OCD-HOBBS Artesia

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APR 05 2010

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AT S-10-177

RM

Form 3160-3
(April 2004)

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

EA ID-330

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

RECEIVED
APR - 7 2010
NMOCD ARTESIA

1a. Type of work: ☑ DRILL ☐ REENTER	5 Lease Serial No. NM-112599
1b. Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone	6. If Indian, Allotee or Tribe Name
2. Name of Operator: **Devon Energy Production Company, LP**	7 If Unit or CA Agreement, Name and No.
3a Address: **20 North Broadway, Oklahoma City, Oklahoma City 73102-8260**	3b Phone No. *(include area code)*: **405-552-7802**
4. Location of Well *(Report location clearly and in accordance with any State requirements.*)* At surface: **SENE 1980' FNL & 660' FEL** At proposed prod. zone: **SENE 1980' FNL & 660' FEL**	8. Lease Name and Well No.: **Serrano 29 Federal 1** 9 API Well No.: **30-015-37763** 10. Field and Pool, or Exploratory: **Wildcat; Morrow (Gas) (96070)** 11. Sec., T. R. M. or Blk. and Survey or Area: **Sec 29, T24S R27E Lot H**
14 Distance in miles and direction from nearest town or post office*: **Approximately 8 miles southwest of Loving, 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)	**660'**	16 No. of acres in lease: **2080 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	**2852'**	19 Proposed Depth: **12,500'**	20 BLM/BIA Bond No. on file: **CO-1104**
21 Elevations (Show whether DF, KDB, RT, GL, etc.): **3340' GL**		22. Approximate date work will start*: **02/01/2010**	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	Name *(Printed/Typed)*: **Stephanie A. Ysasaga**	Date: **01/04/2010**
Title: **Sr. Staff Engineering Technician**		
Approved by *(Signature)*: Owen Lofton for	Name *(Printed/Typed)*: Owen LOFTON	Date: APR 01 2010
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)*

Carlsbad 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 S. 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 15, 2009

Submit one copy to appropriate District Office

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APR 05 2010
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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-37763	96070	WILDCAT; MORROW (GAS)

Property Code	Property Name	Well Number
38118	SERRANO "29" FEDERAL	1

OGRID No.	Operator Name	Elevation
6137	DEVON ENERGY PRODUCTION COMPANY, L.P.	3340'

Surface Location

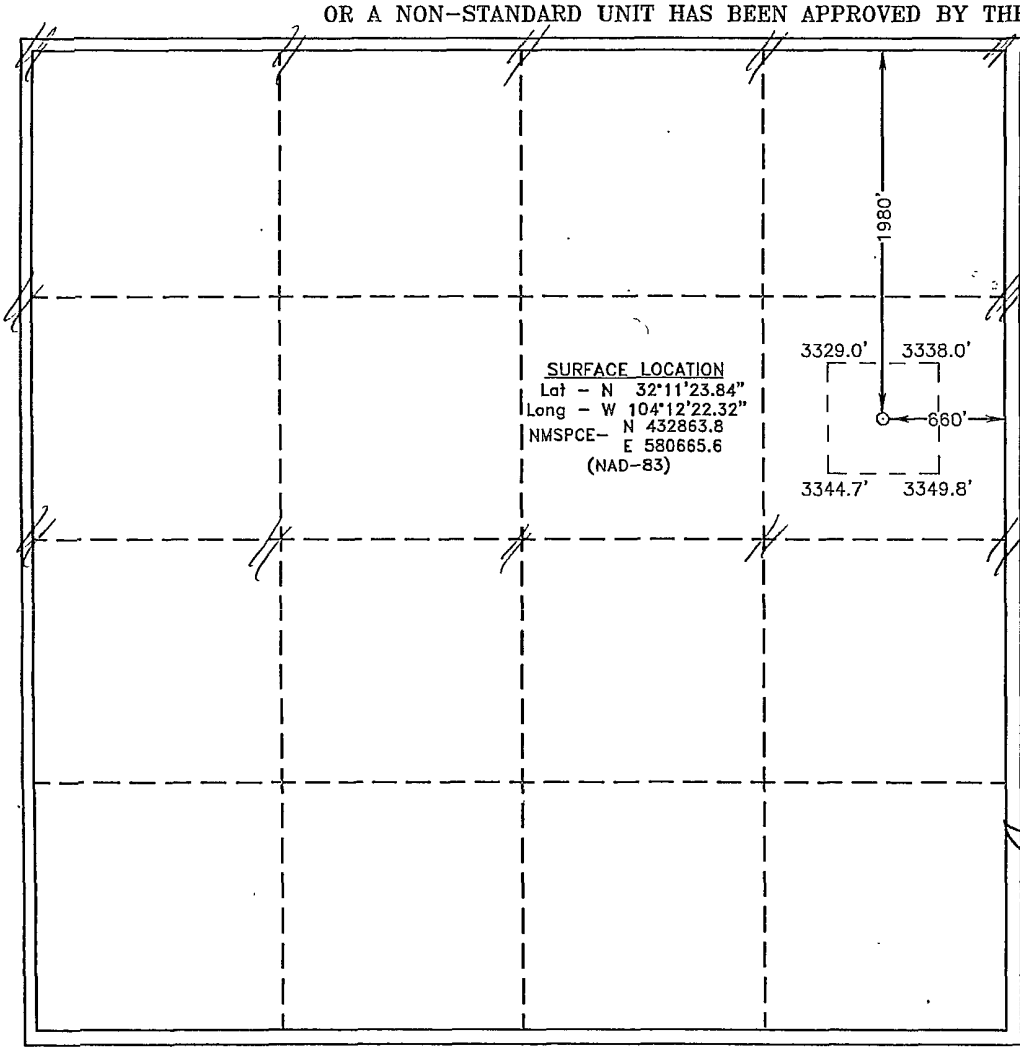
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	29	24 S	27 E		1980	NORTH	660	EAST	EDDY

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			

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 or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

12/29/2009
Signature Date

STEPHANIE A. YSASAGA
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.

DECEMBER 10, 2009
Date Surveyed
Signature & Seal of Professional Surveyor

GARY L. JONES
NEW MEXICO
7977
REGISTERED PROFESSIONAL SURVEYOR

No. 2

Certificate No. Gary L. Jones 7977

BASIN SURVEYS

Form 3160-5
(February 2005)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-ARTESIA
RECEIVED
APR 05 2010
HOBBSOCD

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

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE – *Other instructions on page 2*

1 Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other	5. Lease Serial No: NMNM-112269
	6. If Indian, Allottee or Tribe Name:
	7 If Unit of CA/Agreement, Name and/or No.
	8. Well Name and No: Serrano 29 Federal 1
2 Name of Operator: Devon Energy Production Co., LP	9. API Well No
3a. Address: 20 North Broadway, OKC, OK 73102 — 3b. Phone No *(include area code)*: (405)-552-7802	10 Field and Pool or Exploratory Area: Wildcat; Morrow (Gas) (96070)
4 Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*: SENE 1980' FNL & 660' FEL, Sec 29-T24S-R27E Lot H	11 Country or Parish, State: Eddy County, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☑ Other Revise Access Road
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13 Describe Proposed or Completed Operation Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones Attach the Bond under which the work will be performed or provide the Bond No on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection)

Devon Energy Production Co,. LP respectfully requests to move the proposed access to work in conjuction with the grazing lessee. The proposed alternate road moves south 672' and due west 3694'. See attached plat that depicts the new proposed access road.

Archaeology report from SNMAS to follow.

Recommend Approval, PWR, 3-30-10

New Route reviewed with initial Routing of APD, ARCH 10-230, 10-321

14 I hereby certify that the foregoing is true and correct Name *(Printed/Typed)*: Stephanie A. Ysasaga	Title Sr. Staff Engineering Technician
Signature	Date 01/04/2010

