### OCD-ARTESIA

Form 3160 -3 (April 2004)



UNITED STATES

APR	2	3	200	
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FORM APPROVED OMB No 1004-0137 Expires March 31, 2007

DEPARTMENT OF THE T BUREAU OF LAND MAN	8 011 -11 110196	rtes	5 Lease Serial No.		
APPLICATION FOR PERMIT TO I			6 If Indian, Allotee	or Tribe N	lame
la. Type of work.	R		7 If Unit or CA Agree	ment, Nar	ne and No.
Ib Type of Well: Oil Well Gas Well Other	Single Zone Multip	ole Zone	8. Lease Name and W BIG EDDY UN		1776
	801		9 API Well No. 30 - 015	-34	291
3a. Address P.O. BOX 2760 MIDLAND, TX 79702	3b Phone No. (include area code) (432) 683-2277		10 Field and Pool, of E Golden Lane (N		•
4. Location of Well (Report location clearly and in accordance with arry At surface SWSW, 660 FSL, 1980 FWL, Lat N. At proposed prod. zone Same	•	)88833	11. Sec , T R. M or Bl	•	•
14 Distance in miles and direction from nearest town or post office* 13 MILES NE OF CARLSBAD, NM			12 County or Parish  EDDY COUNT	1	13 State NM
Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig, unit line, if any)	16 No of acres in lease 800	17 Spacin	g Unit dedicated to this w	ell	
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft  2951'	19 Proposed Depth 13,100				
21 Elevations (Show whether DF, KDB, RT, GL, etc.) 3288' GL	22. Approximate date work will sta. 07/10/2008	rt*	23. Estimated duration 41 DAYS		
	24. Attachments				
The following, completed in accordance with the requirements of Onshoro  1 Well plat certified by a registered surveyor.			is form:	existing b	ond on file (see
A Drilling Plan     A Surface Use Plan (if the location is on National Forest System I SUPO shall be filed with the appropriate Forest Service Office)	Item 20 above).  Lands, the 5. Operator certific	ation specific info	ormation and/or plans as	-	
25 Signature Title Title	Name (Printed/Typed) ANNETTE CHILD	ERS		Date J-J	1-2108
Approved by (Signature)  /s/ Don Peterson	Name (Printed/Typed) /s/ [	Don Pe	terson	Dat <b>åPR</b>	2 1 2008
Title FIELD MANAGER	Office	LSBAD F	IELD OFFICE		
Application approval does not warrant or certify that the applicant holds conduct operations thereon.  Conditions of approval, if any, are attached.			oject lease which would er AL FOR TWO		
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a cri States any false, fictitious or fraudulent statements or representations as to	ime for any person knowingly and vo	villfully to n	nake to any department or		
*(Instructions on page 2)		-	are used in hthe drilling of	this	

Capitan Controlled Water Basin

well, an OCD pit permit must be obtained prior to pit construction.



SEE ATTACHED FOR CONDITIONS OF APPROVAL

Approval Subject to General Requirements & Special Stipulations Attached

DISTRICT I 1625 N. French Dr., Hobbs, NM 88240 DISTRICT II 1301 W. Grand Avenue, Artosia, NM 88210

1000 Rio Brazos Rd., Aztec, NM 87410

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

DISTRICT III

DISTRICT IV

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102 Revised October 12, 2005

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

### OIL CONSERVATION DIVISION

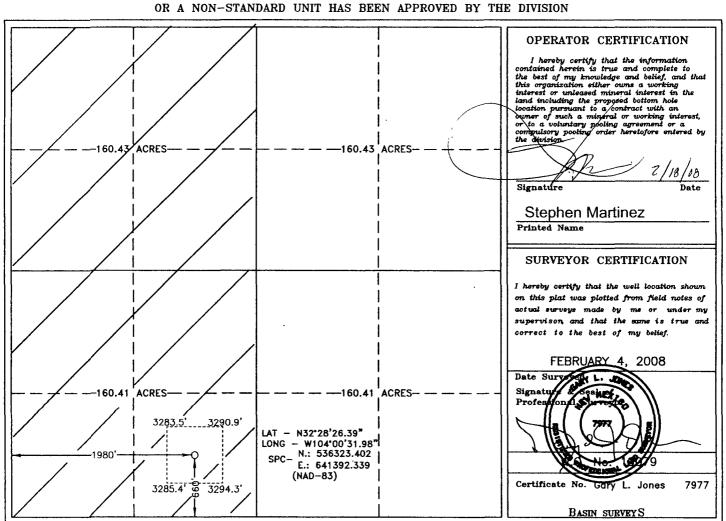
1220 South St. Francis Dr. Santa Fe, New Mexico 87505

