ATS-09-626

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OCD Hobbs

Form 3160-3
(April 2004)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No: **NMNM77064**

6. If Indian, Allotee or Tribe Name:

7. If Unit or CA Agreement, Name and No.:

1a. Type of work. ☐ DRILL ☑ REENTER

8. Lease Name and Well No. 30872 — **Mesa Verde 6 Federal 10H**

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone

9. API Well No. **30-025-32751**

2. Name of Operator **Devon Energy Production Company, LP** 6137

10. Field and Pool, or Exploratory — Mesa Verde **Delaware** 96191

3a. Address **20 North Broadway, Oklahoma City, Oklahoma City 73102-8260**

3b. Phone No. *(include area code)* **405-552-8198**

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface **430' FNL & 330' FWL** Unit D
At proposed prod zone **330' FSL & 660' FWL** Unit M

11. Sec., T. R. M. or Blk and Survey or Area: **Sec 6, T24S R32E**

14. Distance in miles and direction from nearest town or post office*: **Approximately 24 miles east of Loving, NM**

12. County or Parish: **Lea County** 13. State: **NM**

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. unit line, if any): **330'**

16. No. of acres in lease: **160 acres**

17. Spacing Unit dedicated to this well: **320 acres**

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: **1320'**

19. Proposed Depth: 12,638 ~~12,620~~ **MD 8352' TVD**

20. BLM/BIA Bond No. on file: **CO-1104**

21. Elevations (Show whether DF, KDB, RT, GL, etc.): **3542' GL**

22. Approximate date work will start*: **12/01/2009**

23. Estimated duration: **45 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: [signature] Name *(Printed/Typed)*: **Norvella Adams** Date: **09/10/2009**

Title: **Sr. Staff Eng. Tech**

Approved by *(Signature)*: /s/ Don Peterson Name *(Printed/Typed)*: /s/ Don Peterson Date: NOV 25 2009

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)

Approval Subject to General Requirements & Special Stipulations Attached

Carlsbad Controlled Water Basin

Witness CIT

KZ

SEE ATTACHED FOR CONDITIONS OF APPROVAL

DISTRICT I
P. O. Box 1980
Hobbs, NM 88241-1980

DISTRICT II
P. O. Drawer DD
Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brozos Rd
Aztec, NM 87410

DISTRICT IV
P. O. Box 2088
Santa Fe, NM 87507-2088

State of New Mexico
Energy, Minerals, and Natural Resources Department

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OIL CONSERVATION DIVISION
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C
Revised 02-1

Instructions on

Submit to the Appro
District Office
State Lease - 4 cop
Fee Lease - 3 copi

☐ AMENDED REP

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-025-32751	96191	Mesa Verde Delaware

4 Property Code	5 Property Name	6 Well Number
30872	MESA VERDE "6" FEDERAL	10H

7 OGRID No.	8 Operator Name	9 Elevation
6137	DEVON ENERGY PRODUCTION COMPANY, LP	3535'

10 SURFACE LOCATION

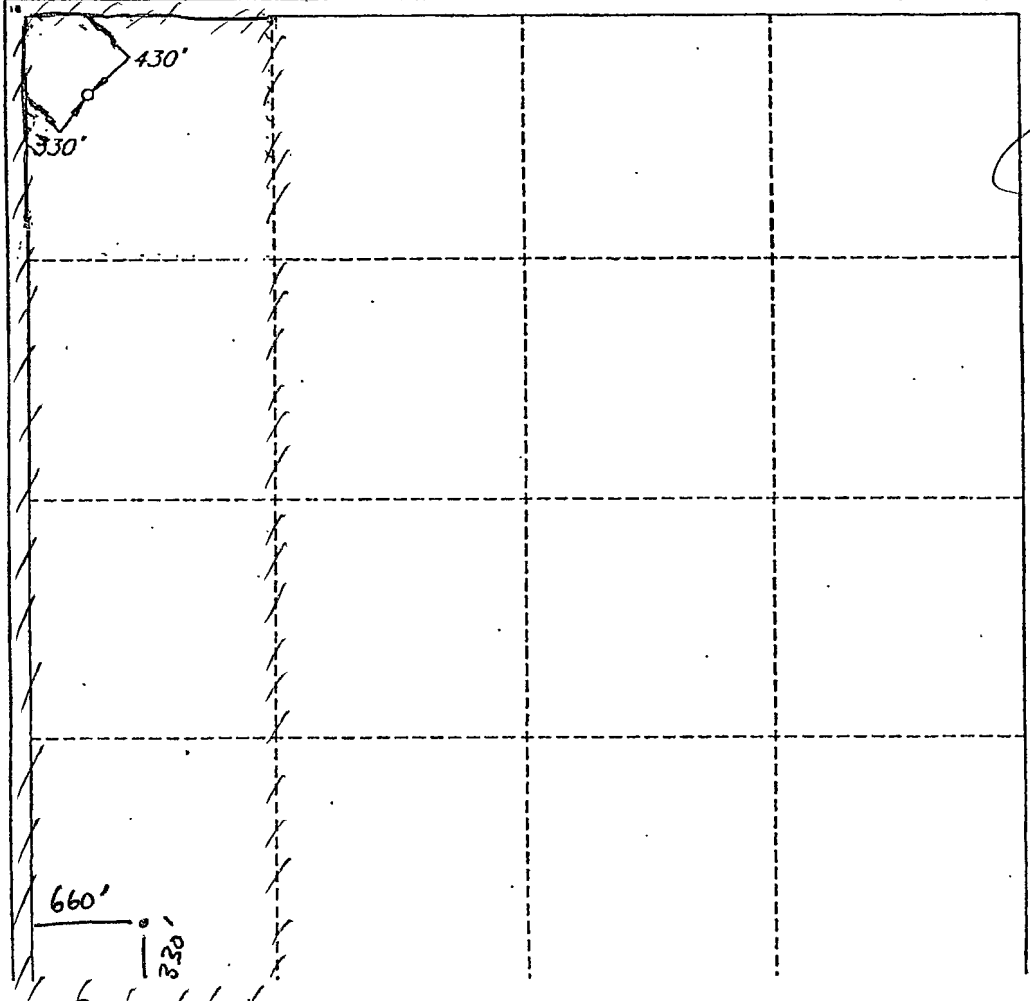
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	Coun
D	6	24 SOUTH	32 EAST, N.M.P.M.		430'	NORTH	330'	WEST	LEA

"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	Coun

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
160			

NO ALLOWABLE WELL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATIO

I hereby certify that the informati contained herein is true and compl to the best of my knowledge and beli

Signature

Printed Name
Norvella Adams

Title
Sr. Staff Eng. Technician

Date
September 09, 2009

SURVEYOR CERTIFICATIO

I hereby certify that the we location shown on this plat wa plotted from field notes of actu surveys made by me or unde my supervision, and that th same is true and correct to th best of my belief.

