

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-081098 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 Riddle 9. Well Number 1B |
| 4. Location of Well 1790' FSL, 1830' FWL Latitude 36° 50.3, Longitude 107° 47.3 | 10. Field, Pool, Wildcat Blanco MV/Basin DK 11. Sec., Twn, Rge, Mer. (NMPM) K Sec. 4, T-30-N, R-9-W API # 30-045-30043 |
| 14. Distance in Miles from Nearest Town 9 miles from Aztec | 12. County San Juan 13. State NM |
| 15. Distance from Proposed Location to Nearest Property or Lease Line 1790' | 17. Acres Assigned to Well 322.70 W/2 |
| 16. Acres in Lease | |
| 18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 800' | |
| 19. Proposed Depth 7600' | 20. Rotary or Cable Tools Rotary |
| 21. Elevations (DF, FT, GR, Etc.) 6146' GR | 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>Peggy Cole</u> Regulatory/Compliance Administrator | <u>10-14-99</u> Date |

PERMIT NO. _____ APPROVAL DATE _____
APPROVED BY Chip Hamadon TITLE Acting Team Lead DATE 1/11/00

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.

chdc

NMOCD

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

District II
PO Drawer 00, 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

WELL LOCATION AND ACREAGE DEDICATION PLAT

| | | | | |
|-----------------------------|--|--|---|---------------------|
| *API Number 30-045-30043 | | *Pool Code 71599/72319 | *Pool Name Basin Dakota/Blanco Mesaverde | |
| *Property Code 7424 | | *Property Name RIDDLE | | *Well Number 1B |
| *OGRID No. 14538 | | *Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY | | *Elevation 6146' |

¹⁰ Surface Location

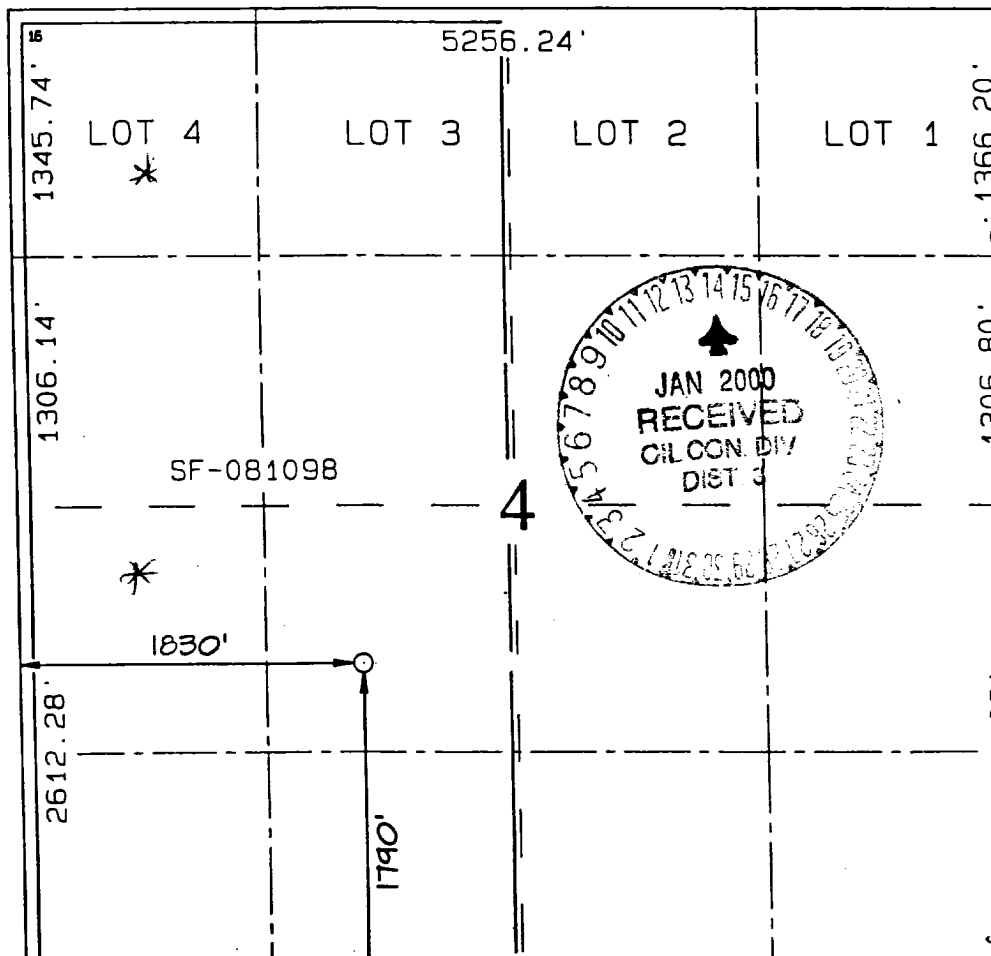
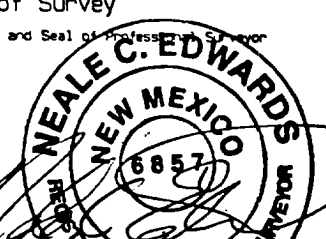
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|----------|
| K | 4 | 30N | 9W | | 1790 | SOUTH | 1830 | WEST | SAN JUAN |