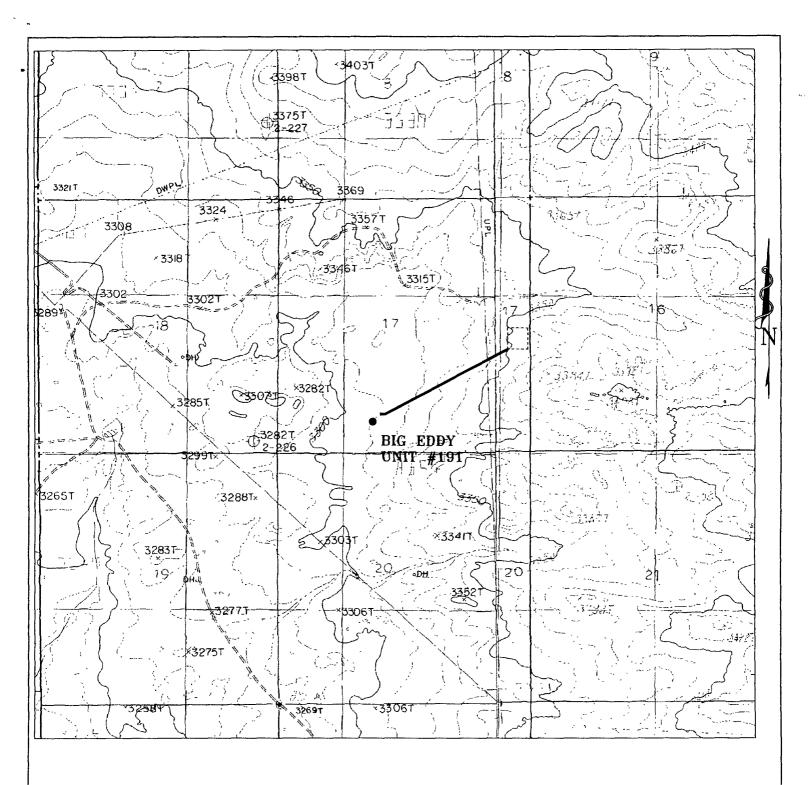
☐ AMENDED REPORT

### WELL LOCATION AND ACREAGE DEDICATION PLAT

API	Number			Pool Code		Pool Name				Pool Name		
		77560 Golden Lane (Morrow) Field			Golden Lane (Morrow) Field							
Property (	Code		**************************************		Property Nan							
1770	P				BIG EDDY U	INIT		19	1			
OGRID N	D.				Operator Nam	ve .		Elevat	ion			
001801					BEPCO, L.	P		3288	3'			
					Surface Loc	ation						
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County			
N	17	21 S	29 E		660	SOUTH	1980	WEST	EDDY			
			Bottom	Hole Lo	cation If Diffe	erent From Sur	face					
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County			
Dedicated Acre	g Joint	or Infill   Co	onsolidation	Code Or	der No.							
320	N											

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED





BIG EDDY UNIT #191 660' FSL and 1980' FWL Section 17, Township 21 South, Range 29 East, N.M.P.M., Eddy County, New Mexico.

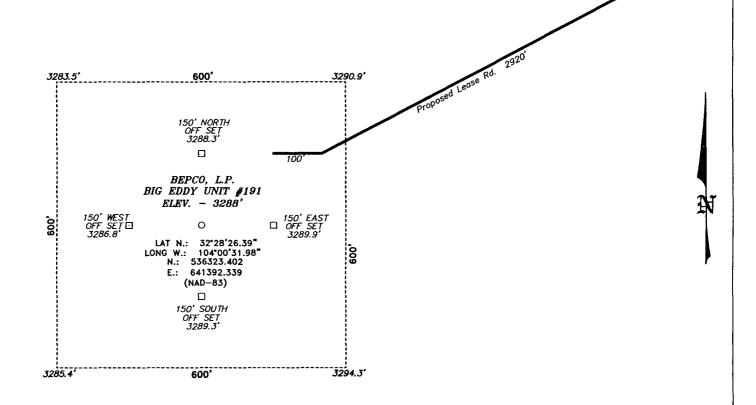


P.O. Box 1786 1120 N. West County Rd. Hobbs, New Mexico 88241 (505) 393-7316 — Office (505) 392-3074 — Fax basinsurveys.com

			V-11-1	, meat many
W.O 1	Number	KJG -	- 19079T.D	WG
Surve	y Date	02-0	4-2008	
Scale:	1" = 20	000'		
Date:	02-05-	-2008	THE PERSON NAMED IN COLUMN TWO	

BEPCO, L.P.

SECTION 17, TOWNSHIP 21 SOUTH, RANGE 29 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



200

DIRECTIONS TO LOCATION:

Date: 02-05-2008

FROM MILE MARKER 53 ON US HWY 62/180, GO
WEST FOR 0.7 MILE TO A ROAD; THENCE SOUTHERLY
FOR 3.1 MILES TO A "Y", TAKE LEFT FORK AND
CONTINUE EAST FOR 0.6 MILE TO A LEASE ROAD;
THENCE SOUTH FOR 0.1 MILE TO THE GOLDEN LANE
17 #1; THENCE SOUTH TO THE GOLDEN D #4 AND
PROPOSED LEASE ROAD.

BASIN SURVEYS P.O. BOX 1786-HOBBS, NEW MEXICO

Disk: KJG - 19079W.DWG

W.O. Number: 19079 Drawn By: K. GOAD

Drawn Bur K COAD

THE SOUTH LINE AND 1980' FROM THE WEST LINE OF SECTION 17, TOWNSHIP 21 SOUTH, RANGE 29 EAST,

SCALE: 1" = 200'

REF: BIG EDDY UNIT #191 / WELL PAD AND TOPO

BEPCO, L.P.

THE BIG EDDY UNIT #191 LOCATED 660' FROM

N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 02-04-2008

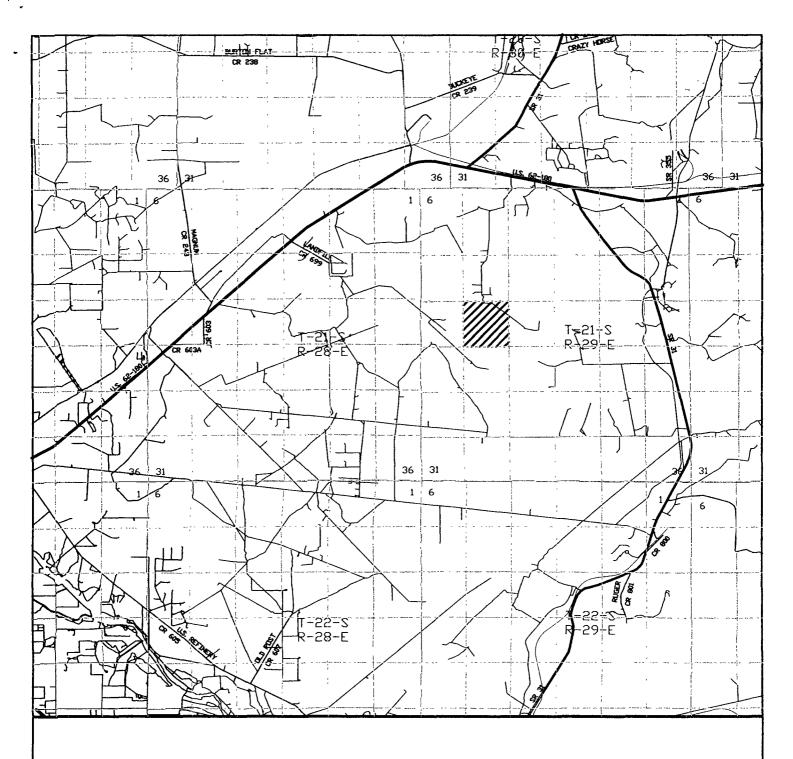
Sheet 1 of

200

Sheets

400 FEET

GOLDEN D #4



BIG EDDY UNIT #191 660' FSL and 1980' FWL Section 17, Township 21 South, Range 29 East, N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786 1120 N. West County Rd. Hobbs, New Mexico 88241 (505) 393-7316 - Office (505) 392-3074 - Fax basinsurveys.com

W.O. Number:	KJG - 19079.D <b>W</b> G
Survey Date:	02-04-2008
Scale: 1" - 2	MILES

Date: 02-05-2008

BEPCO, L.P.

