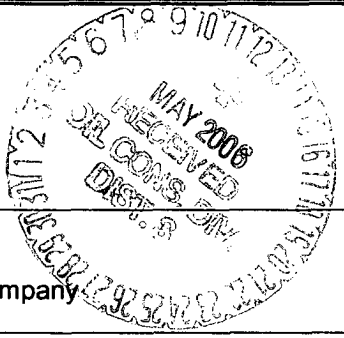


**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT**

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

2006 APR 25 AM 10 05

<p>1a. Type of Work <b>DRILL</b></p> <p>1b. Type of Well <b>GAS</b></p> <p>2. Operator <b>BURLINGTON</b> RESOURCES Oil &amp; Gas Company</p> <p>3. Address &amp; Phone No. of Operator <b>PO Box 4289, Farmington, NM 87499</b>  <b>(505) 326-9700</b></p> <p>4. Location of Well <b>Unit B (NWNE), 660' FNL, 1985' FEL</b>  <b>Latitude 36° 49.8963'N</b> <b>Longitude 107° 53.1394'W</b></p> <p>14. Distance in Miles from Nearest Town <b>7.4 miles to Aztec, NM</b></p> <p>15. Distance from Proposed Location to Nearest Property or Lease Line <b>660'</b></p> <p>16. Acres in Lease</p> <p>18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease <b>836' - Sunray E #4</b></p> <p>19. Proposed Depth <b>7688'</b></p> <p>21. Elevations (DF, FT, GR, Etc.) <b>6433' GL</b></p> <p>23. Proposed Casing and Cementing Program <b>See Operations Plan attached</b></p> <p>24. Authorized by: <u><i>Amanda Sandora</i></u> <b>Regulatory Compliance Assistant III</b></p>	<p>5. Lease Number <b>NMSF-077730</b></p> <p>6. If Indian, All. or Tribe</p> <p>7. Unit Agreement Name</p> <p>8. Farm or Lease Name <b>Sunray E</b></p> <p>9. Well Number <b>#1M</b></p> <p>10. Field, Pool, Wildcat <b>Blanco Mesaverde/ Basin Dakota</b></p> <p>11. Sec., Twn, Rge, Mer. (NMPM) <b>Sec. 9, T30N, R10W</b>  <b>B API # 30-045-33720</b></p> <p>12. County <b>San Juan</b></p> <p>13. State <b>NM</b></p> <p>17. Acres Assigned to Well <b>E2 302.760 MV/DK</b></p> <p>20. Rotary or Cable Tool <b>Rotary</b></p> <p>22. Approx. Date Work will Start</p>
---	---



RECEIVED  
DISTRICT 3 FARMINGTON NM

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY *[Signature]* TITLE *AFM* DATE *5/9/06*

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

BLM IS NOT PROVIDING A GUARANTEE OF ACCURACY FOR THIS INFORMATION. IT IS THE USER'S RESPONSIBILITY TO VERIFY THE INFORMATION WITH THE APPROPRIATE AGENCIES AND AGENCIES INVOLVED IN THE GENERAL REQUIREMENTS.

**NMOCDC**

*[Handwritten mark]*

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 C-102  
Revised October 12, 2005  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

2006 APR 25 AM 10 05

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-045-33720		<sup>2</sup> Pool Code 7159972319	Blanco Mesaverde/ <sup>3</sup> Basin Dakota	
<sup>4</sup> Property Code 7567	<sup>5</sup> Property Name SUNRAY E		<sup>6</sup> Well Number 1M	
<sup>7</sup> GRID No. 14538	<sup>8</sup> Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY LP		<sup>9</sup> Elevation 6433	

