7020

ATS-08-539

OCD-ARTESIA SEP -8 2008

OCD-ARTESIA

Form 3160-3
(April 2004)

1063

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

S

APPLICATION FOR PERMIT TO DRILL OR REENTER

5 Lease Serial No. **NMLC 060572**	
6. If Indian, Allotee or Tribe Name	
1a. Type of work: ☑ DRILL ☐ REENTER	7 If Unit or CA Agreement, Name and No.
1b. Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other ☐ Single Zone ☑ Multiple Zone	8. Lease Name and Well No. **Big Eddy Unit #196**
2. Name of Operator **BEPCO, L. P.**	9 API Well No. 30-015-36618
3a. Address **P. O. Box 2760 Midland, TX 79702** / 3b Phone No. *(include area code)* **432-683-2277**	10. Field and Pool, or Exploratory **Burton Flat (Morrow)**
4 Location of Well *(Report location clearly and in accordance with any State requirements.*)* At surface **SESW, 990' FSL, 1980' FWL, Lat N 32.504783, Long W 104.128036** At proposed prod. zone **Same**	11. Sec., T. R. M. or Blk. and Survey or Area **Sec 6, T21S, R28E, Mer NWP**
14 Distance in miles and direction from nearest town or post office* **2 miles east of Carlsbad, NM**	12. County or Parish **Eddy County** / 13 State **NM**
15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig. unit line, if any) **1980'** / 16 No of acres in lease **1,520** / 17 Spacing Unit dedicated to this well **320**	
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft **1739'** / 19 Proposed Depth **11,900'** / 20 BLM/BIA Bond No. on file **NM 2204**	
21 Elevations (Show whether DF, KDB, RT, GL, etc.) **3177' GL** / 22. Approximate date work will start* **10/15/2008** / 23. Estimated duration **38 days**	

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office)
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25 Signature Annette Childers	Name *(Printed/Typed)* **Annette Childers**	Date 6-13-08
Title **Administrative Assistant**		
Approved by *(Signature)* **/s/ Don Peterson**	Name *(Printed/Typed)*	Date SEP 4 2008
Title **FIELD MANAGER**	Office **CARLSBAD FIELD OFFICE**	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached. **APPROVAL FOR TWO YEARS**

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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 representations as to any matter within its jurisdiction.

(Instructions on page 2)

Capitan Controlled Water Basin

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, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV
1220 St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Form C-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

API Number	Pool Code	Pool Name
	73280	BURTON FLAT (MORROW)

Property Code	Property Name	Well Number
1776	BIG EDDY UNIT	196

OGRID No.	Operator Name	Elevation
001801	BEPCO, L.P.	3177'

Surface Location

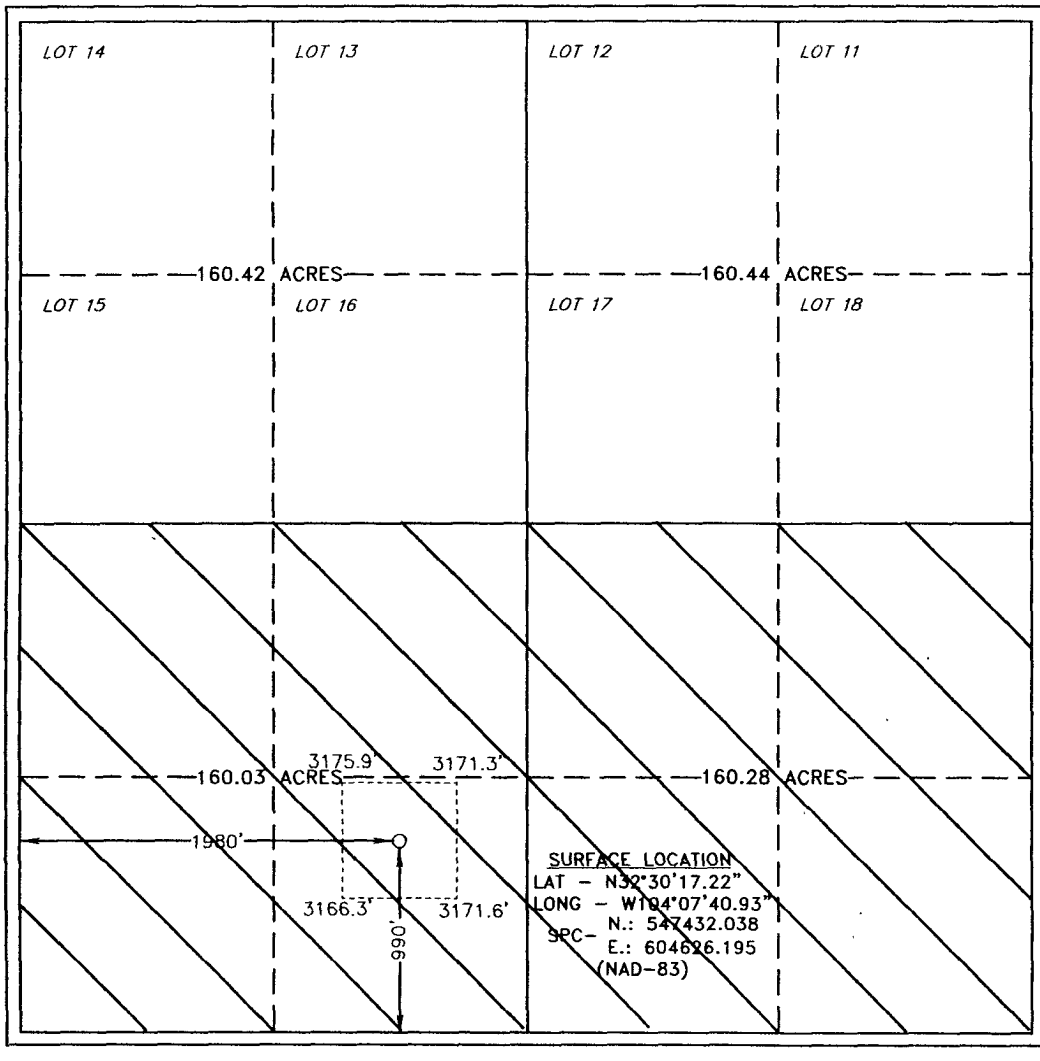
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
V	6	21 S	28 E		990	SOUTH	1980	WEST	EDDY

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

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320	N		

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



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 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.

6/10/08
Signature Date

STEPHEN M. MARTINEZ
Printed Name

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 supervison, and that the same is true and correct to the best of my belief.