Surface casing is to be set into the Rustler below all fresh water sands. Production casing will be cemented using Halliburton Premium Plus with TOC 500' above upper-most pay zones. Drilling procedure, BOP diagram, anticipated tops and surface plans are attached.

This well is located outside the Secretary's Order for the Potash Area and outside the R-111 Potash area. There are no potash leases within 3 miles of the location.

BEPCO, L.P., at P. O. Box 2760, Midland, TX, 79702 is a subsidiary of BEPCO, L.P., 201 Mail Street, Ft. Worth, TX, 76102. Bond No. NM 2204 (Nationwide).

## EIGHT POINT DRILLING PROGRAM BASS ENTERPRISES PRODUCTION CO.

NAME OF WELL: BIG EDDY UNIT #191

LEGAL DESCRIPTION - SURFACE: 660' FSL & 1980' FWL, Section 17, T21S, R29E, Eddy County, New Mexico.

### **POINT 1: ESTIMATED FORMATION TOPS**

(See No. 2 Below)

### POINT 2: WATER, OIL, GAS AND/OR MINERAL BEARING FORMATIONS

Anticipated Formation Tops: KB 3306' (est)

GL 3288'

FORMATION	ESTIMATED TOP FROM KB		TIMATED BSEA TOP	BEARING
T/Rustler	106'	+	3,200'	Barren
T/Salt	448'	+	2,858'	Barren
T/Lamar	2,856'	+	450'	Barren
T/Delaware Sands	2,956'	+	350'	Oil/Gas
T/Old Indian Draw	3,956'	-	650'	Oil/Gas
T/Bone Spring	6,586'	-	3,280'	Oil/Gas
B/Avalon	6,726'	-	3,420'	Oil/Gas
T/Wolfcamp	9,906'	-	6,600'	Oil/Gas
T/Strawn	11,096'	-	7,790'	Oil/Gas
T/Atoka	11,392'		8,086'	Oil/Gas
T/Upper Morrow	12,052'	-	8,746'	Oil/Gas
T/Middle Morrow	12,306'	-	9,000'	Oil/Gas
T/Lower Morrow	12,626'	-	9,320'	Oil/Gas
TD	13,100'	-	9,794'	

### **POINT 3: CASING PROGRAM**

	<u>TYPE</u>	HOLE SIZE	INTERVALS	<u>PURPOSE</u>	CONDITION
	20", 94#, H-40, STC	26"	0' - 40'	Conductor	Contractor Discretion
50e	13-3/8", 48#, H-40, STC	17-1/2"	0' - 438'	Surface	New
P6A	9-5/8", 36#, J-55, LTC	12-1/4"	0' -(2,916')	Intermediate	New
•	5-1/2", 17#, HCP-110, LTC	8-3/4"	0' – 10,100'	Production Casing	New
	5-1/2", 20#, P-110, LTC	8-3/4"	10,100' - 13,100'	Production Casing	New

### **CASING DESIGN SAFETY FACTORS:**

TYPE	<b>TENSION</b>	COLLAPSE	BURST
13-3/8", 48#, H-40, STC	29.94	3.49	7.08
9-5/8", 36#, J-55, LTC	6.36	1.22	2.16
5-1/2", 17#, HCP-110, LTC	2.86	1.14	1.94
5-1/2", 20#, P-110, LTC	13.05	1.38	2.30

### **DESIGN CRITERIA AND CASING LOADING ASSUMPTIONS:**

#### SURFACE CASING

A 1.6 design factor utilizing the effects of buoyancy (9.2 ppg). Tension

Collapse A 1.0 design factor with full internal evacuation and a collapse force equal to the mud gradient in which the casing will be run (0.48 psi/ft). The effects of axial load on collapse

will be considered.

Burst A 1.3 design factor with a surface pressure equal to the fracture gradient at setting depth less a gas gradient to the surface. Internal burst force at the shoe will be fracture pressure a that depth. Backup pressure will be formation pore pressure. In all cases a conservative fracture pressure will be used such that it represents the upper limit of potential fracture

resistance up to a 1.0 psi/ft gradient. The effects of tension on burst will not be utilized.

### PROTECTIVE CASING

Tension A 1.6 design factor utilizing the effects of buoyancy (10.2 ppg).

Collapse A 1.0 design factor with full internal evacuation and a collapse force equal to the mud gradient in which the casing will be run (0.53 psi/ft). The effects of axial load on collapse

will be considered.

In the case of development drilling, collapse design should be analyzed using internal evacuation equal to 1/3 the proposed total depth of the well. This criterion will be used when there is absolutely no potential of the protective string being used as a production

casing string.

Burst A 1.0 surface design factor and a 1.3 downhole design factor with a surface pressure equivalent to the fracture gradient at setting depth less a gas gradient to the surface.

Internal burst force at the shoe will be fracture pressure at that depth. Back pressure will be formation pore pressure. In all cases a conservative fracture pressure will be used such that it represents the upper limit of potential fracture resistance up to a 1.0 psi/ft

gradient.

### PRODUCTION CASING

Tension A 1.6 design factor utilizing the effects of buoyancy (11.5 ppg).

Collapse A 1.0 design factor with full internal evacuation and a collapse force equal to the mud

gradient in which the casing will be run (0.60 psi/ft). The effects of axial load on collapse

will be considered.

Burst A 1.25 design factor with anticipated maximum tubing pressure (5,380 psig) on top of the maximum anticipated packer fluid gradient. Backup on production strings will be formation

pore pressure (0.43 psi/ft). The effects of tension on burst will not be utilized.

### POINT 4: PRESSURE CONTROL EQUIPMENT (SEE ATTACHED DIAGRAM)

A rotating head will be nippled up on the intermediate casing. The rotating head will not be hydro-tested.