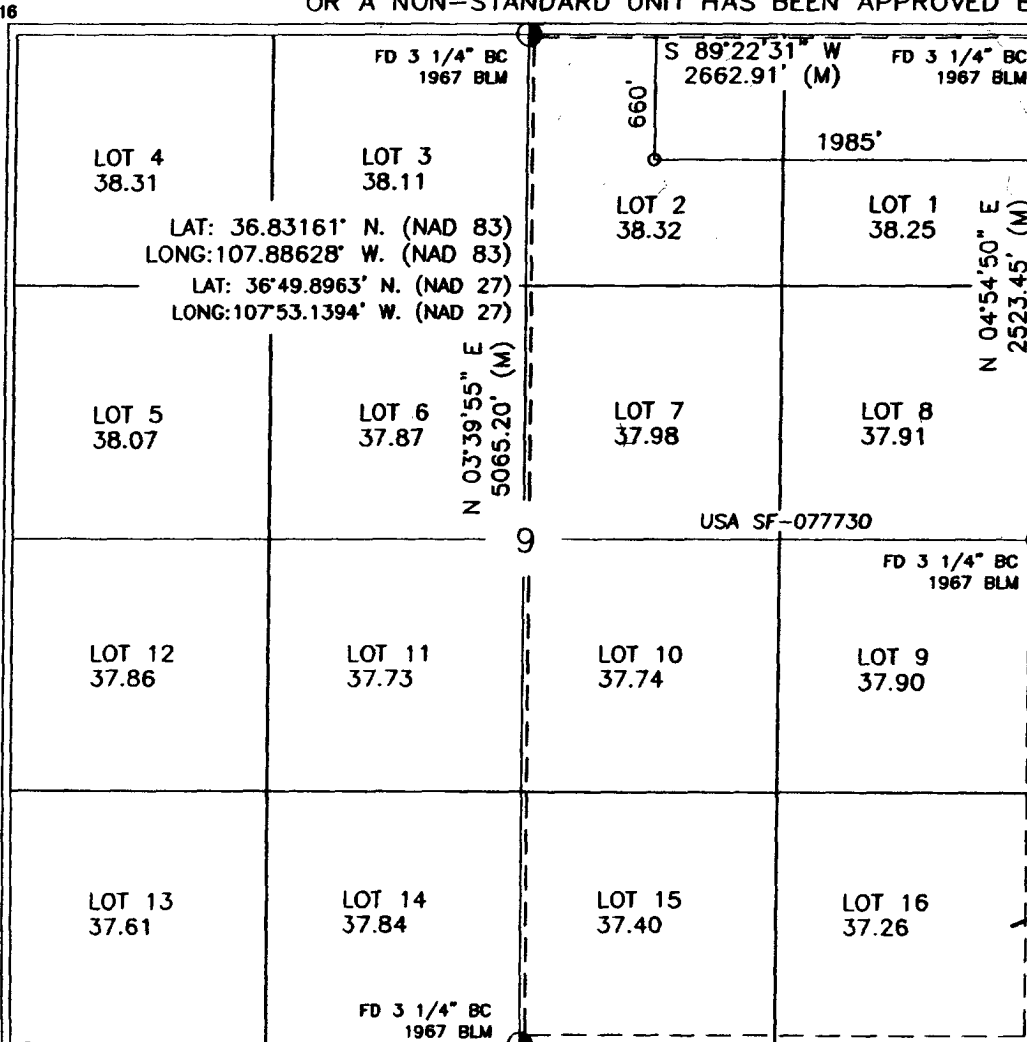
<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	9	30-N	10-W	2	660	NORTH	1985	EAST	SAN JUAN

<sup>11</sup> 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
<sup>12</sup> Dedicated Acres E2 302.460 MV/DK		<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code		<sup>15</sup> 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, 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 of 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.  
  
