UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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2004 APR 24 PM 12: 22
070 Farmington, NM

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

| | | |
|---|---|---|
| 1a. | **Type of Work**<br>DRILL | **5. Lease Number**<br>NMSF-079382<br>**Unit Reporting Number** |
| 1b. | **Type of Well**<br>GAS | **6. If Indian, All. or Tribe** |
| 2. | **Operator**<br>BURLINGTON<br>RESOURCES OIL & GAS COMPANY LP | **7. Unit Agreement Name**<br>San Juan 30-6 Unit |
| 3. | **Address & Phone No. of Operator**<br>PO Box 4289, Farmington, NM 87499<br>(505) 326-9700 | **8. Farm or Lease Name**<br>San Juan 30-6 Unit<br>**9. Well Number**<br>413S |
| 4. | **Location of Well**<br>580'FNL, 1595'FWL,<br>Latitude 36° 48.14, Longitude 107° 32.36 | **10. Field, Pool, Wildcat**<br>Basin Fruitland Coal<br>**11. Sec., Twn, Rge, Mer. (NMPM)**<br>C Sec. 23, T-30-N, R-7-W<br>**API # 30-039-** 27681 |
| 14. | **Distance in Miles from Nearest Town**<br>10 miles from Navajo City | **12. County** Rio Arriba **13. State** NM |
| 15. | **Distance from Proposed Location to Nearest Property or Lease Line**<br>580' | |
| 16. | **Acres in Lease** | **17. Acres Assigned to Well**<br>320 W/2 |
| 18. | **Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease**<br>800' | |
| 19. | **Proposed Depth**<br>3250' | **20. Rotary or Cable Tools**<br>Rotary |
| 21. | **Elevations (DF, FT, GR, Etc.)**<br>6251' GR | **22. Approx. Date Work will Start** |
| 23. | **Proposed Casing and Cementing Program**<br>See Operations Plan attached | |

24. **Authorized by:** Nancy Oltmanns — Senior Staff Specialist — 10-19-03 — Date

**PERMIT NO.** _____ **APPROVAL DATE** _____

**APPROVED BY** DM **TITLE** _____ **DATE** 4-19-04

**Archaeological Report attached**
**Threatened and Endangered Species Report attached**
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.

***No notification required under Order R-8768-F***

COA Compliance w/Rule 6C

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

NMOCD

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

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

Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

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070 Farmington NM

☐ AMENDED REPORT

# WELL LOCATION AND ACREAGE DEDICATION PLAT

| [1] API Number | [2] Pool Code | [3] Pool Name |
|---|---|---|
| 30-039- 27681 | 71629 | Basin Fruitland Coal |

| [4] Property Code | [5] Property Name | [6] Well Number |
|---|---|---|
| 7469 | SAN JUAN 30-6 UNIT | 413S |

| [7] OGRID No. | [8] Operator Name | [9] Elevation |
|---|---|---|
| 14538 | BURLINGTON RESOURCES OIL & GAS COMPANY, LP | 6251' |