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 DK:W/322.70 MV:W/322.70 | 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

| | | | | | |
|--|--|--|--|--|--|
|  | | | | 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 Administrator Title <u>10-14-99</u> 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. SEPTEMBER 17, 1999 Date of Survey Signature and Seal of Professional Surveyor  | | | | | |

OPERATIONS PLAN

Well Name: Riddle #1B
Location: 1790' FSL, 1830' FWL, Sec 4, T-30-N, R-9-W
San Juan County, NM
Latitude 36° 50.3, Longitude 107° 47.3
Formation: Blanco Mesa Verde/Basin Dakota
Elevation: 6146' GL

| <u>Formation Tops:</u> | <u>Top</u> | <u>Bottom</u> | <u>Contents</u> |
|-------------------------------|-------------------|----------------------|------------------------|
| Surface | San Jose | 1574' | |
| Ojo Alamo | 1574' | 1741' | aquifer |
| Kirtland | 1741' | 2300' | gas |
| Fruitland | 2300' | 2906' | gas |
| Pictured Cliffs | 2906' | 3017' | gas |
| Lewis | 3017' | 3633' | gas |
| Mesa Verde | 3633' | 3970' | gas |
| Chacra | 3970' | 4667' | gas |
| Intermediate TD | 4440' | | |
| Massive Cliff House | 4667' | 4776' | gas |
| Menefee | 4776' | 5138' | gas |
| Massive Point Lookout | 5138' | 5475' | gas |
| Mancos | 5475' | 6464' | gas |
| Gallup | 6464' | 7187' | gas |
| Greenhorn | 7187' | 7238' | gas |
| Graneros | 7238' | 7288' | gas |
| Dakota | 7288' | | gas |
| TD | 7600' | | |

Logging Program:

Open hole - AIT, CNL, CDL, GR, SP, FMI, DPS - TD to intermediate TD
Cased hole - CBL-CCL-GR - TD to surface
Mud logs - from TD to 6500'
Cores: Lewis @ 3700-3760', 3973-4033', 4075-4135'

Mud Program:

| <u>Interval</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- 4440' | LSND | 8.4-9.0 | 30-60 | no control |
| 4440- 7600' | Gas | 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>Depth Interval</u> | <u>Csg. Size</u> | <u>Wt.</u> | <u>Grade</u> |
|------------------|-----------------------|------------------|------------|--------------|
| 12 1/4" | 0' - 200' | 9 5/8" | 32.3# | WC-50 |
| 8 3/4" | 0' - 4440' | 7" | 20.0# | J-55 |
| 6 1/4" | 4340' - 7600' | 5 1/2" | 10.5# | K-55 |

Tubing Program:

| | | | |
|------------|--------|-------|------|
| 0' - 5587' | 1 1/2" | 2.76" | J-55 |
| 0' - 7600' | 1 1/2" | 2.90# | 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.

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 1 1/2" x 1 1/2" x 3000 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 drilling crew.
- All BOP tests and 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 159 sx Class "B" cement with 1/4# flocele/sx and 3% calcium chloride (188 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/415 sx Class "B" w/3% sodium metasilicate, 7# gilsonite/sx and 1/2# flocele/sx. Tail w/90 sx 50/50 Class "B" Poz w/2% calcium chloride, 2% gel (1334 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 during completion operations to determine TOC. Test casing to 1500 psi for 30 minutes.

7" intermediate casing alternative two stage: Stage collar at 2200'. First stage: cement with w/477 sx Class "B" 50/50 poz w/2% gel, 2% calcium chloride, 0.5 pps Cellophane. Second stage: 227 sx Class "B" with 3% sodium metasilicate, 1/2 pps Cellophane, 10 pps Gilsontite (1334 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 1741'. Two turbolating centralizers at the base of the Ojo Alamo at 1741'. Bowspring centralizers spaced every fourth joint from the base of the Ojo Alamo to the base of the surface casing.

5 1/2" Production Liner -

Cement to cover minimum of 100' of 5 1/2" x 7" overlap. Lead with 175 sx 50/50 Class "H" Poz with 2% gel, 0.25# flocele/sx, 5# gilsonite/sx, 0.2% retardant and 0.4% fluid loss additive (295cu.ft.), 40% excess to cement 5 1/2" x 7" overlap). WOC a minimum of 18 hrs prior to completing.

Cement float shoe on bottom with float collar spaced on top of shoe joint.

Note: To facilitate higher hydraulic stimulation completion work, no liner hanger will be used. In its place, a long string of 5 1/2" casing will be run and cemented with a minimum of 100' of cement overlap between the 5 1/2" x 7" casing strings. After completion of the well, a 5 1/2" retrievable bridge plug will be set below the top of cement in the 5 1/2" x 7" overlap. The 5 1/2" casing will then be backed off above the top of cement in the 5 1/2" x 7" overlap and laid down. The 5 1/2" bridge plug will then be retrieved and the production tubing will be run to produce the well.