Date of Survey
NOVEMBER 11, 1997

Signature and Seal of Professional Surveyor

Certificate No.
ROGER M. ROBBINS P.S. #121

PLAT OF LOCATION

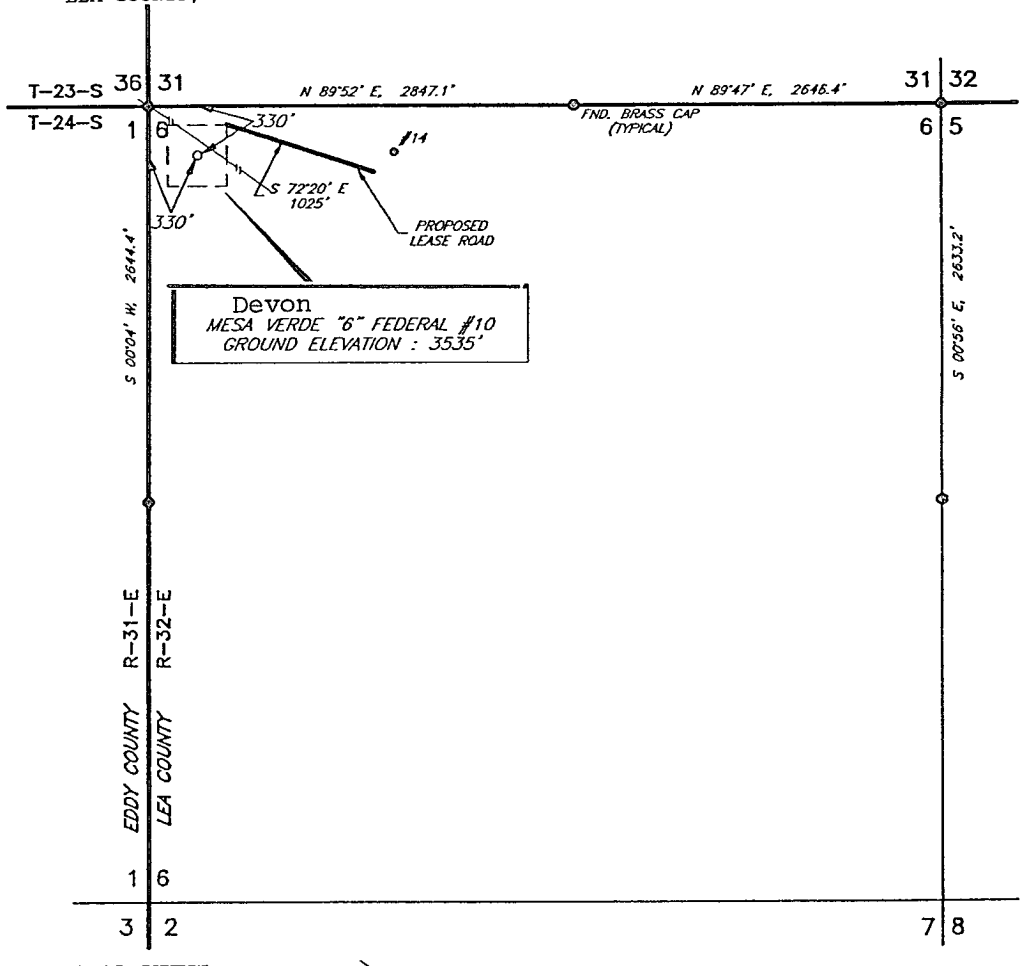
Devon Energy Production Company, LP

Mesa Verde "6" FEDERAL NO. 10

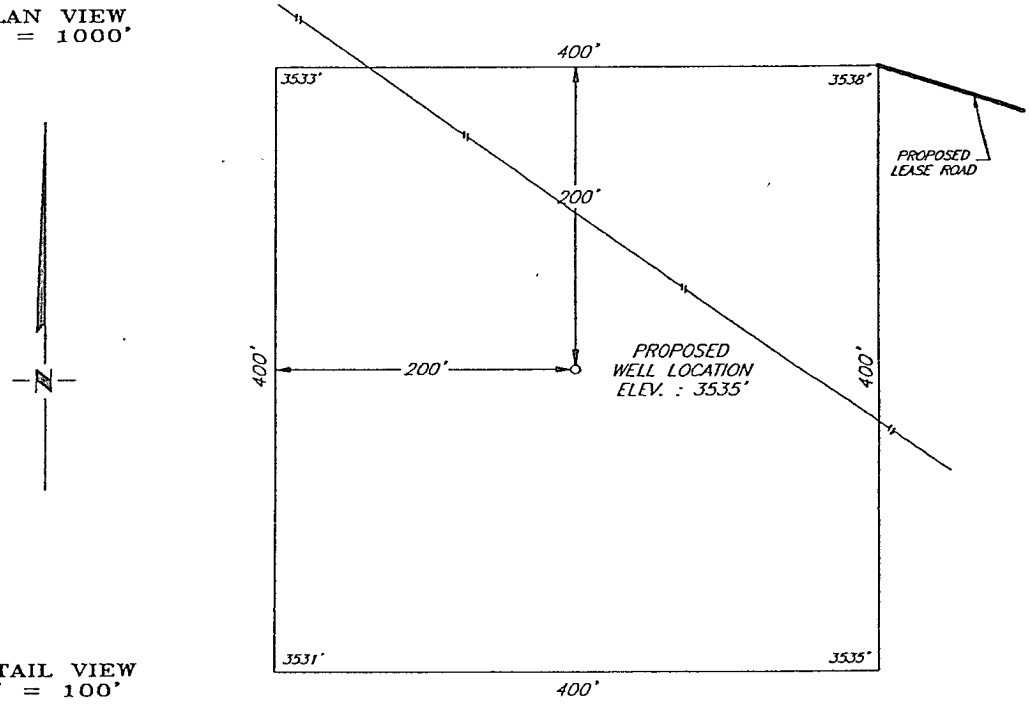
330'FNL & 330' FWL

SECTION 6, T-24-S, R-32-E

LEA COUNTY, NEW MEXICO



PLAN VIEW
1" = 1000'



DETAIL VIEW
1" = 100'

NO.	REVISION	DATE	BY

SURVEYED BY:	R.R.
DRAWN BY:	JSJ
APPROVED BY:	R.M R.

Devon Energy Production Company, LP
MIDLAND, TEXAS

SURVEYING AND MAPPING BY
TOPOGRAPHIC LAND SURVEYORS
MIDLAND, TEXAS

SCALE:	AS SHOWN
DATE:	OCTOBER 29, 1997
JOB NO.:	54936-F
	47 SW
SHEET :	1 OF 1

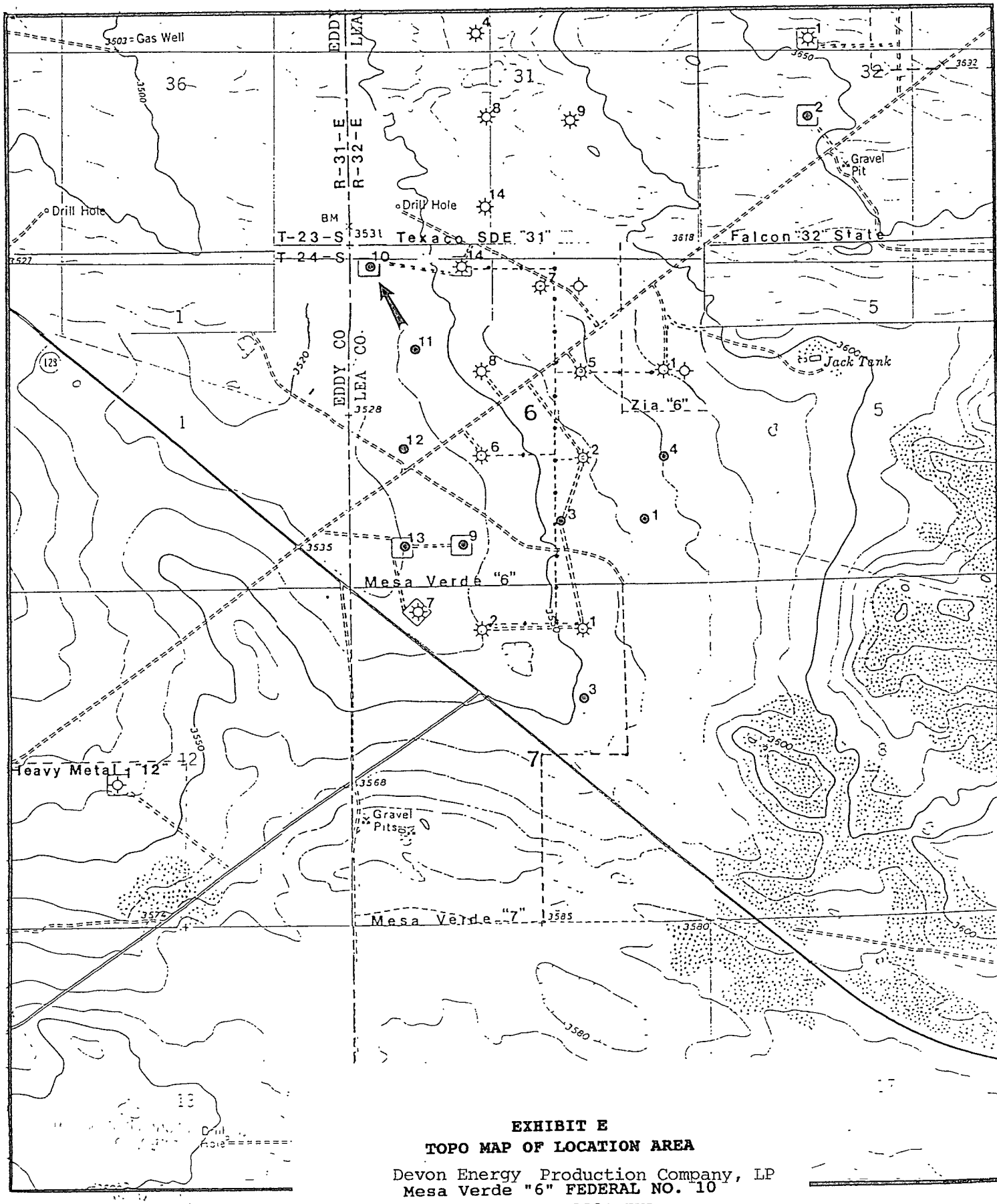


EXHIBIT E

TOPO MAP OF LOCATION AREA

Devon Energy Production Company, LP
Mesa Verde "6" FEDERAL NO. 10
330'FNL & 330' FWL
SECTION 6, T-24-S, R-32-E
LEA COUNTY, NEW MEXICO