## [10] Surface Location

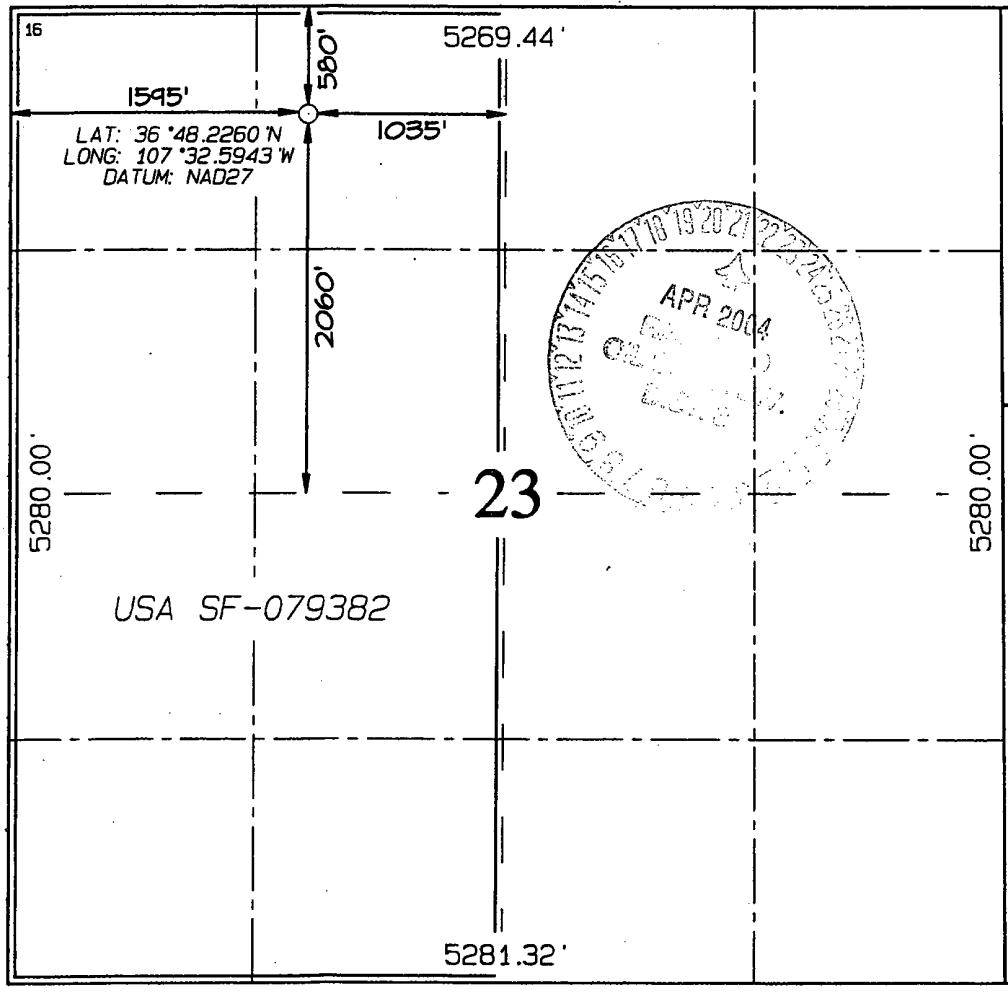
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| C | 23 | 30N | 7W | | 580 | NORTH | 1595 | WEST | RIO ARRIBA |

## [11] Bottom Hole Location If Different From Surface

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| [12] Dedicated Acres | [13] Joint or Infill | [14] Consolidation Code | [15] Order No. |
|---|---|---|---|
| FTC-W/320 | | | |

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




## [17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Signature: Nancy Oltmanns

Nancy Oltmanns
Printed Name

Senior Staff Specialist
Title

10-19-03
Date

## [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.

Survey Date: AUGUST 14, 2003

Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

JASON C. EDWARDS
Certificate Number 15269

# OPERATIONS PLAN

**Well Name:** San Juan 30-6 Unit #413S
**Location:** 580' FNL, 1595' FWL, Section 23, T-30-N, R-7-W
Latitude 36° 48.14, Longitude 107° 32.36
Rio Arriba County, NM
**Formation:** Basin Fruitland Coal
**Elevation:** 6251' GR

| **Formation:** | **Top** | **Bottom** | **Contents** |
|---|---|---|---|
| Surface | San Jose | 2088' | |
| Ojo Alamo | 2088' | 2316' | aquifer |
| Kirtland | 2316' | 2693' | gas |
| Fruitland | 2693' | 2923' | gas |
| **Intermediate casing** | **2873'** | | |
| Top of Coal | 2923' | 3165' | |
| Base of Coal | 3165' | | |
| Pictured Cliffs | 3173' | | |
| **Total Depth** | **3250'** | | |

**Logging Program:**
Open hole - none
Mud log - TD to 2873'

**Coring Program: none**

**Mud Program:**

| Interval | Type | Weight | Vis. | Fluid Loss |
|---|---|---|---|---|
| 0- 120' | Spud/Air/Air Mist | 8.4-9.0 | 40-50 | no control |
| 120-2873' | Non-dispersed | 8.4-9.0 | 30-60 | no control |
| 2873-3250' | Air/Mist | | | no control |

