

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 FEB 20 SF-078943 Unit Reporting Number RECEIVED NM NM-078417B-DK 0706 Farm Indian All. or Tribe NM NM-07814A-MV
1b. Type of Well GAS	
2. Operator BURLINGTON RESOURCES Oil & Gas Company	7. Unit Agreement Name San Juan 29-7 Unit
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name San Juan 29-7 Unit 9. Well Number #100M
4. Location of Well 560' FSL, 780' FWL, Sec 6 surface 475' FNL, 1675' FWL, Sec 7 bottom hole Latitude 36° 44.9533'N, Longitude 107° 36.9200'W	10. Field, Pool, Wildcat Blanco Mesaverde/Basin Dakota 11. Sec., Twn, Rge, Mer. (NMPM) Sec. 6, T29N, R07W API # 30-039-29773 UL"m Got 14
14. Distance in Miles from Nearest Town 13.7 miles to Intersection Blanco Post Office	12. County Rio Arriba 13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 475'	
16. Acres in Lease	17. Acres Assigned to Well W/2 327.78 Sec. 6 & 7 DK-R-3246 W/2 226.72 Sec. 7 MV
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 271'	
19. Proposed Depth 7814' TMD 7557' TVD	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 6310' GR	22. Approx. Date Work will Start
23. Proposed Casing and Cementing Program See Operations Plan attached	
24. Authorized by: <u>Joni Clark</u> Regulatory Specialist	<u>1/25/06</u> Date

PERMIT NO.

APPROVAL DATE

APPROVED BY DJ Montoya

TITLE AFM

DATE 2/24/06

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

HOLD C104 FOR Directional survey
DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS".

NMOCOD

DISTRICT I
1825 N. French Dr., Hobbs, N.M. 88240

DISTRICT II
811 South First, Artesia, N.M. 88210

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

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 15, 2000

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

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

2006 FEB 7 PM 2:20 AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-039-29773	Pool Code 72319/71599	Pool Name Blanco Mesaverde Basin Dakota NM
Property Code 7465	Property Name SAN JUAN 29-7 UNIT	Well Number 100M
OGRID No. 14538	Operator Name BURLINGTON RESOURCES OIL AND GAS COMPANY LP	Elevation 6310'

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
M	6	29-N	7-W	14	560'	SOUTH	780'	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
C	7	29-N	7-W		475'	NORTH	1675'	WEST	RIO ARRIBA

Dedicated Acres W/2 327.78 Sec 6 & 7 DK W/2 226.72 W/2 Sec 7 MV	Joint or Infill	Consolidation Code	Order No. R-3246-327.78 Basin DK
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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

	<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Joni Clark</i> Signature Joni Clark Printed Name Sr. Regulatory Specialist Title 12-13-05 Date</p>	
	<p>18 SURVEYOR CERTIFICATION</p> <p>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.</p> <p>Date of Survey 12-18-05 Signature and Seal of Professional Surveyor: <i>Glen W. Russell</i> Certificate Number 15703</p>	

1625 N. French Dr., Hobbs, NM 88240

1301 W. Grand Ave., Artesia, NM 88210

1000 Rio Brazos Rd., Aztec, NM 87410

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

May 27, 2004

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 M : 560 feet from the South line and 780 feet from the West line
Section 6 Township 29N Rng 7W NMPM County Rio Arriba

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

6910' GL

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 >1000'Pit Liner Thickness: n/a mill Below-Grade Tank: Volume bbls Construction Material

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

NOTICE OF INTENTION TO:

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

SUBSEQUENT REPORT OF:

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

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

TITLE

Sr. Regulatory Specialist

DATE

1/25/2006

Type or print name

Joni Clark

E-mail address:

jclark@br-inc.com

Telephone No.