A BOP equivalent to Diagram 1 will be nippled up on the surface casing head and the intermediate casing. The BOP stack, choke, etc. when rigged up on surface casing, will be tested to 70% of interval yield of casing or 1000 psig whichever is less. On the intermediate casing, the BOP stack, choke, kill lines, kelly cocks, inside BOP, etc. will be hydro-tested to 5,000 psi on the intermediate casing. The annular will be tested to 2500 psi. In addition to the rated working pressure test, a low pressure (250 psi) test will be required. These tests will be performed:

- a) Upon installation
- b) After any component changes
- c) Twenty-one days after a previous test or before drilling into the Wolfcamp
- d) As required by well conditions

A function test to insure that the preventers are operating correctly will be performed on each trip. See the attached Diagram 1 for the minimum criteria for the choke manifold.

### POINT 5: MUD PROGRAM

DEPTH	MUD TYPE	WEIGHT	FV	PV	ΥP	FL _	Ph .
0' - 438'	FW	8.5 - 9.2	45-35	NC	NC	NC	9.5
438' - 2,916'	BW	10 – 10.2	28-30	NC	NC	NC	9.5
2,916' - 9,600'	FW	8.6 - 8.9	28-30	NC	NC	NC	9.5
9,600' - 11,000'	CBW	9.0 - 10.2	28-30	NC	NC	NC	9.5
11,000' – TD	CBW/Polymer	9.0 – 11.5	32-55	12-20	12-22	<10	9.5-10.0

### POINT 6: TECHNICAL STAGES OF OPERATION

### A) TESTING

Drill stem tests may be performed on significant shows in zones of interest, but none are anticipated.

#### B) LOGGING

### Run #1:

PEX(GR-CNL/LDT-HRLA run from TD to ICP, GR-CNL to surface. Possible GR-CNL/LDT-AIT over Delaware.

### C) CORING

No cores are anticipated.

D) CEMEN SURFACE INTERVAL Tail 0'-438' (100% Excess)	AMOUNT SX 490	FT OF FILL 438	TYPE  Premium Plus + 2% CaCl₂	<u>GALS/SX</u> 6.37	<u>PPG</u> 14.80	<u>FT<sup>3</sup>/SX</u> 1.35
<u>INTERMEDIATE</u>		FT OF				
INTERVAL Lead	AMOUNT SXS	FILL	TYPE	GALS/SX	PPG	FT3/SX
0' - 2416' (100% Excess)	525	2416	Premium Interfill H + 8 pps Gilsonite	16.43	11.50	2.76
Tail 2416' – 2916' (100% Excess)	225	500	Super H + 5 pps Gilsonite + 3 pps Salt + 0.5% LAP-1 + 0.4% CFR-3 + 0.25% pps Defoamer + 0.25 pps Pol-E-Flak	4.72 e	13.20	1.6
INTERVAL 1 <sup>st</sup> Stage	o stage w/DV tool @ 8 AMOUNT SXS	3000' and circu FILL	ulate cement to 2416')  TYPE	GALS/SX	<u>PPG</u>	FT <sup>3</sup> /SX
INTERVAL 1 <sup>st</sup> Stage LEAD 8000'-10,596' (50% excess)				GALS/SX 13.61	<u>PPG</u> 11.90	FT <sup>3</sup> /SX 2.46
INTERVAL 1 <sup>st</sup> Stage LEAD 8000'-10,596'	AMOUNT SXS	<u>FILL</u>	TYPE  Interfill H + 5 pps Gilsonite + 0.125 pps Pol-E-Flake +			
INTERVAL 1 <sup>st</sup> Stage LEAD 8000'-10,596' (50% excess) TAIL 10,596'-13,100'	AMOUNT SXS	<u>FILL</u> 2596	TYPE  Interfill H + 5 pps Gilsonite + 0.125 pps Pol-E-Flake + 0.5% Halad 9 + 0.3% HR-601  Super H + 0.5% Halad 344 + 0.4% CFR3 + 5 pps Gilsonite	13.61	11.90	2.46

### E) DIRECTIONAL DRILLING

No directional services anticipated. A straight hole will be drilled to 13,100' TD.

### **POINT 7: ANTICIPATED RESERVOIR CONDITIONS**

Normal pressures are anticipated throughout the Delaware, Bone Spring and the Wolfcamp sections. The Strawn and Atoka may have pressures of 6600-7000 psi (11.5 ppg). Due to the tight nature of the reservoir rock (high pressure, low volume), the well may be drilled under balanced utilizing a rotating head. The Morrow will be normally pressured. The expected BHT at TD is  $200^{\circ}$ F. No  $H_2$ S is anticipated.

### **POINT 8: OTHER PERTINENT INFORMATION**

A) Auxiliary Equipment

Upper and lower kelly cocks. Full opening stab in valve on the rig floor.