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

| Hole Size | Depth Interval | Csg.Size | Wt. | Grade |
|---|---|---|---|---|
| 12 1/4" | 0' - 120' | 9 5/8" | 32.3# | H-40 |
| 8 3/4" | 0' - 2873' | 7" | 20.0# | J-55 |
| 6 1/4" | 2873' - 3250' | open hole | | |

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

| Hole Size | Depth Interval | Csg.Size | Wt. | Grade |
|---|---|---|---|---|
| 12 1/4" | 0' - 120' | 9 5/8" | 32.3# | H-40 |
| 8 3/4" | 0' - 2873' | 7" | 20.0# | J-55 |
| 6 1/4" | 2843' - 3250' | 5 ½" | 15.5# | J-55 |

**Tubing Program:**

| | | | |
|---|---|---|---|
| 0' - 3250' | 2 3/8" | 4.7# | J-55 |

**Float Equipment:** 9 5/8" surface casing - saw tooth guide shoe. Centralizers will be run in accordance with Onshore Order #2.

7" intermediate casing - guide shoe and self-fill float collar. Standard centralizers run every other joint above shoe. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 2316'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

**Wellhead Equipment:** 9 5/8" x 7" x 2 3/8" x 11" 2000 psi xmas tree assembly.

**Cementing:**

9 5/8" surface casing -
Pre-Set Drilled Cement with 23 sx Type I, II cement with 20% flyash mixed at 14.5 ppg, 1.61 cu ft per sack yield. (37 cu ft of slurry, bring cement to surface) Wait on cement for 24 hours for pre-set holes before pressure testing or drilling out from under surface.

Conventionally Drilled:
Cement with 88 sx Type III cement with 0.25 pps Celloflake, 3% calcium chloride (113 cu ft of slurry, 200% excess, bring cement to surface) Wait on cement for 8 hrs for conventionally set holes before pressure tessting or drilling out from under surface.

**Wait on cement until cement establishes 250 psi compressive strength prior to nipple up of BOP.**

7" intermediate casing - lead w/245 sacks Premium Lite cement with 3% calcium chloride, 0.25 pps Celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% sodium metasilicate. Tail with 90 sacks Type III cement with 1% calcium chloride, 0.25 pps Celloflake, 0.2% fluid loss (648 cu.ft., 50% excess to circulate to surface).

5 1/2" liner - will not be cemented if run.

Note: If open hole logs are run, cement volumes will be based on 25% excess over caliper volumes.

**BOP and tests:**

Surface to intermediate TD - 11" 2000 psi (minimum) double gate BOP stack (Reference Figure #1). Prior to drilling out surface casing, test BOP and casing to 600 psi/30 min.

Intermediate TD to Total Depth - 7 1/6" 2000 psi (minimum) double gate BOP stack (Reference Figure #2). Prior to drilling out intermediate casing, test BOP and casing to 1500 psi for 30 minutes; all pipe rams and casing to 1500 psi for 30 minutes each.

From surface to TD - choke manifold (Reference Figure #3).

Pipe rams will be actuated at least once each day and blind rams actuated once each trip to test proper functioning. An upper kelly cock valve with handle and drill string safety valves to fit each drill string will be maintained and available on the rig floor.

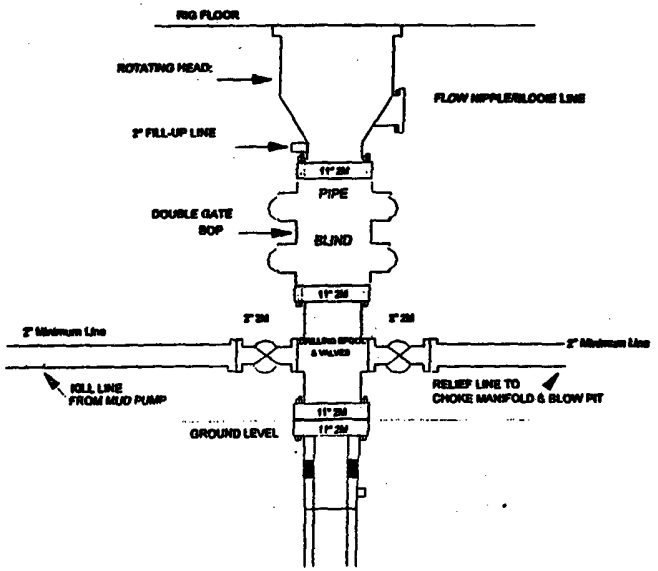
**Additional information:**

- The Fruitland Coal formation will be completed.
- Anticipated pore pressure for the Fruitland is 500 psi.
- This gas is dedicated.
- The west half of Section 23 is dedicated to this well.