505-326-9518

For State Use Only

APPROVED BY

TITLE

DEPUTY OIL & GAS INSPECTOR, DIST. #2

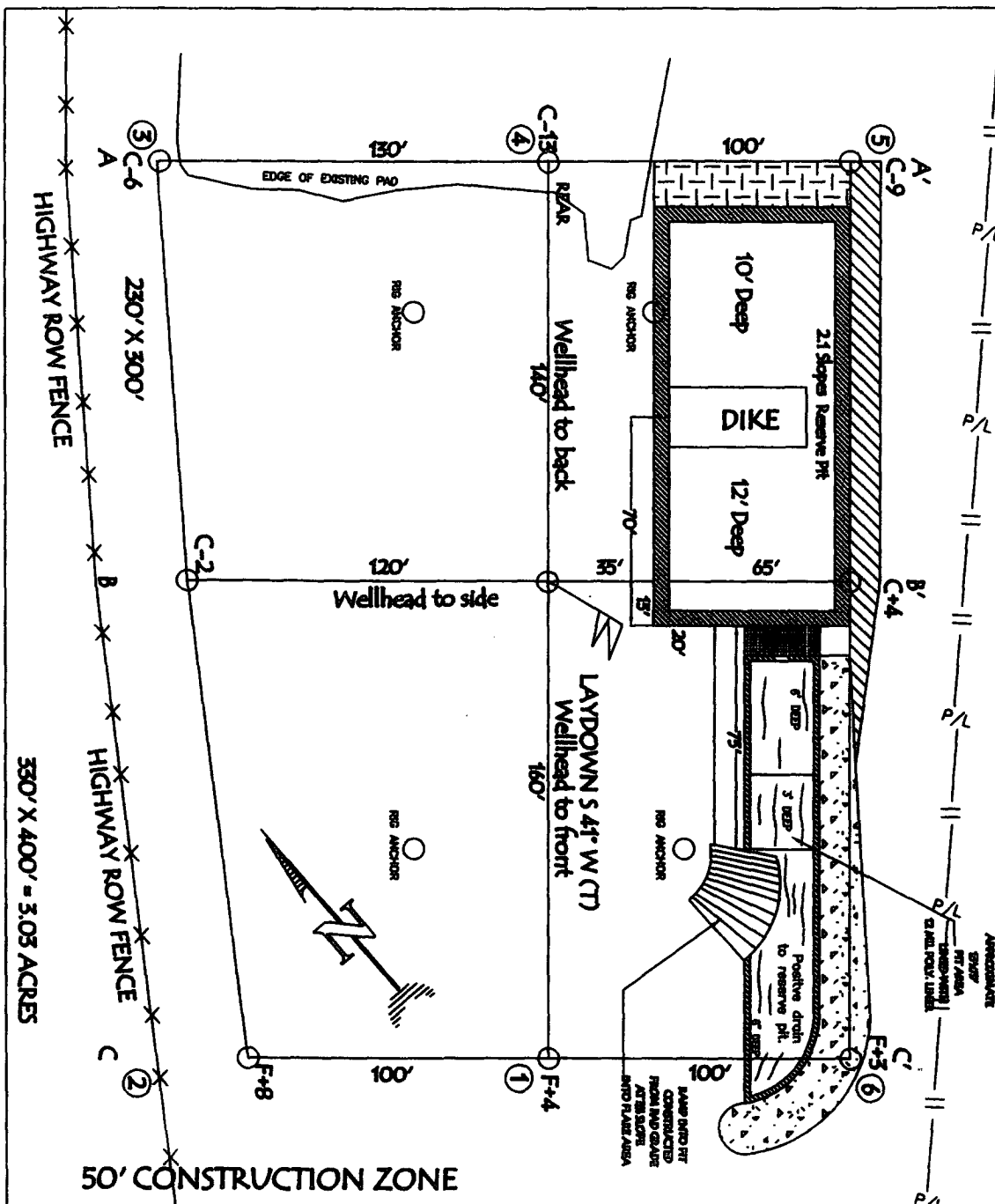
DATE

FEB 27 2006

Conditions of Approval (if any):

RESERVE PIT DIKE: TO BE 8' ABOVE DEEP SIDE (OVERFLOW - 3' WIDE AND 1' ABOVE SHALLOW SIDE).