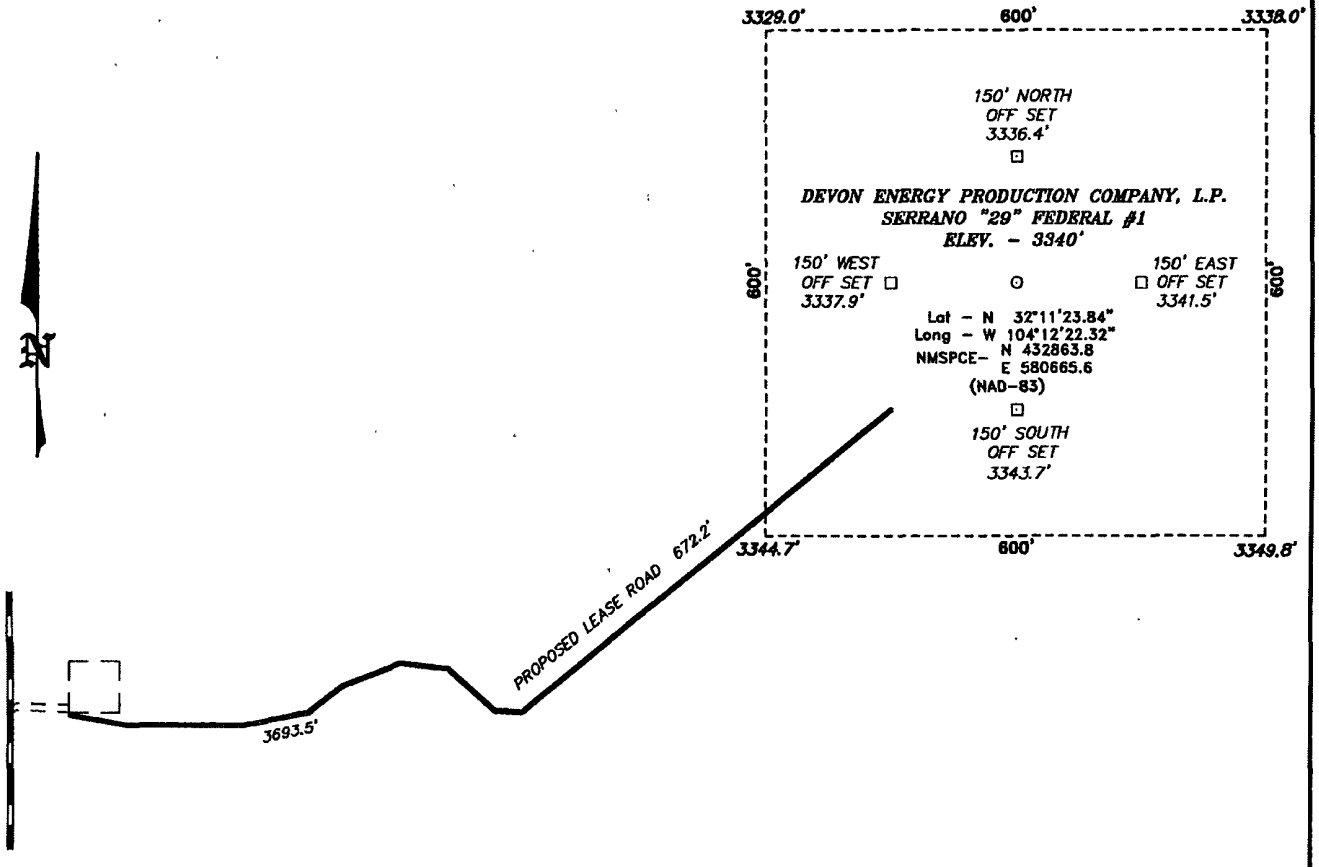
THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by: Owen Hopton ap	Title FIELD MANAGER	Date APR 01 2010
Conditions of approval, if any, are attached Approval of this notice 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	Office CARLSBAD FIELD OFFICE	

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)

SECTION 29, TOWNSHIP 24 SOUTH, RANGE 27 EAST, N.M.P.M.,
EDDY COUNTY, **NEW MEXICO.**



Directions to Location:

FROM THE JUNCTION OF BLACK RIVER AND JOHN D FOREHAND, GO SOUTH ON JOHN D FOREHAND FOR 1.5 MILES TO OLD LEASE ROAD, AND PROPOSED LEASE ROAD.

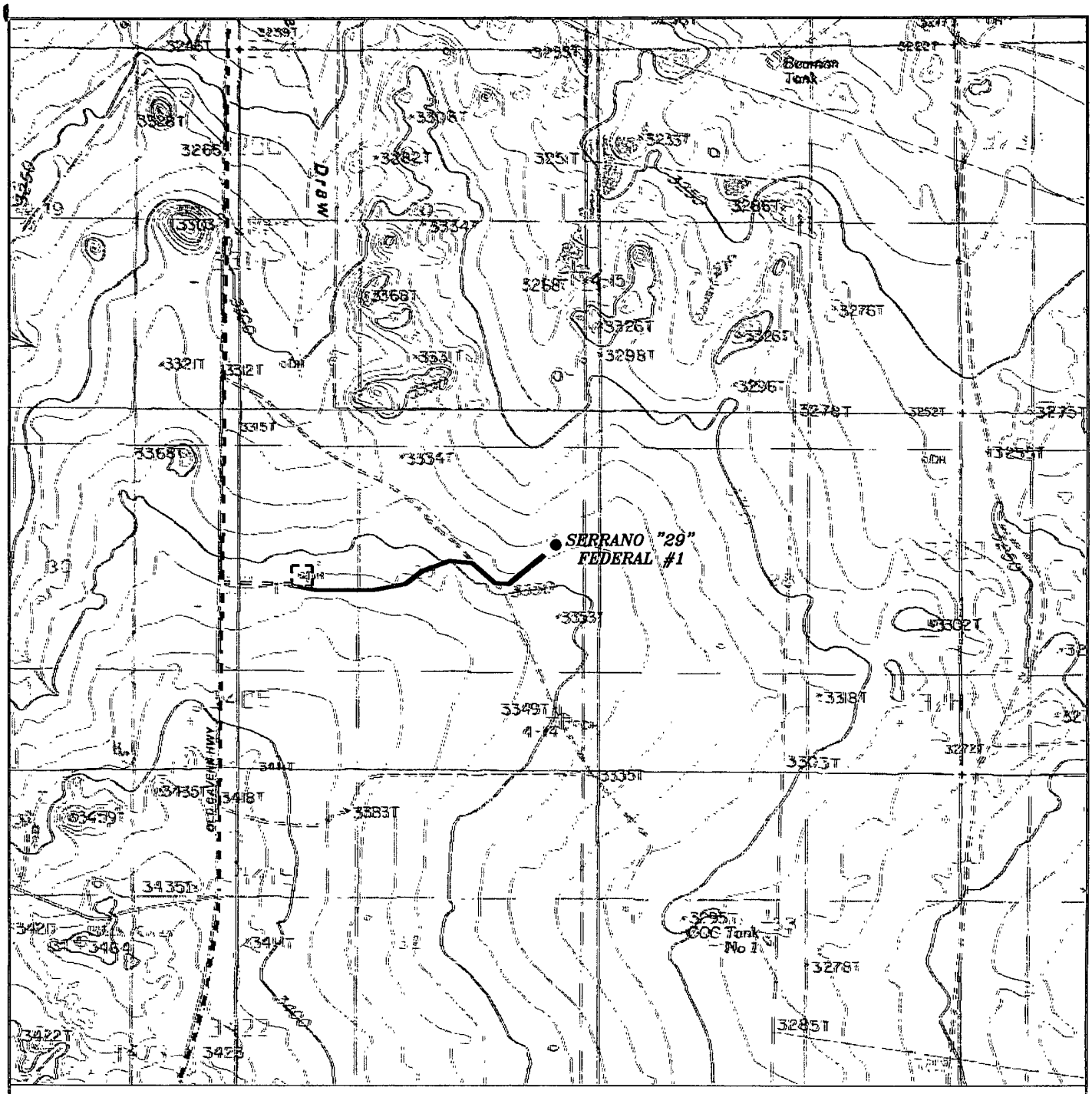
DEVON ENERGY PRODUCTION COMPANY, L.P.

REF: SERRANO "29" FEDERAL #1 / WELL PAD TOPO

THE SERRANO "29" FEDERAL #1 LOCATED 1980' FROM THE NORTH LINE AND 660' FROM THE EAST LINE OF SECTION 29, TOWNSHIP 24 SOUTH, RANGE 27 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

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

W.O. Number: 22045-22323	Drawn By: J. SMALL	Survey Date: 12-10-2009	Sheet 1 of 1 Sheets
Date: 12-11-2009	Disk: JMS 22045-22323		