Drilling Engineer: Jennifer McCarthy Date: 3-1-04

## Burlington Resources

### Drilling Rig
### 2000 psi System



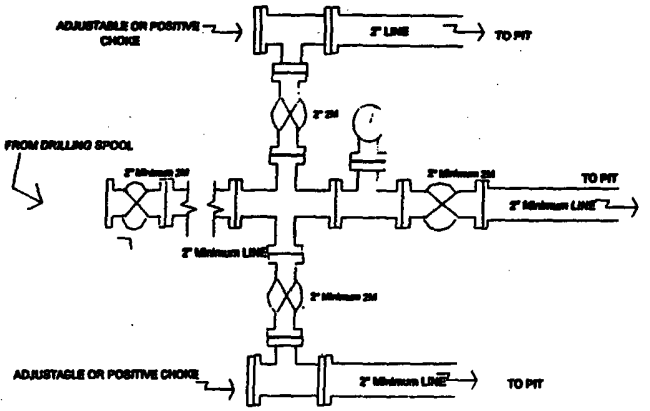

BOP installation from Surface Casing Point to Total Depth. 11" Bore 10" Nominal, 2000 psi working pressure double gate BOP to be equipped with blind rams and pipe rams. A 500 psi rotating head on top of ram preventers. All BOP equipment is 2,000 psi working pressure

**Figure #1**

4-20-01

## BURLINGTON RESOURCES

### Drilling Rig
### Choke Manifold Configuration
### 2000 psi System

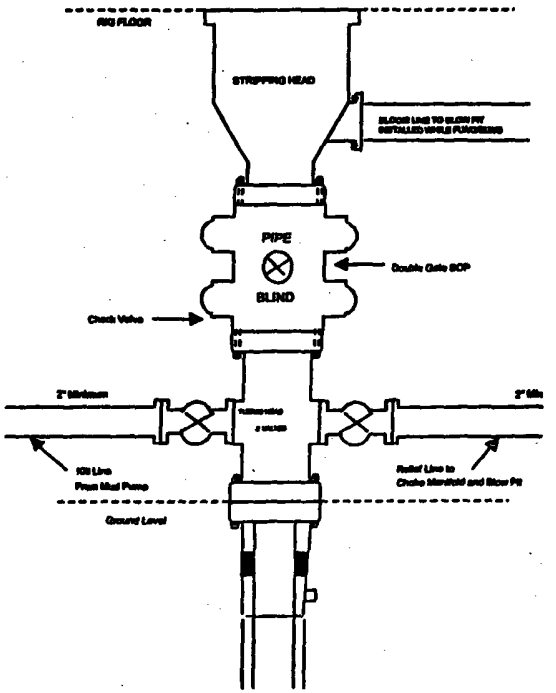



Choke manifold installation from Surface Casing Point to Total Depth. 2,000psi working pressure equipment with two chokes.