BURLINGTON RESOURCES OIL & GAS COMPANY LP
 SAN JUAN 29-7 UNIT #100M, 560' FSL & 780' FWL
 SECTION 6, T-29-N, R-7-W, NMPM, RIO ARriba COUNTY, NM
 GROUND ELEVATION: 6310', DATE: NOVEMBER 3, 2005



LATITUDE: 36° 44.9533' LONGITUDE: 107° 36.9200' NAD27

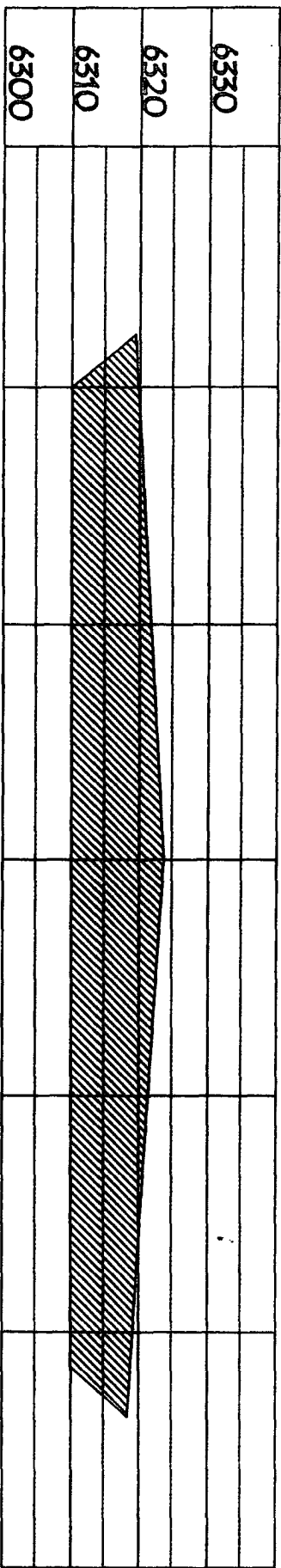
NOTE: VECTOR SURVEYS IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES.

CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED

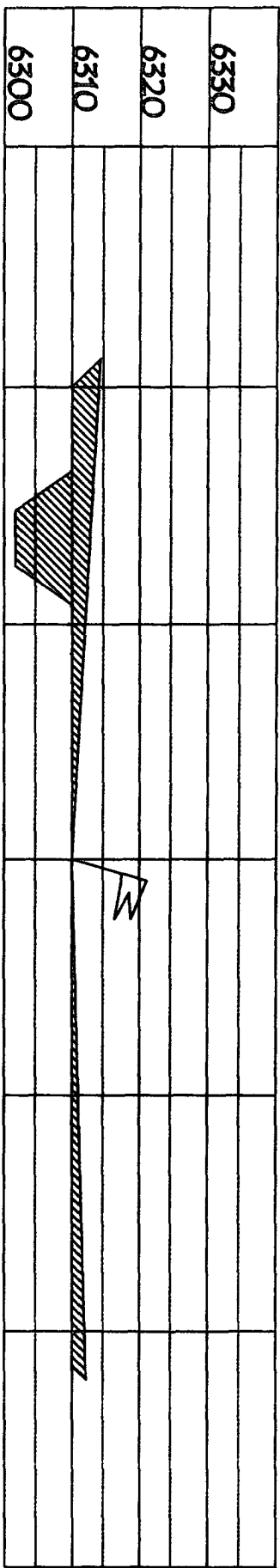
PIPELINES OR CABLES ON WELL PAD AND OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.

BURLINGTON RESOURCES OIL & GAS COMPANY LP
SAN JUAN 29-7 UNIT #100M, 560' FSL & 780' FWL
SECTION 6, T-29-N, R-7-W, NMPM, RIO ARriba COUNTY, NM
GROUND ELEVATION: 6310', DATE: NOVEMBER 3, 2005

