' NWNW SECTION 35, T30N, R10W



OPERATIONS PLAN

Well Name: Grenier A #8A
Surface Location: 1040' FNL, 660' FWL, Section 35, T-30-N, R-10-W
San Juan County, New Mexico
Latitude 36° 46.4, Longitude 107° 51.6
Formation: WC:30N10W35D Chacra/Blanco Mesaverde
Elevation: 6153' GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	1390'	aquifer
Ojo Alamo	1390'	1540'	aquifer
Kirtland	1540'	2084'	gas
Fruitland	2084'	2695'	gas
Intermediate TD	2184'		
Pictured Cliffs	2695'	2839'	gas
Lewis	2839'	3415'	gas
Mesa Verde	3415'	3687'	gas
Chacra	3687'	4324'	gas
Massive Cliff House	4324'	4441'	gas
Menefee	4441'	4933'	gas
Point Lookout	4933'	5333'	gas
Total Depth	5333'		

Logging Program:

Cased hole logging - Gamma Ray, Cement bond from surface to TD
Open hole logging - Array Induction, Temp, Neutron-Density - TD to intermediate
Mud Logs/Coring/DST - none

Mud Program:

<u>Interval- MD</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0- 200'	Spud	8.4-9.0	40-50	no control
200- 2184'	LSND	8.4-9.0	30-60	no control
2184- 5333'	Air/Mist	n/a	n/a	n/a

Pit levels will be visually monitored to detect gain or loss of fluid control.

Casing Program (as listed, the equivalent, or better):

<u>Hole Size</u>	<u>Measured Depth</u>	<u>Csq Size</u>	<u>Weight</u>	<u>Grade</u>
12 1/4"	0' - 80'	9 5/8"	32.3#	H-40
8 3/4"	0' - 2184'	7"	20.0#	J-55
6 1/4"	2084' - 5333'	4 1/2"	10.5#	J-55

Tubing Program: 0' -5333' 2 3/8" 4.7# J-55

BOP Specifications, Wellhead and Tests:

Surface to Intermediate TD -

11" 2000 psi minimum double gate BOP stack (Reference Figure #1).
After nipple-up prior to drilling out surface casing, rams and casing will be tested to 600 psi for 30 minutes.

BOP Specifications, Wellhead and Tests (cont'd):

Intermediate TD to Total Depth -

11" 2000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out intermediate casing, rams and casing will be tested to 1500 psi for 30 minutes.

Surface to Total Depth -

2" nominal, 2000 psi minimum choke manifold (Reference Figure #3).

Completion Operations -

7 1/16" 2000 psi double gate BOP stack (Reference Figure #2). After nipple-up prior to completion, pipe rams, casing and liner top will be tested to 2000 psi for 15 minutes.

Wellhead -

9 5/8" x 7" x 2 3/8" x 2000 psi tree assembly.

General -

- Pipe rams will be actuated once each day and blind rams will be actuated once each trip to test proper functioning.
- An upper kelly cock valve with handle available and drill string valves to fit each drill string will be available on the rig floors at all times.
- BOP pit level drill will be conducted weekly for each drill crew.
- All BOP tests & drills will be recorded in daily drilling reports.
- Blind and pipe rams will be equipped with extension hand wheels.

Cementing:

9 5/8" surface casing - cement with ~~64~~ 54 sx Class "B" cement with 1/4# flocele/sx and 3% calcium chloride (75 cu.ft. of slurry, 200% excess to circulate to surface). WOC 8 hrs. Test casing to 600 psi for 30 minutes.

Saw tooth guide shoe on bottom. Bowspring centralizers will be run in accordance with Onshore Order #2.

7" intermediate casing -

Lead w/182 sx Class "B" w/3% sodium metasilicate, 5# gilsonite/sx and 0.5# flocele/sx. Tail w/90 sx 50/50 Class "B" Poz w/2% gel, 2% calcium chloride, 5# gilsonite/sx and 0.25# flocele/sx (656 cu.ft. of slurry, 100% excess to circulate to surface.) WOC minimum of 8 hours before drilling out intermediate casing. If cement does not circulate to surface, a CBL will be run to determine TOC. Test casing to 1500 psi for 30 minutes.

7" intermediate casing alternative two stage: Stage collar at 1984'. First stage: cement with 48 sx Class "B" 50/50 poz cmt with 2% gel, 2% calcium chloride, 5 pps gilsonite, 0.25 pps flocele. Second stage: 204 sx Class "B" with 3% sodium metasilicate, 0.5 pps Flocele, 5 pps Gilsonite (656 cu.ft., 100% excess to circulate to surface).

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. Bowspring centralizers spaced every other joint off bottom, to the base of the Ojo Alamo at 1540'. Two turbolating centralizers at the base of the Ojo Alamo at 1540'. Bowspring centralizers spaced every fourth joint from the base of the Ojo Alamo to the base of the surface casing.

4 1/2" Production Liner -

Cement to circulate liner top. Pump 394 sx 50/50 Class "B" Poz w/1/4# flocele/sx, 2% gel, 0.1% retardant, 5# gilsonite/sx and 0.4% fluid loss additive (500 cu.ft., 50% excess to circulate liner top). WOC a minimum of 18 hrs prior to completing.

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. The liner hanger will have a rubber packoff.

- If hole conditions permit, an adequate water spacer will be pumped ahead of each cement job to prevent cement/ mud contamination or cement hydration.

Special Drilling Operations (Air/Mist Drilling):

The following equipment will be operational while gas/mist drilling:

- An anchored blooie line will be utilized to discharge all cuttings and circulating medium to the blow pit a minimum of 100' from the wellhead.
- The blooie line will be equipped with an automatic igniter or pilot light.
- Compressors will be located a minimum of 100' from the wellhead in the opposite direction from the blooie line.
- Engines will have spark arresters or water cooled exhaust.
- The rotating head will be properly lubricated and maintained.
- A float valve will be utilized above the bit.
- Mud circulating equipment, water, and mud materials will be sufficient to maintain control of the well.

Additional Information:

- The Chacra/Mesaverde formations will be completed and dualled.
- No abnormal temperatures or hazards are anticipated.
- Anticipated pore pressures are as follows:

Fruitland Coal	800 psi
Pictured Cliffs	800 psi
Mesa Verde	700 psi
- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered below the top of the Pictured Cliffs.
- The northwest quarter of Section 35 is dedicated to the Chacra and the west half of Section 35 is dedicated to the Mesa Verde.
- This gas is dedicated.

Reshelle White
Drilling Engineer

8/2/00
Date