- 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 (Gas/Mist Drilling):

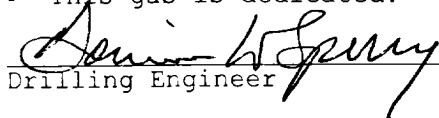
The following equipment will be operational while gas/mist drilling:

- 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.
- Deduster equipment will be utilized.
- 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:

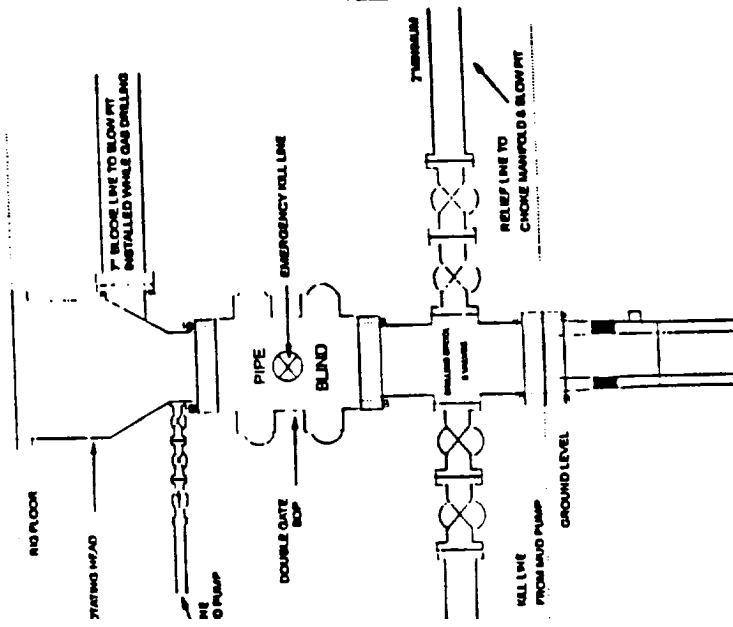
- The Dakota and Mesa Verde formations will be completed and dualled.
- No abnormal temperatures or hazards are anticipated.
- Anticipated pore pressures are as follows:

| | |
|-----------------|----------|
| Fruitland Coal | 800 psi |
| Pictured Cliffs | 800 psi |
| Mesa Verde | 700 psi |
| Dakota | 2500 psi |
- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered.
- The west half of Section 4 is dedicated to the Mesaverde and the Dakota in this well.
- This gas is dedicated.


Drilling Engineer

10/25/99
Date

BOP Configuration 2M psi System

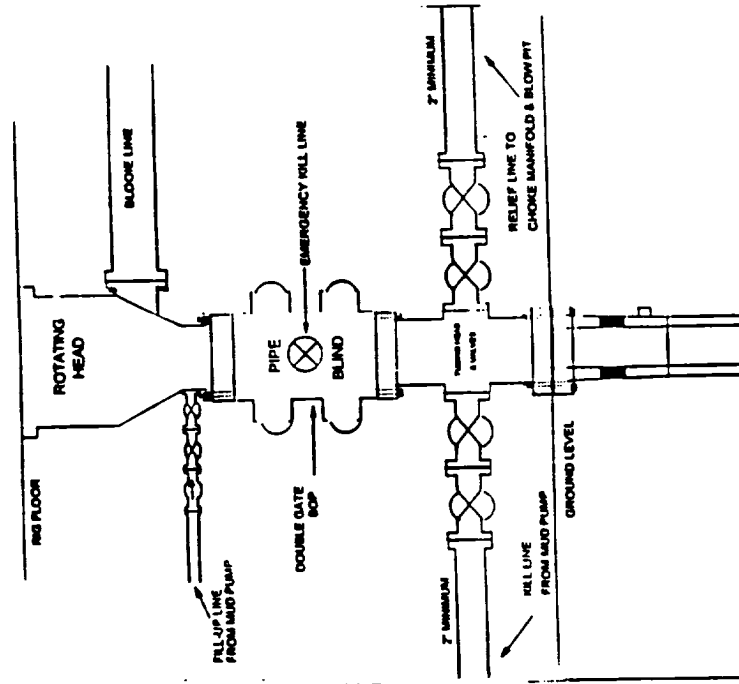


175, 2000psi minimum working pressure double gate BOP to be equipped with and pipe rams. A Schaffner Type 50 or equivalent rotating head to be installed on the top of the BOP. All equipment is 2000psi working pressure or better.