B) Anticipated Starting Date

Spud date is 7/10/2008

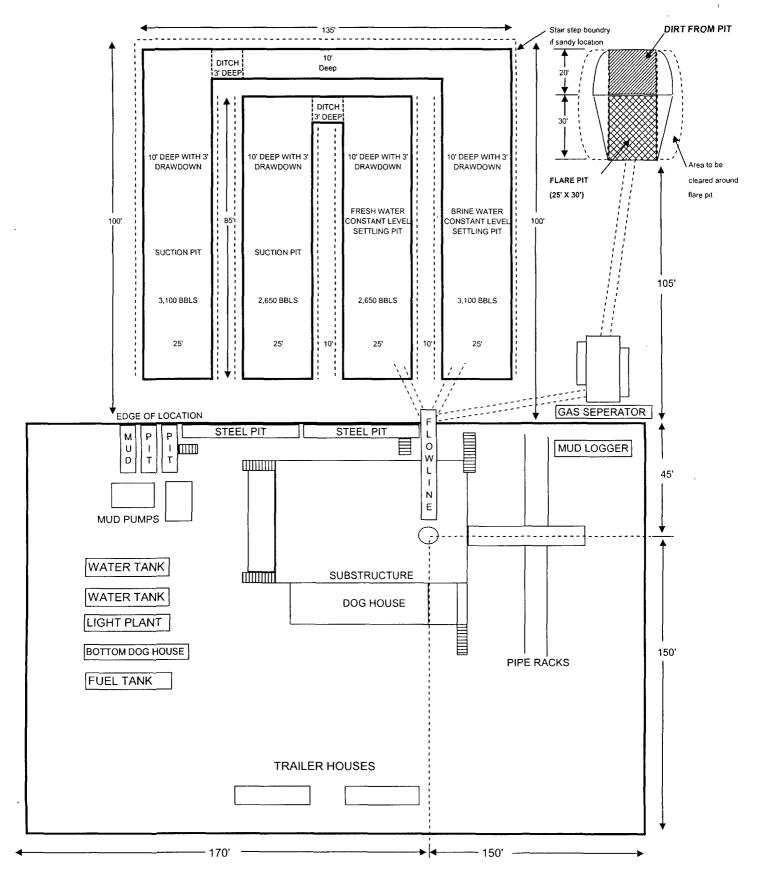
41 days drilling operations

20 days completion operations

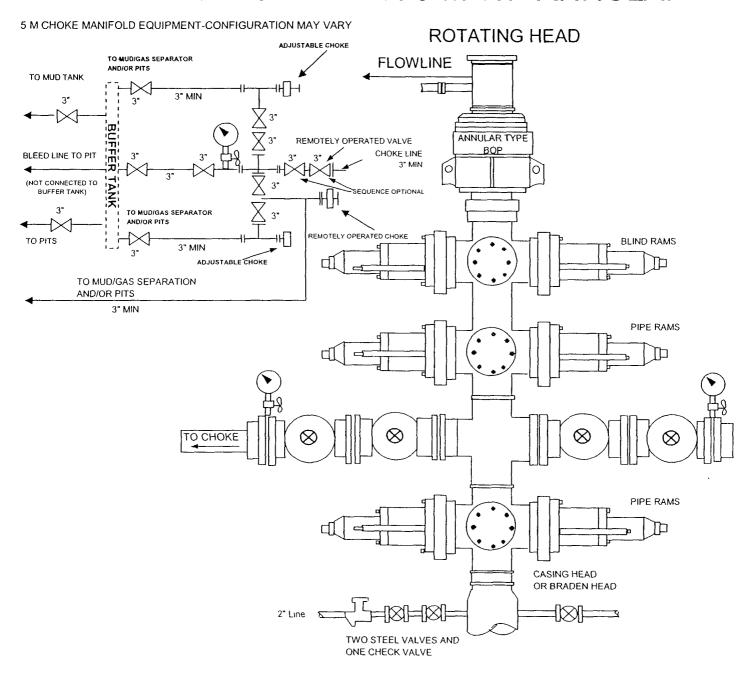
SMM/bmt

### Rig Layout Schematic Exhibit 'D'





# **BEPCO, L. P.** 5-M WP BOPE WITH 5-M WP ANNULAR



### **DIAGRAM 1**

#### **MULTI-POINT SURFACE USE PLAN**

### NAME OF WELL: BIG EDDY UNIT #191

LEGAL DESCRIPTION - SURFACE: 660' FSL & 1980' FWL, Section 17, T21S-R29E, Eddy County, NM

### POINT 1: EXISTING ROADS

A) Proposed Well Site Location

See Exhibit "A".

B) Existing Roads:

From mile marker 53 on U.S. Hwy 62/180, go west for 0.7 mile to a road, thence southerly for 3.1 miles to a 'Y', take left fork & continue east for 0.6 mile to a lease road; thence south for 0.1 mile to the Golden Lane 17 #1, thence south to the Golden D #4 & proposed lease road.

C) Existing Road Maintenance or Improve Plan:

See Exhibit "B"

### POINT 2: NEW PLANNED ACCESS ROUTE

A) Route Location:

See Exhibit "B". The new road will be 12' wide and approximately 2920' long from existing lease road. The road will be constructed of watered and 6" of compacted caliche.

B) Width

12' Wide.

C) Maximum Grade

Not Applicable.

D) Turnouts

As required by BLM stipulations

E) Culverts, Cattle Guards, and Surfacing Equipment

None

### POINT 3: LOCATION OF EXISTING WELLS

Exhibits "C" indicates existing wells within the surrounding area.

### POINT 4: LOCATION OF EXSITING OR PROPOSED FACILITIES

A) Existing facilities within one mile owned or controlled by lessee/operator:

Bass production facilities are located at Bass Big Eddy Unit #94 wellsite.

B) New Facilities in the Event of Production:

New production facilities will be installed at the new location.

C) Rehabilitation of Disturbed Areas Unnecessary for Production:

Following the construction of production facilities, those access areas required for continued production will be graded to provide drainage and minimize erosion. The areas not required for use in production operations will be graded to blend in the surrounding topography – See Point 10.

### POINT 5: LOCATION AND TYPE OF WATER SUPPLY

A) Location and Type of Water Supply

Fresh water will be hauled from the City of Carlsbad or piped from the IMC Booster Station water well located 5.2 miles east of Carlsbad. Brine water will be hauled from I & W Brine Water Station 0.75 miles southeast of Carlsbad.

B) Water Transportation System

Water hauled to the location will be over the existing and proposed roads or transported via temporary poly-line from the fresh water source.

#### POINT 6: SOURCE OF CONSTRUCTION MATERIALS

A) Materials

On site caliche.

B) Land Ownership

Federally Owned.

C) Materials Foreign to the Site

On site caliche will be used, but if necessary caliche will be hauled from the nearest BLM approved caliche pit.

D) Access Roads

3,020' of new access road will be required. See Exhibit "B".

### POINT 7: METHODS FOR HANDLING WASTE MATERIAL

A) Cuttings

Cuttings will be contained in the reserve pit.

B) Drilling Fluids

Drilling fluids will be contained in the reserve pit.

C) Produced Fluids

Water Production will be contained in the reserve pit.

Hydrocarbon fluid or other fluids that may be produced during testing will be retained in the test tanks. Prior to cleanup operations, any hydrocarbon material in the reserve pit will be removed by skimming or burning as the situation dictates.

### D) Sewage

Current laws and regulations pertaining to the disposal of human waste will be complied with.

### E) Garbage

Portable containers will be utilized for garbage disposal during the drilling of this well.

### F) Cleanup of Well Site

Upon release of the drilling rig, the surface of the drilling pad will be graded to accommodate a completion rig if testing indicates potential productive zones. In any case, the "mouse" hole and the "rat" hole will be covered. The reserve pit will be fenced and the fence maintained until the pit is backfilled. Reasonable cleanup will be performed prior to the final restoration of the site.