Signature: Amanda Sandoval Date: 3-29-06  
Printed Name: Amanda Sandoval

**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.  
  
Date of Submission: MARCH 2006  
Signature and Title of Professional Surveyor: [Signature]  
**OWEN A. VUKONICH**  
REGISTERED PROFESSIONAL SURVEYOR  
NEW MEXICO  
14831  
Certificate Number: 14831

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

Energy, Minerals and Natural Resources

May 27, 2004

**OIL CONSERVATION DIVISION**  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

WELL API NO.	30-045- <b>33720</b>
5. Indicate Type of Lease	STATE <input type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.	NMSF-077730
7. Lease Name or Unit Agreement Name	Sunray E
8. Well Number	#1M
9. OGRID Number	14538
10. Pool name or Wildcat	Blanco Mesaverde/ 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  Gas Well  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 B : 660 feet from the North line and 1985 feet from the East line  
Section 9 Township 30N Rng 10W NMPM County San Juan

11. Elevation (Show whether DR, RKB, RT, GR, etc.)  
6433'

Pit or Below-grade Tank Application  or Closure

Pit type New drill Depth to Groundwater >100' Distance from nearest fresh water well >1000' Distance from nearest surface water >200'

Pit Liner Thickness: 12 mil Below-Grade Tank: Volume \_\_\_\_\_ bbls; Construction Material \_\_\_\_\_

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

<b>NOTICE OF INTENTION TO:</b>		<b>SUBSEQUENT REPORT OF:</b>	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
OTHER: <u>Recompletion</u> <input checked="" type="checkbox"/>		OTHER: <input type="checkbox"/>	

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, Lined:

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 will be a lined 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 lined 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 Amanda Sandoval TITLE Regulatory Assistant III DATE 4/10/2006

Type or print name Amanda Sandoval E-mail address: asandoval@br-inc.com Telephone No. 505-326-9891

APPROVED BY [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 3 DATE MAY 12 2006

Conditions of Approval (if any):

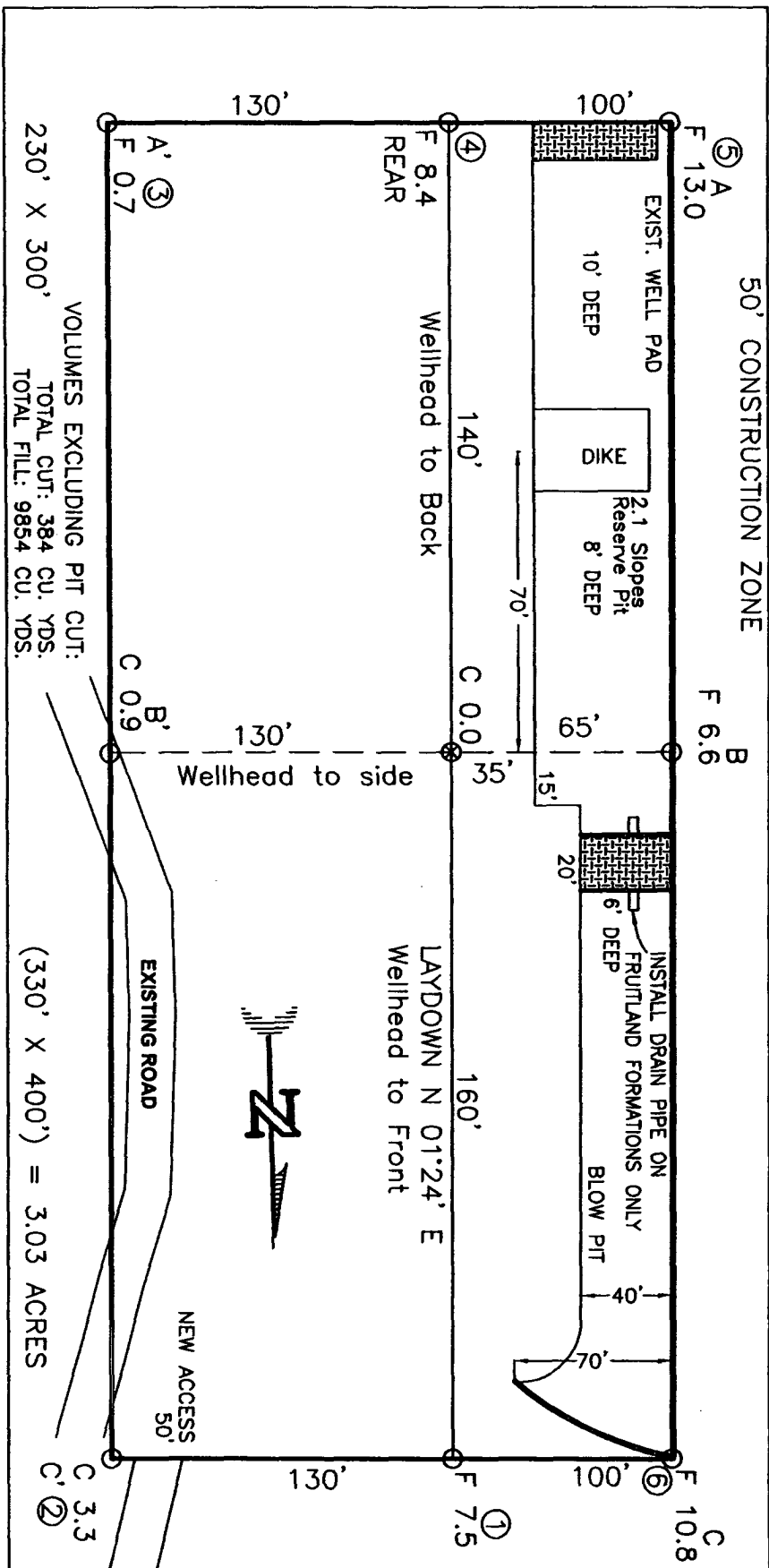
# BURLINGTON RESOURCES OIL & GAS COMPANY LP