**Figure #3**

## BURLINGTON RESOURCES

### Completion/Workover Rig
### BOP Configuration
### 2,000 psi System

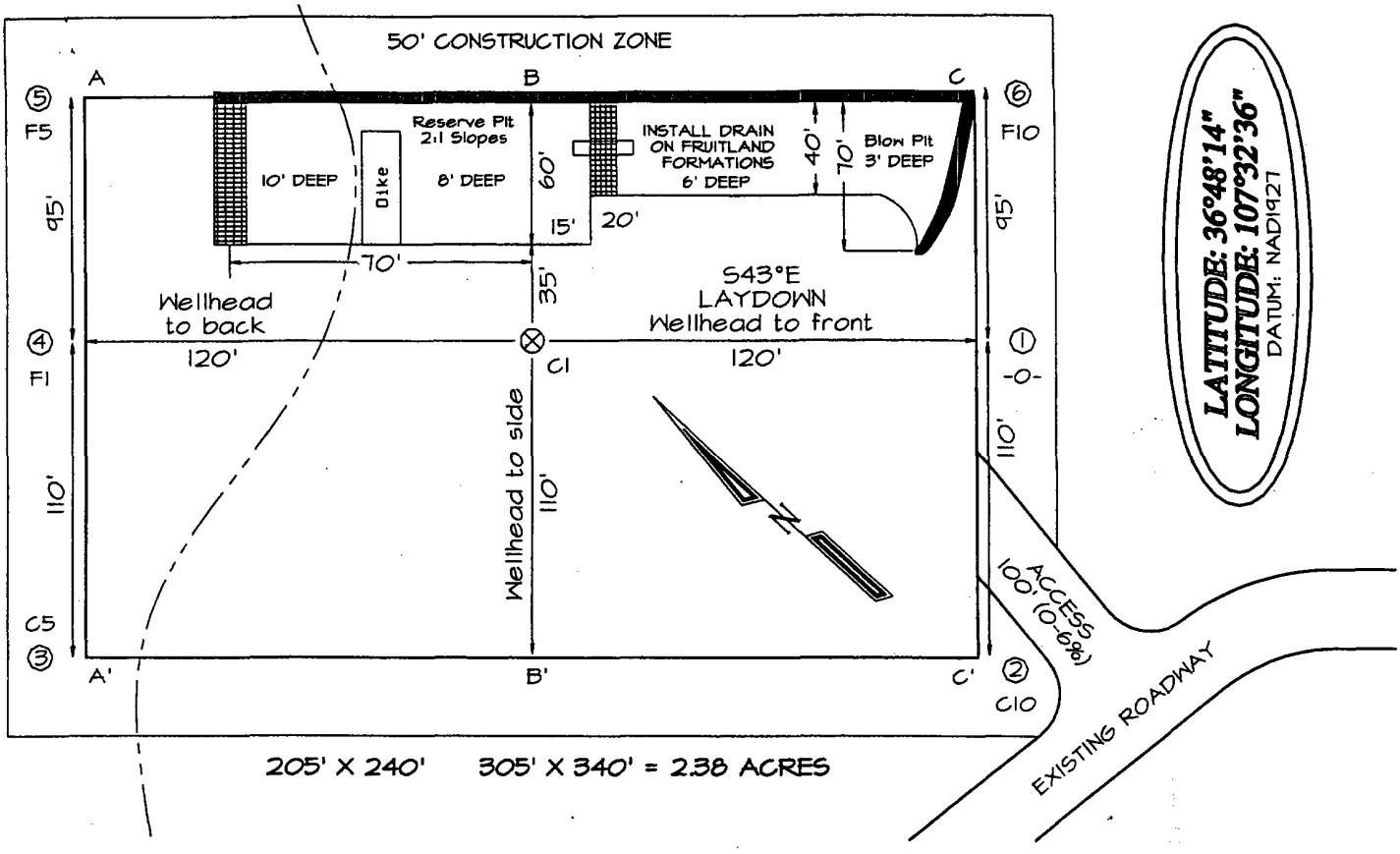



Minimum BOP installation for all Completion/Workover Operations. 7-1/16" bore, 2000 psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A stripping head to be installed on the top of the BOP. All BOP equipment is 2000 psi working pressure or greater excluding 500 psi stripping head.