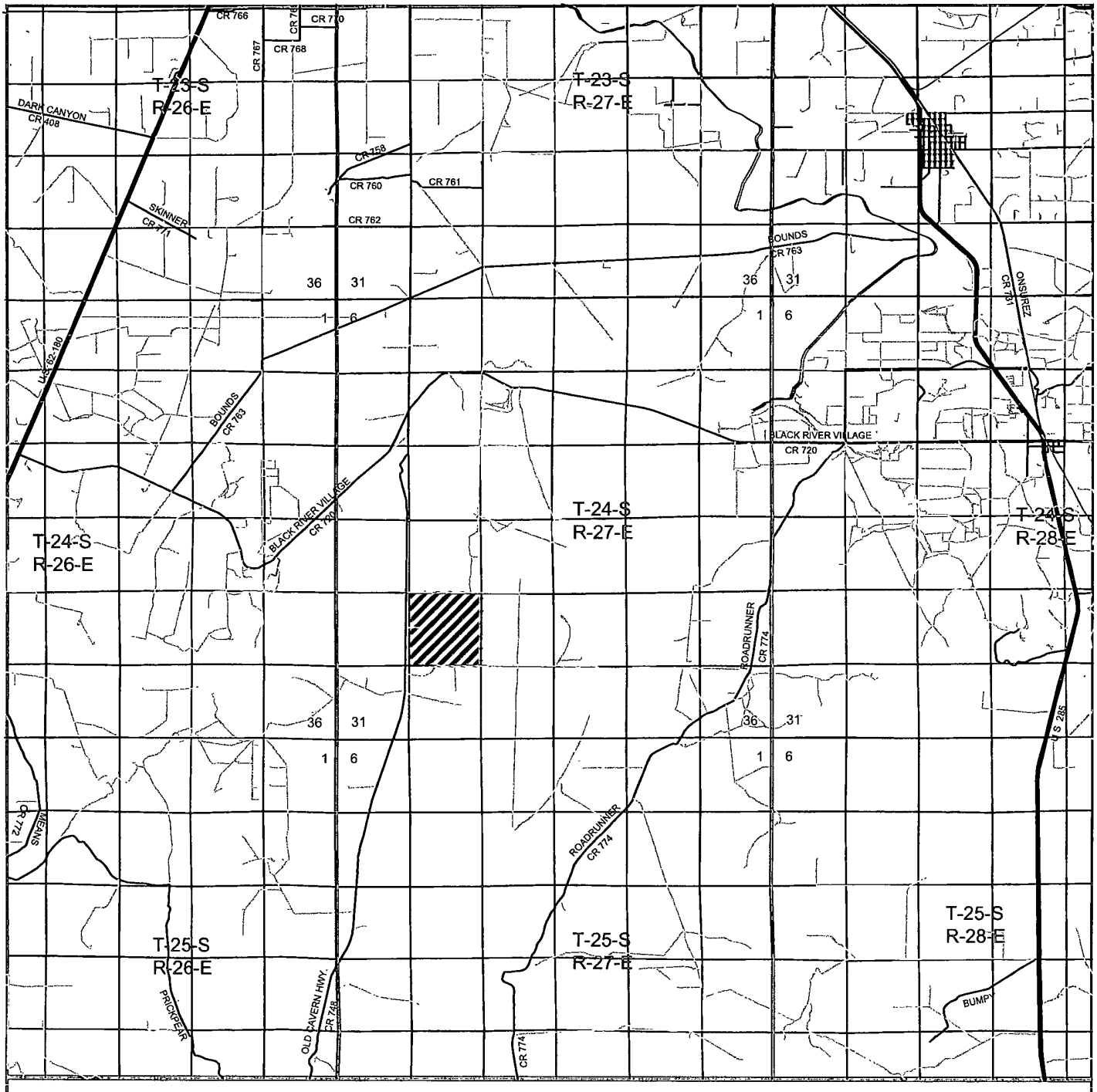
SERRANO "29" FEDERAL #1
Located 1980' FNL and 660' FEL
Section 29, Township 24 South, Range 27 East,
N.M.P.M., Eddy County, New Mexico.

Basin Surveys
focussed on excellence in the oilfield
P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W.O. Number:	JMS 22045-323
Survey Date:	12-10-2009
Scale:	1" = 2000'
Date:	12-11-2009

N

DEVON ENERGY PRODUCTION COMPANY, L.P.



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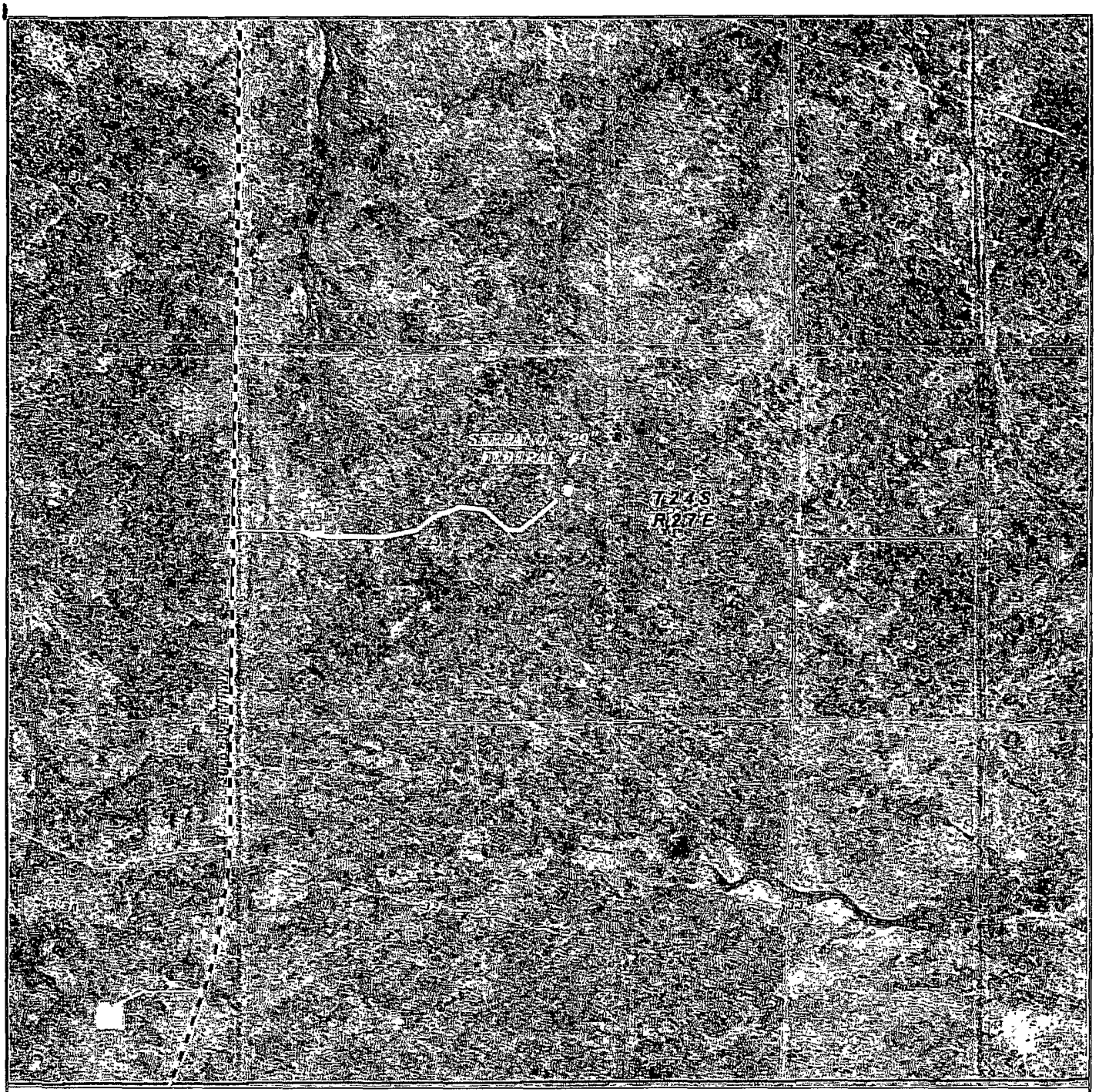
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W.O. Number:	JMS 22045
Survey Date:	12-10-2009
Scale:	1" = 2 Miles
Date:	12-11-2009

N

DEVON ENERGY PRODUCTION COMPANY, L.P.