MARCH 11, 2008
Date Surveyed

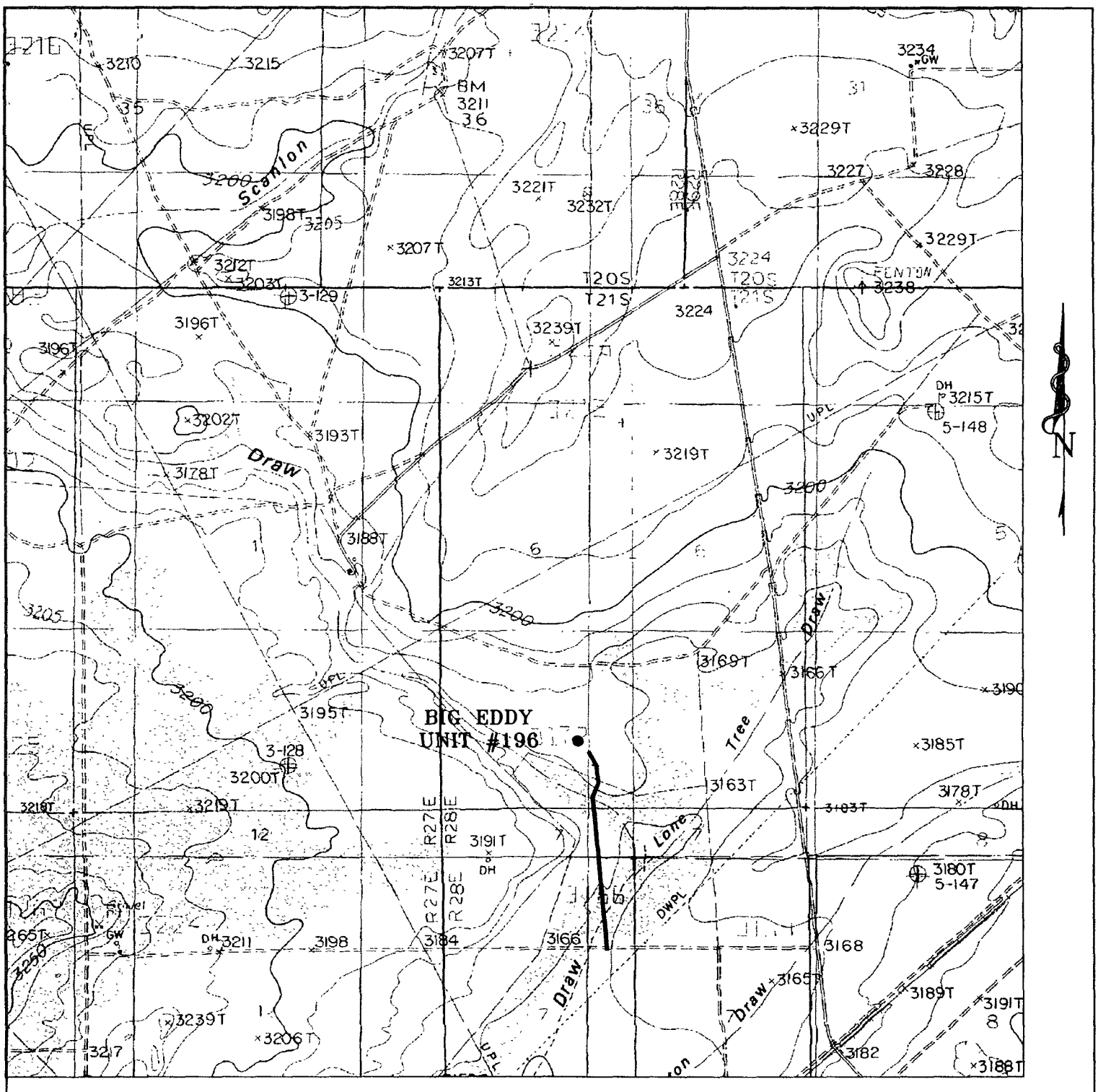
Signature & Seal of Professional Surveyor

GARY L. JONES NEW MEXICO 7977 REGISTERED PROFESSIONAL LAND SURVEYOR

W.O. [illegible]

Certificate No. Gary L. Jones 7977

BASIN SURVEYS



BIG EDDY UNIT #196

990' FSL and 1980' FWL
Section 6, Township 21 South, Range 28 East,
N.M.P.M., Eddy County, New Mexico.

basin surveys
focused on excellence in the oilfield

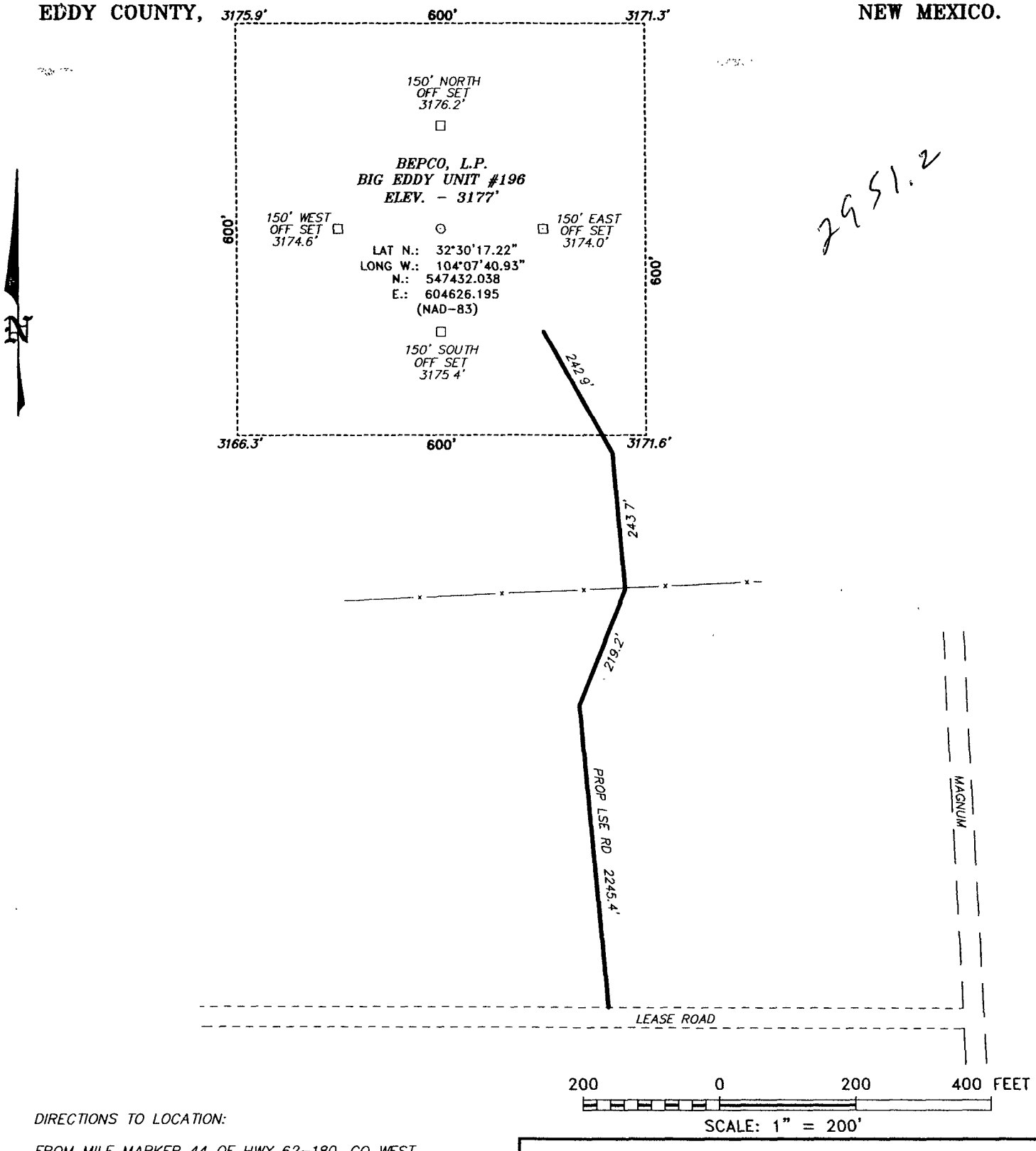
P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(505) 393-7316 - Office
(505) 392-3074 - Fax
basinsurveys.com

W.O. Number:	JMS 19147T
Survey Date:	03-11-2008
Scale:	1" = 2000'
Date:	03-18-2008

BEPCO, L.P.

SECTION 6, TOWNSHIP 21 SOUTH, RANGE 28 EAST, N.M.P.M.,

EDDY COUNTY, NEW MEXICO.



2451.2

DIRECTIONS TO LOCATION:

FROM MILE MARKER 44 OF HWY 62-180, GO WEST 0.1 MILES TO CO. RD. 243, ON CO. RD. 243 GO NORTH 1.0 MILES TO LEASE ROAD, ON LEASE ROAD GO WEST 0.5 MILES TO PROPOSED LEASE ROAD.

