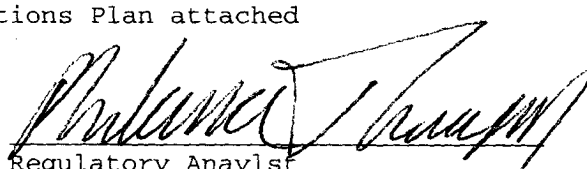



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	2006 AUG 9 PM 25:39	25. Lease Number SF-080376-A
1b. Type of Well GAS	RECEIVED 070 FARMINGTON, NM	Unit Reporting Number
2. Operator BURLINGTON RESOURCES Oil & Gas Company LP	7. Unit Agreement Name	
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name Sheets 9. Well Number #4E	
4. Location of Well Unit L (NWSW), 1525' FSL & 815' FWL, Lat. 36°51.9627'N Long. 107°47.5164'W	10. Field, Pool, Wildcat Basin DK 11. Sec., Twn, Rge, Mer. (NMPM) Sec. 28, T31N, R9W API # 30-045-33892	
14. Distance in Miles from Nearest Town Aztec Post Office, 14.2 miles	12. County San Juan	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 815'		
16. Acres in Lease	17. Acres Assigned to Well DK 318.02 S/2	
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 55' Sheets #1R MV		
19. Proposed Depth 7556'	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 6187' GR	22. Approx. Date Work will Start	
23. Proposed Casing and Cementing Program See Operations Plan attached		
24. Authorized by:  Regulatory Analyst	8/8/06 Date	

PERMIT NO. _____ APPROVAL DATE _____
APPROVED BY  TITLE AFM DATE 8/28/06

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.

This well is NOT in the HPA area.

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

NMDCD

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

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240

DISTRICT II
1301 W. Grand Ave., Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
1220 South St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, NM 87505

Form O-102

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

COPY

¹ API Number 30-045-3389a	² Pool Code 71599	³ Pool Name Basin Dakota
⁴ Property Code 7504	⁵ Property Name SHEETS	⁶ Well Number 4E
⁷ OCRID No. 14538	⁸ Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY LP	⁹ Elevation 6187

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
L	28	31-N	9-W	2	1525	SOUTH	815	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
L									
¹² Dedicated Acres DK 318.200ac. S2				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, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.	
LOT 1 39.10				Signature <i>Philana Thompson</i> Date	
FD. 3 1/4" BC. 1966 B.L.M.				Printed Name Philana Thompson	
28				Regulatory Analyst	
USA SF-080376-A				18 SURVEYOR CERTIFICATION	
LAT: 36.86604° N. (NAD 83) LONG: 107.79194° W. (NAD 83) LAT: 36°51.9627' N. (NAD 27) LONG: 107°47.5164' W. (NAD 27)				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.	
LOT 2 39.20				Date of Survey JUNE 13, 2006	
815'				Signature <i>John A. Vukonic</i>	
1525'				REGISTERED PROFESSIONAL SURVEYOR 14831	
LOT 3 39.39				Certificate Number	
LOT 4 39.43					
FD. 3 1/4" BC. 1966 B.L.M.					

Submit 3 Copies To Appropriate District
Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103

May 27, 2004

WELL API NO. 30-045 33892	
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>	
6. State Oil & Gas Lease No.	
7. Lease Name or Unit Agreement Name Sheets	
8. Well Number #4E	
9. OGRID Number 14538	
10. Pool name or Wildcat Basin Dakota	
SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other	
2. Name of Operator BURLINGTON RESOURCES OIL & GAS COMPANY LP	
3. Address of Operator 3401 E. 30TH STREET, FARMINGTON, NM 87402	
4. Well Location Unit Letter <u>L</u> : <u>1525</u> feet from the <u>South</u> line and <u>815</u> feet from the <u>West</u> line Section <u>28</u> Township <u>31N</u> Rng <u>9W</u> NMPM County <u>San Juan</u>	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 6187' GR	
Pit or Below-grade Tank Application <input type="checkbox"/> or Closure <input type="checkbox"/>	
Pit type <u>New Drill</u> Depth to Groundwater <u>>100'</u> Distance from nearest fresh water well <u>>1000'</u> Distance from nearest surface water <u>7200'</u>	
Pit Liner Thickness: <u>N/A</u> mil Below-Grade Tank: <u>Volume</u> bbls; Construction Material <u></u>	