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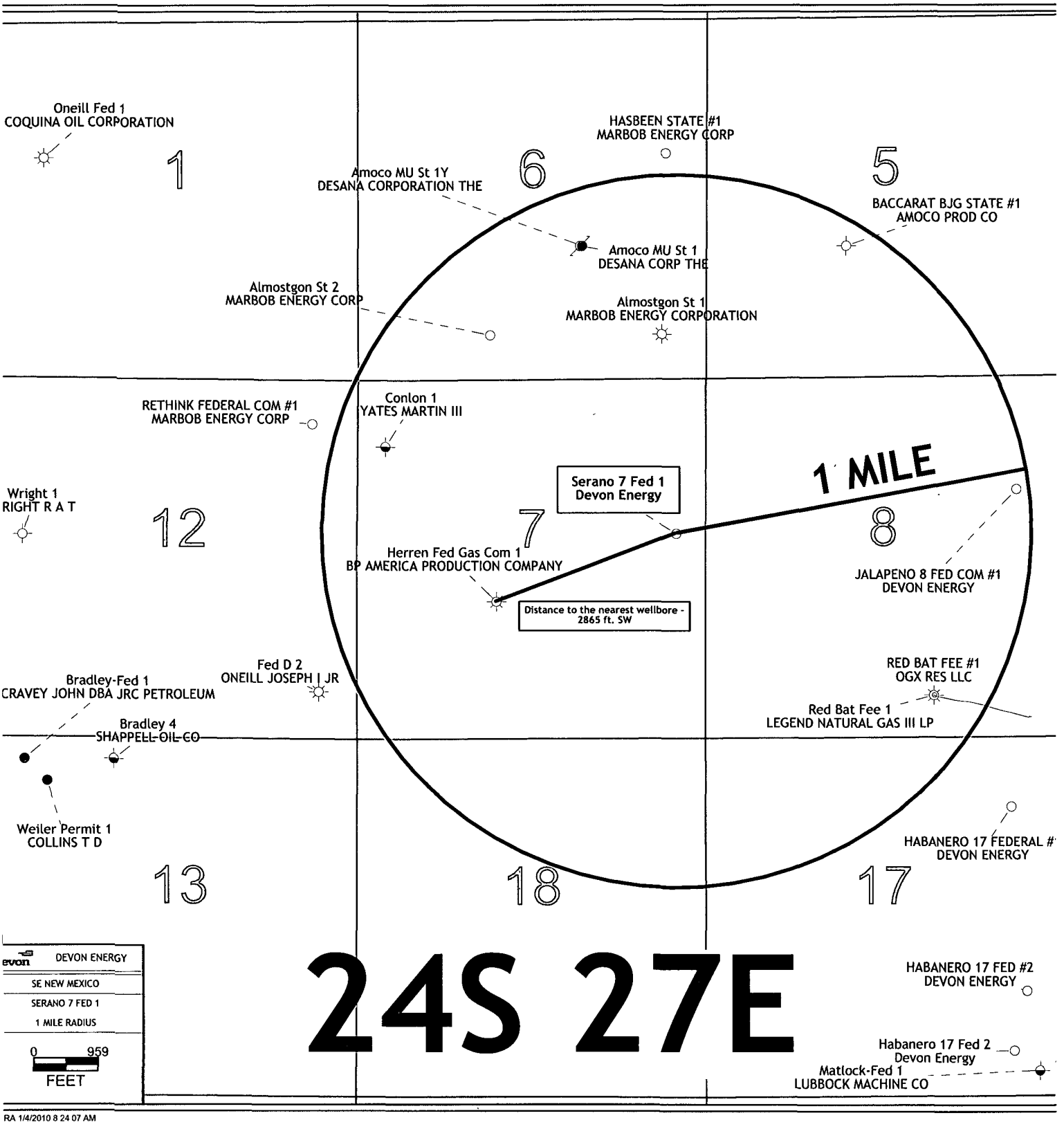
W.O. Number: JMS 22045-323

Scale: 1" = 2000'

YELLOW TINT - USA LAND
BLUE TINT - STATE LAND
NATURAL COLOR - FEE LAND

N

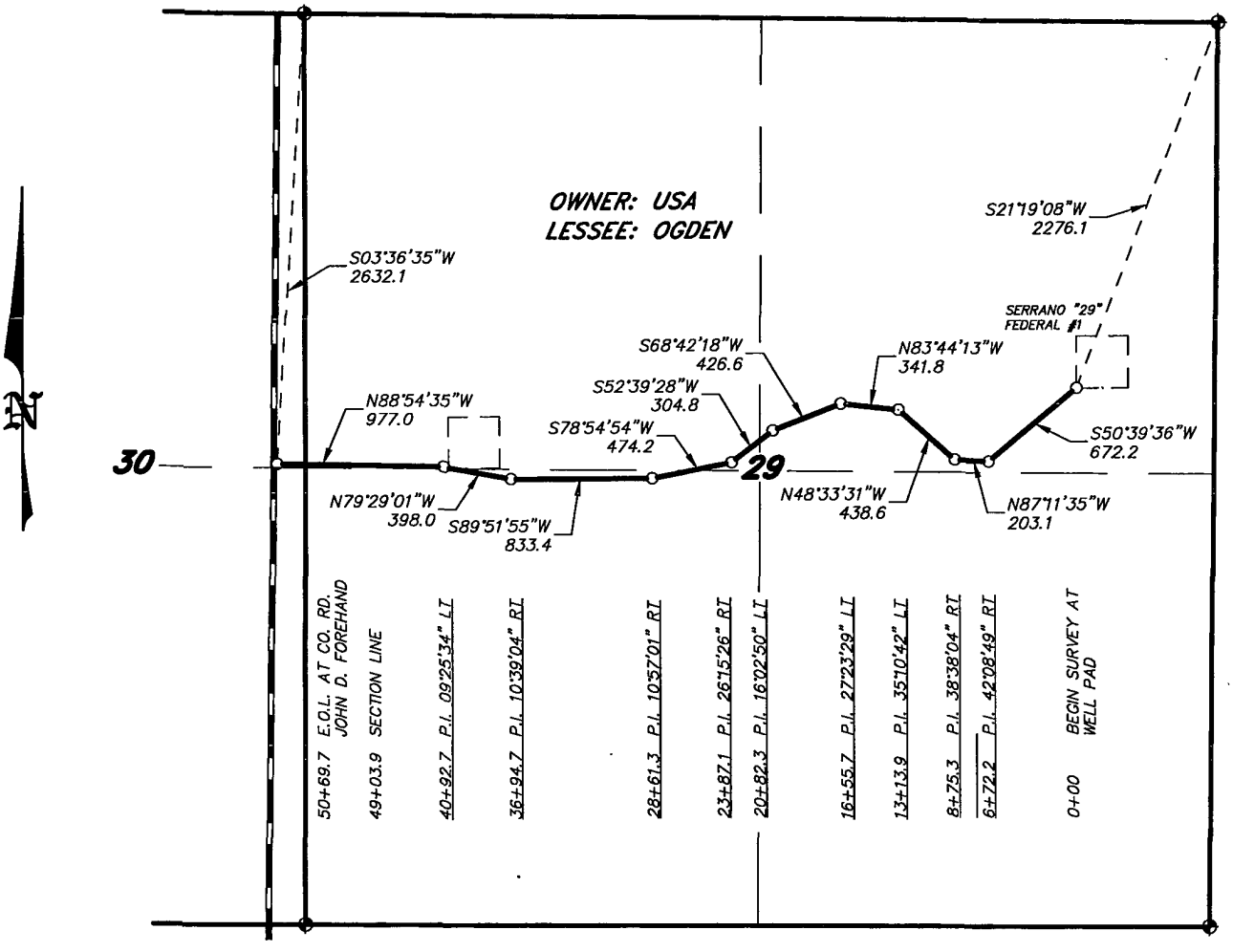
DEVON ENERGY PRODUCTION COMPANY, L.P.



RA 1/4/2010 8 24 07 AM

SECTIONS 29&30, TOWNSHIP 24 SOUTH, RANGE 27 EAST, N.M.P.M.,

EDDY COUNTY, **NEW MEXICO.**



LEGAL DESCRIPTION

A STRIP OF LAND 30.0 FEET WIDE, LOCATED IN SECTIONS 29&30, TOWNSHIP 24 SOUTH, RANGE 27 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET LEFT AND RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY.

SECTION 29	= 4903.9 FEET	= 297.20 RODS	= 0.93 MILES	= 3.38 ACRES
SECTION 30	= 165.8 FEET	= 10.05 RODS	= 0.03 MILES	= 0.11 ACRES
TOTAL	= 5069.7 FEET	= 307.25 RODS	= 0.96 MILES	= 3.49 ACRES

I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM FIELD NOTES OF AN ACTUAL SURVEY AND MEETS OR EXCEEDS ALL REQUIREMENTS FOR LAND SURVEYS AS SPECIFIED BY THIS STATE.

GARY L. JONES N.M.P.S. No. 7977
TEXAS P.L.S. No. 5074

1000 0 1000 2000 FEET

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

DEVON ENERGY PRODUCTION COMPANY, L.P.

REF: PROPOSED LEASE ROAD TO THE SERRANO "29" FEDERAL 1

A LEASE ROAD CROSSING USA LAND IN
SECTIONS 29&30, TOWNSHIP 24 SOUTH, RANGE 27 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

W.O. Number: 22323	Drawn By: J. M. SMALL		
Date: 02-10-2010	Disk: JMS 22323	Survey Date: 02-06-2010	Sheet 1 of 1 Sheets

DRILLING PROGRAM

Devon Energy Production Company, LP
Serrano 29 Federal 1
Surface Location: 1980' FNL & 660' FEL, Unit H, Sec 29 T24S R27E, Eddy, NM
Bottom hole Location: 1980' FNL & 660' FEL, Unit H, Sec 29 T24S R27E, Eddy, NM

1. Geologic Name of Surface Formation

a. Quaternary

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

a.	Salado	Surface	
b.	Delaware Lime	2245'	Oil
c.	Bell Canyon	2336'	Oil
d.	Cherry Canyon	3074'	Oil
e.	Brushy Canyon	4192'	Oil
f.	Bone Spring Lime	5842'	Oil
g.	1st Bone Spring Snd	6758'	Oil
h.	2nd Bone Spring Lm	7130'	Oil
i.	2nd Bone Spring Sand	7379'	Oil
j.	3rd Bone Spring Lime	7661'	Oil
k.	3rd Bone Springs Sand	8635'	Oil
l.	Wolfcamp	8978'	Gas
m.	Strawn	10867'	Gas
n.	Atoka Lime	11022'	Gas
o.	Morrow Lime	11774'	Gas
p.	Morrow Clastics	12061'	Gas
q.	Total Depth	12500'	

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13 3/8" casing at 90' and circulating cement back to surface. The fresh water sands will be protected by setting 9 5/8" casing at 3100' and circulating cement to surface. The Morrow intervals will be isolated by setting 4 ½" casing to total depth and circulating cement above the base of the 7" casing.