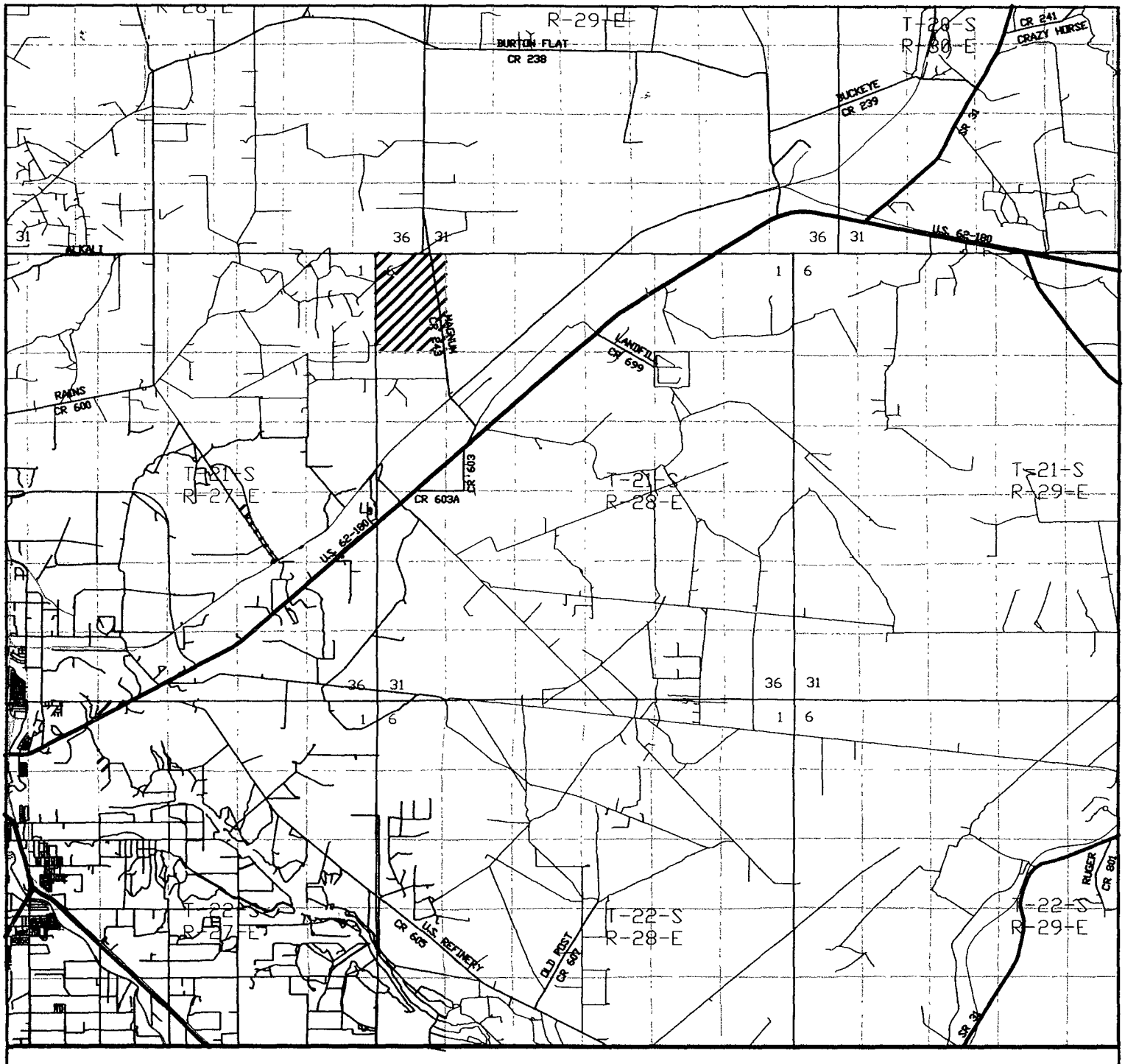
BEPCO, L.P.

REF: BIG EDDY UNIT #196 / WELL PAD AND TOPO

THE BIG EDDY UNIT #196 LOCATED 990' FROM THE SOUTH LINE AND 1980' FROM THE WEST LINE OF SECTION 6, TOWNSHIP 21 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

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

W.O. Number: 19147	Drawn By: J. SMALL		
Date: 03-18-2008	Disk: 19147W JMS	Survey Date: 03-11-2008	Sheet 1 of 1 Sheets



BIG EDDY UNIT #196
990' FSL and 1980' FWL
Section 6, Township 21 South, Range 28 East,
N.M.P.M., Eddy County, New Mexico.

basin surveys
focused on excellence in the oilfield

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:	JMS 19147TR
Survey Date:	03-11-2008
Scale:	1" = 2 MILES
Date:	03-18-2008

BEPCO, L.P.

Surface casing to be set into the Rustler below all fresh water sands.
Production casing will be cemented using Halliburton Class "H" plus additives with TOC 500' into intermediate casing.
Drilling procedure, BOP diagram, anticipated tops and surface plans attached.

This well is located outside the Secretary's Potash area and outside the R-111 Potash area. There are no potash leases within 5 miles of the location.

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

EIGHT POINT DRILLING PROGRAM
BASS ENTERPRISES PRODUCTION CO.

NAME OF WELL: BIG EDDY UNIT #196

LEGAL DESCRIPTION - SURFACE: 990' FSL & 1,980' FWL, Section 6, T21S, R28E, 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 3195'
GL 3177'

FORMATION	ESTIMATED TOP FROM KB	ESTIMATED SUBSEA TOP	BEARING
T/Salado	825'	+ 2,370'	Barren
T/Artesia Group	895'	+ 2,300'	Barren
T/Capitan Reef	1,375'	+ 1,820'	Barren
T/Castile	2,505'	+ 690'	Barren
T/Delaware Lime	2,655'	+ 540'	Oil/Gas
T/Old Indian Draw	2,955'	- 240'	Oil/Gas
T/Bone Spring Lime	5,575'	- 2,380'	Oil/Gas
B/Avalon	5,710'	- 2,515	Oil/Gas
T/Wolfcamp	9,135'	- 5,940'	Oil/Gas
T/Strawn	10,245'	- 7,050'	Oil/Gas
T/Atoka	10,645'	- 7,450'	Oil/Gas
T/Upper Morrow	11,084'	- 7,889'	Oil/Gas
T/Middle Morrow	11,385'	- 8,190'	Oil/Gas
T/Lower Morrow	11,635'	- 8,440'	Oil/Gas
TD	11,900'	- 8,705'	Oil/Gas

POINT 3: CASING PROGRAM

TYPE	HOLE SIZE	INTERVALS	PURPOSE	CONDITION
20", 94#, H-40, STC	26"	0' – 40'	Conductor	Contractor Discretion
13-3/8", 48#, H-40, STC	17-1/2"	0' – 815'	Surface	New
9-5/8", 36#, J-55, LTC	12-1/4"	0' – ~~2,715~~ 2450	Intermediate	New
5-1/2", 17#, HCP-110, LTC	8-3/4"	0' – 11,100'	Production Casing	New
5-1/2", 20#, P-110, LTC	8-3/4"	11,100' – 11,900'	Production Casing	New

See COA

CASING DESIGN SAFETY FACTORS:

TYPE	TENSION	COLLAPSE	BURST
13-3/8", 48#, H-40, STC	16.09	1.89	3.80
9-5/8", 36#, J-55, LTC	6.64	1.66	2.32
5-1/2", 17#, HCP-110, LTC	3.18	1.17	2.26
5-1/2", 20#, P-110, LTC	52.72	1.70	2.68

DESIGN CRITERIA AND CASING LOADING ASSUMPTIONS:

SURFACE CASING

Tension — A 1.6 design factor utilizing the effects of buoyancy (9.2 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 (0.478 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 (8.6 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 (0.447 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 (10.5 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 (0.546 psi/ft). The effects of axial load on collapse will be considered.