FIGURE #1

BURLINGTON RESOURCES

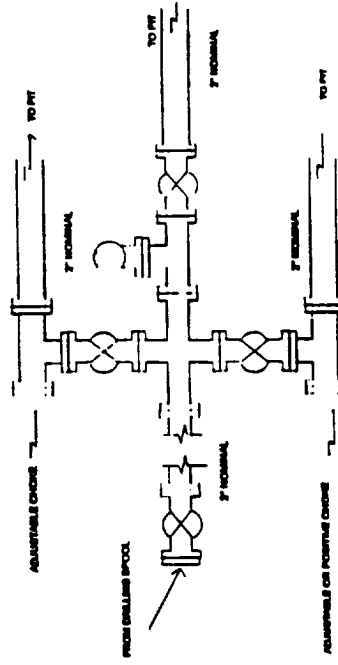
BOP Configuration 2M psi System



Minimum BOP Installation for Completion operations. 7 1/16\" Bore (6\" Nominal). 2,000 psi minimum working pressure double gate BOP to be equipped with blind and pipe rams.

FIGURE #2

Choke Manifold Configuration 2M System



Minimum choke manifold installation from surface to Total Depth. 2\" minimum, 2000psi working pressure equipment with two chokes.

Figure #3

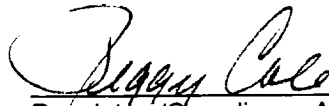
BURLINGTON RESOURCES

Riddle #1B

Multi-Point Surface Use Plan

1. Existing Roads - Refer to Map No. 1. Existing roads used to access the proposed location will be properly maintained for the duration of the project. Bureau of Land Management right-of-way has been applied for as shown on Map No. 1.
2. Planned Access Road - Refer to Map No. 1. No new access road is required.
3. Location of Existing Wells - Refer to Map No. 1A.
4. Location of Existing and/or Proposed Facilities if Well is Productive -
 - a. On the Well Pad - Refer to Plat No. 1, anticipated production facilities plat.
 - b. Off the Well Pad - Anticipated pipeline facilities as shown on the attached plat from El Paso Field Services.
5. Location and Type of Water Supply - Water will be hauled by truck for the proposed project and will be obtained from Hart Canyon Water Hole located in Section 35, T-31-N, R-11-W, New Mexico.
6. Source of Construction Materials - If construction materials are required for the proposed project, such materials will be obtained from a commercial quarry.
7. Methods of Handling Waste Materials - All garbage and trash materials will be removed from the site for proper disposal. A portable toilet will be provided for human waste and serviced in a proper manner. If liquids are left in the reserve pit after completion of the project, the pit will be fenced until the liquids have had adequate time to dry. The location clean-up will not take place until such time as the reserve pit can be properly covered over to prevent run-off from carrying waste materials into the watershed. Reserve pits will be lined as needed with either 12 mil bio-degradable plastic liner or a bentonite liner. All earthen pits will be so constructed as to prevent leakage from occurring; no earthen pit will be located on natural drainage. Generation of hazardous waste is not anticipated. Federal regulations will be adhered to regarding handling and disposal of such waste if so generated.
8. Ancillary Facilities - None anticipated.
9. Wellsite Layout - Refer to the location diagram and to the wellsite cut and fill diagram (Figure No. 4). The blow pit will be constructed with a 2'/160' grade to allow positive drainage to the reserve pit and prevent standing liquids in the blow pit.
10. Plans for Restoration of the Surface - After completion of the proposed project, the location will be cleaned and leveled. The location will be left in such a condition that will enable reseeding operations to be carried out. Seed mixture as designated by the responsible government agency will be used. The reseeding operations will be performed during the time period set forth by the responsible government agency. The permanent location facilities will be painted as designated by the responsible government agency.

11. Surface Ownership – Bureau of Land Management
12. Other Information - Environmental stipulations as outlined by the responsible government agency will be adhered to. Refer to the archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, historical and cultural sites.
13. Operator's Representative and Certification - Burlington Resources Oil & Gas Company Regional Drilling Manager, Post Office Box 4289, Farmington, NM 87499, telephone (505) 326-9700. I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan, are to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Burlington Resources Oil and Gas Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.