NOTE: NO RUSTLER AT THIS WELLSITE. THE SALADO IS AT THE SURFACE. THE 13 3/8" CASING IS THE CONDUCTOR.

3. Casing Program:

Hole Size	Hole Interval	OD Csg	Casing Interval	Weight	Collar	Grade
17 ½"	0' – 90'	13 3/8"	0'- 90'	48#/ft	ST&C	H-40
12 ¼"	90' – 3100'	9 5/8"	0' – 3100'	40#/ft	LT&C	K-55
8 ¾"	3100'-8800'	7"	0'- 8800'	26#/ft	LT&C	HCP-110

6 1/8"	8800'–12500'	4 ½"	8400' - 12500'	13.5#/ft	BT&C	HCP-110

Design Parameter Factors:

Casing Size	Collapse Design Factor	Burst Design Factor	Tension Design Factor
9 5/8"	1.59	2.45	4.52
7"	1.92	2.71	3.02
4 ½"	1.5	1.65	2

4. Cement Program:

a. 13 3/8" Conductor

Cement with 105 sacks Premium Plus C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 56.3% Fresh Water. Yield: 1.35 cf/sack. TOC to surface.

b. 9 5/8" Intermediate

Cement Lead: 865 sacks (35:65) Poz (Fly Ash):Premium Plus C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 6% bwoc Bentonite + 107.8% Fresh Water. Yield: 2.04 cf/sack. TOC @ surface. Tail: 300 sacks (60:40) Poz (Fly Ash):Premium Plus C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.4% bwoc Sodium Metasilicate + 4% bwoc MPA-5 + 64.7% Fresh Water. Yield: 1.37 cf/sack. TOC to surface.

c. 7" Production

2 Stage with DV Tool @ 4200'

Stage 1

Lead: 425 sacks 35/65 Poz + 0.35% bwoc R-3 + 0.4% bwoc CD-32 + 1.4% bwoc FL-62 + 0.1% bwoc ASA-301 + 0.2% bwoc Sodium Metasilicate + 20 lbs/sack ASCA-1 + 52.9% Fresh Water **Yield**: 1.90 cf/sack.

Tail: 350 sacks 50/50 Poz + 0.1% bwoc ASA-301 + 0.2% bwoc Sodium Metasilicate + 20 lbs/sack ASCA-1 + 52. **Yield**: 1.34

Stage 2 See COA

Lead: 300 sacks (35:65) Poz (Fly Ash):Premium Plus C Cement + 1% bwow Sodium Chloride + 0.4% bwoc R-3 + 0.125 lbs/sack Cello Flake + 6% bwoc Bentonite + 0.4% bwoc FL-52A + 103.1% Fresh Water. **Yield**: 1.96 cf/sack.

Tail: 150 sacks (60:40) Poz (Fly Ash):Premium Plus C Cement + 1% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.75% bwoc BA-10A + 4% bwoc MPA-5 + 63.1% Fresh Water. TOC to surface. Yield 1.38 cf/sx

Yield 1.23 cf/sx

d	4 ½	Liner	Cement with 555 sacks Premium Plus H Cement + 0 1% bwoc R 3 + 0 75% bwoc EC-1 + 0 125 lbs/sack Cello Flake + 0 5% bwoc CD-32 + 2 lbs/sack LCM-1 + 1% bwoc FL-62 + 0 2% bwoc FL-52A + 46 1% Fresh Water TOL @ 8400'.

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

5. **Pressure Control Equipment:**
BOP DESIGN Will consist of a (10M system) double ram type (10000 psi WP) preventor stack and a bag-type (Hydril) preventor (10000 psi WP) and rotation 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 13 3/8" surface casing and utilized continuously until total depth is reached. **All BOP's and associated equipment will be tested to 1200 psi with ~~the rig pump before~~ drilling out the 13 3/8" casing shoe** (70% of 48#, H-40 casing). Prior to drilling out the 9 5/8" casing shoe, the BOP's and Hydril will be tested as per BLM Drilling Operations Order #2 Operator requests to test the 9 5/8" casing to 5M.

against casing per Operator 2/18/10 CRW

See COA

Pipe rams will be operated and checked each 24-hour period and each time the drill pipe is out of the hole. Pipe rams will be changed to 3 1/2" after the 7" casing is set. These functional tests will be documented on the daily drillers 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 10000 psi WP rating.

6. **Proposed Mud Circulation System**

Depth	Mud Wt.	Visc	Fluid Loss	Type System
0' – 90'	8.4-8.8	32-34	NC	FW/Gel
90'– 3100'	9.7-10 0	28-30	NC	Brine
3100'–8800'	9.0-9 3	28-40	NC-40	Fresh Water
8800'-12500'	9.5-11 5	32-40	12-8cc	Fresh Water

The necessary mud products for weight addition and fluid loss control will be on location at all times.

7. **Auxiliary Well Control and Monitoring Equipment:**
   a. A Kelly cock will be in the drill string at all times
   b A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.
   c Hydrogen Sulfide detection equipment will be in operation after drilling out the 13 3/8" casing shoe until the 4 1/2" casing is cemented Breathing equipment will be on location upon drilling the 13 3/8" shoe until total depth is reached

8. **Logging, Coring, and Testing Program:** See COA
   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
   c. The open hole electrical logging program will be

i. Total Depth to Intermediate Casing Dual Laterolog-Micro Laterolog with SP and Gamma Ray. Compensated Neutron – Z Density log with Gamma Ray and Caliper.
ii. Total Depth to Surface Compensated Neutron with Gamma Ray
iii. No coring program is planned
iv. 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.

9. Potential Hazards:

a. No abnormal pressures or temperatures are expected. There is no known presence of H2S in this area. If H2S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6 No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 6800 psi and Estimated BHT 198°. No H2S is anticipated to be encountered.

10. Anticipated Starting Date and Duration of Operations:

a. Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 32 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.

Proposal No: 215855447B
Proposal No: 215855447B

Devon Energy Corp
Serano 29 Federal #1

Sec. 29-24S-27E
Eddy County, New Mexico
December 17, 2009

Well Recommendation

Prepared for:
Pat Brown
Drilling Engineer
Oklahoma City, Oklahoma
Bus Phone: (405) 228-8511

Prepared by:
John Parks
Region Technical Rep.
Oklahoma City, Oklahoma
Bus Phone: (405) 228-4302

THE BLUE WELLBORE℠
Makes better wells

Service Point:
Artesia
Bus Phone: (505) 746-3140
Fax: (505) 746-2293

Service Representatives:
Larry Johnson
Senior Sales Rep
Artesia, New Mexico

Operator Name: Devon Energy Corp
Well Name: Serano 29 Federal #1
Job Description: Surface Casing
Date: December 17, 2009

Proposal No: 215855447B

JOB AT A GLANCE

Depth (TVD)	90 ft
Depth (MD)	90 ft
Hole Size	17.5 in
Casing Size/Weight :	13 3/8 in, 48 lbs/ft
Pump Via	13 3/8" O.D. (12.715" .I.D) 48 #
Total Mix Water Required	667 gals
Spacer	
Fresh Water	10 bbls
Density	8.3 ppg
Cement Slurry	
Class C	105 sacks
Density	14.8 ppg
Yield	1.35 cf/sack
Displacement	
Mud	14 bbls
Density	8.8 ppg

Operator Name: Devon Energy Corp
Well Name: Serano 29 Federal #1
Job Description: Surface Casing
Date: December 17, 2009

Proposal No: 215855447B

WELL DATA

ANNULAR GEOMETRY

ANNULAR I.D. (in)	DEPTH(ft)	
	MEASURED	TRUE VERTICAL
17.500 HOLE	90	90

SUSPENDED PIPES

DIAMETER (in)		WEIGHT (lbs/ft)	DEPTH(ft)	
O.D.	I.D.		MEASURED	TRUE VERTICAL
13.375	12.715	48	90	90

Mud Density	8.80 ppg
Est. Static Temp.	80 ° F
Est. Circ. Temp.	80 ° F

VOLUME CALCULATIONS

90 ft	x	0.6946 cf/ft	with	125 % excess	=	140.7 cf
				TOTAL SLURRY VOLUME	=	140.7 cf
					=	25 bbls

Operator Name: Devon Energy Corp
Well Name: Serano 29 Federal #1
Job Description: Surface Casing
Date: December 17, 2009

Proposal No: 215855447B

FLUID SPECIFICATIONS

Spacer — 10.0 bbls Fresh Water @ 8.34 ppg

FLUID	VOLUME CU-FT	VOLUME FACTOR	AMOUNT AND TYPE OF CEMENT
Cement Slurry	141 141	/ 1.35 = / 1.35 =	105 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 56.3% Fresh Water
Displacement			14.1 bbls Mud @ 8.8 ppg