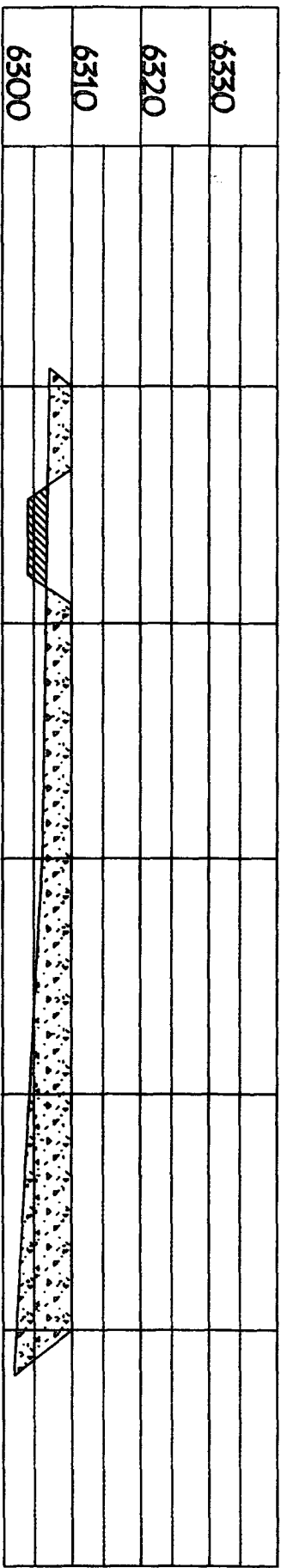
ELEV. A'-A



ELEV. B'-B



ELEV. C'-C



NOTE: VECTOR SURVEYS IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES.
 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.

SAN JUAN 29-7 UNIT #100M OPERATIONS PLAN

Well Name: San Juan 29-7 Unit #100M

Location Rio Arriba County, New Mexico
Surface: 560' FSL, 780' FWL, Section 6, T-29-N, R-7-W
Latitude 36° 44.9322'N, Longitude 107° 36.9198'W
Bottom Hole: 475' FNL, 1675' FWL, Section 7, T-29-N, R-7-W
Latitude 36° 44.7829'N, Longitude 107° 36.7387'W

Formation Blanco Mesa Verde/Basin Dakota
Elevation 6310'GL

<u>Formation Tops</u>	<u>Top (TVD)</u>	<u>Top (TMD)</u>	<u>Contents</u>
Surface	San Jose		
Ojo Alamo	2124'	2236'	aquifer
Kirtland	2237'	2359'	gas
Fruitland	2679'	2838'	gas
Pictured Cliffs	3075'	3267'	gas
Lewis	3251'	3457'	gas
Huerfanito Bentonite	3843'	4095'	gas
Chacra	4087'	4344'	gas
Intermediate set point: 150' into Chacra			
Massive Cliff House	4822'	5079'	gas
Menefee	4889'	5146'	gas
Massive Point Lookout	5269'	5526'	gas
Mancos	5665'	5922'	gas
Gallup	6312'	6569'	gas
Greenhorn	7266'	7523'	gas
Graneros	7319'	7576'	gas
Two Wells	7376'	7633'	gas
Upper Cubero	7471'	7728'	gas
Lower Cubero	7499'	7756'	gas
Encinal	7557'	7814'	
TD	7557'	7814'	

Logging Program

Cased Hole – CBL-GR- TD to surface
Open Hole - None

Mud Program

<u>Interval (TMD)</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0- 350'	Spud	8.4-9.0	40-50	no control
350- 4494'	Non-dispersed	8.4-9.0	30-60	less than 8
4494'- 7814'	Air/Air Mist/Nitrogen	n/a	n/a	n/a

Drilling (Reference Plot #1)

Surface Hole

Drill to surface casing point of 350' and set 9 5/8" casing.

Intermediate Hole

Mud drill to kick off point of 400'. At this point the well will be directionally drilled by building 4.0 degrees per 100' with an azimuth of 139.31 degrees. The end of the build will be at a TVD of 951', a TMD of 966', a reach of 110', and an angle of 22.63 degrees. This angle and azimuth will be held to a TVD of 3686', a TMD of 3929', and a reach of 1250'. At this point the well will be drilled with a drop of 4.0 degrees per 100'. The end of the drop will be at a TVD of 4237', a TMD of 4494', a reach of 1361', and an angle of 0.0 degrees. 7" casing will be set at this point.

Production Hole

From the shoe of the intermediate string, the well will be drilled vertically with an air hammer to a TMD of 7814' (TVD of 7557'). 4 1/2" casing will be set at this point.