SUNRAY E No. 1M, 660 FNL 1985 FEL

SECTION 9, T-30-N, R-10-W, N.M.P.M., SAN JUAN COUNTY, NEW MEXICO

GROUND ELEVATION: 6433, DATE: MARCH 14, 2006

NAD 83  
 LAT. = 36.83161° N  
 LONG. = 107.88628° W  
 NAD 27  
 LAT. = 36°49.8963' N  
 LONG. = 107°53.1394' 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 BLOW PIT.

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.

 <p><b>Daggett Enterprises, Inc.</b>          Surveying and Oil Field Services          P. O. Box 15008 • Farmington, NM 87401          Phone (505) 324-1772 • Fax (505) 324-8019          NEW MEXICO L.S. 14831</p>	<p>DATE: 03/22/06</p>
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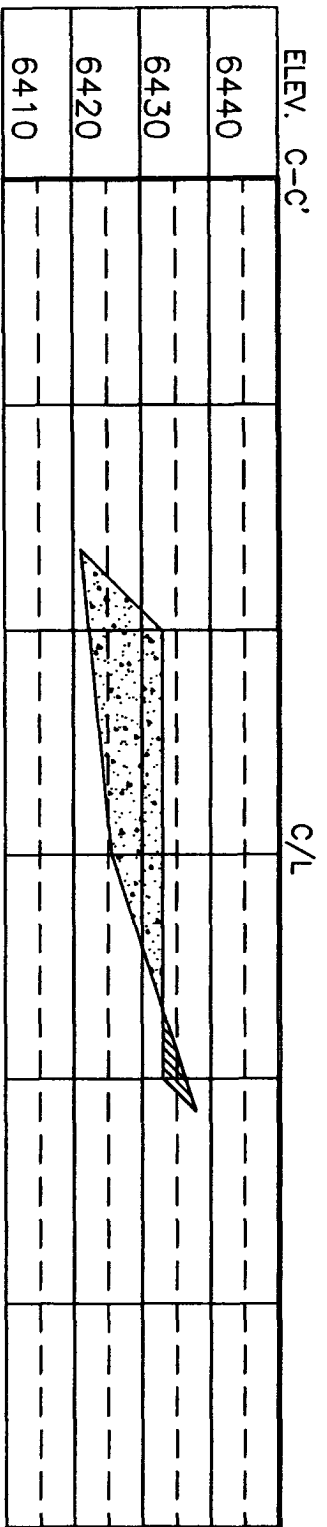