#### POINT 8: ANCILLARY FACILITIES

None Required.

#### POINT 9: WELL SITE LAYOUT

### A) Rig Orientation and Layout

Exhibits "D" shows the dimensions of the well pad and reserve pits and the location of major rig components. Only minor leveling of the well site will be required. No significant cuts or fills will be necessary.

### B) Locations of Pits and Access Road

See Exhibits "B" and "D".

### C) Lining of the Pits

The reserve pit will be lined with >20 mil plastic.

### POINT 10: PLANS FOR RESTORATION OF THE SURFACE

#### A) Reserve Pit Cleanup

The reserve pits will be fenced immediately after construction and shall be maintained until they are backfilled. Previous to backfill operations, any hydrocarbon material on the pits surface shall be removed. Fluids contained in the reserve pit will be allowed to evaporate or be removed and hauled to an approved Salt Water disposal. The solids contained in the pit shall be backfilled with soil excavated from the site and soil adjacent to the reserve pit. The restored surface of the pit shall be contoured to prevent impoundment of surface water flow. The reserve pit cleanup will also comply with all NMOCD pit guidelines. Water – bars will be constructed as needed to prevent excessive erosion. Topsoil, as available, shall be placed over the restored surface in a uniform layer. The area will be seeded according to the BLM stipulations during the appropriate season following restoration.

### B) Restoration Plans - Production Developed

The reserve pit will be backfilled and restored as described above under Item A. In addition, those areas not required for production will be graded to blend with the surrounding topography. Topsoil, as available, will be placed upon those areas and seeded. The portion of the site required for production will be graded to minimize erosion and provide access during inclement conditions. Following depletion and abandonment of the site, restoration procedures will be those that follow under Item C.

### C) Restoration Plans - No Production Developed

The reserve pit will be restored as described above. With no production developed, the entire surface disturbed by construction of the well site will be restored. The site will be contoured to blend with the surrounding topography and provide drainage of surface water. The topsoil, as available, shall be replaced in a uniform layer and seeded according to the BLM stipulations.

### D) Rehabilitation Timetable

Upon completion of drilling operations, the initial cleanup of the site will be performed as soon as weather and site conditions allow economic execution of the work.

#### POINT 11: OTHER INFORMATION

A) Terrain

Relatively Flat

B) Soil

Caliche and sand.

C) Vegetation

Sparse, primarily grasses and mesquite with very little grass.

D) Surface Use

Primarily grazing.

E) Surface Water

There are no ponds, lakes, streams, or rivers within several miles of the wellsite.

F) Water Wells

There are no water wells within 1 mile of location.

G) Residences and Buildings

None in the immediate vicinity.

H) Historical Sites

None observed.

### 1) Archeological Resources

An archeological survey will be obtained for this area. The survey area will be a 750' x 750' square with its center on the wellhead stake. Before any construction begins, a full and complete archeological survey will be submitted to the BLM. Any location or construction conflicts will be resolved before construction begins.

J) Surface Ownership

The well site and access road are both on federally owned land.

- K) Well signs will be posted at the drilling site.
- L) Open Pits

All pits containing liquid or mud will be fenced and bird-netted.

#### POINT 12: OPERATOR'S FIELD REPRESENTATIVE

(Field personnel responsible for compliance with development plan for surface use).

DRILLING Stephen M. Martinez Box 2760 Midland, Texas 79702 (432) 683-2277 PRODUCTION
Mike Waygood
3104 East Green Street
Carlsbad, New Mexico 88220
(505) 887-7329

Steve Johnson Box 2760 Midland, Texas 79702 (432) 683-2277

### **POINT 13: CERTIFICATION**

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 currently exist; that the statements made in the plan are, to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by BEPCO, L.P. and it's contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Date