Materials

Casing program

Hole Size	Interval (TMD)	Csq. Size	Weight	Grade
12 1/4"	0' - 350'	9 5/8"	32.3#	H-40
8 3/4"	350' - 4494'	7"	23#	L-80
6 1/4"	4494' - 7814'	4 1/2"	11.6#	L-80

Tubing Program

Hole Size	Interval (TMD)	Csq. Size	Weight	Grade
2 3/8"	0' - 7814'	2 3/8"	4.7#	J-55

Wellhead Equipment

9 5/8" x 7" X 4 1/2" x 2 3/8" - 11" (2000 psi) wellhead assembly

Cementing:

9 5/8" surface casing conventionally drilled: **200% excess cement to bring cement to surface**

Run **329 ft³ (257 sks)** Type III cement with 3% CaCl₂ and 1/4 pps celloflake (1.28 sks/ft³). Wait on cement appropriate time until cement achieves 250 psi compressive strength at 60° 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.

7" production casing: **50% excess cement to bring cement to surface**

Lead with **889 ft³ (417 sks)** Premium Lite w/ 3% CaCl₂, 0.25 pps Cello-Flake, 5 pps LCM-1, 0.4% FL-52 and 0.4% SMS (2.13 sks/ft³). Tail with **124 ft³ (90 sks)** Type III cmt. w/ 1% CaCl₂, 0.25 pps Cello-Flake and 0.2% FL-52 (1.38 sks/ft³). If cement does not circulate to surface, a CBL or a temperature survey will be run to determine TOC.

4 1/2" production casing: **30% excess cement to achieve 100' overlap with intermediate casing**

Run **455 ft³ (230 sks)** Premium Lite HS FM + 0.25pps Cello-Flake, 0.3% CD-32, 6.25pps LCM-1, 1% FL-52 (1.98 sks/ft³).

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

BOP and Tests:

Surface to production TD - 11", 2000 psi ~~BOPE~~ double gate BOP stack (Reference Figure #1).

Prior to drilling out surface casing, test rams and casing to 600 psi for 30 minutes.

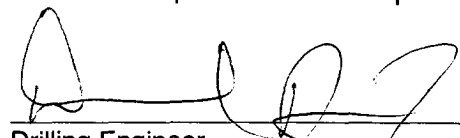
Surface to Total Depth - choke manifold (Reference Figure #2).

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

BOPE tests will be performed using an appropriately sized test plug and test pump and will be recorded using calibrated test gauges and a properly calibrated strip or chart recorder. The test will be recorded in the driller's log and will include a low pressure test requirement of 250 psig held for five minutes and a high pressure test requirement held for ten minutes as described in Onshore Order No. 2 or otherwise noted in the APD. A successful BOPE test using a test plug is considered when no pressure drop occurs over the duration of the test. Test gauges and recorders must be of the proper range and resolution commensurate with the authorized test pressure. Where the intermediate casing strings are used, only one BOPE test will be necessary contingent upon the test being conducted to the highest approved test pressure to which BOPE will be exposed. Casing pressure tests must be held for 30 minutes with no more than 10 percent pressure drop during the duration of the test.

Additional Information:

- This gas is dedicated.
- The East half of section 7 is dedicated to the Mesaverde and Dakota of this well.
- New casing will be utilized.
- Pipe movement (reciprocation) will be done if hole conditions permit.
- No abnormal pressure zones are expected.
- BHP is expected to be 2000 psi.



Drilling Engineer

1/26/06

Date

2000 psi System

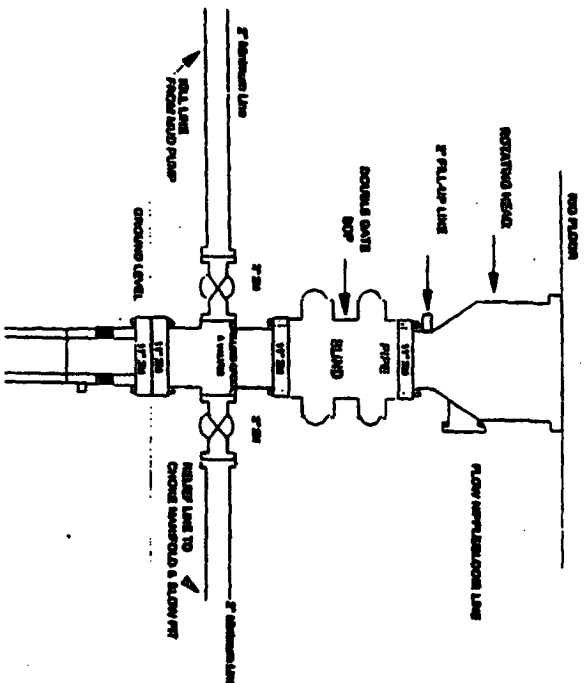


Figure 41

BCP installations from Surface Casting Point to Total Depth, 11" Bore 10" Nominal, 2000 psi working pressure double gate BCPs to be equipped with blind ends and slip arms. A GPD gate reacting based on trap man pressure. At BCP equipment is 2,000 psi working pressure