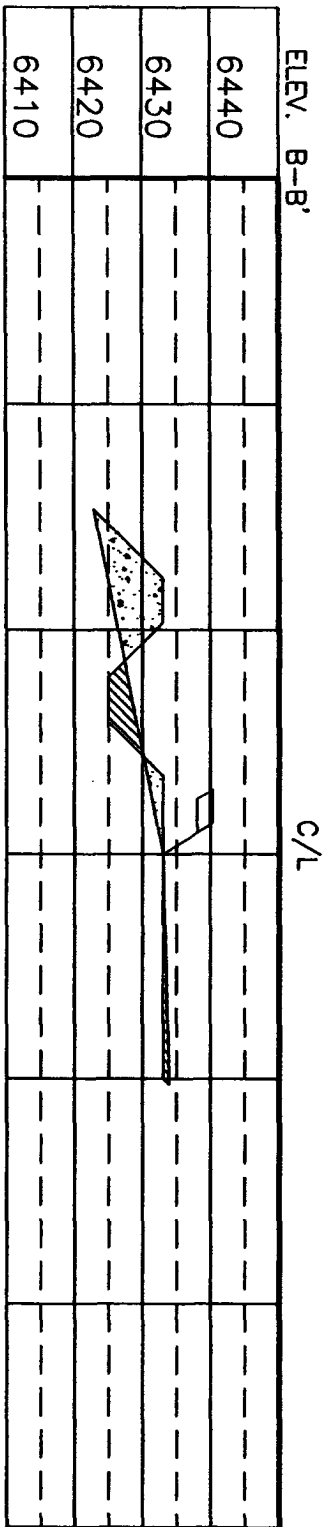
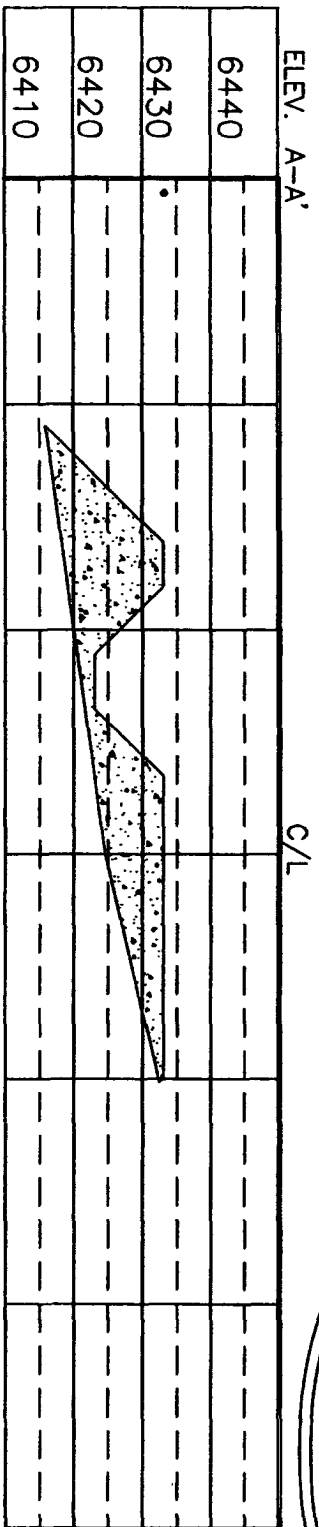
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 <p><b>Daggett Enterprises, Inc.</b>          Surveying and Oil Field Services          P. O. Box 15088 • Farmington, NM 87401          Phone (505) 326-1772 • Fax (505) 326-6019          NEW MEXICO L.S. 14831</p>	DRAWN BY: A.G. CHECKED: BRG24CFB DATE: 03/22/06
---	---

**OPERATIONS PLAN**

**Well Name:** SUNRAY E 1M  
**Location:** 660' FNL & 1985' FEL, Section 09 T30N R10W  
San Juan County, New Mexico  
**Formation:**  
**Elevation:** Blanco Mesaverde/Basin Dakota  
6433' GL