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐

OTHER: New Drill ☒

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

New Drill, Unlined:

Burlington Resources proposes to construct a new drilling pit and an associated vent/flare pit. Based on Burlington's interpretation of the Ecosphere's risk ranking criteria, the new drilling pit and vent/flare pit will be an unlined pit as detailed in Burlington's Revised Drilling / Workover Pit Construction / Operation Procedures dated November 11, 2004 on file at the NMOCD office. A portion of the vent/flare pit will be designed to manage fluids, and that portion will be unlined, as per the risk ranking criteria. Burlington Resources anticipates closing these pits according to the Drilling / Workover Pit Closure Procedure dated August 2, 2004 on file at the NMOCD office.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☒ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Philana Thompson TITLE Regulatory Analyst DATE 8/8/2006

Type or print name Philana Thompson E-mail address: pthompson@br-inc.com Telephone No. 505-326-9530
For State Use Only

APPROVED BY [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 3 DATE AUG 30 2006
Conditions of Approval (if any):

SHEETS No. 4E, 1525 FSL 815 FWL

GROUND ELEVATION: 6187, DATE: JUNE 13, 2006

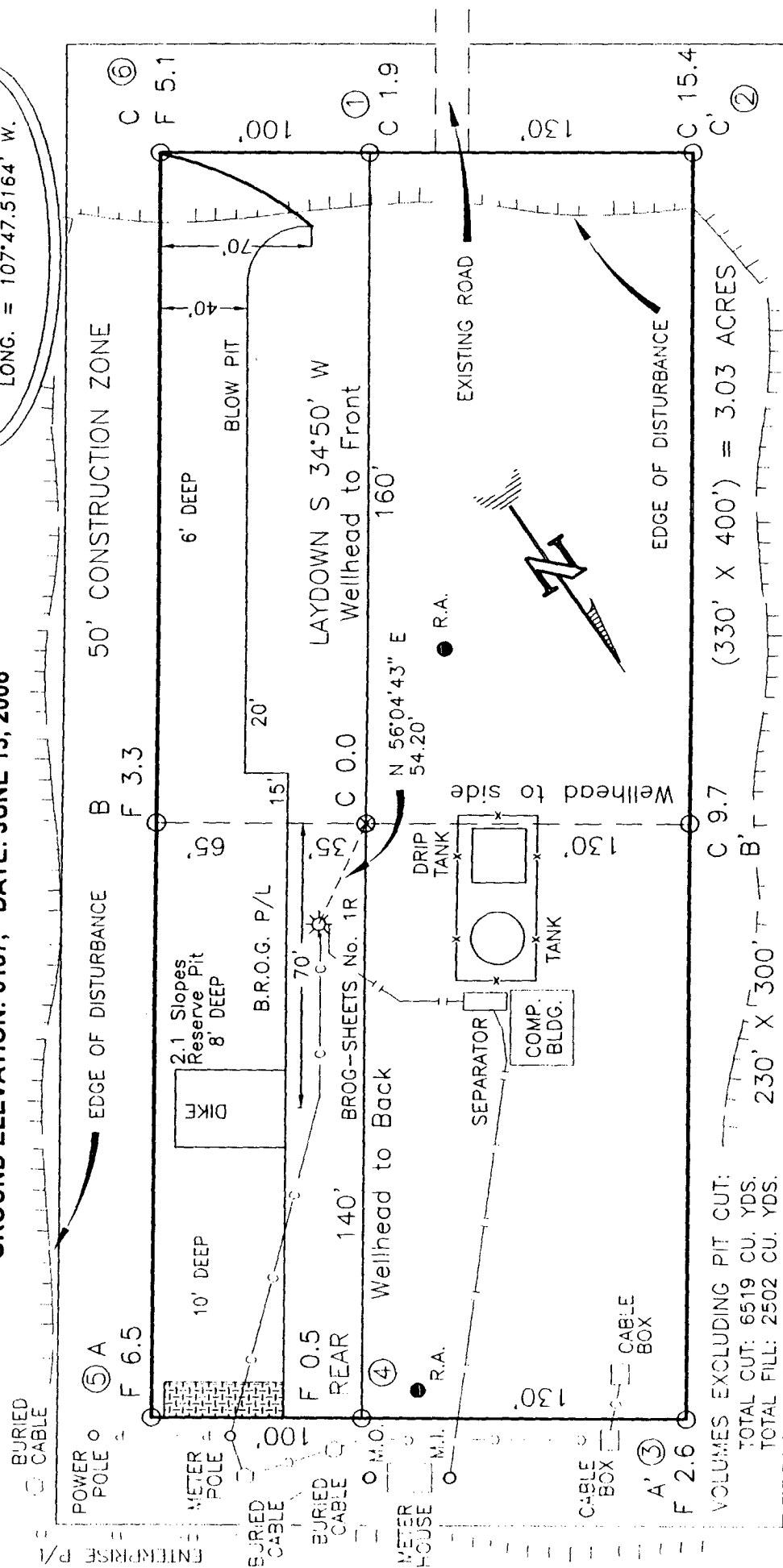
NAD 83

LAT. = 36.86604° N.
LONG. = 107.79194° W.

NAD 27

LAT. = 36°51.9627' N.

LONG. = 107°47.5164' W.



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

NOTE: DAGGETT ENTERPRISES, INC. IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. NEW MEXICO ONE CALL TO BE NOTIFIED 48 HOURS PRIOR TO EXCAVATION OR CONSTRUCTION.

NOTE: ESTIMATED VOLUMES CALCULATED BY AVERAGE
END AREA AT CROSS-SECTION SHOWN

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.



Daggett Enterprises, Inc.

Surveying and Oil Field Services

P. O. Box 15068 • Farmington, NM 87401

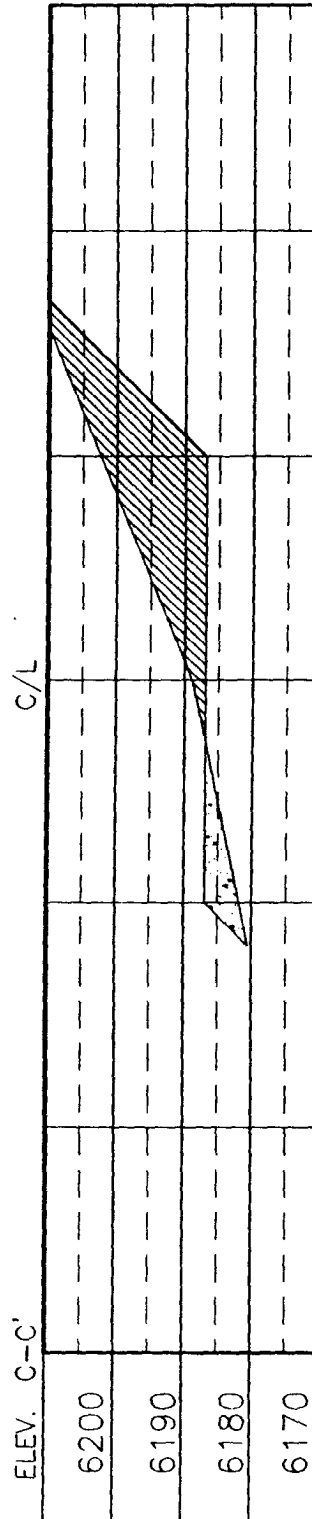
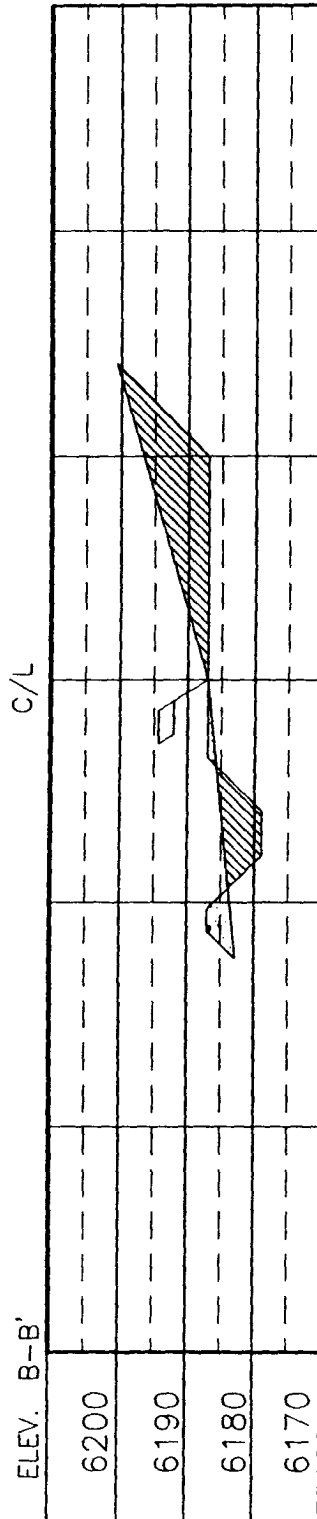
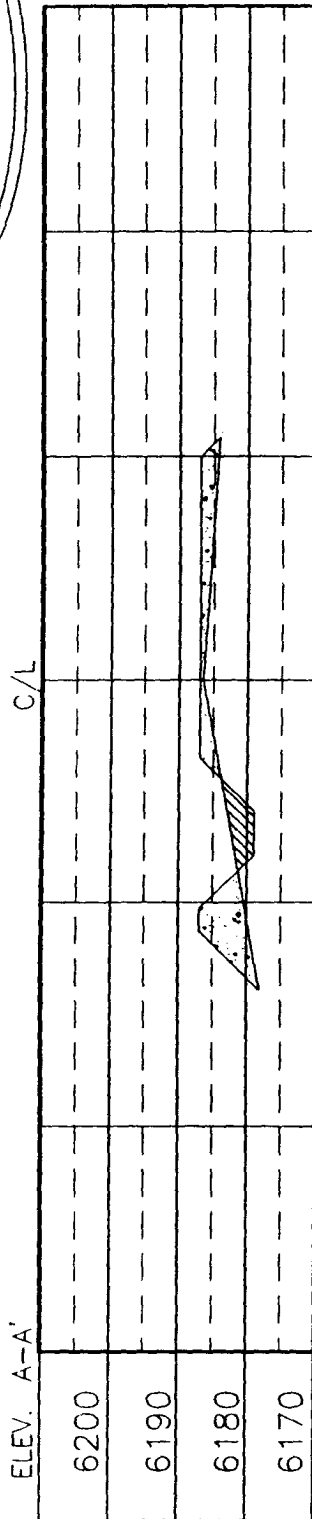
e (505) 326-1772 • Fax (505) 326-6019