Burst — A 1.25 design factor with anticipated maximum tubing pressure (4,608 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 as per Onshore Oil and Gas Order No. 2, Drilling Operations, paragraph III.A.2.h.iv:

a) When initially installed
b) Whenever any seal subject to test pressure is broken
c) Following related repairs
d) At 30 day intervals

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	YP	FL	Ph
0' – 550'	FW	8.5 - 9.2	45-35	NC	NC	NC	9.5
550' – 2,350'	BW	10.0 - 10.2	28-30	NC	NC	NC	9.5
2,350' – 9,000'	FW	8.6 - 8.9	28-30	NC	NC	NC	9.5
9,000' – 10,400'	BW	10.0 - 10.2	28-30	NC	NC	NC	9.5
10,400' – 12,400'	BW/Polymer	9.0 – 11.0	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) CEMENT

INTERVAL	AMOUNT SX	FT OF FILL	TYPE	GALS/SX	PPG	FT^3/SX
SURFACE						
Lead 0'-515' (100% excess)	390	515	Haliburton Light + Premium Plus + 2.7 pps salt	10.14	12.80	1 87
Tail 515' – 815' (100% excess)	350	300	Premium Plus + 1% $CaCl_2$	6.37	14 80	1 35
INTERMEDIATE						
Lead 0 – 2,215' (100% Excess)	450	2,215	Premium Interfill H + 8 pps Gilsonite	16.43	11.50	2 76
Tail 2,215' -2,715' (100% Excess)	230	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-Flake	4 72	13.2	1 60
PRODUCTION	(Two stage w/DV tool @ 7500' and circulate cement to 7000')					
1st Stage						
Lead 7,500'-9,035' (50% excess)	250	1,535	Interfill H + 5 pps Gilsonite + 0.125 pps Pol-E-Flake + 0.5% Halad 9 + 0.3% HR-601	13.61	11.90	2.46
Tail 9,035'-11,900' (50% excess)	690	2,865	Super H + 0.5% Halad 344 + 0.4% CFR3 + 5 pps Gilsonite + 1 pps Salt + 0.3% HR-601	7 73	13.20	1.60
2nd Stage						
Lead 2,215'-7,000' (50% excess)	730	4,785	Premium Interfill H + 0.125 pps Pol-E-Flake	14 10	11 90	2.46
Tail 7,000-7,500' (50% excess)	180	500	Premium Cement + 0 5% Halad 9	5 20	15.6	1 18

See COA

TYPE	HOLE SIZE	INTERVALS	TOC	COMPRESSIVE STRENGTH
20", 94#, H-40, STC	26"	0' – 40'	Surface	N/A
13-3/8", 48#, H-40, STC	17-1/2"	0' – 815'	Surface	970 psi
9-5/8", 36#, J-55, LTC	12-1/4"	0' – ~~2,745~~ 2450	Surface	2260 psi
5-1/2", 17#, HCP-110, LTC	8-3/4"	0' – 11,900'	~~2,215'~~ 2250'	1730 psi

See COA

E) DIRECTIONAL DRILLING

No directional services anticipated. A straight hole will be drilled to 11,900' TD.

POINT 7: ANTICIPATED RESERVOIR CONDITIONS

Normal pressures are anticipated throughout the Delaware, Bone Spring & Wolfcamp sections. The Strawn expected BHP is 5350 (max) or an equivalent mud weight of 10.0 ppg. The Atoka may have pressures of 5800 - 6100 psi (10.5 ppg). The Morrow will be normally pressured. Due to the tight nature of the reservoir rock (high pressure, low volume), the well will be drilled under balanced utilizing a rotating head. The expected BHT at TD is 200°F. No H_2S 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

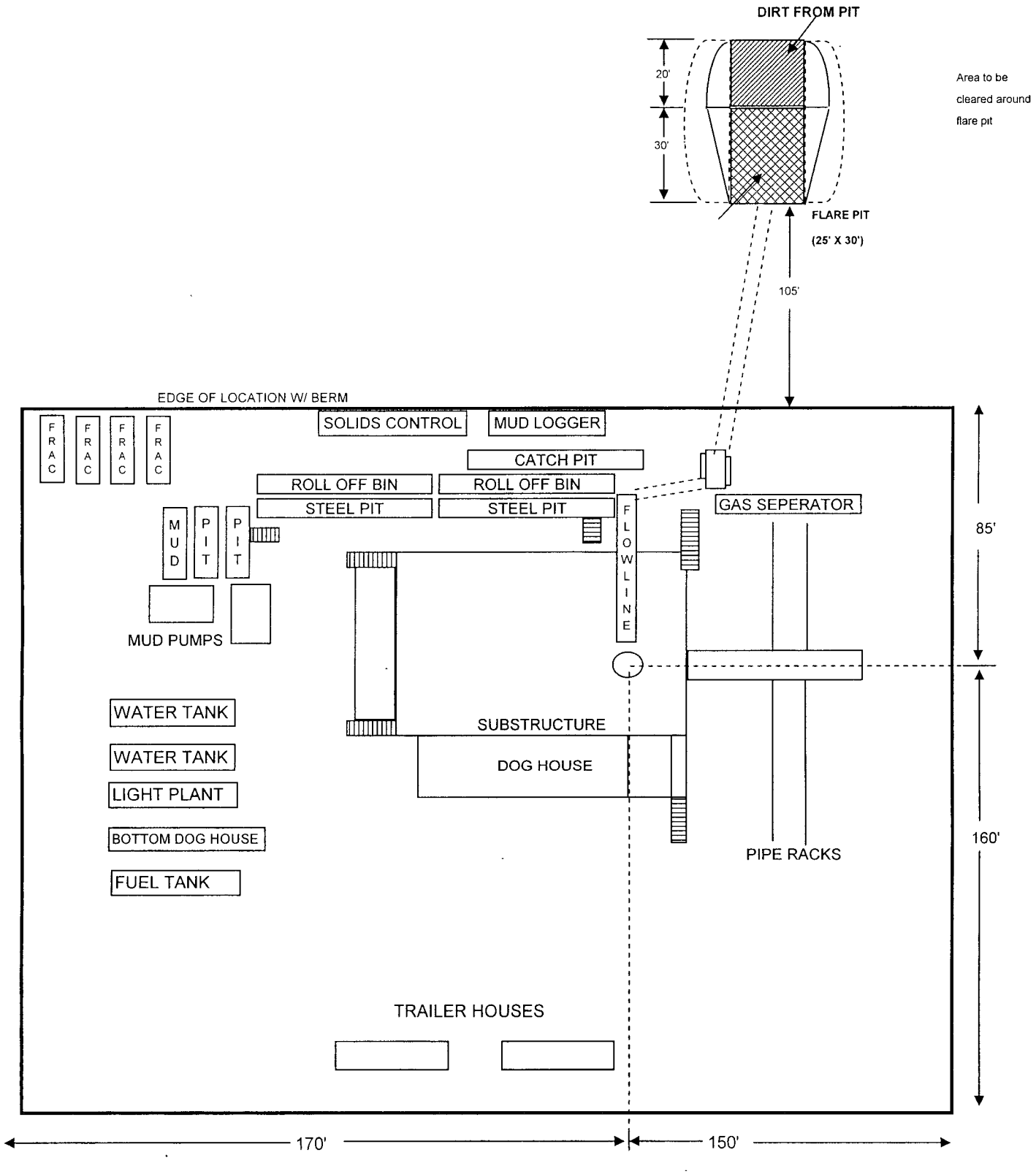
Spud date is 10/15/2008

38 days drilling operations

20 days completion operations

SMM/jdb

Rig Layout Schematic
Exhibit "D"