Surface	San Jose		
Surface	San Jose	1765'	
Ojo Alamo	1765'	1845'	aquifer
Kirtland	1845'	2820'	gas
Fruitland	2820'	3070'	gas
Pictured Cliffs	3070'	3245'	gas
Lewis	3245'	3815'	
Huerfanito Bentonite	3815'		
Chacra	4127'	4687'	gas
Massive Cliff House	4687'	4912'	gas
Menefee	4912'	5352'	gas
Massive Point Lookout	5352'	5722'	gas
Mancos Shale	5722'	6603'	
Upper Gallup	6603'	7349'	gas
Greenhorn	7349'	7401'	gas
Graneros	7401'	7452'	gas
Two Wells	7452'	7548'	gas
Paguete	7548'	7588'	gas
Cubero	7588'	7698'	gas
Encinal	7698'	7688'	gas
Total Depth:	7688'		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:**

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0 - <del>120</del> 200	Spud MUD/Air/Air Mist	8.4 - 9.0	40 - 50	no control
120 - 3345'	LSND	8.4 - 9.0	30 - 60	no control
3345 - 7688'	Air/Air Mist/Nitrogen	n/a	n/a	n/a

C. HARRADEN/ April 26, 2006 *CH*

BURLINGTON RESOURCES/ Sunray E #1M 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' - <del>120'</del> 200'	9 5/8"	32.3#	H-40
8 3/4"	0' - 3345'	7"	20/23#	J-55
6 1/4"	0' - 7688'	4 1/2"	10.5#	J-55

**Tubing Program:**

<u>Depth Interval</u>	<u>Csg. Size</u>	<u>Wt.</u>	<u>Grade</u>
0' - 7688'	2 3/8"	4.7#	J-55

**BOP Specifications, Wellhead and Tests:**

Surface to Intermediate TD -

11" 2000 psi minimum double gate BOPE 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.

*BOPE*

Intermediate TD to Total Depth -

11" 2000 psi minimum double gate BOPE 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.

*BOPE*

Surface to Total Depth -

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

**Completion Operations -**

7 1/16" 2000 psi double gate BOPE 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 1/2" 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 ~~20 sxs~~ Type I, II cement with 20% flyash mixed at 14.5 ppg, 1.61 cu ft per sack yield. (~~20 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 ~~20 sxs~~ Type III cement with 0.25 pps Celloflake, 2% CaCl. ~~18~~ 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 293 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/29 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: 264 sacks Premium Lite cement with 3% calcium chloride, .25 pps celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% sodium metasilicate (562 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 @ 1845'. Two turbolating centralizers at the base of the Ojo Alamo @ 1845'. 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 284 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 (563 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:

- The Mesaverde and Dakota formation will be completed.
- No abnormal temperatures or hazards are anticipated.
- Anticipated pore pressures are as follows:
 

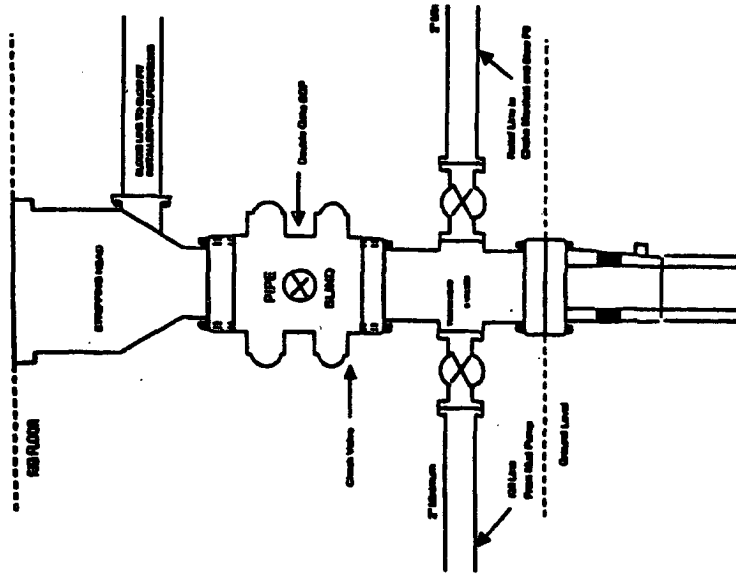
Fruitland Coal	300 psi
Pictured Cliffs	600 psi
Mesa Verde	700 psi
Dakota	2000 psi
- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered below the top of the Pictured Cliffs.
- The east half of Section 9 is dedicated to the Mesaverde and Dakota foramtion.
- This gas is dedicated.