XICO L.S. 14831

SECTION 28, T-31-N, R-9-W, N.M.P.M., RIO ARriba COUNTY, NEW MEXICO
GROUND ELEVATION: 6187, DATE: JUNE 13, 2006


NAD 83
LAT. = 36.86604° N
LONG. = 107.79194° W

NAD 27
LAT. = 36°51.9627' N
LONG. = 107°47.5164' W



NOTE: DAGGETT ENTERPRISES, INC. IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. NEW MEXICO ONE CALL TO BE NOTIFIED 48 HOURS PRIOR TO EXCAVATION OR CONSTRUCTION.

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.

REVISION:	DATE:	REVISED BY:
		
Daggett Enterprises, Inc. Surveying and Oil Field Services P. O. Box 15068 • Farmington, NM 87401 Phone (505) 325-1772 • Fax (505) 325-6019 NEW MEXICO, L.S. 14831		
DRAWN BY: G.V.	CADFILE: BR545_CFB	DATE: 08/27/06
ROW#:	ROW#:	ROW#:
BR646	BR646	BR646

OPERATIONS PLAN

Well Name:

SHEETS 4E

Location:

1525' FSL & 815' FWL, Section Sec 28 T31N R09W
San Juan County, New Mexico

Formation:

Elevation:

Basin Dakota
6187' GL

Surface	San Jose		
Surface	San Jose		
Ojo Alamo	1719'	1719'	
Kirtland	1788'	1788'	
Fruitland	2673'	2673'	aquifer
Pictured Cliffs	3005'	3005'	gas
Lewis	3219'	3219'	gas
Huerfanito Bentonite	3715'	3715'	gas
Chacra	4061'		
Massive Cliff House	4756'	4756'	
Menefee	4871'	4871'	gas
Massive Point Lookout	5227'	5227'	gas
Mancos Shale	5748'	5748'	gas
Upper Gallup	6522'	6522'	gas
Greenhorn	7250'	7250'	
Graneros	7296'	7296'	gas
Two Wells	7354'	7354'	gas
Paguate	7439'	7439'	gas
Lower Cubero	7466'	7466'	gas
Upper Cubero	7484'	7484'	gas
Encinal	7551'	7551'	gas
Total Depth:	7556'	7556'	gas

Logging Program:

Mud Logs/Coring/DST

Mud logs - none
Coring - none
DST - none
Open hole - none
Cased hole - Gamma Ray, CBL - surface to TD