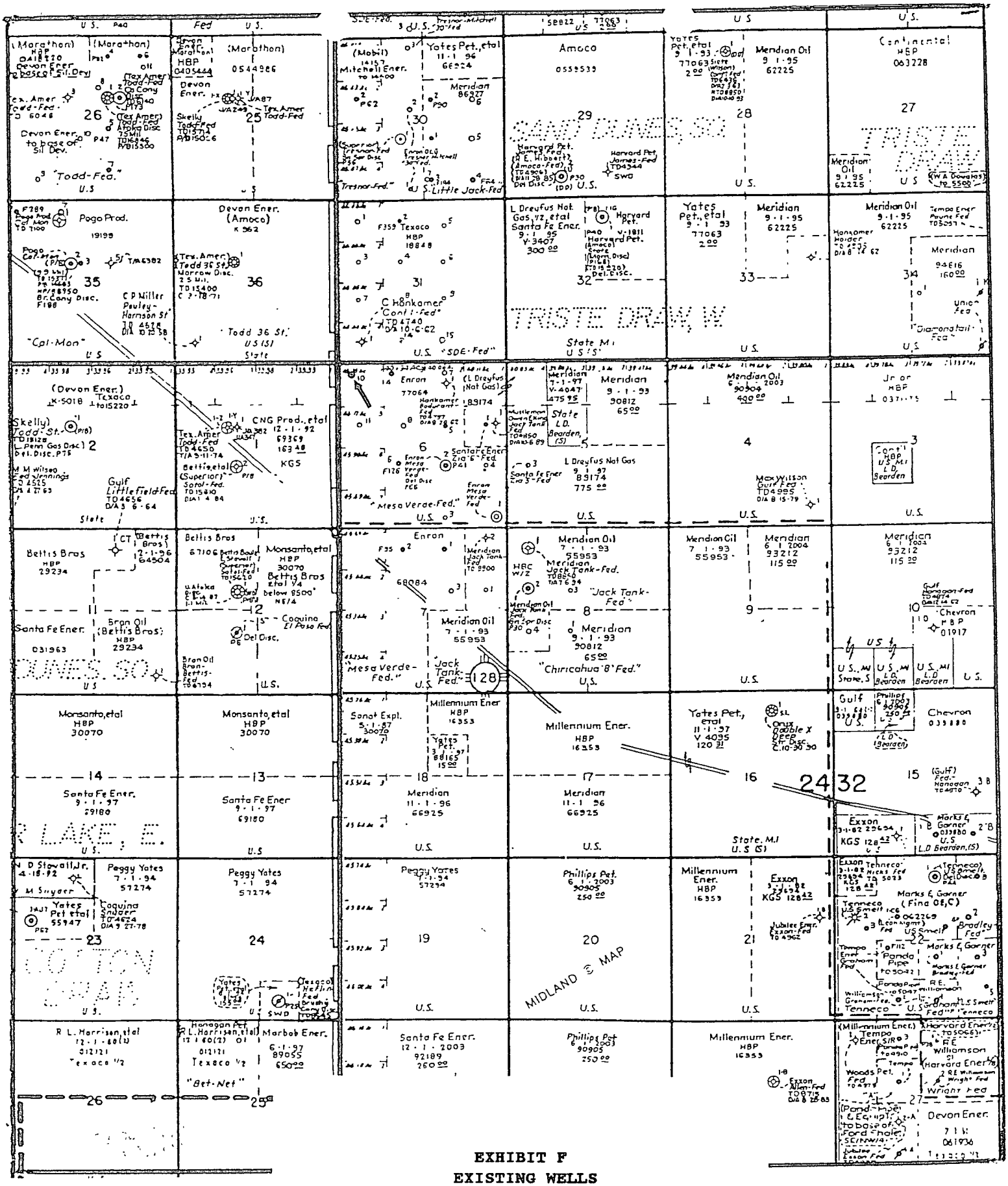


EXHIBIT F

EXISTING WELLS

Devon Energy Production Company, LP

Mesa Verde "6" FEDERAL NO. 10

330'FNL & 330' FWL

SECTION 6, T-24-S, R-32-E

LEA COUNTY, NEW MEXICO

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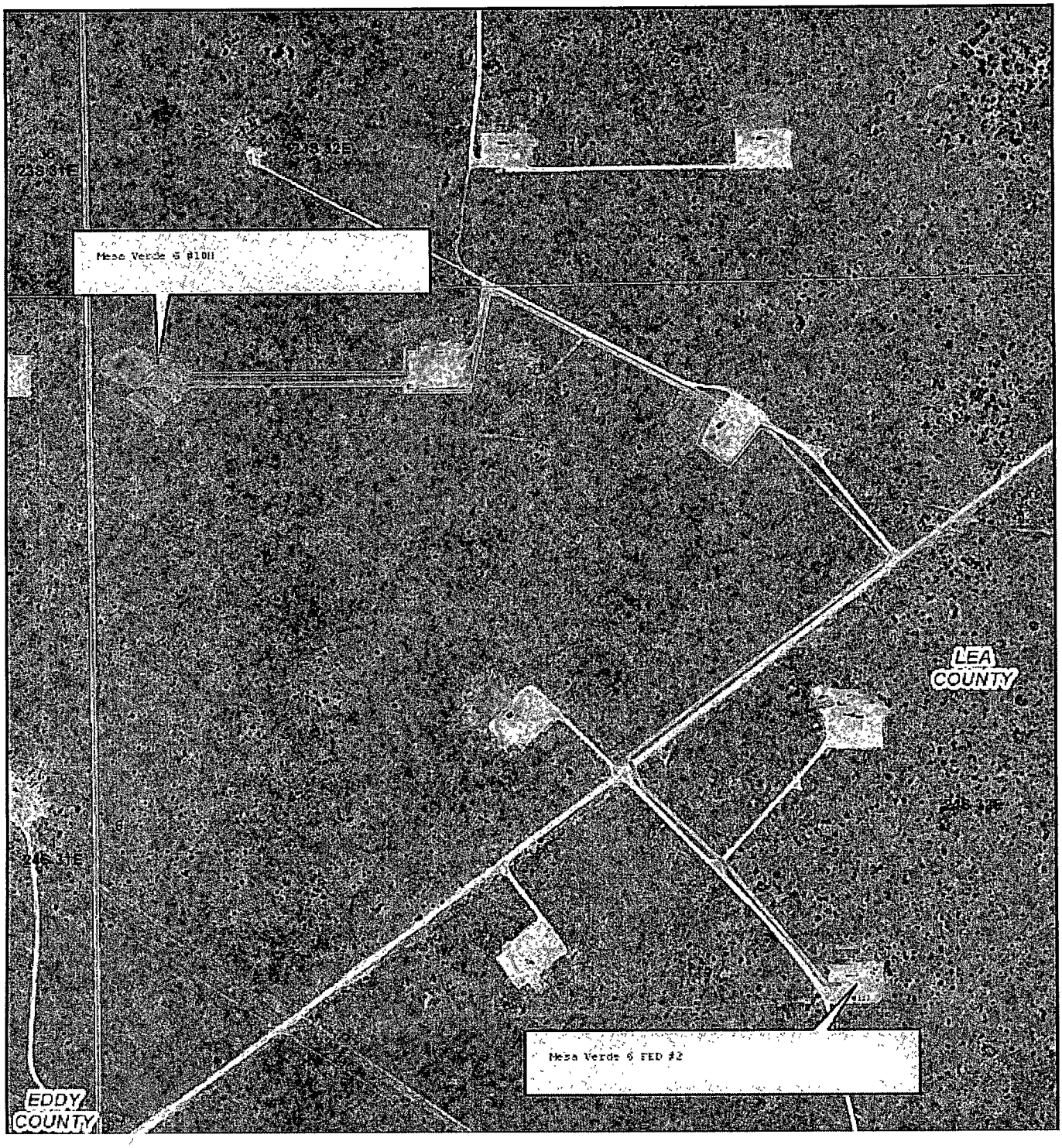

23S 31E
23S 32E
Mesa Verde 6 #10H
LEA
COUNTY
24S 31E
Mesa Verde 6 FED #2
EDDY
COUNTY

RE-ENTRY PROGRAM

Devon Energy Production Company, LP
Mesa Verde 6 Federal 10H
Surface Location: 430' FNL & 330' FWL, Unit D, Sec 6 T24S R32E, Lea, NM
Bottom Hole Location: 430' FNL & 330' FWL, Unit D, Sec 6 T24S R32E, Lea, NM

1. **Geologic Name of Surface Formation**

   a. Permian

2. **Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas:**

a.	Rustler	844'	
b.	Salado	1197'	
c.	Base Salt	4351'	
d.	Lamar	4575'	Oil
e.	Bell Canyon	4615'	Oil
f.	Cherry Canyon	5474'	Oil
g.	Brushy Canyon	6752'	Oil

3. **Logging, Coring, and Testing Program:**
   a. Drill stem tests will be based on geological sample shows.
   b. If a drill stem test is anticipated; a procedure, equipment to be used and safety measures will be provided via sundry notice to the BLM.
      i. No Wireline logs are planned
      ii. No coring program is planned
      iii. Additional testing will be initiated subsequent to setting the 5 ½" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.

   c.

4. **Potential Hazards:**
   a. No abnormal pressures or temperatures are expected. A H2S contingency plan is attached. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 3100 psi and Estimated BHT 130°.

Operations Plan – This well was plugged in 1998. A well bore schematic showing the method of plugging is attached as Exhibit A. The purpose of the following work is to reenter this plugged well to a depth of ~12,626', drill and sidetrack into the Delaware Brushy Canyon, and complete.

Drilling Program – This well will be reentered and drilled vertically to a depth of ~7800' where upon a Kick Off Point will be established. The curve for the lateral section will be drilled with 10°/100' to a measured depth of 8679' or 8352' TVD. From this depth on, the well will be drilled horizontally to a measured depth of ~12,626' and 5 ½" production casing will be run from TD to surface.

5. Existing and Proposed Casing Program: See COA

Hole Size	Hole Interval	OD Csg	Casing Interval	Weight	Collar	Grade
17 1/2"	0' – 570'	13 3/8"	0'- 570'	48#	ST&C	H-40
11"	570'- 4440'	8 5/8"	0'- 4440'	24&32#	ST&C	K-55
7 7/8"	4440-12,626'	5 1/2"	0-12,626'	17#	LT&C	N-80

Note: The 13 3/8" and 8 5/8" casings are currently in the wellbore.

Proposed Design Parameter Factors:

Casing Size	Collapse Design Factor	Burst Design Factor	Tension Design Factor
5 1/2"	1.65	1.41	1.59

6. Proposed Mud Circulation System

Depth	Mud Wt.	Visc	Fluid Loss	Type System
0' – 570'	8.4 – 9.4	32-34	NC	Fresh Water/Gel
570'– 4440'	9.7 - 10.0	28-30	NC	Brine
4440'– 12,626'	8.3 – 9.2	28-40	NC/9cc	Fresh

7. Pressure Control Equipment:

The blowout preventor equipment (BOP) will consist of a (5M system) double ram type (5000 psi WP) preventor and a bag-type (Hydril) preventor (5000 psi WP) and rotating head. Both units will be hydraulically operated and the ram type preventor will be equipped with blind rams on top and 4 ½" drill pipe rams on bottom. The BOP will be installed on the 8 5/8" intermediate casing and utlilized continuously until total depth is reached. Prior to drilling out the 8 5/8" casing shoe, the BOP's and Hydril will be tested per BLM Drilling Operations Order #2.