  
 \_\_\_\_\_  
 Drilling Engineer

\_\_\_\_\_  
 4/12/06  
 Date

**BURLINGTON RESOURCES**

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



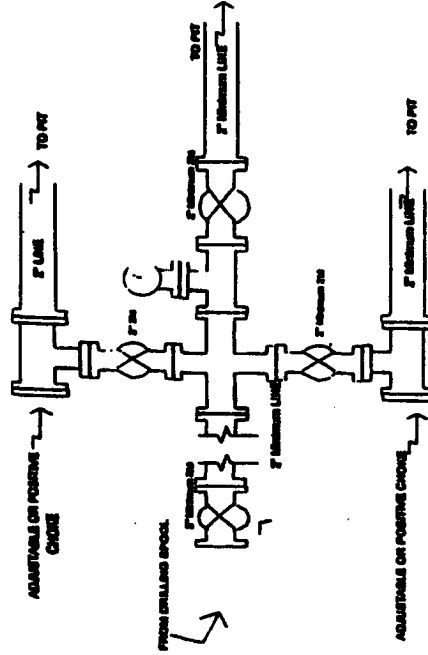
Minimum BOP installation for all Completion/Workover Operations, 7-1/16" bore, 2000 psi minimum working pressure double gate BOP to be equipped with blind end pipe rams. A stripping head to be installed on the top of the BOP. All BOP equipment is 2000 psi working pressure or greater excluding 600 psi stripping head.

**Figure #2**

4-20-01

**BURLINGTON RESOURCES**

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



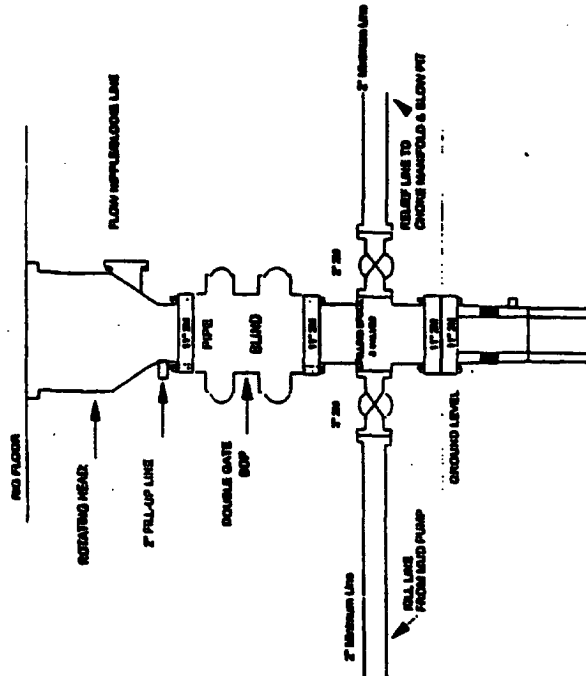
Choke manifold installation from Surface Casing Point to Total Depth, 2,000psi working pressure equipment with two chokes.

**Figure #3**

4-20-01

**Burlington Resources**

**Drilling Rig  
2000 psi System**



BOP installation from Surface Casing Point to Total Depth, 1 1/2" Bore 10" Allocated, 2000 psi working pressure double gate BOP to be equipped with blind rams and pipe rams. A 600 psi stripping head on top of ram preventers. All BOP equipment is 2,000 psi working pressure.

**Figure #1**

4-20-01