Choice Mainframe Configuration 2000 psi System

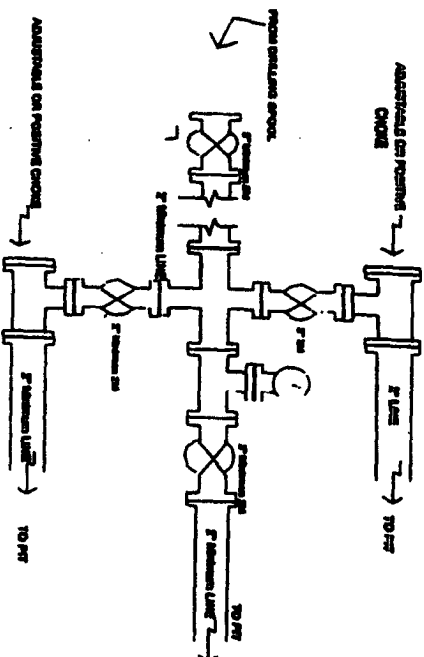


Figure #3

**Chicks mounted ventilation from Surface Caring
Ponds to Total Depth. 2,000psi working pressure
equipment with two choices.**

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

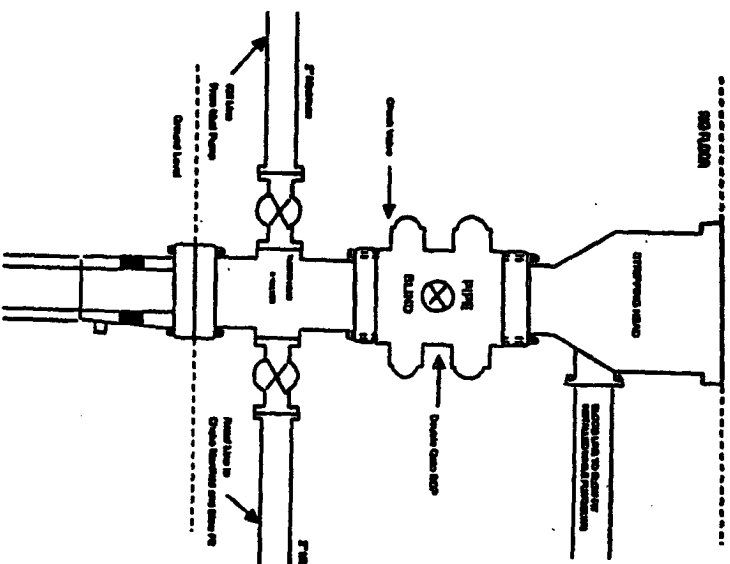
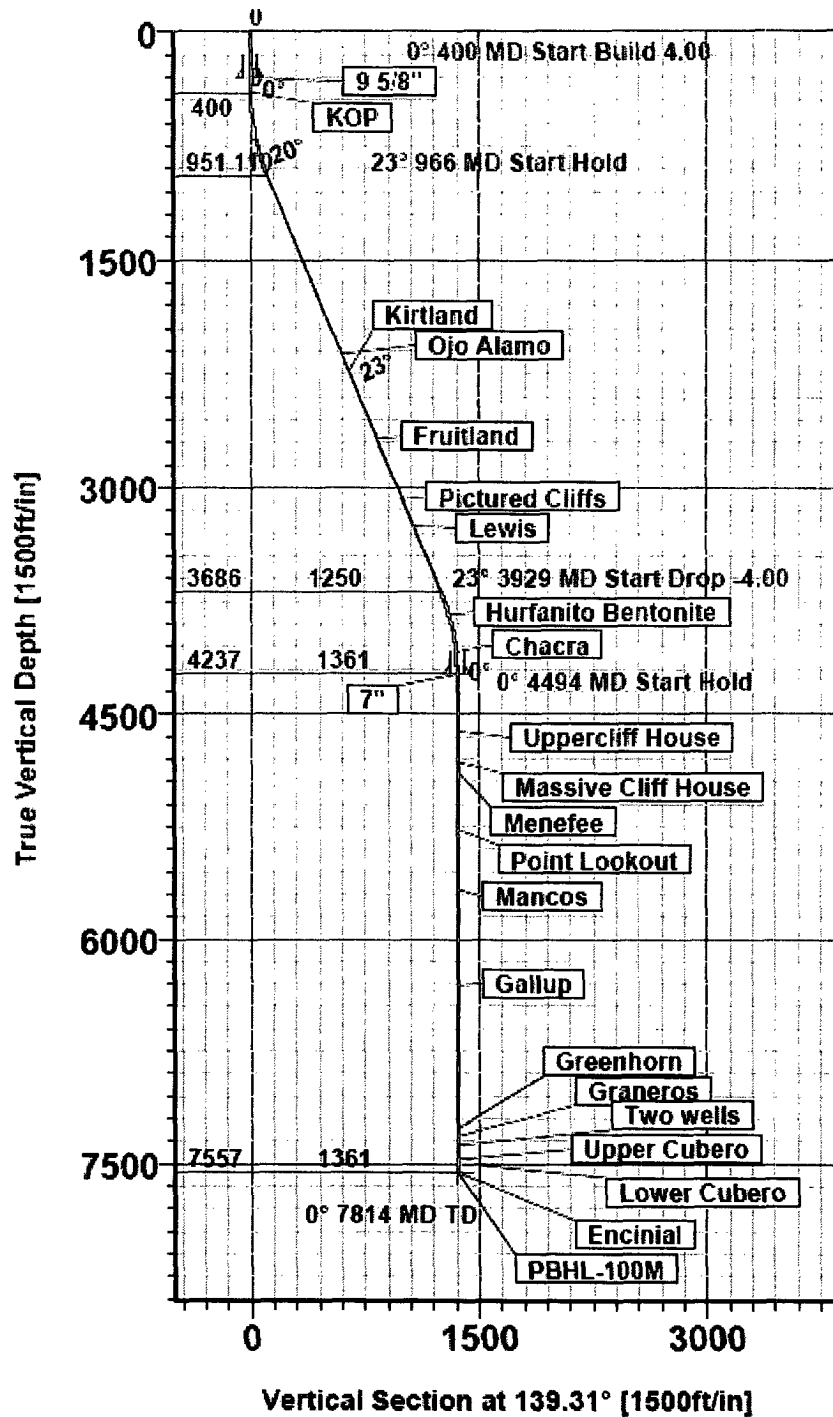


Figure #2

Minimum BOP Installation for all Completion/Workover Operations, 7-1/8" bore, 2000 psi minimum working pressure double gate BOP to be equipped with lift and pipe ram. A tehring head to be installed on the top of the BOP. All BOP equipment to 2000 psi working pressure or greater exceeding 500 gal tehring head.



Plot 1: Directional plan for SJ 29-7 100M



Field: Rio Arriba, NM
Site: SEC 21-T29N-R7W
Well: SAN JUAN 29-7 #100M
Wellpath: OH
Plan: Plan #1

BURLINGTON™

RESOURCES

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	
3	965.83	22.63	139.31	951.23	-83.65	71.92	4.00	0.00	110.31	
4	3928.54	22.63	139.31	3685.77	-948.17	815.24	0.00	0.00	1250.46	
5	4494.37	0.00	0.00	4237.00	-1031.82	887.16	4.00	180.00	1360.77	
6	7814.37	0.00	0.00	7557.00	-1031.82	887.16	0.00	0.00	1360.77	PBHL-100M

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
SAN JUAN 29-7 #100M	12370.29	-5245.21	2092045.290	563868.790	36°44'57.192N	107°36'55.188W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
CASING PT-100M	4237.00	-1031.82	887.16	2091013.470	564755.950	Point
PBHL-100M	7557.00	-1031.82	887.16	2091013.470	564755.950	Circle (Radius: 100)