Pipe rams will be operated and checked each 24-hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily driller's log. A 2" kill line and 3" choke line will be incorporated in the drilling spool below the ram-type BOP. Other accessory BOP equipment will include a Kelly cock, floor safety valve, choke lines and choke manifold having 5000 psi WP rating.

8. Cement Program:

5 1/2" Production — **2 Stage with DV Tool at 7600'.**

Stage 1

Lead: 1005 sacks 50:50 Poz Class H cement + 5% NaCl + 0.4% CD-32 + 0.5% FL-25 + 2% Bentonite + 0.5% Sodium Metasilicate + 0.5% FL-52A. Yield 1.31 cf/sx

See COA — **Stage 2**

Lead: 410 sacks 35:65 Poz Class C cement + 1% NaCl + ¼ #/sx Cello Flake + 6% Bentonite + 0.4% FL-52A. Yield 1.96 cf/sx

Tail: 285 sacks 60:40 Poz Class C cement + 1% NaCl + 0.2% R-3 + ¼ #/sx Cello Flake + 0.5% BA-10A + 4% MPA-5. Yield 1.34 cf/sx

TOC = 3800'

The above cement volumes could be revised pending the caliper measurement from the open hole logs. All casing is new and API approved.

Completion Program - Two stage job in the lateral of about 4200' in the Delaware.

1. MIRU PU. Unload production tubing. NU BOP.
2. RIH with bit and drill out DV tool at 7600'. Clean hole out to PBTD at ~12,626' MD. Circulate hole clean with 2% KCl. Test casing. POOH.
3. RIH with guns at 6 SPF, 60 degree phasing and perforate.
4. POOH with guns and RIH with packer and set packer above perfs.
5. RIH to PBTD and acidize well per recommendation. Release packer. POOH.
6. Frac well per recommendation. Flow well back. Circulate hole clean and POOH.
7. RIH with CIBP and set plug. Test CIBP and casing to 3500#.
8. RIH and perforate interval. RIH with packer and set above perfs.
9. RU and acidize per recommendation. Release packer and POOH.
10. RU and frac interval per recommendation. Flow well back.

11. RIH and clean sand out to CIBP. Drill out CIBP and POOH.
12. RIH with ESP assembly and down hole pressure sensor and set per pump tech.
13. Put well on test. Turn well over to production.

Location of Existing and/or Proposed Production Facilities:

a. In the event the well is found productive, the Mesa Verde tank battery, located at the well site of the Mesa Verde 6 Federal 2 would be utilized and the necessary production equipment will be installed at the well site. See Production Facilities Layout diagram.
b. If necessary, the well will be operated by means of an electric prime mover. Electric power poles will be set along side of the access road.
c. We intend to lay flowlines from the Mesa Verde 6 Federal 10 to the Mesa Verde 6 Federal 2 tank battery. The flowlines will be laid along the lease road. All flow lines will adhere to API standards.
d. If the well is productive, rehabilitation plans are as follows:
    i. A closed loop system will be utilized.
    ii. The original topsoil from the well site will be returned to the location. The drill site will then be contoured as close as possible to the original state.

DEVON ENERGY PRODUCTION COMPANY LP			
Well Name: MESA VERDE 6 FED 10		Field: MESA VERDE	
Location: 430' FNL & 330' FWL; SEC 6-T24S-R32E		County: LEA	State: NM
Elevation:		Spud Date: 12/18/97	Compl Date: NA
API#: 30-025-32751	Prepared by: Ronnie Slack	Date: 9/11/08	Rev:

PLUGGED by Sante Fe Energy 1/6/98

17-1/2" hole
13-3/8", 48#, H40, @ 570'
Cmt'd w/600 sx Cl C to surface

11" Hole
8-5/8", 24#, K55, surf to 1994'
8-5/8", 32#, K55, 1994' to 4440'
Cmt'd w/1200 sx poz & Cl C to surface

7-7/8" Open Hole

10.3# mud

10.3# mud

10.3# mud

10.3# mud

10.3# mud

8,660' TD

Plug #6: 15 Sx (50') surface plug

Plug #5: 30 Sx (100') @ 620'

Plug #4: 30 Sx (100') @ 2340'

Tagged TOC @ 4291'
Plug #3: 70 Sx From 4350' to 4550' (200')

Plug #2: 30 Sx (100') @ 6400'

Plug #1: 30 Sx (100') @ 8400'

devon

Project Lea Co , New Mexico (Nad-27)
Site Mesa Verde 6 Fed #10H Re
Well. Mesa Verde 6 Fed #10H
Wellbore Lateral #1
Design Design #1

CUDD
DRILLING & MEASUREMENT SERVICES

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	
2	7779 04	0 00	0 00	7779 04	0 00	0 00	0 00	0 00	0 00	
3	8679 04	90 00	175 82	8352 00	-571 44	41 72	10 00	175 82	572 96	
4	12638 11	90 00	175 82	8352 00	-4520 00	330 00	0 00	0 00	4532 03	PBHL - TD

ANNOTATIONS		
TVD	MD	Annotation
7779 04	7779 04	KOP - Build 10°/100'
8352 00	8679 04	EOC - Hold 90°

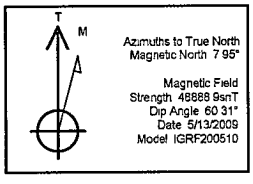
PROJECT DETAILS Lea Co , New Mexico (Nad-27)	
Geodetic System	US State Plane 1927 (Exact solution)
Datum	NAD 1927 (NADCON CONUS)
Ellipsoid	Clarke 1866
Zone	New Mexico East 3001
System Datum	Mean Sea Level

WELL DETAILS Mesa Verde 6 Fed #10H

Ground Level:
3500 00
WELL @ 3525 00ft (Original Well Elev)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0 00	0 00	484452 29	658385 91	32° 19' 51 000 N	103° 49' 14 000 W	

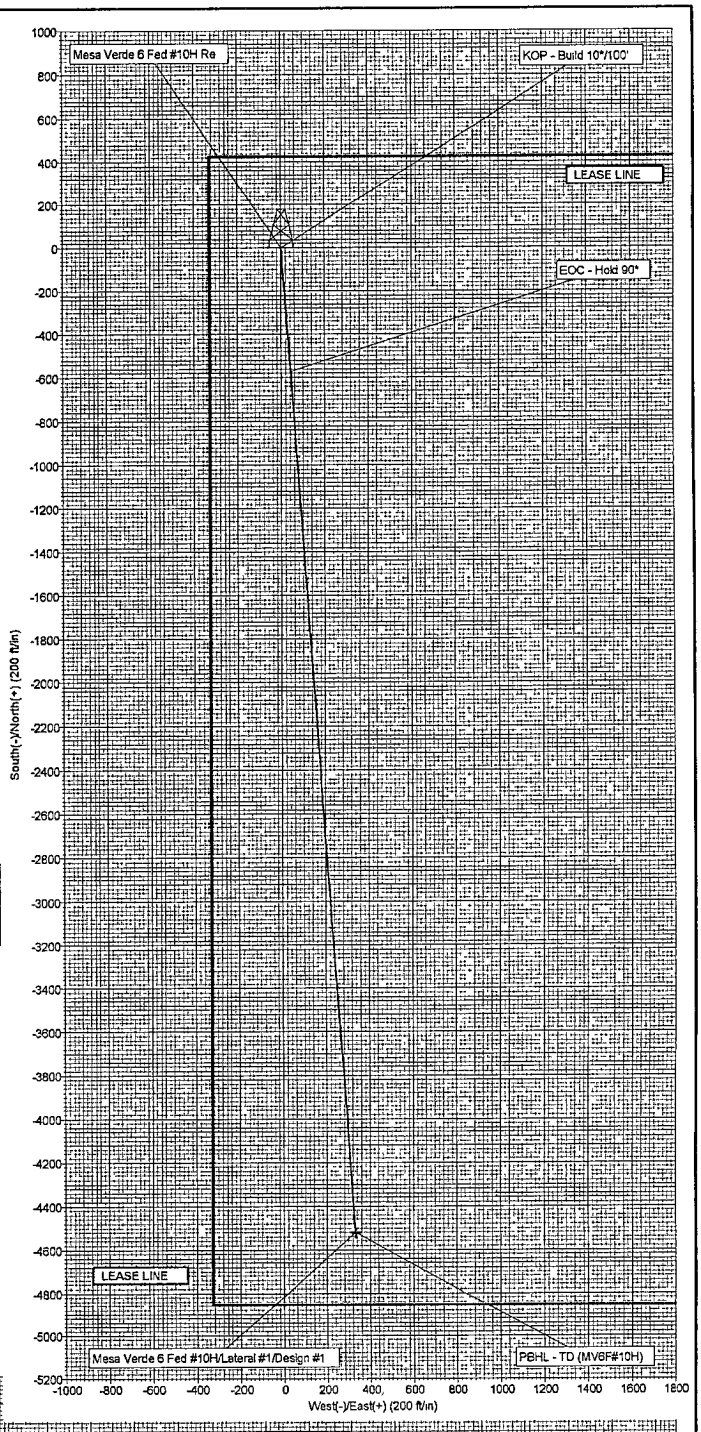
WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL - TD (MV6F#10H)	8352 00	-4520 00	330 00	479933 93	659737 54	32° 19' 6 270 N	103° 49' 10 154 W	Point