Regulatory/Compliance Administrator

10-14-99

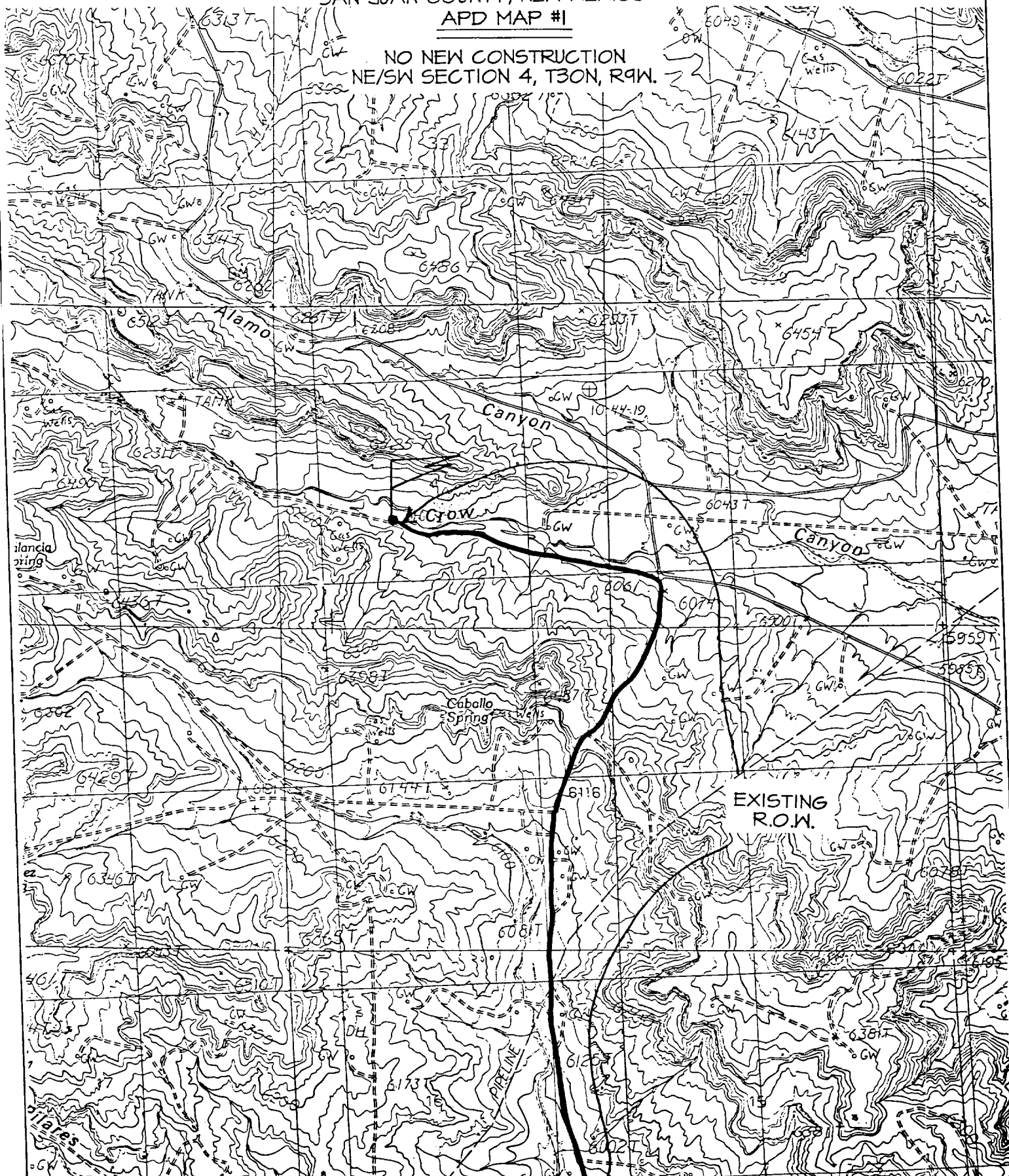
Date

pb

1790' FSL & 1830' FWL, SECTION 4, T30N, R9W, N.M.P.M.
SAN JUAN COUNTY, NEW MEXICO

APD MAP #1

NO NEW CONSTRUCTION
NE/SW SECTION 4, T30N, R9W.





DWG. NO. BLB11-34-1

RW NO. 9970228

SCALE 1" = 1000'

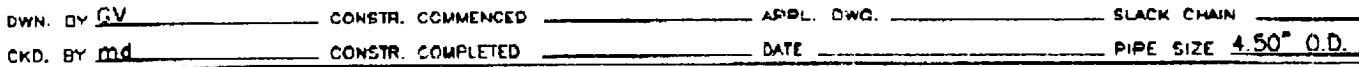
SURVEYED 11/05/99

RANGE 9-W, N.M.P.M.

(BLB11-12-1. R/W NO. 741427)(MC NO. 89185)

RANGE

9-W, N.M.P.M.



| | | | |
|--------------|-----------|----------------|-------|
| PRINT RECORD | PIPE DATA | METER STA. NO. | MY/DK |
|--------------|-----------|----------------|-------|