Mud Program:

Interval	Type	Weight	Vis.	Fluid Loss
0 - 120 200	Spud MUD/Air/Air Mist	8.4 - 9.0	40 - 50	
120 - 3319'	LSND	8.4 - 9.0	30 - 60	no control
3319' - 7556'	Air/Air Mist/Nitrogen	n/a	n/a	no control
				n/a

C. HARRADEN/ August 11, 2006 *CH*

BURLINGTON RESOURCES/ Sheets # 4E APD

STIPULATION/CONDITION OF APPROVAL

This well is located within a 'vulnerable area'. In order to protect the integrity of the fresh water alluvium aquifer, a minimum surface csg. depth of 200' is stipulated as a condition of approval for this APD.

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' - 120' ²⁰⁰	9 5/8"	32.3#	H-40
8 3/4"	0' - 3319'	7"	20#	J-55
6 1/4"	0' - 7556'	4 1/2"	10.5# / 11.6#	J-55

Tubing Program:

<u>Depth Interval</u>	<u>Csg. Size</u>	<u>Wt.</u>	<u>Grade</u>
0' - 7556'	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, BOPE 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, BOPE 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 4 1/4" 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 -

Pre-Set Drilled - Cement with 22 sxs Type I, II cement with 20% flyash mixed at 14.5 ppg, 1.61 cu ft per sack yield. (22 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 18 sxs Type III cement with 0.25 pps Celloflake, 2% CaCl. 113 cu ft of slurry, 200% excess, bring cement to surface) Wait on cement for 8 hrs for conventionally set holes before pressure testing or drilling out from under surface. Wait on cement appropriate time until cement achieves 250 psi compressive strength at 60 degrees F. prior to nipple up of BOPE. Wait on cement for 8 hrs for conventionally set holes before pressure testing or drilling out from under surface. 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 with 290 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 w/90 sacks Type III cmt w/1% calcium chloride, 0.25 pps Celloflake, 0.2% fluid loss (124 cu ft 50% excess to circulate to surface). WOC minimum of 8 hours before drilling out intermediate casing. If cement does not circulate to surface, a CBL or a temperature survey will be run to determine TOC. Test casing to 1500 psi for 30 minutes.

7" intermediate casing alternative two stage -

Stage collar set 300' above the top of the Fruitland. First stage: Lead w/42 sacks Premium Lite cement with 3% calcium chloride, .25 pps celloflake, 5 pps LCM-1, 0.4% fluid loss. Tail w/90 sxs Type III cmt w/1% calcium chloride, 0.25 pps Celloflake, 0.2% fluid loss. Second stage: 248 sacks Premium Lite cement with 3% calcium chloride, .25 pps celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% sodium metasilicate (742 cu ft - 50% 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 @ 1788'. Two turbolating centralizers at the base of the Ojo Alamo @ 1788'. Bowspring centralizers spaced every fourth joint from the base of the Ojo Alamo to the base of the surface casing.

4 1/2" Production Casing -

Pump 277 sxs Premium Lite HS FM w/0.25 pps celloflake, 0.3% CD-32, 6.25 pps LCM-1, 1% fluid loss, 6% gel, 7 pps CSE (549 cu.ft., 30% excess to achieve 100' overlap in 4-1/2" x 7" annulus). WOC a minimum of 18 hrs prior to completing.

Cementing: Continued

Cement float collar stacked on top of float shoe.

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

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):

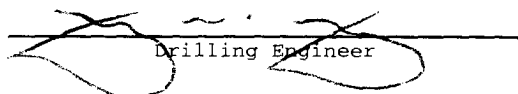
The following equipment will be operational while air/mist drilling:

- 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:

- This will be a Dakota only producer.
- No abnormal temperatures or hazards are anticipated.
- Anticipated pore pressures are as follows:

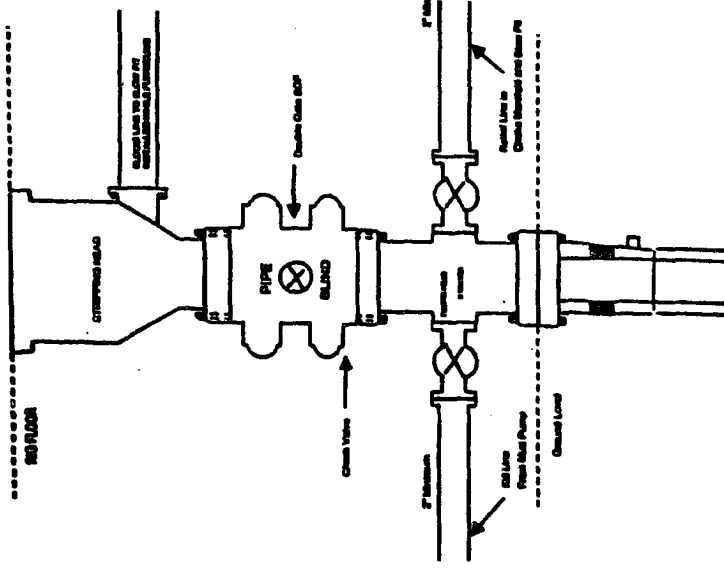
Fruitland Coal	300 psi
Pictured Cliffs	600 psi
Mesa Verde	700 psi
Dakota	2000 psi
- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered below the top of the Pictured Cliffs.
- The South half of Section 28 is dedicated to the Dakota formation.
- This gas is dedicated.


Drilling Engineer


Date

BURLINGTON RESOURCES

Completion/Workover Rig
BOP Configuration
2,000 psi System

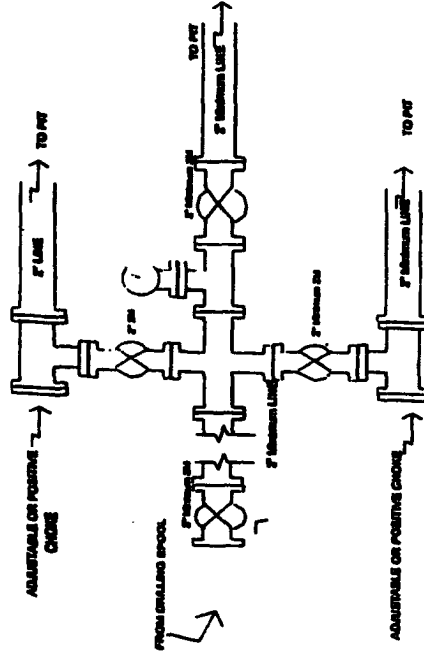


Minimum BOP Installation for all Completion/Workover Operations. 7-1/16" bore, 2000 psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A stripping head to be installed on the top of the BOP. All BOP equipment is 2000 psi working pressure or greater excluding 500 psi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

Figure #2

BURLINGTON RESOURCES

Drilling Rig
Choke Manifold Configuration
2000 psi System

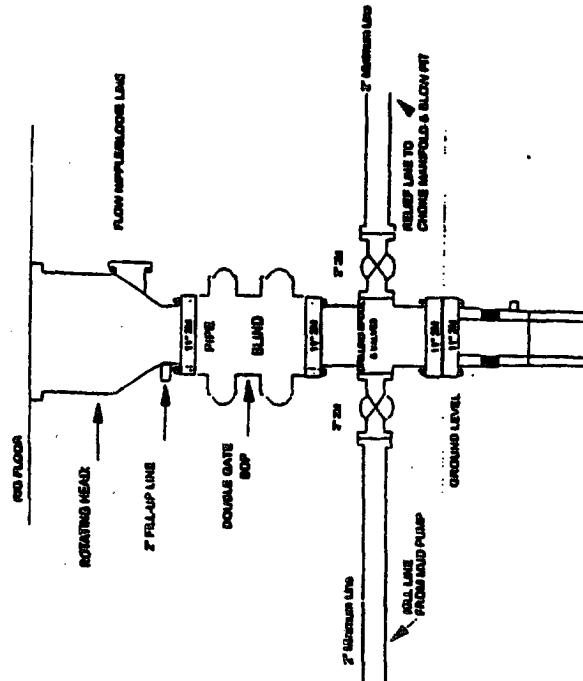


Choke manifold installation from Surface Casing Point to Total Depth. 2,000psi working pressure equipment with two chokes.

Figure #3

Burlington Resources

Drilling Rig
2000 psi System



BOP Installation from Surface Casing Point to Total Depth. 11" Bore 10" Minimum, 2000 psi minimum working pressure double gate BOP to be equipped with blind ram and pipe rams. A stripping head to be installed on top of the BOP. All BOP equipment is 2,000 psi working pressure.

Figure #1