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

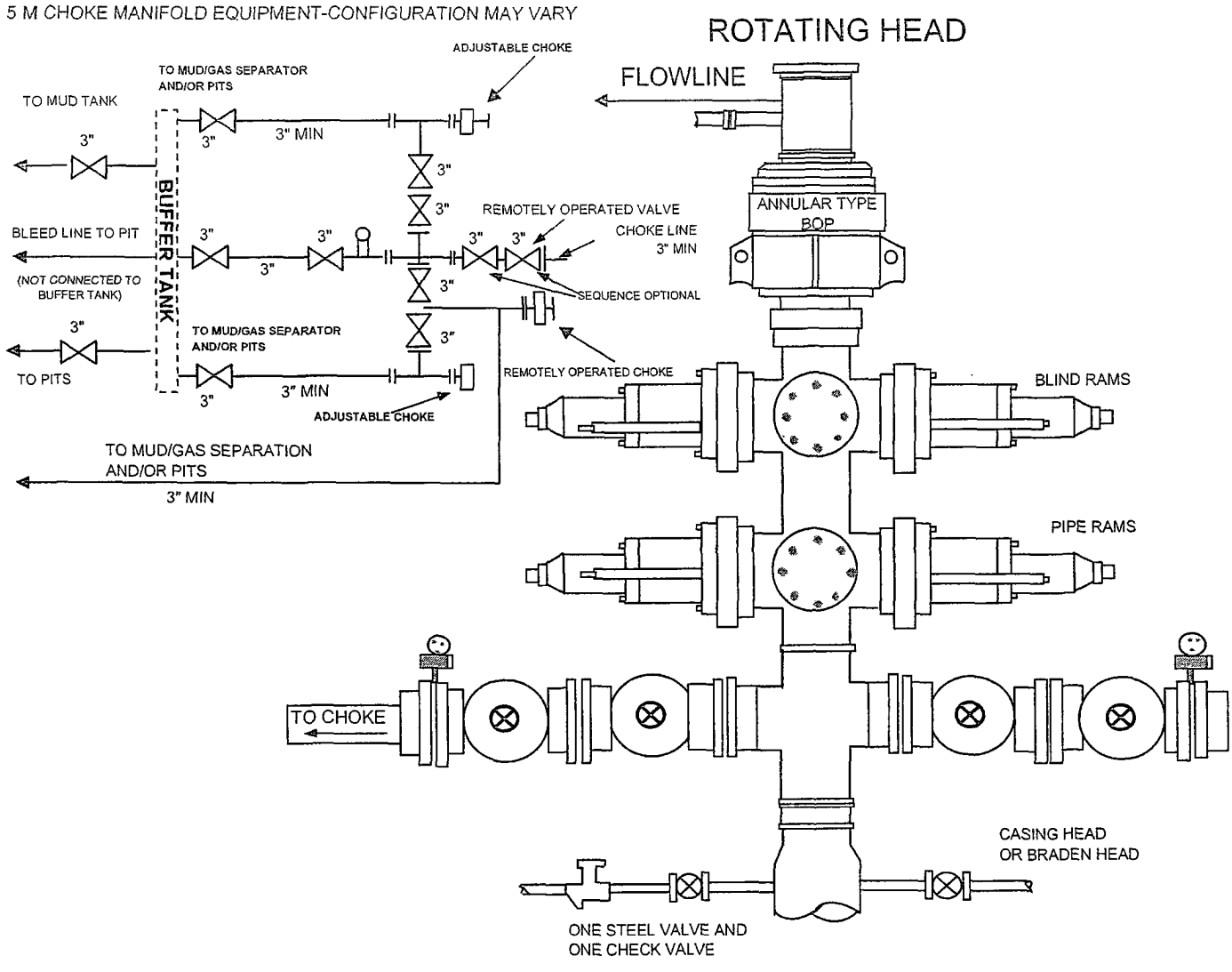


DIAGRAM 1

MULTI-POINT SURFACE USE PLAN

NAME OF WELL: BIG EDDY UNIT #196

LEGAL DESCRIPTION – SURFACE: 990' FSL & 1980' FWL, Section 6, T21S-R28E, Eddy County, NM.

POINT 1: EXISTING ROADS

A) Proposed Well Site Location

See Exhibit "A".

B) Existing Roads

From Mile Marker 44 of Hwy 62-180, go west 0 1 miles to CO. RD. 243, On CO. RD 243 go north 1.0 miles to lease road, on lease road go west 0.5 miles to 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 2951.2' 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

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

POINT 4: LOCATION OF EXSITING OR PROPOSED FACILITIES

A) One existing facility is within one mile owned or controlled by lessee/operator: Big Eddy Unit #165, Sec.5, T21S, R28E is 5,372' away from the proposed well Big Eddy Unit #196.

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 necessary for use 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

Caliche source located on location

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

2,951.2' of new access roads are required. See Exhibit "B".

POINT 7: METHODS FOR HANDLING WASTE MATERIAL

A) Cuttings

A closed loop system will be utilized. Cuttings will be contained in roll off bins and hauled off to Controlled Recovery Inc. located approximately 25 miles NE of Carlsbad, N.M.

B) Drilling Fluids

Drilling fluids will be contained in the steel pits as part of the closed loop system. Excess drilling fluids including fresh water and brine water used for drilling will be contained within steel storage tanks located on location.

Produced Fluids

Water production will be contained in the steel pits as part of the closed loop system.

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 remaining in the steel pits will be removed by skimming and hauling as the situation would dictate.

C) Sewage

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

D) Garbage

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

E) 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. 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

Exhibit "D" shows the dimensions of the well pad 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. An earthen berm preventing fluids from entering the location or leaving the location will encompass the entire location.

B) Locations of Access Road

See Exhibits "B" & "D"

C) Lining of the Pits

No earthen pits for fluid storage are planned. A closed loop mud system with steel pits will be employed for liquid storage. An unlined flare pit may be required as gas is liberated from the drilling fluid. All other earthen pits will be allowed only in case of an emergency.

POINT 10: PLANS FOR RESTORATION OF THE SERVICE

A) Closed loop system.

The closed loop system will be utilized to drill the subject well. No earthen pits will be used that require remediation. All solids and drill fluids will be hauled off location to Controlled Recovery Inc. located approximately 25 miles Northeast of Carlsbad, N.M.

B) Restoration Plans – Production Developed

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

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. See Exhibit "C".

G) Residences and Buildings

There is one residence within 1 mile of the existing location: Winston Ballard (505) 885-5325

H) Historical Sites

None observed.

I) Archeological Resources

An archeological survey will be obtained for this area. The survey area will be a 600' x 600' 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

No earthen pits will be used. A closed loop system will be used and employ steel pits only.

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

BEPCO, L.P.

P. O. Box 2760
Midland, Texas 79702

432-683-2277 FAX-432-687-0329

June 10, 2008

Bureau of Land Management
Carlsbad Field Office
620 East Green Street
Carlsbad, New Mexico 88220-6292

Attn: Mr. Don Peterson – Assistant Field Manager, Minerals

RE: APPLICATION FOR PERMIT TO DRILL – 3162.4
BIG EDDY UNIT #196, LEASE LC 060572
990' FSL, 1980' FWL, SEC. 6, T21S, R28E, EDDY COUNTY, NM