Stephen M. Martinez

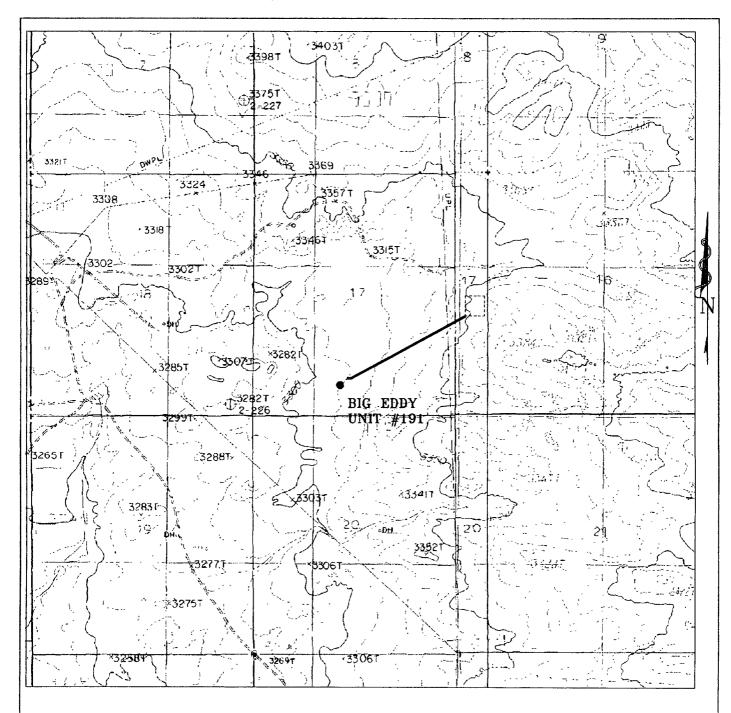
SMM:bmt

### BEPCO, L.P.

### Exhibit 'A'





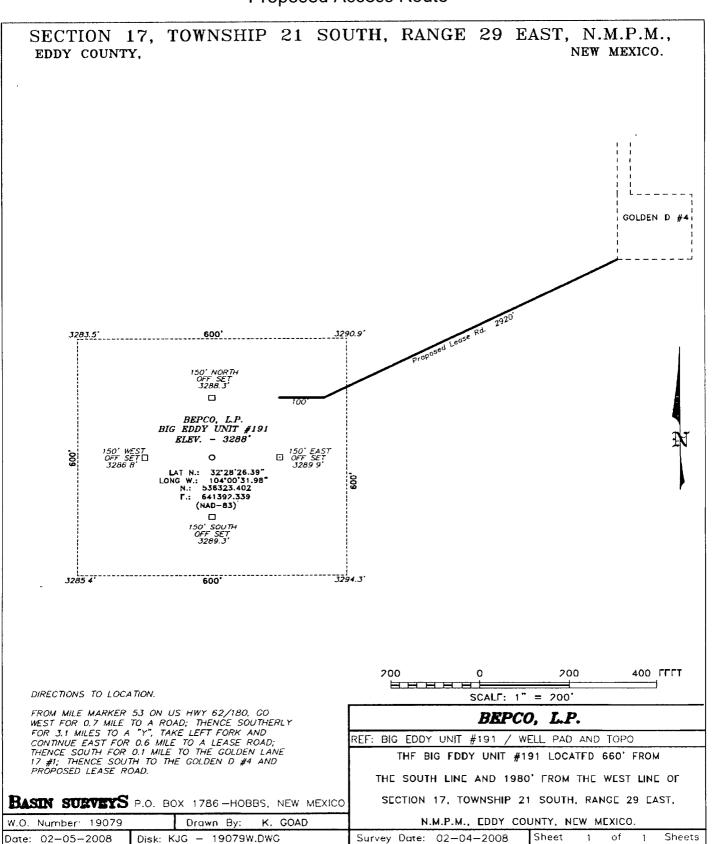


BIG EDDY UNIT #191 660' FSL and 1980' FWL Section 17, Township 21 South, Range 29 East, N.M.P.M., Eddy County, New Mexico.

### BEPCO, L.P.



### Exhibit 'B' **Proposed Access Route**

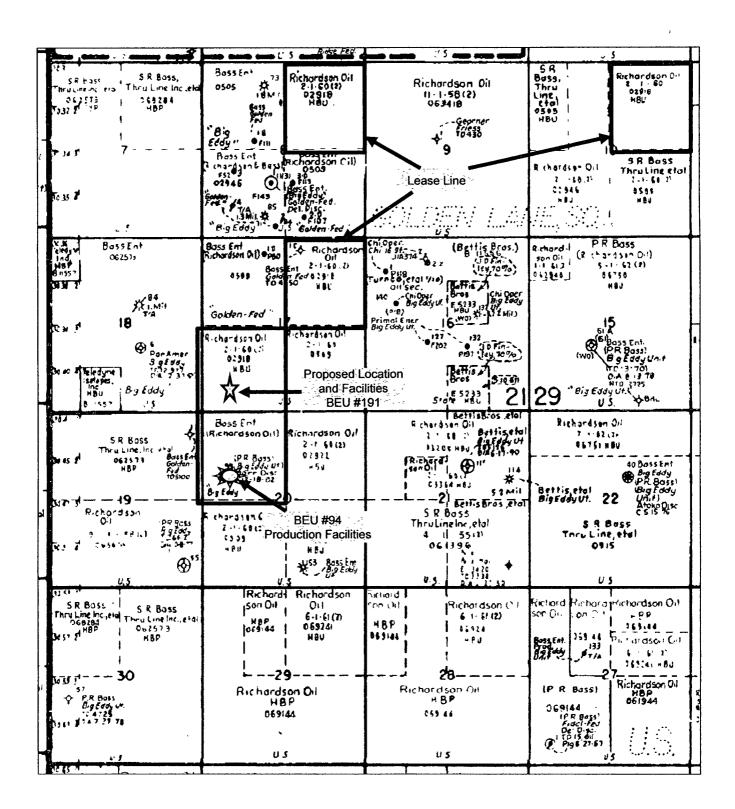


Date: 02-05-2008

### BEPCO, L.P.



# Exhibit 'C' Location of Existing Wells



### PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME: | BEPCO

LEASE NO.: | NM-2918

WELL NAME & NO.: 191-Big Eddy Unit
SURFACE HOLE FOOTAGE: 660' FSL & 1980' FWL
BOTTOM HOLE FOOTAGE 'F L & 'F L

LOCATION: Section 17, T. 21 S., R 29 E., NMPM

COUNTY: Eddy County, New Mexico

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Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

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### I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

### II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

### III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

### IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

### V. SPECIAL REQUIREMENT(S)

Mitigation Measures: The mitigation measures include the Pecos District Conditions of Approval, the standard stipulation for permanent resource roads, the only well that will have the standard stipulations for the Lesser Prairie Chicken will be the Big Eddy Unit # 191 proposed well location.

Timing Limitation Stipulation/Condition of Approval for Lesser Prairie-Chicken: Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 15 through June 15 annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

Big Eddy Unit # 191: Pit South V-Door West

### VI. CONSTRUCTION

### A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (505) 234-5972 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

### B. TOPSOIL

The operator shall stockpile the topsoil of the well pad. The topsoil shall not be used to backfill the reserve pit and will be used for interim and final reclamation.

### C. RESERVE PITS

The reserve pit shall be constructed and closed in accordance with the NMOCD rules.

The reserve pit shall be constructed 135' X 100' on the South side of the well pad V-Door West.

The reserve pit shall be constructed, so that upon completion of drilling operations, the dried pit contents shall be buried a minimum depth of three feet below ground level. Should the pit content level not meet the three foot minimum depth requirement, the excess contents shall be removed until the required minimum depth of three feet below ground level has been met. The operator shall properly dispose of the excess contents at an authorized disposal site.

The reserve pit shall be constructed and maintained so that runoff water from outside the location is not allowed to enter the pit. The berms surrounding the entire perimeter of the pit shall extend a minimum of two (2) feet above ground level. At no time will standing fluids in the pit be allowed to rise above ground level.

The reserve pit shall be fenced on three (3) sides during drilling operations. The fourth side shall be fenced immediately upon rig release.

### D. FEDERAL MINERAL MATERIALS PIT

If the operator elects to surface the access road and/or well pad, mineral materials extracted during construction of the reserve pit may be used for surfacing the well pad and access road and other facilities on the lease.

Payment shall be made to the BLM prior to removal of any additional federal mineral materials from any site other than the reserve pit. Call the Carlsbad Field Office at (505) 234-5972.