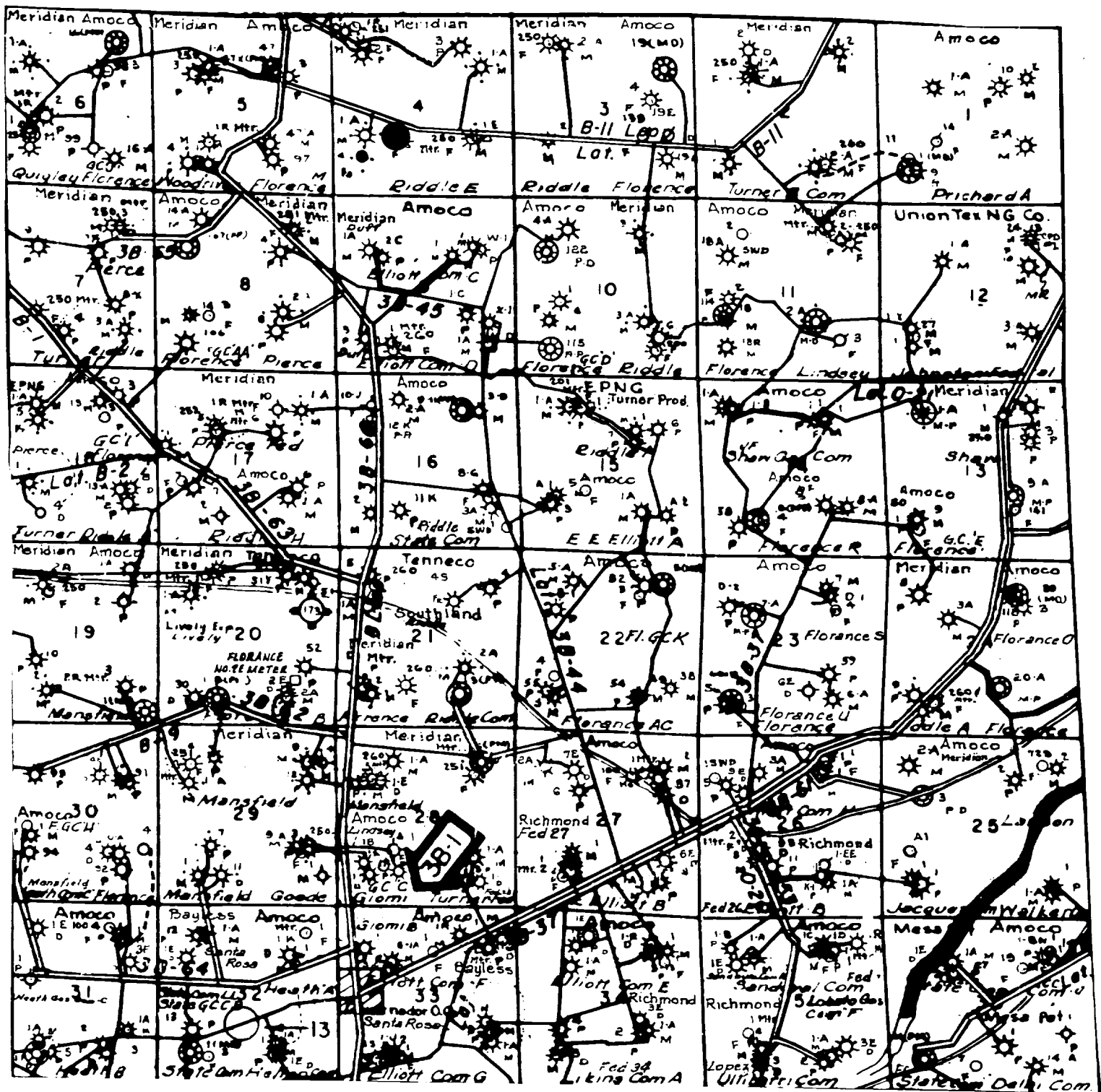
[illegible]

NOTE: WELL FLAG
SURVEY FOLLOWS EXISTING ROAD & LOCATION NOT BUILT.

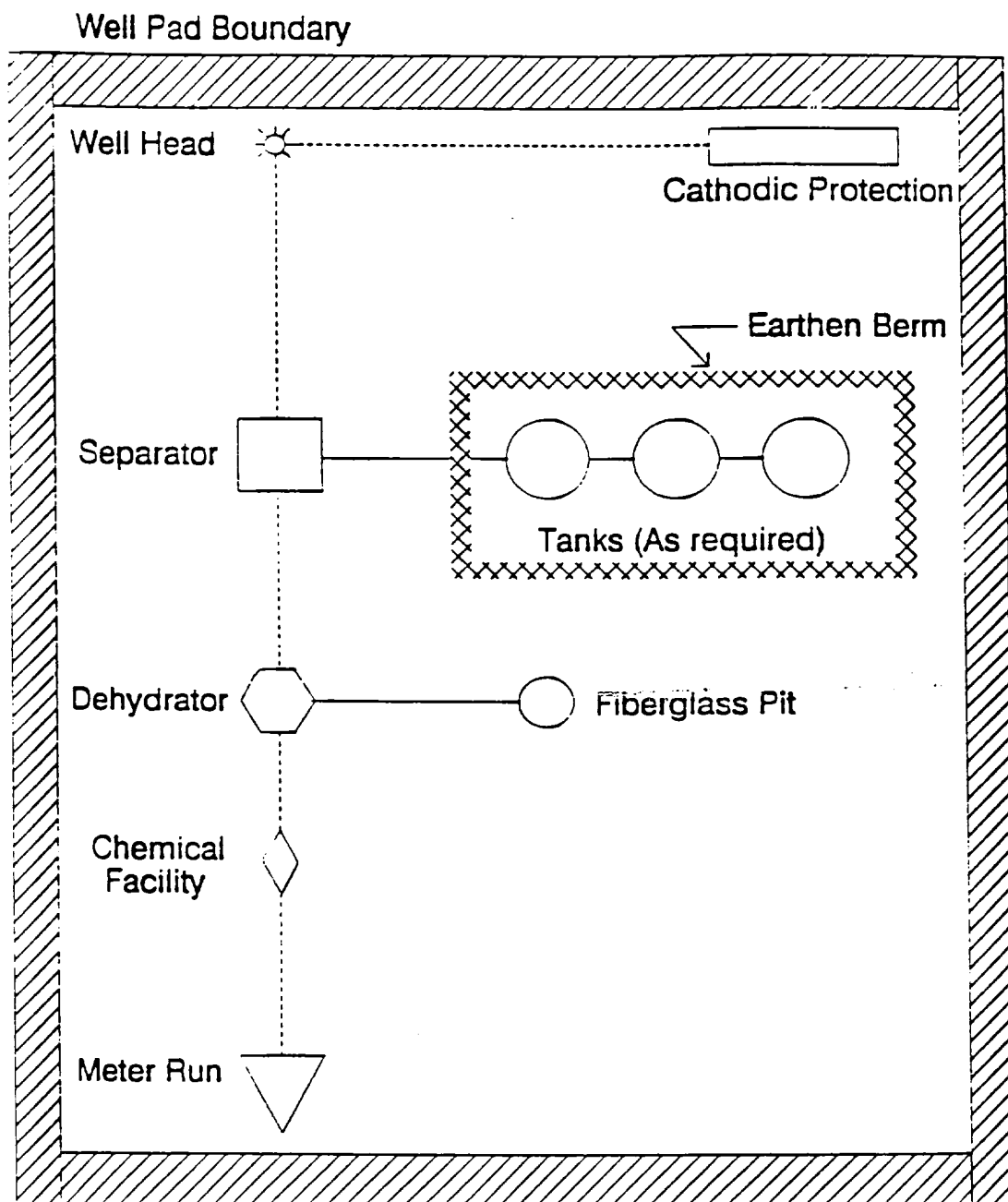
| | SUBDIVISION | OWNER | LESSEE | METER(S) | RODS | ACRE(S) |
|-------------|-------------|---------------|--------------|----------|--------|---------|
| SW/4 SEC. 4 | | UNITED STATES | DEWEY SEXTON | | 51.698 | 0.783 |