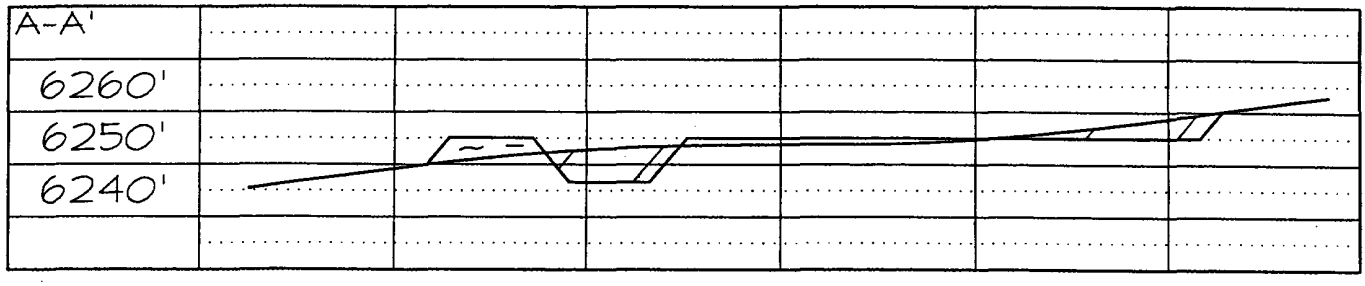
**Figure #2**

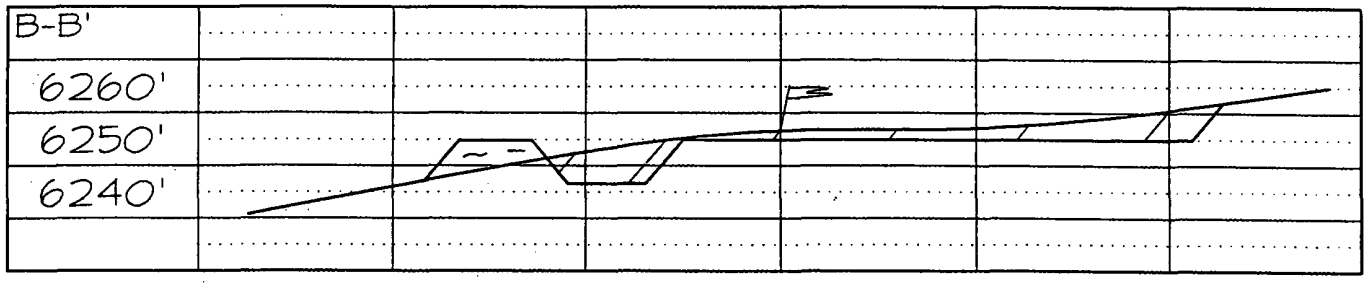
4-20-01

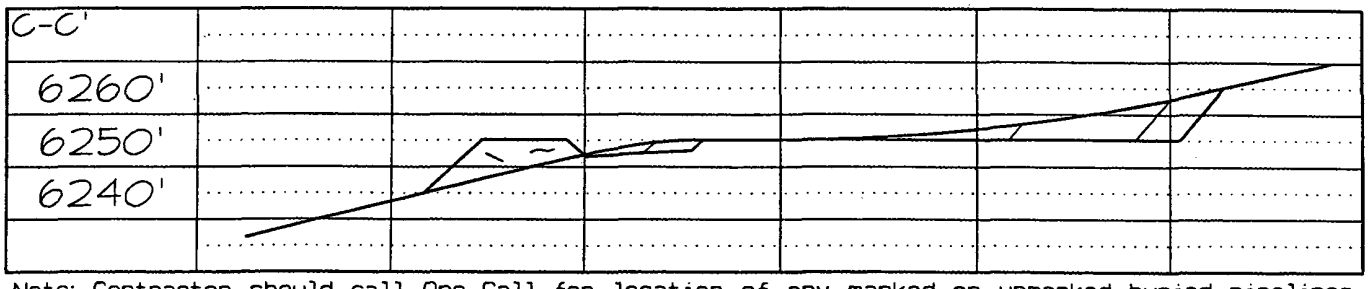
580' FNL & 1595' FWL, SECTION 23, T30N, R7W, NMPM, RIO ARRIBA COUNTY, NM
GROUND ELEVATION: 6251' DATE: AUGUST 14, 2003




Reserve Pit Dike: to be 8' above Deep side (overflow - 3' wide and 1' above shallow side).
Blow Pit: overflow pipe halfway between top and bottom and to extend over plastic liner and into blow pit.




Note: Contractor should call One-Call for location of any marked or unmarked buried pipelines or cables on well pad and/or access road at least two (2) working days prior to construction