Dear Mr. Peterson,

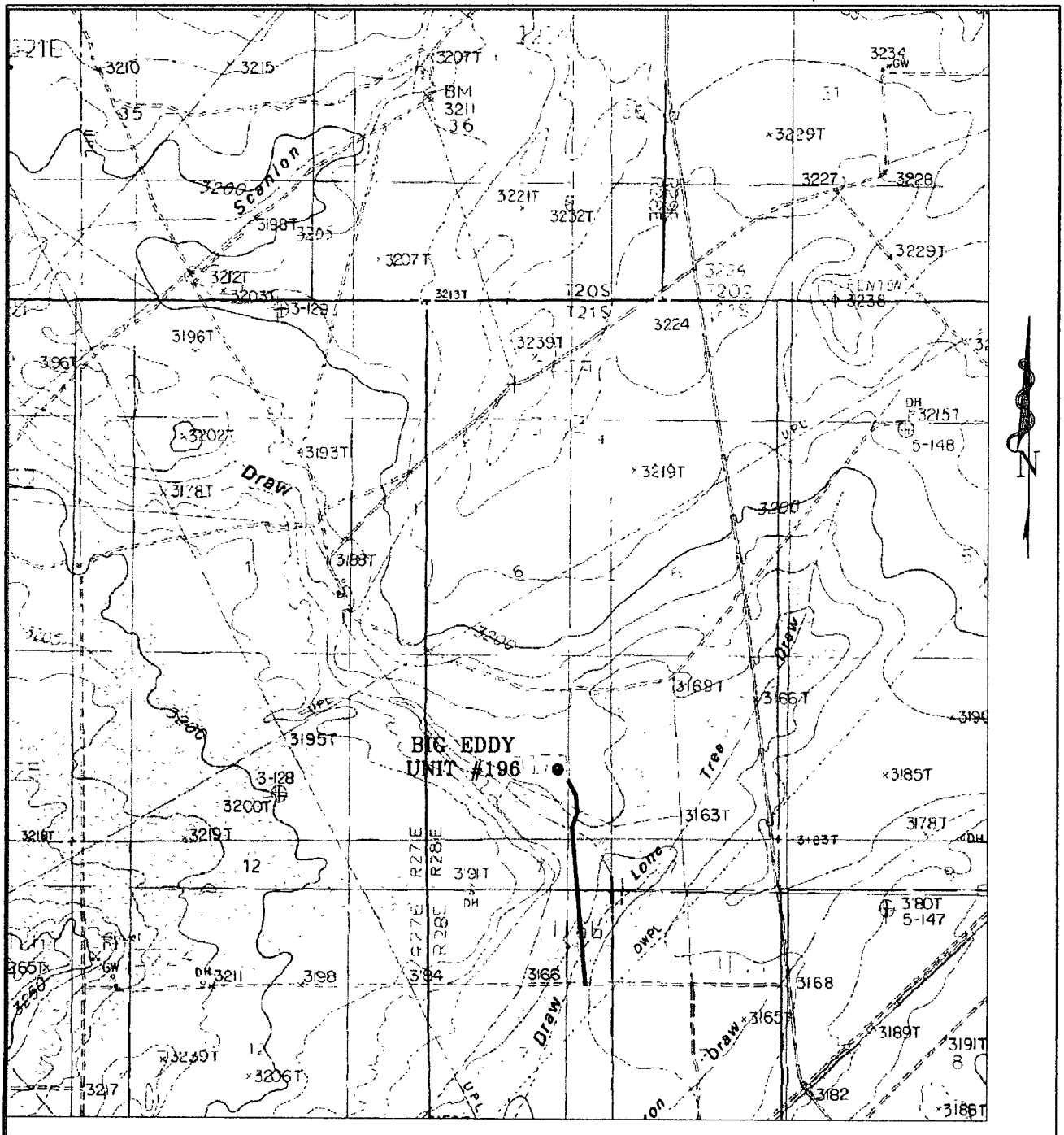
In reference to the above captioned well, I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist, that the statements made in the attached eight point drilling plan and multi-use surface 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.

If you have any questions regarding the accuracy of the plan provided herein, please do not hesitate to contact me at (432) 683-2277.

Sincerely,

Stephen M. Martinez
Drilling Engineer

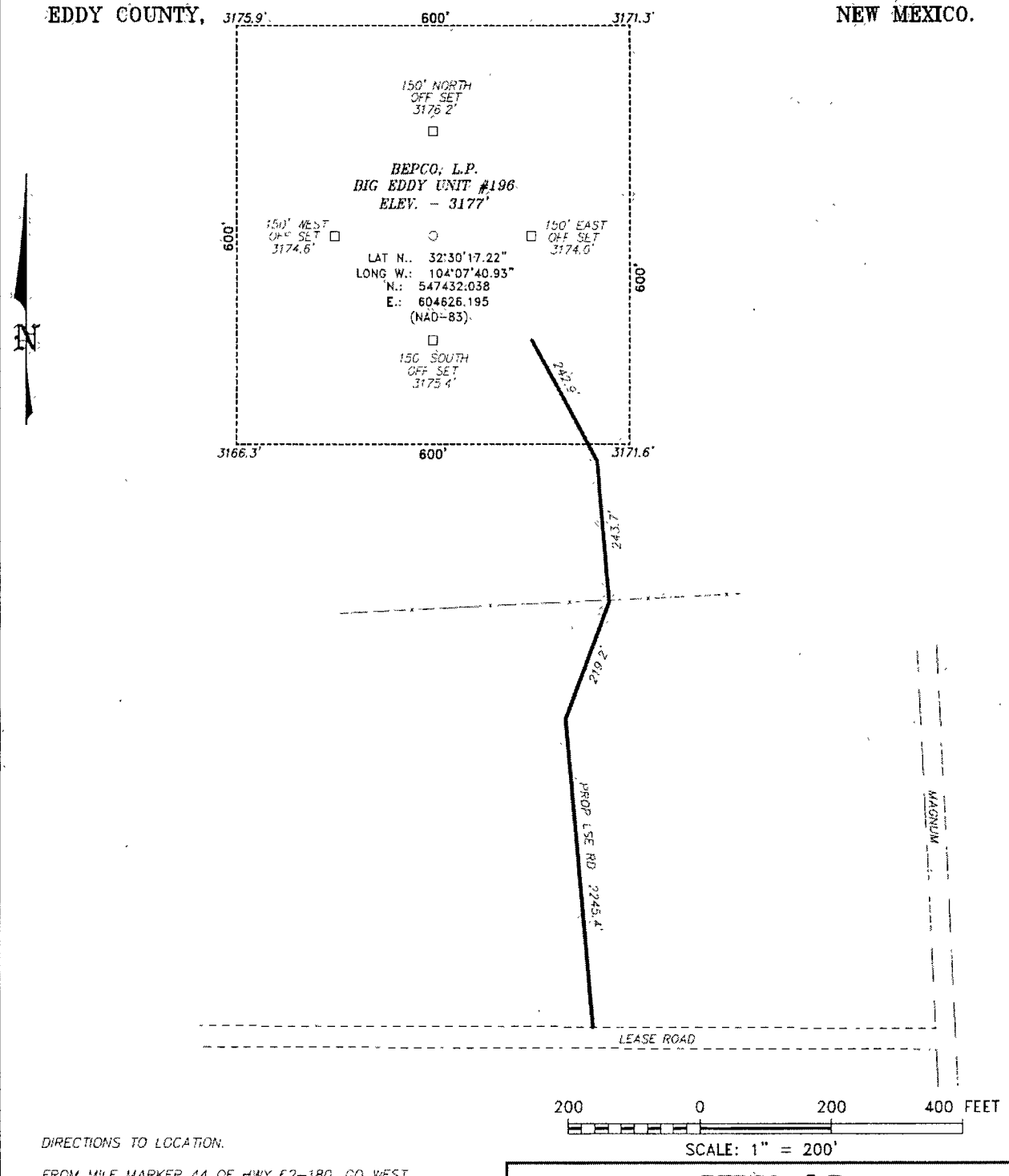
Big Eddy Unit #196
Exhibit "A"



BIG EDDY UNIT #196
990' FSL and 1980' FWL
Section 6, Township 21 South, Range 28 East,
N.M.P.M., Eddy County, New Mexico.