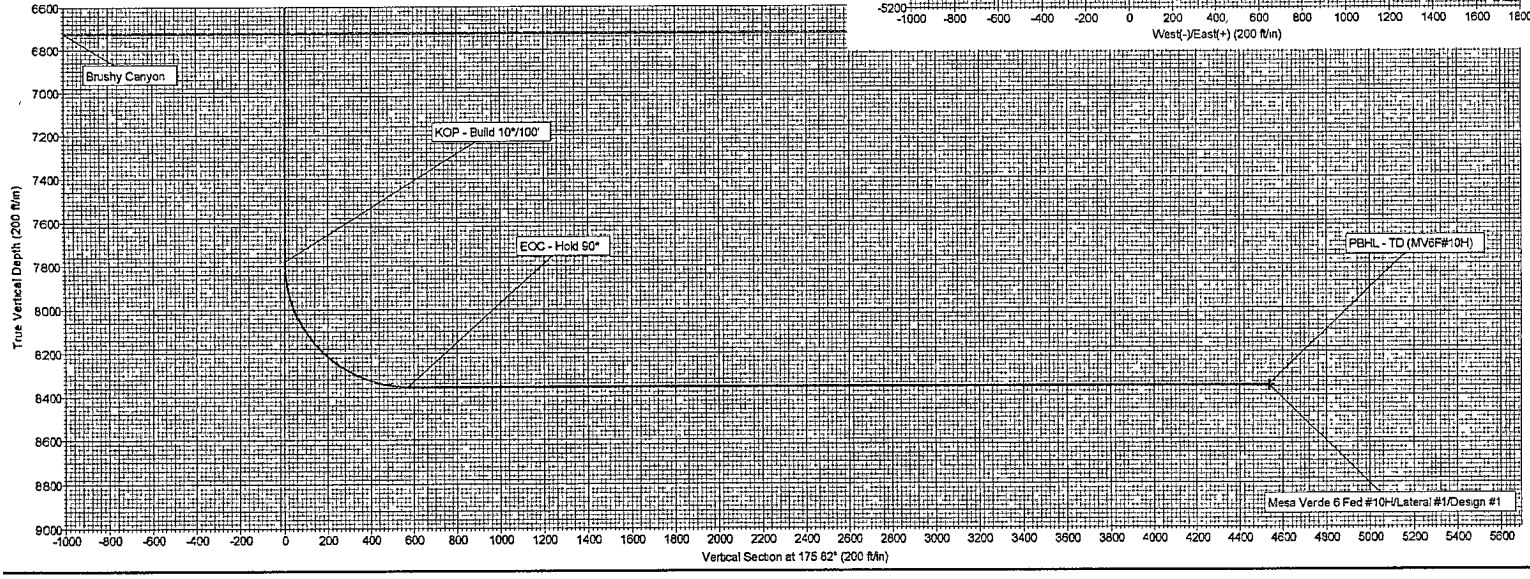


Azimuths to True North
Magnetic North 7 95°

Magnetic Field
Strength 48888 9snT
Dip Angle 60 31°
Date 5/13/2009
Model IGRF200510

Plan Design #1-(Mesa Verde 6 Fed #10H/Lateral #1)			
Created By	Mike Starkey	Date	8 13, May 26 2009
Checked		Date	
Reviewed.		Date	
Approved		Date	





devon

Devon Energy

Lea Co., New Mexico (Nad-27)
Mesa Verde 6 Fed #10H Re
Mesa Verde 6 Fed #10H

Lateral #1

Plan: Design #1

Standard Planning Report

26 May, 2009

CUDD
DRILLING & MEASUREMENT SERVICES

Database:	EDM 2003.21 Single User Db	**Local Co-ordinate Reference:**	Well Mesa Verde 6 Fed #10H
Company:	Devon Energy	**TVD Reference:**	WELL @ 3525.00ft (Original Well Elev)
Project:	Lea Co., New Mexico (Nad-27)	**MD Reference:**	WELL @ 3525.00ft (Original Well Elev)
Site:	Mesa Verde 6 Fed #10H Re	**North Reference:**	True
Well:	Mesa Verde 6 Fed #10H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Lateral #1		
Design:	Design #1		

Project Lea Co., New Mexico (Nad-27)

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site Mesa Verde 6 Fed #10H Re, Sec 6, T-23S, R-31E

Site Position:		**Northing:**	484,452.29 ft	**Latitude:**	32° 19' 51.000 N
From:	Lat/Long	**Easting:**	658,385.91 ft	**Longitude:**	103° 49' 14.000 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	"	**Grid Convergence:**	0.27 °

Well Mesa Verde 6 Fed #10H

Well Position	**+N/-S**	0.00 ft	**Northing:**	484,452.29 ft	**Latitude:**	32° 19' 51.000 N
	+E/-W	0.00 ft	**Easting:**	658,385.91 ft	**Longitude:**	103° 49' 14.000 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	3,525.00 ft	**Ground Level:**	3,500.00 ft

Wellbore Lateral #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	5/13/2009	7.95	60.31	48,889

Design Design #1

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	8,352.00	0.00	0.00	175.82

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,779.04	0.00	0.00	7,779.04	0.00	0.00	0.00	0.00	0.00	0.00	
8,679.04	90.00	175.82	8,352.00	-571.44	41.72	10.00	10.00	0.00	175.82	
12,638.11	90.00	175.82	8,352.00	-4,520.00	330.00	0.00	0.00	0.00	0.00	PBHL - TD (MV6F#1(

Database:	EDM 2003.21 Single User Db	**Local Co-ordinate Reference:**	Well Mesa Verde 6 Fed #10H
Company:	Devon Energy	**TVD Reference:**	WELL @ 3525.00ft (Original Well Elev)
Project:	Lea Co., New Mexico (Nad-27)	**MD Reference:**	WELL @ 3525.00ft (Original Well Elev)
Site:	Mesa Verde 6 Fed #10H Re	**North Reference:**	True
Well:	Mesa Verde 6 Fed #10H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Lateral #1		
Design:	Design #1		

Planned Survey

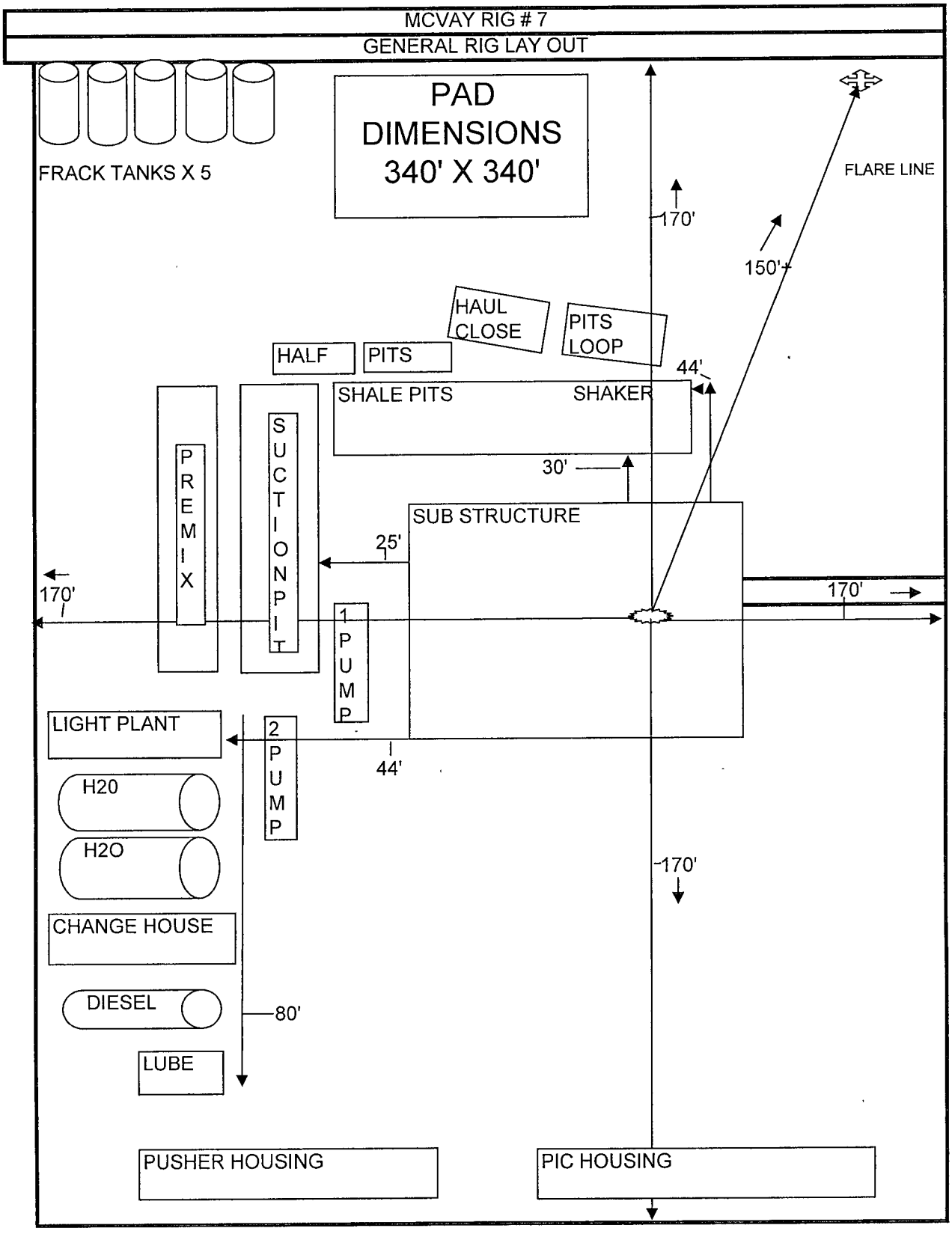
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0 00	0.00	0.00	0 00	0.00	0.00	0.00	0.00	0.00
844.00	0.00	0.00	844.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
1,197.00	0 00	0.00	1,197.00	0.00	0.00	0.00	0.00	0.00	0.00
Salado									
4,340.00	0.00	0.00	4,340 00	0.00	0.00	0.00	0.00	0.00	0.00
Base Salt									
4,574.00	0.00	0.00	4,574 00	0.00	0.00	0.00	0 00	0.00	0 00
Delaware/Lamar									
4,615 00	0.00	0.00	4,615 00	0.00	0.00	0.00	0 00	0.00	0 00
Bell Canyon									
5,474.00	0 00	0.00	5,474.00	0.00	0.00	0.00	0.00	0.00	0.00
Cherry Canyon									
6,725 00	0.00	0.00	6,725.00	0.00	0.00	0.00	0.00	0.00	0.00
Brushy Canyon									
7,779.04	0 00	0.00	7,779.04	0.00	0 00	0.00	0 00	0.00	0.00
KOP - Build 10°/100'									
8,679.04	90 00	175.82	8,352.00	-571 44	41.72	572.96	10.00	10.00	0.00
EOC - Hold 90°									
12,638.11	90.00	175.82	8,352 02	-4,520.00	330.00	4,532.03	0.00	0 00	0.00
PBHL - TD (MV6F#10H)									