CEMENT PROPERTIES

	SLURRY NO. 1
Slurry Weight (ppg)	14.80
Slurry Yield (cf/sack)	1.35
Amount of Mix Water (gps)	6.35
Estimated Pumping Time - 70 BC (HH:MM)	2:30
COMPRESSIVE STRENGTH	
8 hrs @ 80 ° F (psi)	500
12 hrs @ 80 ° F (psi)	1150
24 hrs @ 80 ° F (psi)	2100
72 hrs @ 80 ° F (psi)	2700

Operator Name: Devon Energy Corp
Well Name: Serano 29 Federal #1
Job Description: Intermediate Casing
Date: December 17, 2009

Proposal No: 215855447B

JOB AT A GLANCE

Depth (TVD)	3,100 ft
Depth (MD)	3,100 ft
Hole Size	12.25 in
Casing Size/Weight :	9 5/8 in, 40 lbs/ft
Pump Via	9 5/8" O.D. (8.835" .I.D) 40 #
Total Mix Water Required	11,651 gals
Spacer	
Fresh Water	20 bbls
Density	8.3 ppg
Lead Slurry	
35:65:6 Poz:Class C	865 sacks
Density	12.5 ppg
Yield	2.04 cf/sack
Tail Slurry	
60:40 Poz:Class C (MPA)	300 sacks
Density	13.8 ppg
Yield	1.37 cf/sack
Displacement	
Mud	232 bbls
Density	10.0 ppg

Operator Name: Devon Energy Corp
Well Name: Serano 29 Federal #1
Job Description: Intermediate Casing
Date: December 17, 2009

Proposal No: 215855447B

WELL DATA

ANNULAR GEOMETRY

ANNULAR I.D. (in)	DEPTH(ft)	
	MEASURED	TRUE VERTICAL
12.715 CASING	90	90
12.250 HOLE	3,100	3,100

SUSPENDED PIPES

DIAMETER (in)		WEIGHT (lbs/ft)	DEPTH(ft)	
O.D.	I.D.		MEASURED	TRUE VERTICAL
9.625	8.835	40	3,100	3,100

Float Collar set @	3,060 ft
Mud Density	10.00 ppg
Est. Static Temp.	108 ° F
Est. Circ. Temp.	95 ° F

VOLUME CALCULATIONS

90 ft	x	0.3765 cf/ft	with	0 % excess	=	33.9 cf
2,449 ft	x	0.3132 cf/ft	with	125 % excess	=	1726.1 cf
561 ft	x	0.3132 cf/ft	with	125 % excess	=	395.0 cf
40 ft	x	0.4257 cf/ft	with	0 % excess	=	17.0 cf (inside pipe)
				TOTAL SLURRY VOLUME	=	2172.0 cf
					=	387 bbls

Operator Name: Devon Energy Corp
Well Name: Serano 29 Federal #1
Job Description: Intermediate Casing
Date: December 17, 2009

Proposal No: 215855447B

FLUID SPECIFICATIONS

Spacer 20.0 bbls Fresh Water @ 8.34 ppg

FLUID	VOLUME CU-FT	VOLUME FACTOR	AMOUNT AND TYPE OF CEMENT
Lead Slurry	1760	/ 2.04	= 865 sacks (35:65) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 6% bwoc Bentonite + 0.25% bwoc FL-52A + 107.7% Fresh Water
Tail Slurry	412	/ 1.37	= 300 sacks (60:40) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.1% bwoc Sodium Metasilicate + 4% bwoc MPA-5 + 65.4% Fresh Water

Displacement 232.0 bbls Mud @ 10 ppg

CEMENT PROPERTIES

	SLURRY NO. 1	SLURRY NO. 2
Slurry Weight (ppg)	12.50	13.80
Slurry Yield (cf/sack)	2.04	1.37
Amount of Mix Water (gps)	11.24	6.43
Estimated Pumping Time - 70 BC (HH:MM)	4:00	3:30
COMPRESSIVE STRENGTH		
8 hrs @ 107 ° F (psi)		800
12 hrs @ 107 ° F (psi)	325	1549
17 hrs @ 107 ° F (psi)	500	
24 hrs @ 107 ° F (psi)	637	2400

ACTUAL CEMENT VOLUME MAY VARY BASED ON FLUID CALIPER.

Operator Name: Devon Energy Corp
Well Name: Serano 29 Federal #1
Job Description: Production Casing
Date: December 17, 2009

Proposal No: 215855447B

JOB AT A GLANCE

Depth (TVD)	8,800 ft
Depth (MD)	8,800 ft
Hole Size	8.75 in
Casing Size/Weight :	7in, 26 lbs/ft
Pump Via	7" O.D. (6.276" .I.D) 26 #
Total Mix Water Required	11,637 gals
Stage No: 1	**Float Collar set @** 8,760 ft
Spacer	
Fresh Water	10 bbls
Density	8.3 ppg
Spacer	
Surebond III	1,000 gals
Density	9.4 ppg
Spacer	
Fresh Water	10 bbls
Density	8.3 ppg
Lead Slurry	
35:65:6 Poz:Class H:Gel	425 sacks
Density	12.5 ppg
Yield	1.98 cf/sack
Tail Slurry	
Super C Modified	350 sacks
Density	13.3 ppg
Yield	1.56 cf/sack
Displacement	
Displacement Fluid	335 bbls

JOB AT A GLANCE (Continued)

Stage No: 2 **Stage Collar set @** 4,200 ft

Spacer	
Fresh Water	20 bbls
Density	8.3 ppg
Lead Slurry	
35:65:6 Poz:Class C:Gel	300 sacks
Density	12.5 ppg
Yield	2.04 cf/sack
Tail Slurry	
60:40 Poz:Class C (MPA)	150 sacks
Density	13.8 ppg
Yield	1.38 cf/sack
Displacement	
Displacement Fluid	161 bbls

Operator Name: Devon Energy Corp
Well Name: Serano 29 Federal #1
Job Description: Production Casing
Date: December 17, 2009

Proposal No: 215855447B

WELL DATA

ANNULAR GEOMETRY

ANNULAR I.D. (in)	DEPTH(ft)	
	MEASURED	TRUE VERTICAL
8.835 CASING	3,100	3,100
8.750 HOLE	8,800	8,800

SUSPENDED PIPES

DIAMETER (in)		WEIGHT (lbs/ft)	DEPTH(ft)	
O.D.	I.D.		MEASURED	TRUE VERTICAL
7.000	6.276	26	8,800	8,800

STAGE: 1

Float Collar set @	8,760 ft
Mud Density	9.30 ppg
Est. Static Temp.	168 ° F
Est. Circ. Temp.	134 ° F

VOLUME CALCULATIONS

2,800 ft	x	0.1503 cf/ft	with	100 % excess	=	841.8 cf
1,800 ft	x	0.1503 cf/ft	with	100 % excess	=	541.2 cf
40 ft	x	0.2148 cf/ft	with	0 % excess	=	8.6 cf (inside pipe)
				TOTAL SLURRY VOLUME	=	1391.6 cf
					=	248 bbls

STAGE: 2

Stage Collar set @	4,200 ft
Mud Density	9.30 ppg
Est. Static Temp.	114 ° F
Est. Circ. Temp.	100 ° F

VOLUME CALCULATIONS

3,100 ft	x	0.1585 cf/ft	with	0 % excess	=	491.3 cf
414 ft	x	0.1503 cf/ft	with	100 % excess	=	124.4 cf
686 ft	x	0.1503 cf/ft	with	100 % excess	=	206.3 cf
				TOTAL SLURRY VOLUME	=	822.0 cf
					=	147 bbls

Operator Name: Devon Energy Corp
Well Name: Serano 29 Federal #1
Job Description: Production Casing
Date: December 17, 2009

Proposal No: 215855447B

FLUID SPECIFICATIONS

STAGE NO.: 1

Spacer	10.0 bbls Fresh Water @ 8.34 ppg
Spacer	1,000.0 gals Surebond III @ 9.35 ppg
Spacer	10.0 bbls Fresh Water @ 8.34 ppg

FLUID	VOLUME CU-FT	VOLUME FACTOR	AMOUNT AND TYPE OF CEMENT
Lead Slurry	842	/ 1.98	= 425 sacks (35:65) Poz (Fly Ash):Class H Cement + 2% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 6% bwoc Bentonite + 0.4% bwoc FL-52A + 104.3% Fresh Water
Tail Slurry	550	/ 1.56	= 350 sacks (15:61:11) Poz (Fly Ash):Class C Cement:CSE-2 + 1% bwow Potassium Chloride + 0.75% bwoc EC-1 + 0.125 lbs/sack Cello Flake + 0.4% bwoc CD-32 + 2 lbs/sack LCM-1 + 0.6% bwoc FL-25 + 0.6% bwoc FL-52A + 73.3% Fresh Water
Displacement			335.2 bbls Displacement Fluid