Big Eddy Unit #196
Exhibit "B"

SECTION 6, TOWNSHIP 21 SOUTH, RANGE 28 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



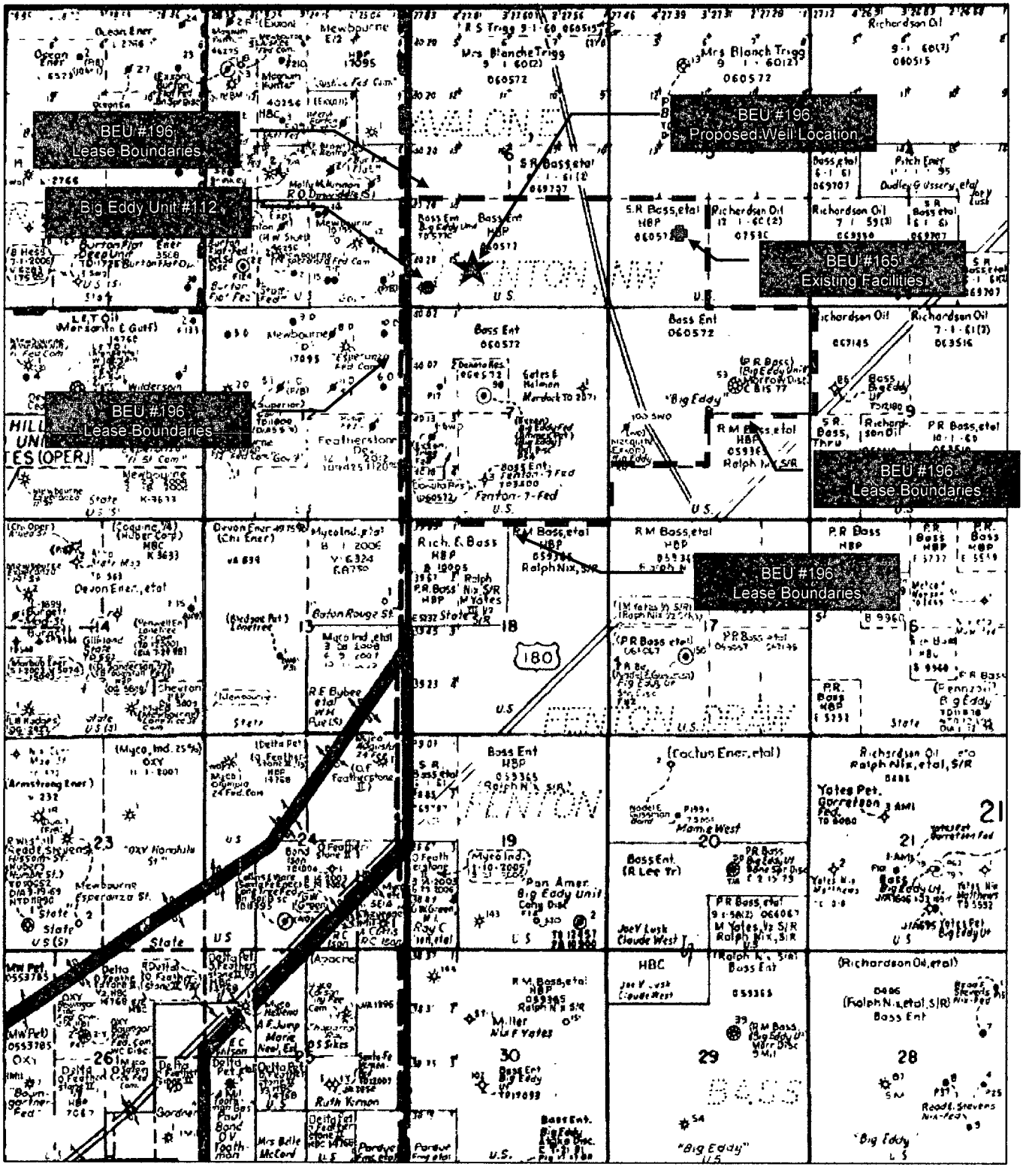
DIRECTIONS TO LOCATION.

FROM MILE MARKER 44 OF HWY 62-180, GO WEST 0.1 MILES TO CO. RD. 243, ON CO. RD. 243 GO NORTH 1.0 MILES TO LEASE ROAD, ON LEASE ROAD GO WEST 0.5 MILES TO PROPOSED LEASE ROAD

BEPCO, L.P.

REF: BIG EDDY UNIT #196 / WELL PAD AND TOPO

Big Eddy Unit #196
Exhibit "C"



PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	BEPCO, L.P.
LEASE NO.:	NMLC060572
WELL NAME & NO.:	Big Eddy Unit No. 196
SURFACE HOLE FOOTAGE:	990' FSL & 1980' FWL
BOTTOM HOLE FOOTAGE	Same
LOCATION:	Section 6, T. 21 S., R 28 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

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.

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)

EXHIBIT NO. 1

Date of Issue: 5/28/08

Bureau of Land Management, Carlsbad Field Office
620 E. Greene Street Carlsbad, NM 88220

Cultural and Archaeological Resources

BLM Report No. 08-NM-523-713

NOTICE OF STIPULATIONS

VI.

Historic properties in the vicinity of this project are protected by federal law. In order to ensure that they are not damaged or destroyed by construction activities, the project proponent and construction supervisors shall ensure that the following stipulations are implemented.

Project Name:	A Class III Archaeological Survey of the Proposed Big Eddy Unit Well # 196 Pad and Associated Access Road for BEPCO, LP
Required	***1). A 3-day preconstruction call-in notification.*** Contact BLM Inspection and Enforcement at (505) 234-5977, 5909, or 5995, to establish a construction start date.
Required	***2. Professional archaeological monitoring***. Contact your project archaeologist, or BLM's Cultural Resources Section at (505) 5917, 5967, 5943, or 5986, for assistance.
A. ☒	These stipulations must be given to your monitor at least **5 days** prior to the start of construction.
B. ☐	No construction, including vegetation removal or other site prep may begin prior to the arrival of the monitor.
	3. Cultural site barrier fencing. (Your monitor will assist you).
A. ☐	**A temporary site protection barrier(s)** shall be erected prior to all ground-disturbing activities. The minimum barrier(s) shall consist of upright wooden survey lath spaced no more than ten (10) feet apart and marked with blue ribbon flagging or blue paint. There shall be no construction activities or vehicular traffic past the barrier(s) at any time.
B. ☐	**A permanent, 4-strand barbed wire fence** strung on standard "T-posts" shall be erected prior to all ground-disturbing activities. No construction activities or vehicle traffic are allowed past the fence.
Required	***4. The archaeological monitor shall:***
A. ☐	Ensure that all site protection barriers are located as indicated on the attached map(s).
B. ☐	Observe all ground-disturbing activities within 100 feet of cultural site no. LA as shown on the attached map.
C. ☒	Ensure that the reroute for the access road is adhered to avoid cultural site no. LA 159418
D. ☐	Ensure the proposed is/are located as shown on the attached map(s).
E. ☒	Submit a brief monitoring report within 30 days of completion of monitoring.
	If subsurface cultural resources are encountered during the monitoring, all activities shall cease and a BLM-CFO archaeologist shall be notified immediately.
Other:	As per documentation, the reroute is established with red and white flags.

Site Protection and Employee Education: It is the responsibility of the project proponent and his construction supervisor to inform all employees and subcontractors that cultural and archaeological sites

are to be avoided by all personnel, vehicles, and equipment; and that it is illegal to collect, damage, or disturb cultural resources on Public Lands.

For assistance, contact BLM Cultural Resources: Martin Stein (505) 234-5967 Bruce Boeke (505) 234-5917 James Smith (505) 234-5986 George MacDonell (505) 234-2228

Conditions of Approval
Cave and Karst

** Depending on location, additional Drilling, Casing, and Cementing procedures may be required by engineering to protect critical karst groundwater recharge areas.

Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production.

Pad Berming:
The pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the pad and entering adjoining drainages.

Closed Mud System Using Steel Tanks with All Fluids and Cuttings Hauled Off.
A closed mud system using steel tanks for all cuttings and fluids is required. All fluids and cuttings will be hauled off site for disposal. No pits are allowed.

Tank Battery Liners and Berms:
Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt underliner to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank, plus 1 foot of freeboard.

Compressor Liners and Containment:
Gas compressors will be contained and lined in a manner that will contain all leaked condensates over an extended period of time. Containment systems should be leak proof both vertically and horizontally, and include: the ability to visually monitor any leakage; the ability to siphon out any leakage or accumulated fluids; and appropriate bird and bat protection on all leak containment areas as required. When compressors are replaced: soils will be sampled to ensure the original containment was fully successful; any breach of original containment cleaned up down to clean soils; and new liners and/or containment systems installed prior to placement of the new compressor.

Leak Detection System:

A method of detecting leaks is required. The method could incorporate gauges to measure loss, situating values and lines so they can be visually inspected, or installing electronic sensors to alarm when a leak is present. Leak detection plan will be submitted to BLM for approval.