Formations

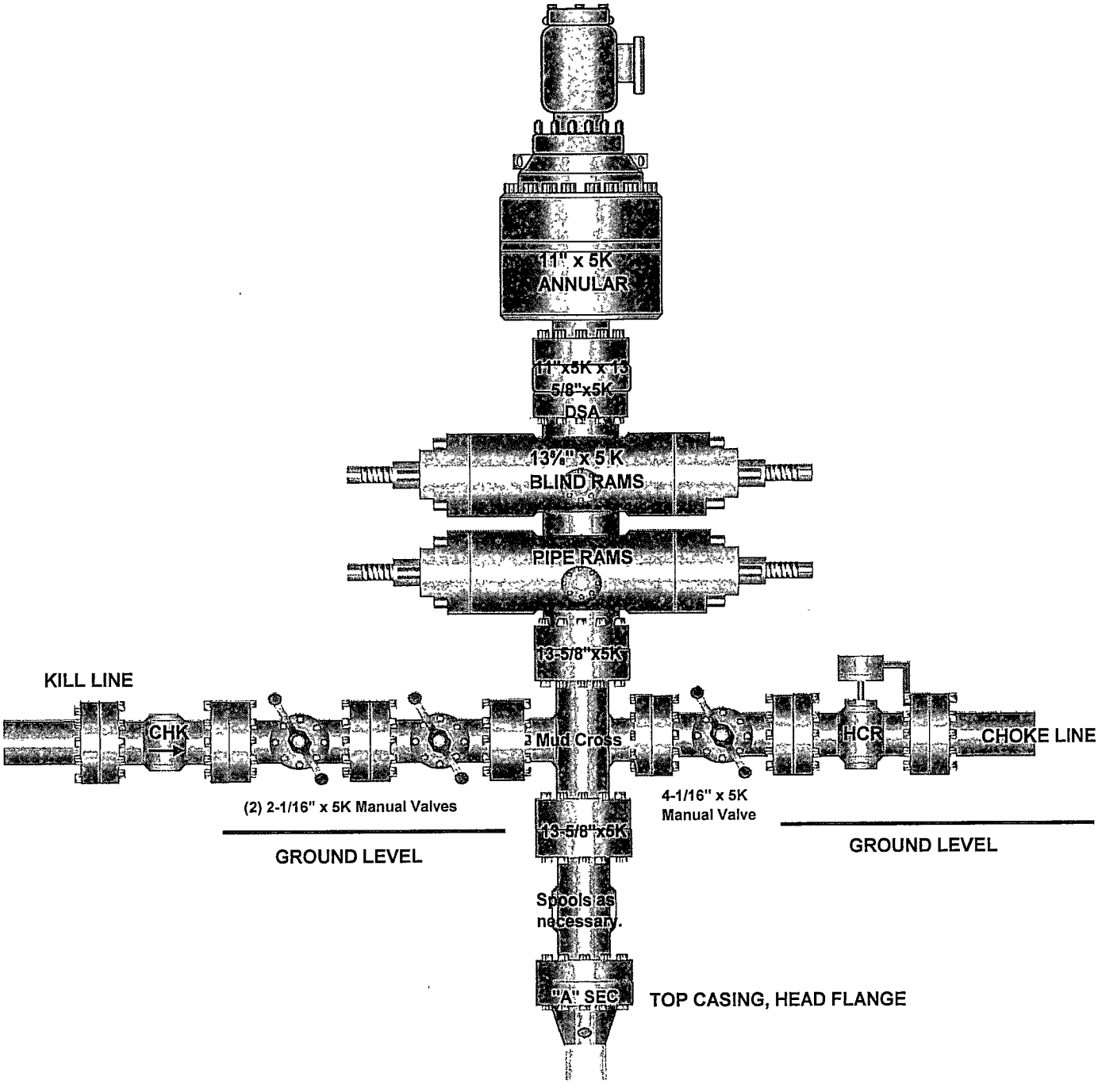
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
844 00	844.00	Rustler		0 00	
1,197.00	1,197.00	Salado		0.00	
4,340.00	4,340.00	Base Salt		0 00	
4,574.00	4,574 00	Delaware/Lamar		0.00	
4,615.00	4,615.00	Bell Canyon		0.00	
5,474.00	5,474 00	Cherry Canyon		0 00	
6,725 00	6,725.00	Brushy Canyon		0.00	

Plan Annotations

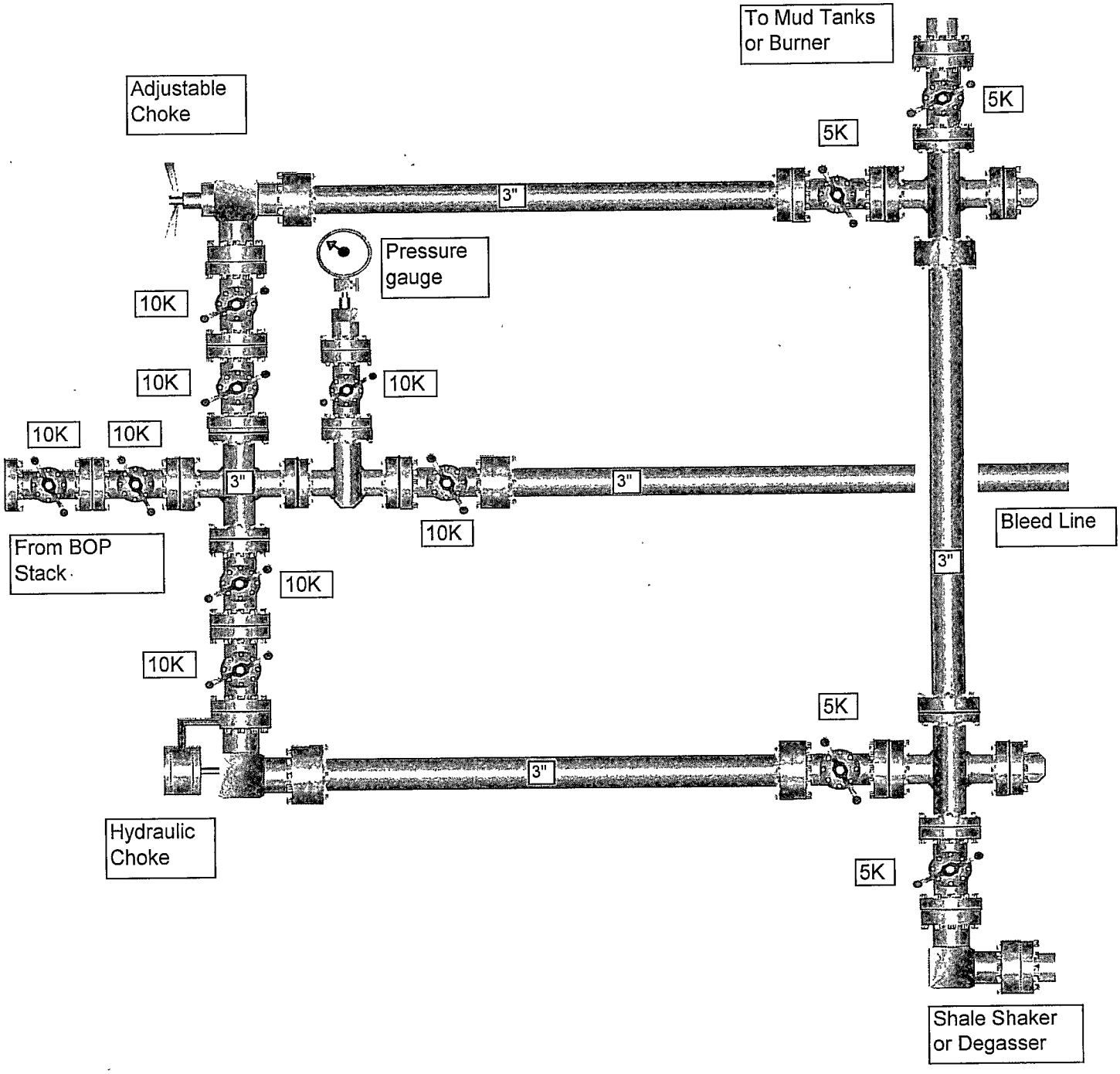
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
7,779.04	7,779.04	0.00	0.00	KOP - Build 10°/100'
8,679.04	8,352.00	-571.44	41 72	EOC - Hold 90°