CEMENT PROPERTIES

	SLURRY NO. 1	SLURRY NO. 2
Slurry Weight (ppg)	12.50	13.30
Slurry Yield (cf/sack)	1.98	1.56
Amount of Mix Water (gps)	10.88	7.65
Estimated Pumping Time - 70 BC (HH:MM)	4:00	4:00
Free Water (mls) @ ° F @ 90 ° angle		0.0
Fluid Loss (cc/30min) at 1000 psi and ° F		50.0
COMPRESSIVE STRENGTH		
12 hrs @ 167 ° F (psi)	350	900
24 hrs @ 167 ° F (psi)	700	2100
72 hrs @ 167 ° F (psi)	1000	2600

FLUID SPECIFICATIONS (Continued)

STAGE NO.: 2

Spacer				20.0 bbls Fresh Water @ 8.34 ppg
Lead Slurry	616	/ 2.04	=	300 sacks (35:65) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 6% bwoc Bentonite + 0.4% bwoc FL-52A + 107.7% Fresh Water
Tail Slurry	206	/ 1.38	=	150 sacks (60:40) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.3% bwoc Sodium Metasilicate + 4% bwoc MPA-5 + 65.5% Fresh Water
Displacement				160.7 bbls Displacement Fluid

CEMENT PROPERTIES

	SLURRY NO. 1	SLURRY NO. 2
Slurry Weight (ppg)	12.50	13.80
Slurry Yield (cf/sack)	2.04	1.38
Amount of Mix Water (gps)	11.24	6.44
Estimated Pumping Time - 70 BC (HH:MM)	4:00	2:30
Free Water (mls) @ ° F @ 90 ° angle		
Fluid Loss (cc/30min) at 1000 psi and ° F		
COMPRESSIVE STRENGTH		
12 hrs @ 106 ° F (psi)	350	
17 hrs @ 106 ° F (psi)	500	
24 hrs @ 106 ° F (psi)	650	
12 hrs @ 121 ° F (psi)		1700
24 hrs @ 121 ° F (psi)		2500

Operator Name: Devon Energy Corp
Well Name: Serano 29 Federal #1
Job Description: Liner
Date: December 17, 2009

Proposal No: 215855447B

JOB AT A GLANCE

Depth (TVD)	12,500 ft
Depth (MD)	12,500 ft
Hole Size	6.125 in
Liner Size/Weight :	4 1/2 in, 11.6 lbs/ft
Pump Via	Drill Pipe 3 1/2" O.D. (2.764" .I.D) 13.3 # Casing 4 1/2" O.D. (3.920" .I.D) 13.5 #
Total Mix Water Required	2,885 gals
Spacer	
Turbo Flow III	40 bbls
Density	12.5 ppg
Cement Slurry	
Class H	555 sacks
Density	15.4 ppg
Yield	1.23 cf/sack
Displacement	
Displacement Fluid	122 bbls

Operator Name: Devon Energy Corp
Well Name: Serano 29 Federal #1
Job Description: Liner
Date: December 17, 2009

Proposal No: 215855447B

WELL DATA

ANNULAR GEOMETRY

ANNULAR I.D. (in)	DEPTH(ft)	
	MEASURED	TRUE VERTICAL
6.276 CASING	8,800	8,800
6.125 HOLE	12,500	12,500

SUSPENDED PIPES

DIAMETER (in)		WEIGHT (lbs/ft)	DEPTH(ft)	
O.D.	I.D.		MEASURED	TRUE VERTICAL
4.500	4.000	11.6	12,500	12,500

Drill Pipe 3.5 (in) OD, 2.764 (in) ID, 13.3 (lbs/ft) set @	8,400 ft
Drill Pipe 4.5 (in) OD, 3.92 (in) ID, 13.5 (lbs/ft) set @	12,500 ft
Depth to Top of Liner	8,400 ft
Float Collar set @	12,420 ft
Mud Density	11.50 ppg
Est. Static Temp.	205 ° F
Est. Circ. Temp.	161 ° F

VOLUME CALCULATIONS

200 ft	x	0.2148 cf/ft	with	0 % excess	=	43 cf
400 ft	x	0.1044 cf/ft	with	0 % excess	=	42 cf
3,700 ft	x	0.0942 cf/ft	with	70 % excess	=	593 cf
80 ft	x	0.0838 cf/ft	with	0 % excess	=	7 cf (inside pipe)
				TOTAL SLURRY VOLUME	=	684 cf
					=	122 bbls

Operator Name: Devon Energy Corp
Well Name: Serano 29 Federal #1
Job Description: Liner
Date: December 17, 2009

Proposal No: 215855447B

FLUID SPECIFICATIONS

Spacer — 40.0 bbls Turbo Flow III @ 12.5 ppg

FLUID	VOLUME CU-FT	VOLUME FACTOR	AMOUNT AND TYPE OF CEMENT
Cement Slurry	684	/ 1.23	= 555 sacks Premium Plus H Cement + 0.1% bwoc R-3 + 0.75% bwoc EC-1 + 0.125 lbs/sack Cello Flake + 0.5% bwoc CD-32 + 2 lbs/sack LCM-1 + 1% bwoc FL-62 + 0.2% bwoc FL-52A + 46.1% Fresh Water

Displacement — 122.3 bbls Displacement Fluid

CEMENT PROPERTIES

	SLURRY NO. 1
Slurry Weight (ppg)	15.40
Slurry Yield (cf/sack)	1.23
Amount of Mix Water (gps)	5.20
Estimated Pumping Time - 70 BC (HH:MM)	4:00
Free Water (mls) @ 161 ° F @ 90 ° angle	0.0
Fluid Loss (cc/30min) at 1000 psi and 161 ° F	40.0
COMPRESSIVE STRENGTH	
12 hrs @ 205 ° F (psi)	1400
24 hrs @ 205 ° F (psi)	2200
72 hrs @ 205 ° F (psi)	3100

BATCH MIX THE LINER CEMENT SLURRY AND SPACER.

PRODUCT DESCRIPTIONS

Bentonite
Commonly called gel, it is a clay material used as a cement extender and to control excessive free water.

CD-32
A patented, free-flowing, water soluble polymer that is an efficient and effective dispersant for primary and remedial cementing.

CSE-2
An additive which contributes to low density, high compressive strength development of cement slurries at all temperature ranges. This material also controls free water without the need for standard extenders.

Calcium Chloride
A powdered, flaked or pelletized material used to decrease thickening time and increase the rate of strength development.

Cello Flake
Graded (3/8 to 3/4 inch) cellophane flakes used as a lost circulation material.

Class C Cement
Intended for use from surface to 6000 ft., and for conditions requiring high early strength and/or sulfate resistance.

Class H Cement
Class H cement is an API type, all purpose oil well cement which is used without modification in wells up to 8,000 ft. It possesses a moderate sulfate resistance. With the use of accelerators or retarders, it can be used in a wide range of well depths and temperatures.

EC-1
A proprietary product that provides expansive properties and improves bonding at low to moderate temperatures.

FL-25
An all purpose salt-tolerant fluid loss additive that provides exceptional fluid loss control across a wide range of temperatures and salinity conditions and remedial cementing applications.

FL-52A
A water soluble, high molecular weight fluid loss additive used in medium to low density slurries. It is functional from low to high temperature ranges.

FL-62
A patented dry blend of water soluble polymers that are formulated to control the loss of fluid during cementing operations. A dispersant and bonding additive are proportioned to deliver consistent performance and control fluid loss in primary and squeeze cementing applications at low to moderate temperatures.

PRODUCT DESCRIPTIONS (Continued)

LCM-1
A graded (8 to 60 mesh) naturally occurring hydrocarbon, asphaltite. It is used as a lost circulation material at low to moderate temperatures and will act as a slurry extender. Cement compressive strength is reduced.

MPA-5
Used to enhanced compressive, tensile, fleural strength development and reduced permeability

Potassium Chloride
A granular salt used to reduce clay swelling caused by water-base cementing fluids.

Poz (Fly Ash)
A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement slurries used as either a filler slurry or a sulfate resistant completion cement.

Premium Plus H Cement
Class H cement is an API type, all purpose oil well cement which is used without modification in wells up to 8,000 ft. It possesses a moderate sulfate resistance. With the use of accelerators or retarders, it can be used in a wide range of well depths and temperatures.

R-3
A low temperature retarder used in a wide range of slurry formulations to extend the slurry thickening time.