### E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

### F. ON LEASE ACCESS ROADS

### Road Width

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

### Surfacing

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

### Crowning

Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

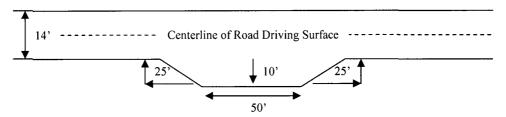
### Ditching

Ditching shall be required on both sides of the road.

#### **Turnouts**

Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:

### Standard Turnout - Plan View

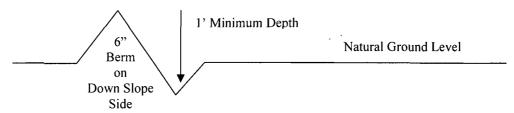


### Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

### Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

### Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

400 foot road with 4% road slope: 
$$\frac{400'}{4\%}$$
 + 100' = 200' lead-off ditch interval

### **Culvert Installations**

Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

### Cattleguards

An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

A gate shall be constructed and fastened securely to H-braces.

### Fence Requirement

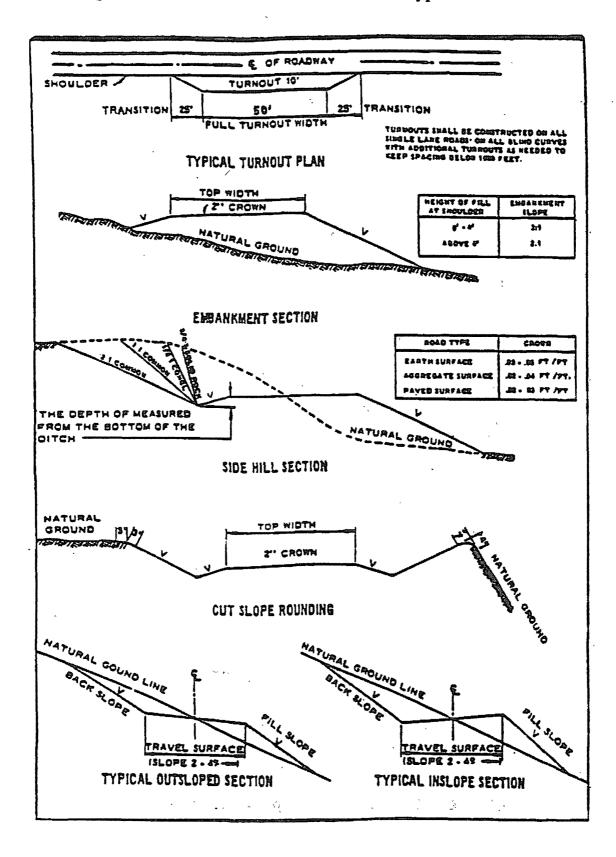
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

#### **Public Access**

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Figure 1 - Cross Sections and Plans For Typical Road Sections



### VII. DRILLING

### A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOPE tests

### **Eddy County**

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

- 1. Although Hydrogen Sulfide has not been reported in this section, it is always a possible hazard. It has been reported in section 8 approximately 1.5 miles from this location. It is recommended that monitoring equipment be onsite. If Hydrogen Sulfide is encountered, please report measured amounts and formations to the BLM.
- 2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
- 3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

### B. CASING

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Medium cave/karst.

Possible lost circulation in the Artesia Group, Capitan Reef, Delaware, Bone Spring formations.

Possible water flows in the Artesia Group and Capitan Reef.

Possibility of high pressure gas bursts within the Wolfcamp formation and over pressure in the Pennsylvanian section.

1. The 13-3/8 inch surface casing shall be set at approximately 440 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface.

Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing.

- a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
- b. Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement).
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.

If the Capitan Reef is encountered and circulation lost, the drilling fluid is to be switched to fresh water.

2.	The minimum required fill of cement behind the 9-5/8 inch intermediate casing (to be
	set at approximately 2800' in the Lamar limestone) is:

M	Cement to	surface. I	f cement of	does not	circulate se	ee B.1.a-d above

Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing.

Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i.

- 3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
  - a. First stage to DV tool, cement shall:
  - Cement to circulate. If cement does not circulate, contact the appropriate BLM office, before proceeding with second stage cement job.

- b. Second stage above DV tool, cement shall:
- Cement should tie-back at least 200 feet into previous casing string. **Operator** shall provide method of verification.
- 4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

### C. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- 2. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. The tests shall be done by an independent service company.
  - b. The results of the test shall be reported to the appropriate BLM office.
  - c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
  - d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.
  - e. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation. if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.
  - f. A variance to test the surface casing and BOP/BOPE to the reduced pressure of 1000 psi with the rig pumps is approved.

### D. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** formation, and shall be used until production casing is run and cemented.

### E. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

WWI 041208

### VIII. PRODUCTION (POST DRILLING)

### A. WELL STRUCTURES & FACILITIES

### **Placement of Production Facilities**

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

### **Containment Structures**

The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

### **Painting Requirement**

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color Shale Green, Munsell Soil Color Chart # 5Y 4/2

- B. PIPELINES
- C. ELECTRIC LINES

### IX. INTERIM RECLAMATION & RESERVE PIT CLOSURE

### A. INTERIM RECLAMATION

If the well is a producer, interim reclamation shall be conducted on the well site in accordance with the orders of the Authorized Officer. The operator shall submit a Sundry Notices and Reports on Wells (Notice of Intent), Form 3160-5, prior to conducting interim reclamation.

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

At the time reserve pits are to be reclaimed, operators should work with BLM surface management specialists to devise the best strategies to reduce the size of the location. Any reductions should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

### B. RESERVE PIT CLOSURE

The reserve pit, when dried and closed, shall be recontoured, all trash removed, and reseeded as follows:

### Seed Mixture 2, for Sandy Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)\* per acre. There shall be <u>no</u> primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law (s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The see mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed\* per acre:

<u>Species</u>	l <u>b/acre</u>
Sand dropseed (Sporobolus cryptandrus)	1.0
Sand love grass (Eragrostis trichodes)	1.0
Plains bristlegrass (Setaria macrostachya)	2.0

<sup>\*</sup>Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed (Insert Seed Mixture Here)

### X. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS

Upon abandonment of the well and/or when the access road is no longer in service the Authorized Officer shall issue instructions and/or orders for surface reclamation and restoration of all disturbed areas.

On private surface/federal mineral estate land the reclamation procedures on the road and well pad shall be accomplished in accordance with the private surface land owner agreement.