MCVAY RIG # 7
GENERAL RIG LAY OUT
PAD DIMENSIONS 340' X 340'
FRACK TANKS X 5
FLARE LINE
170'
150'+
HAUL CLOSE
PITS LOOP
HALF PITS
44'
SHALE PITS
SHAKER
30'
SUB STRUCTURE
25'
PREMIX
SUCTION PIT
1 PUMP
170'
170'
LIGHT PLANT
2 PUMP
44'
H20
H2O
170'
CHANGE HOUSE
DIESEL
80'
LUBE
PUSHER HOUSING
PIC HOUSING

11" x 5,000 psi BOP Stack



10,000 PSI CHOKE MANIFOLD



Devon Energy Corporation
20 North Broadway
Oklahoma City, Oklahoma 73102-8260

Hydrogen Sulfide (H_2S) Contingency Plan

For

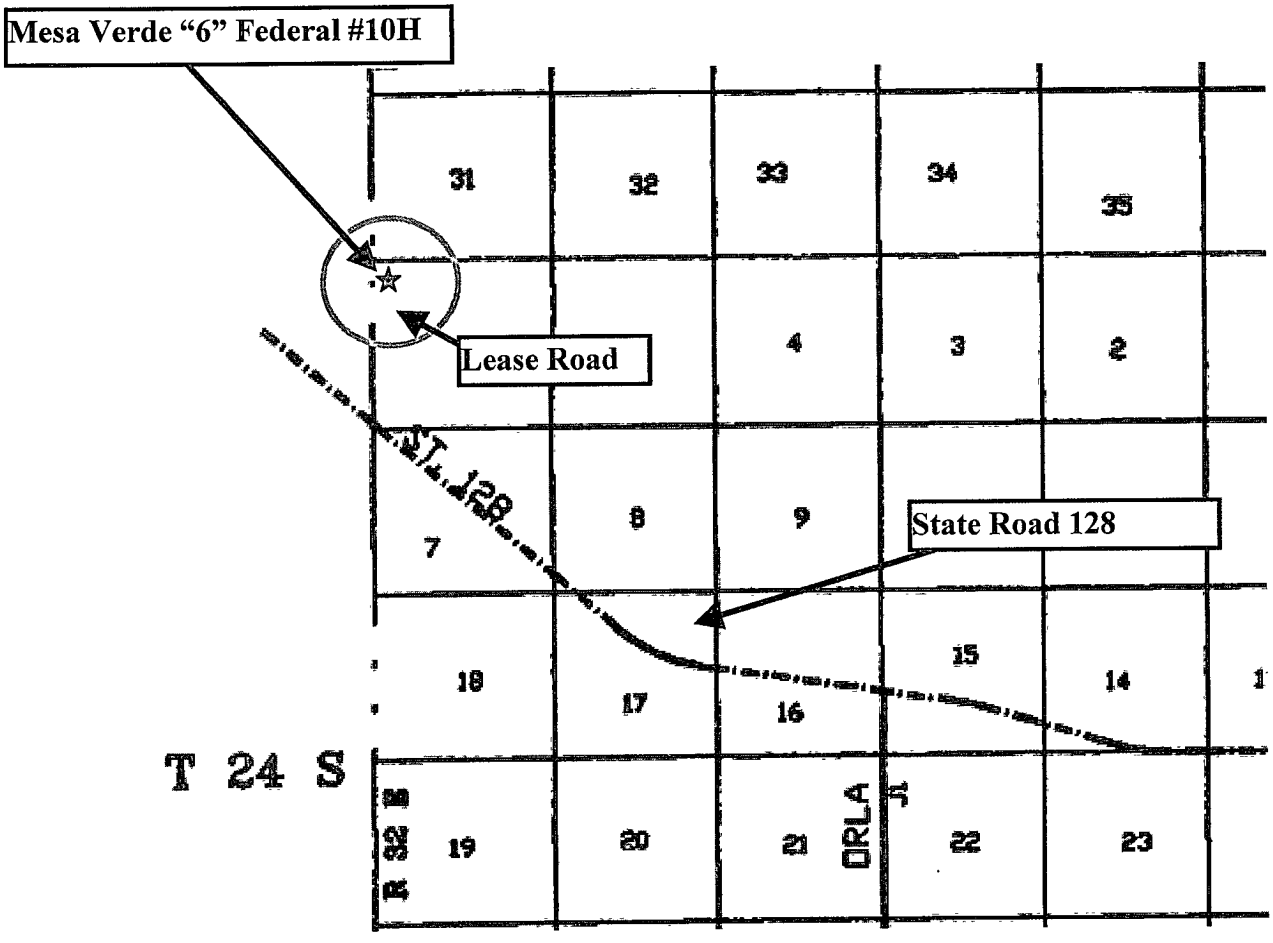
Mesa Verde "6" Federal # 10H

430'FNL & 330' FWL,
Sec-6, T-24S R-32E

Lea County NM

Mesa Verde "6" Federal # 10H

This is an open drilling site. H_2S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H_2S, including warning signs, wind indicators and H_2S monitor.



Assumed 100 ppm ROE = 3000' (Radius of Exposure)
100 ppm H2S concentration shall trigger activation of this plan.

Escape

Crews shall escape upwind of escaping gas in the event of an emergency release of gas. Escape can be facilitated South on lease road to County Road 128. Crews should then block entrance to the location from the county road so as not to allow anyone traversing into a hazardous area. The blockade should be at a safe distance outside of the ROE There are no homes or buildings in or near the ROE.

Assumed 100 ppm ROE = 3000'

100 ppm H_2S concentration shall trigger activation of this plan.

Emergency Procedures

In the event of a release of gas containing H_2S, the first responder(s) must

- **Isolate the area and prevent entry by other persons into the 100 ppm ROE.**
- **Evacuate any public places encompassed by the 100 ppm ROE.**
- **Be equipped with H_2S monitors and air packs in order to control the release.**
- **Use the "buddy system" to ensure no injuries occur during the response**
- **Take precautions to avoid personal injury during this operation.**
- **Contact operator and/or local officials to aid in operation. See list of phone numbers attached.**
- **Have received training in the**
  - **Detection of H_2S, and**
  - **Measures for protection against the gas,**
  - **Equipment used for protection and emergency response.**

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO_2). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

Characteristics of H_2S and SO_2

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H_2S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO_2	2.21 Air = 1	2 ppm	N/A	1000 ppm

Contacting Authorities

Devon Energy Corp. personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. Devon Energy Corp. Company response must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER)

Devon Energy Corp. Company Call List

Artesia (575)	Cellular	Office	Home
Foreman–Roger Hernandez.	748-5238	748-0169	396-7169
Asst. Foreman – Ernie Duran	513-1768	748-0191	746-4589
Don Mayberry	748-5235	748-0164	746-4945
Montral Walker	390-5182	748-0193	936-414-6246
Engineer – Jim Cromer	(405) 694-7718	(405) 228-4464	(405)771-4896

Agency Call List

Lea County (575) — **Hobbs**

State Police	392-5588
City Police	397-9265
Sheriff's Office	393-2515
Ambulance	911
Fire Department	397-9308
LEPC (Local Emergency Planning Committee)	393-2870
NMOCD	393-6161
US Bureau of Land Management	393-3612

Eddy County (575) — **Carlsbad**

State Police	885-3137
City Police	885-2111
Sheriff's Office	887-7551
Ambulance	911
Fire Department	885-2111
LEPC (Local Emergency Planning Committee)	887-3798
US Bureau of Land Management	887-6544
New Mexico Emergency Response Commission (Santa Fe)	(505)476-9600
24 HR	(505) 827-9126
National Emergency Response Center (Washington, DC)	(800) 424-8802

Emergency Services

Boots & Coots IWC	1-800-256-9688 or (281) 931-8884
Cudd Pressure Control	(915) 699-0139 or (915) 563-3356
Halliburton	(575) 746-2757
B. J. Services	(575) 746-3569

Give GPS position:

Flight For Life - Lubbock, TX	(806) 743-9911
Aerocare - Lubbock, TX	(806) 747-8923
Med Flight Air Amb - Albuquerque, NM	(575) 842-4433
Lifeguard Air Med Svc. Albuquerque, NM	(575) 272-3115

Prepared in conjunction with
Wade Rohloff of;

Compliance Services
PO Box 2774 Hobbs NM 88240 (505) 631-1568

Operators Representative:
The Devon Energy Production Company, L.P. representatives responsible for ensuring compliance of the surface use plan are listed below.

James Cromer
Operations Engineer

Devon Energy Production Company, L.P.
20 North Broadway, Suite 1500
Oklahoma City, OK 73102-8260

(405) 228-4464 (office)
(405) 694-7718 (Cellular)

Don Mayberry
Superintendent

Devon Energy Production Company, L.P.
Post Office Box 250
Artesia, NM 88211-0250

(505) 748-3371 (office)
(505) 746-4945 (home)

Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access road proposed herein; that I am familiar with the conditions that presently exist; that I have full knowledge of State and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or Devon Energy Production Company, L.P. am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

I hereby also certify that I, or Devon Energy Production Company, L.P. have made a good faith effort to provide the surface owner with a copy of the Surface Use Plan of Operations and any Conditions of Approval that are attached to the APD..