Automatic Shut-off Systems:
Automatic shut off, check values, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

Cave/Karst Subsurface Mitigation

The following stipulations will be applied to protect cave/karst and ground water concerns:

Rotary Drilling with Fresh Water:
Fresh water will be used as a circulating medium in zones where caves or karst features are expected. SEE ALSO: Drilling COA's for this well.

Directional Drilling:
Kick off for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone. SEE ALSO: Drilling COA's for this well.

Lost Circulation:
ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported in the drilling report.

Regardless of the type of drilling machinery used, if a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cave-bearing zone, the BLM will be notified immediately by the operator. The BLM will assess the situation and work with the operator on corrective actions to resolve the problem.

Abandonment Cementing:
Upon well abandonment the well bore will be cemented completely from 100 feet below the bottom of the cave bearing zone to the surface.

Pressure Testing:
Annual pressure monitoring will be performed by the operator on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be undertaken to correct the problem to the BLM's approval.

VII. 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 to be stripped is approximately 4 inches in depth. The topsoil shall not be used to backfill the reserve pit and will be used for interim and final reclamation.

C. RESERVE PITS

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

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.

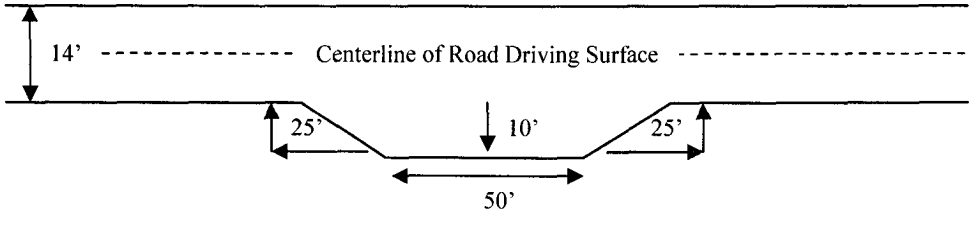
Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

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

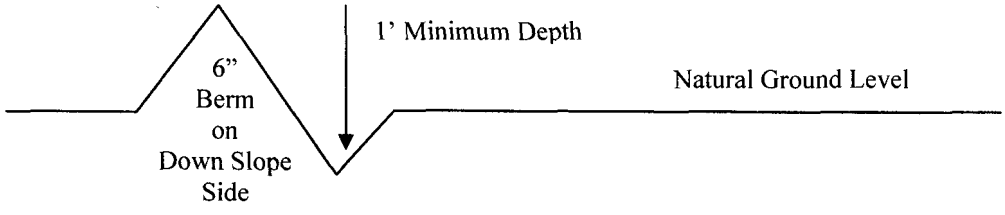


Drainage

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:

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

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.

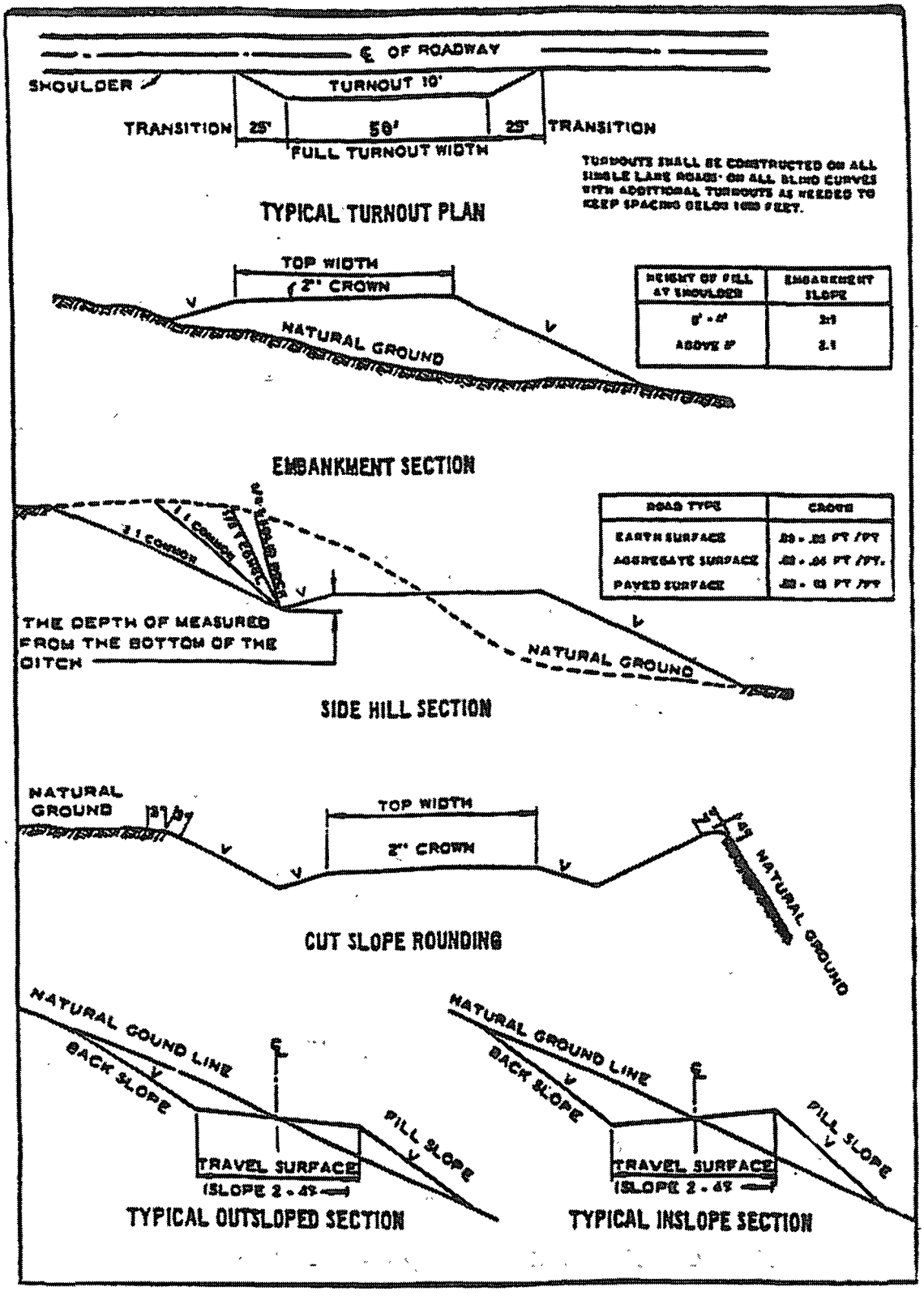
A gate shall be constructed and fastened securely to H-braces.

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



VIII. 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. A Hydrogen Sulfide (H2S) Drilling Plan should be activated 500 feet prior to drilling into the **Delaware** Formation. 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. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

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

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 for all casing strings. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Possible lost circulation in the Delaware and Bone Spring Formations
High potential for cave/karst structures
Possible high pressure gas bursts in the Wolfcamp Formation
Pennyslvania Group will be overpressured

1. The **13-3/8** inch surface casing shall be set at **approximately 815 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the surface.

    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 is to include the lead cement slurry.

    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.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

    ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above. **Intermediate casing shall be set at approximately 2450 feet.**

    Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst concerns or the tail cement can be increased to tie-back to the surface casing.

If 75% or greater lost circulation occurs while drilling the intermediate casing hole, the cement on the production casing must come to surface.

Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe and the mud weight for the bottom of the hole. Report results to BLM office.

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 **500** 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. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** inch intermediate casing shoe shall be 5000 (5M) psi.

3. 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 **(entire system)** 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.

LB 9/2/08

IX. 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

X. 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.

The 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.

Seed Mixture 4, for Gypsum 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 no 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 seed 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:

Species	lb/acre
Alkali Sacaton (Sporobolus airoides)	1.0
DWS⊆ Four-wing saltbush (Atriplex canescens)	5.0

⊆DWS: DeWinged Seed

*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.