FN24 (Rev. 1/99)

B_811341



MERIDIAN OIL INC.
 Pipeline Map
 T-30-N, R-09-W
 San Juan County, New Mexico
 Riddle #1B
 Map 1A

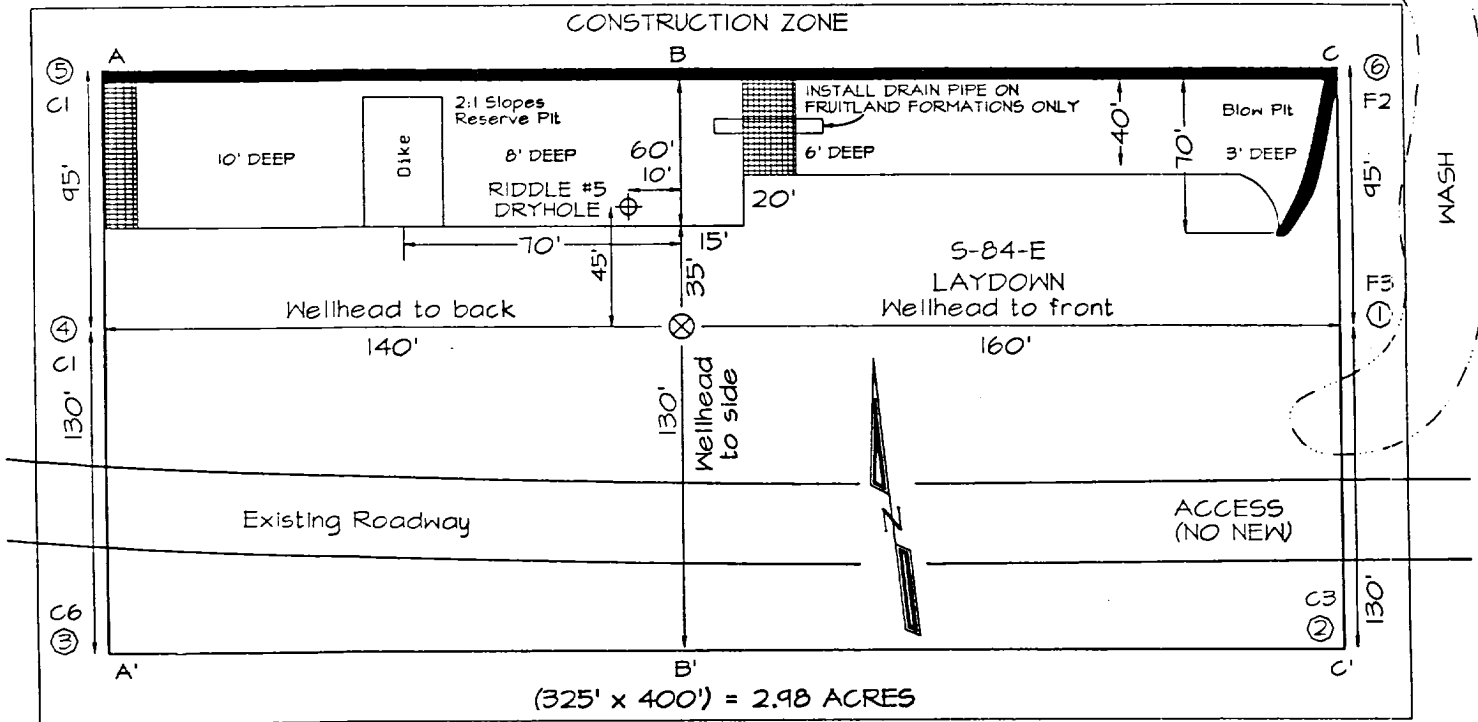


PLAT #1

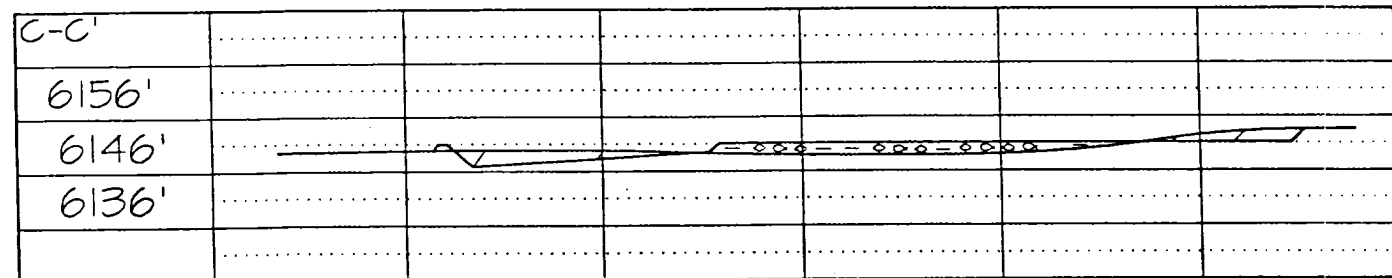
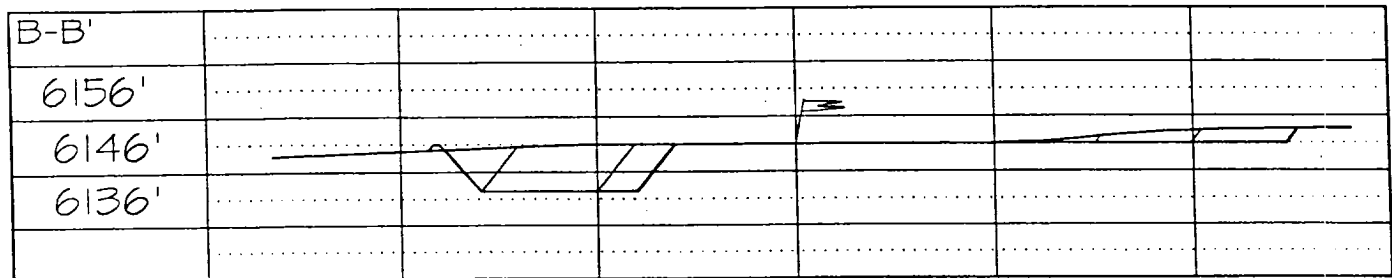
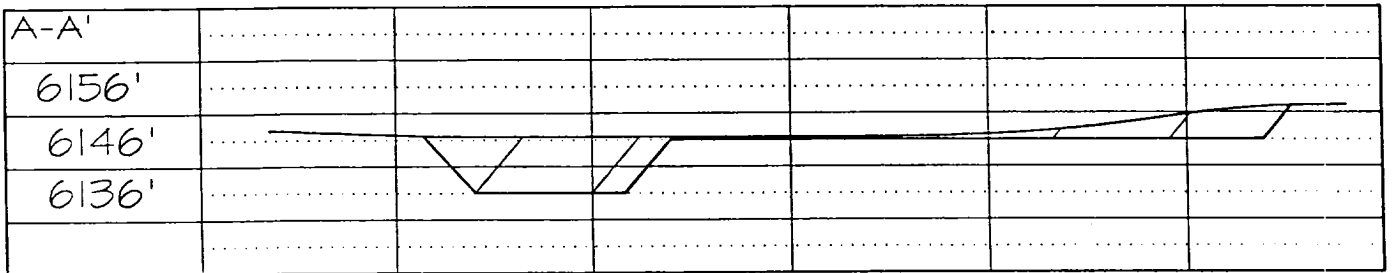
ANTICIPATED
PRODUCTION FACILITIES
FOR A
DAKOTA WELL

PLAT #1

BURLINGTON RESOURCES OIL & GAS COMPANY
RIDDLE #1B, 1790' FSL & 1830' FWL
SECTION 4, T30N, R9W, NMPM, SAN JUAN COUNTY, NEW MEXICO
GROUND ELEVATION: 6146' DATE: SEPTEMBER 17, 1999



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