Executed this _9th___ day of __September__, 2009.
Printed Name: Norvella Adams
Signed Name: _____
Position Title: Sr. Staff Engineering Technician
Address: 20 North Broadway, OKC OK 73102
Telephone: (405) 552-8198
Field Representative: Roger Hernandez
Address: 6488 Seven Rivers Hwy, Artesia, NM
Telephone: (575)748-5238
E-mail: norvella.adams@dvn.com

Operators Representative:
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James Cromer
Operations Engineer

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Don Mayberry
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E-mail: norvella.adams@dvn.com

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Devon Energy Prod. Co.
LEASE NO.:	NM77064
WELL NAME & NO.:	10H Mesa Verde 6 Federal
SURFACE HOLE FOOTAGE:	430' FNL & 330' FWL
BOTTOM HOLE FOOTAGE	330' FSL & 660' FWL
LOCATION:	Section 6, T. 24 S., R 32 E., NMPM
COUNTY:	Lea 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.

☐ **General Provisions**
☐ **Permit Expiration**
☐ **Archaeology, Paleontology, and Historical Sites**
☐ **Noxious Weeds**
☒ **Special Requirements**
- Lesser Prairie Chicken
- Ground level abandoned hole marker

☒ **Construction**
- Notification
- Topsoil
- Reserve Pit – Closed-loop mud system
- Federal Mineral Material Pits
- Well Pads
- Roads

☐ **Road Section Diagram**
☒ **Drilling**
- H2S – Onshore Order 6 requirements

☒ **Production (Post Drilling)**
- Pipelines

☐ **Reserve Pit Closure/Interim Reclamation**
☐ **Final Abandonment/Reclamation**

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)

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 1st through June 15th 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.

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Hobbs Field Station at (575) 393-3612 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 operator has applied for a closed-loop system. 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 (575) 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.

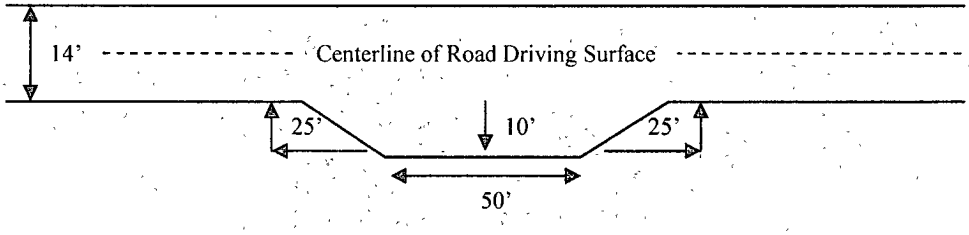
The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing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

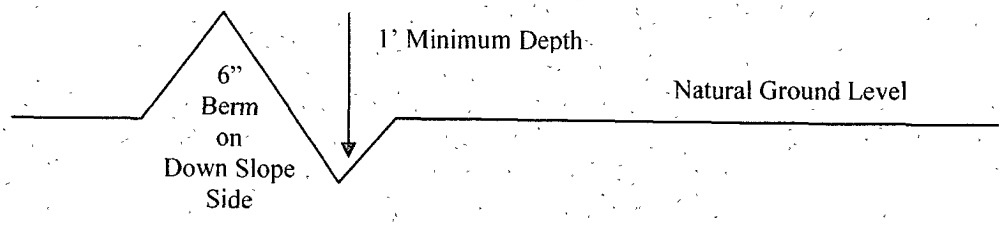
Standard Turnout – Plan View



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.

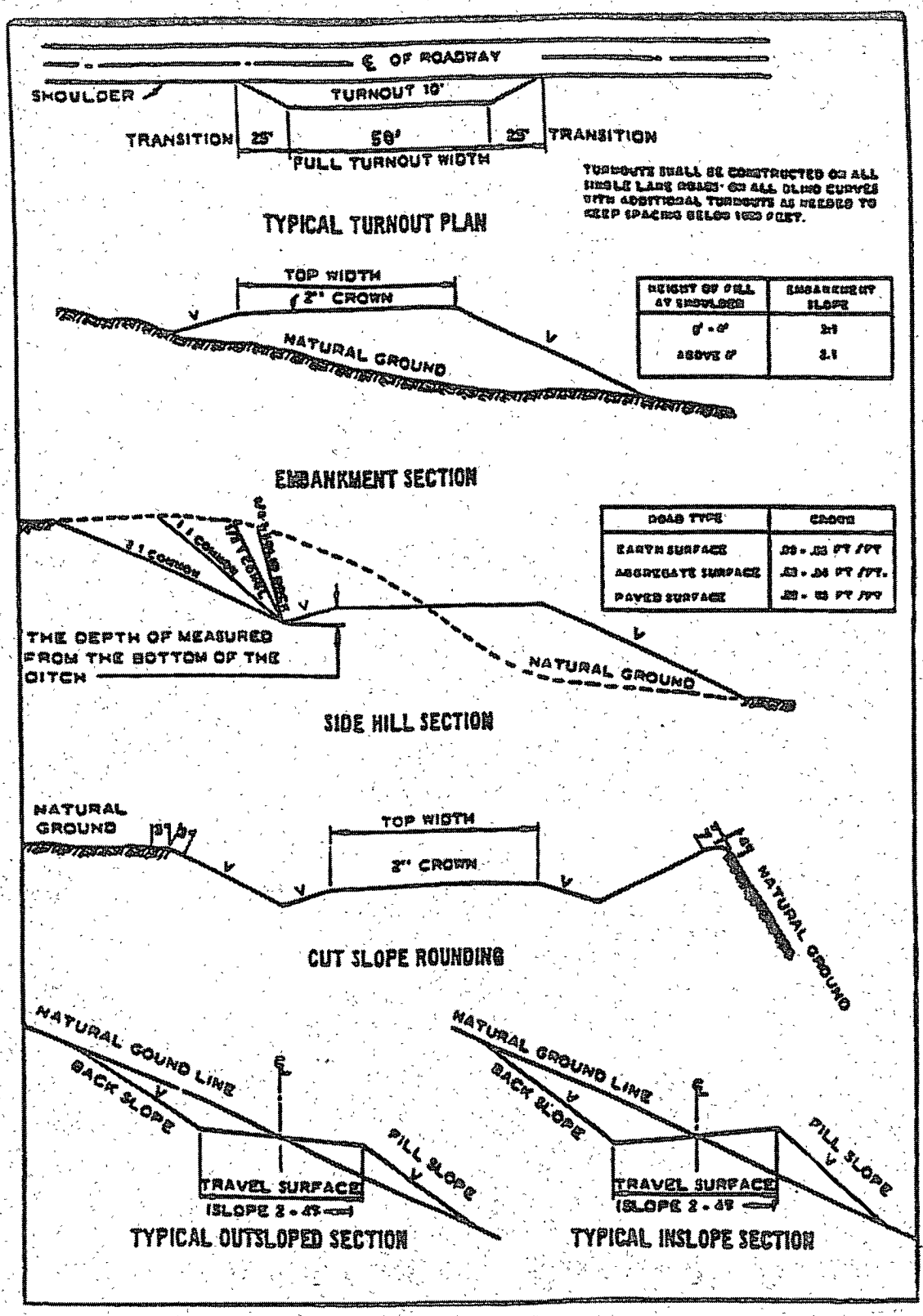
Fence Requirement
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

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



VII. DRILLING – RE-ENTRY &ADDITION OF HORIZONTAL LEG

A. DRILLING OPERATIONS REQUIREMENTS

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

a. BOPE test
b. CIT test
c. Tag plug

☒ **Lea County**
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,
(575) 393-3612

1. A Hydrogen Sulfide (H2S) Drilling Plan should be activated 500 feet prior to drilling into the **Delaware** formation. **As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.**

2. 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 is located, this does not include the dog house or stairway area.

B. CASING – Re-entry

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.

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.

Possible water flows or lost circulation in the Delaware and Bone Spring formations.

1. **The 13-3/8 inch surface casing is set at 570 feet with cement circulated to surface.**

A CIT is to be performed on the 8-5/8 inch casing per Onshore Oil and Gas Order 2.III.B.1.h prior to drilling out the plug at +/- 4350 feet. The 7-7/8 inch open-hole plug at +/- 8400 feet must be tagged and if a kick-off plug is to be set, then a plug from +/- 7779 feet to 8400 feet will be required.

2. **The 8-5/8 inch intermediate casing is set at 4440 feet with cement circulated to surface.**

Centralizers required on horizontal leg, must be type for horizontal service and minimum of one every other joint.

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 600 feet into the 8-5/8 inch intermediate casing string. Operator shall provide method of verification. **May require additional cement as the excess calculates to less than zero.**

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 **8-5/8** inch intermediate casing shoe shall be **5000 (5M)** psi. **5M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.**

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.

D. DRILL STEM TEST

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

RGH 111909

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

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

A copy of the grant and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the

Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to activity of the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. The holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. The holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:

a. Activities of the holder including, but not limited to construction, operation, maintenance, and termination of the facility.

b. Activities of other parties including, but not limited to:

(1) Land clearing.
(2) Earth-disturbing and earth-moving work.
(3) Blasting.
(4) Vandalism and sabotage.

c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars ($1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil, salt water, or other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any responsibility as provided herein.

6. All construction and maintenance activity will be confined to the authorized right-of-way width of 25 feet.

7. No blading or clearing of any vegetation will be allowed unless approved in writing by the Authorized Officer.

8. The holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky of duney areas, the pipeline will be "snaked" around hummocks and dunes rather then suspended across these features.

9. The pipeline shall be buried with a minimum of 24 inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.

10. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.

13. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. Signs will be maintained in a legible condition for the life of the pipeline.

14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.

15. Any cultural and/or paleontological resource (historic or prehistoric site or object)

discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the authorized officer. Holder 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 will be made by the authorized officer to determine appropriate cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the authorized officer after consulting with the holder.

(March 1989)

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.

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 for LPC Sand/Shinnery 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
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A
**Four-winged Saltbush	5lbs/A

* This can be used around well pads and other areas where caliche cannot be removed.

*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed

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.3

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.