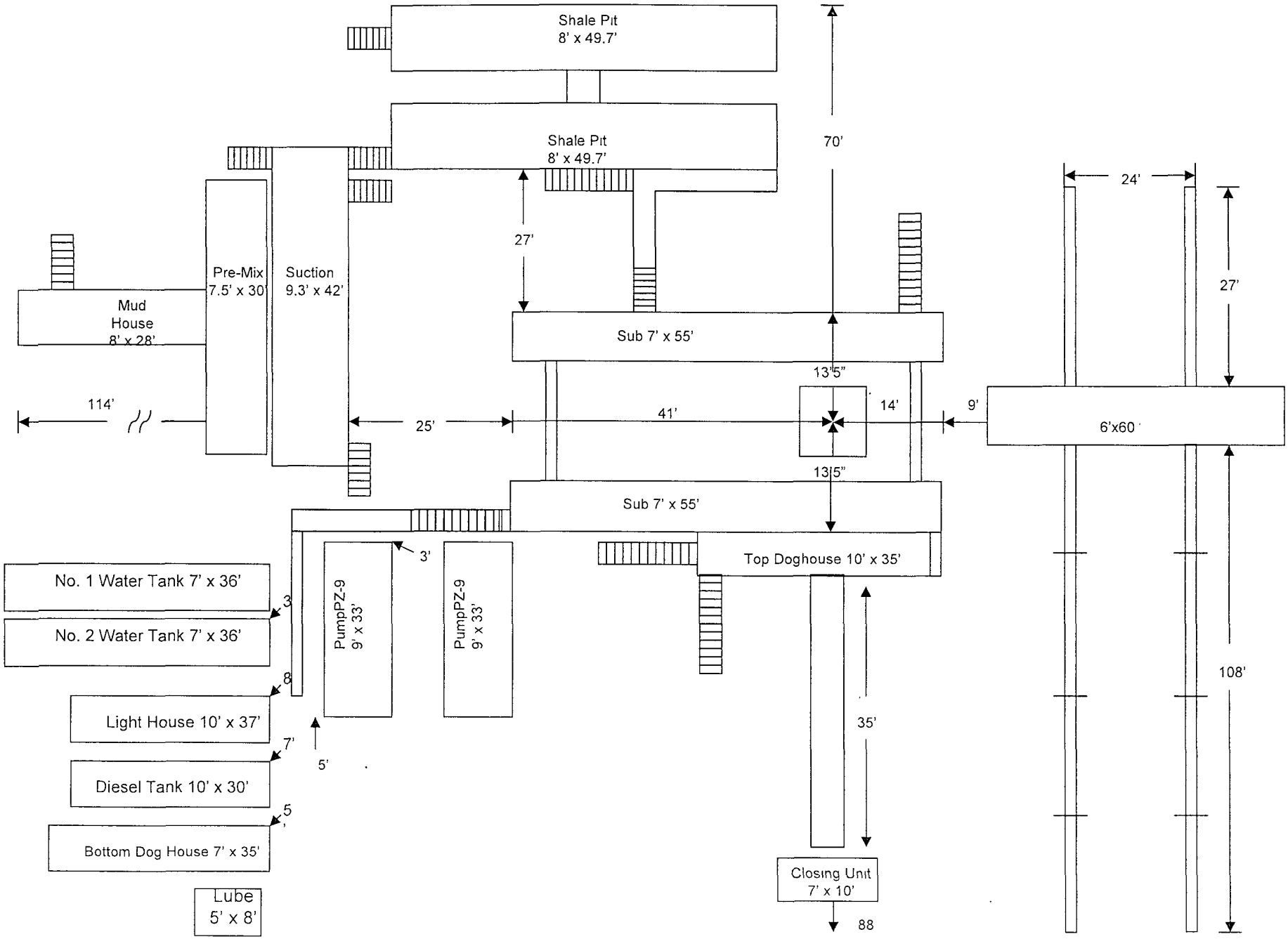
Sodium Chloride
At low concentrations, it is used an accelerator for cement slurries. At high concentrations, it is used for formation compatibility.

Sodium Metasilicate
An extender used to produce an economical, low density cement slurry.

Surebond III Spacer
A blend of liquid components which when run as a preflush ahead of cement, will leave both the formation and pipe water wet, thus enhancing bonding. Surebond is also effective in combating slurry loss to fractured formations due to its coating action. A fresh water spacer should always be run between the Surebond and cement slurries.

Turbo Flow III
A water-based weighted cement spacer designed for water based drilling muds. Turbo Flow III easily achieves turbulence in most hole geometries and is compatible with cements and most drilling muds.

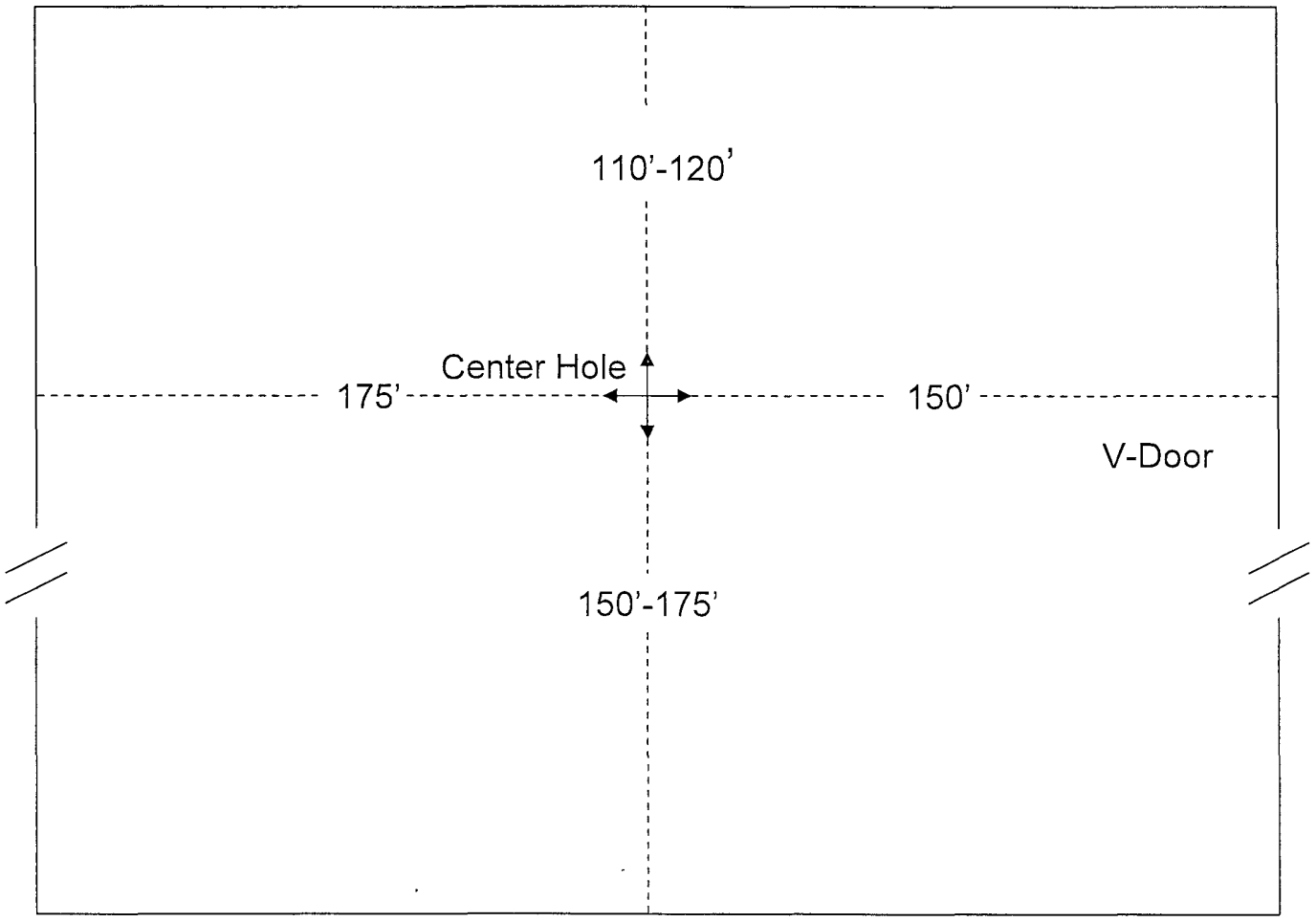
McVay Drilling Rig No. 8



McVay Drilling Co.

Closed Loop Location Platt

Rig 8



Attachment to Exhibit #1
NOTES REGARDING BLOWOUT PREVENTERS
Devon Energy Production Company, LP
Serrano 29 Federal 1
Surface Location: 1980' FNL & 660' FEL, Unit H, Sec 29 T24S R27E, Eddy, NM
Bottom hole Location: 1980' FNL & 660' FEL, Unit H, Sec 29 T24S R27E, Eddy, NM

1. Drilling nipple will be constructed so it can be removed mechanically without the aid of a welder. The minimum internal diameter will equal BOP bore.

2. Wear ring will be properly installed in head.

3. Blowout preventer and all associated fittings will be in operable condition to withstand a minimum 5000 psi working pressure.

4. All fittings will be flanged.

5. A full bore safety valve tested to a minimum 5000 psi WP with proper thread connections will be available on the rotary rig floor at all times.

6. All choke lines will be anchored to prevent movement.

7. All BOP equipment will be equal to or larger in bore than the internal diameter of the last casing string.

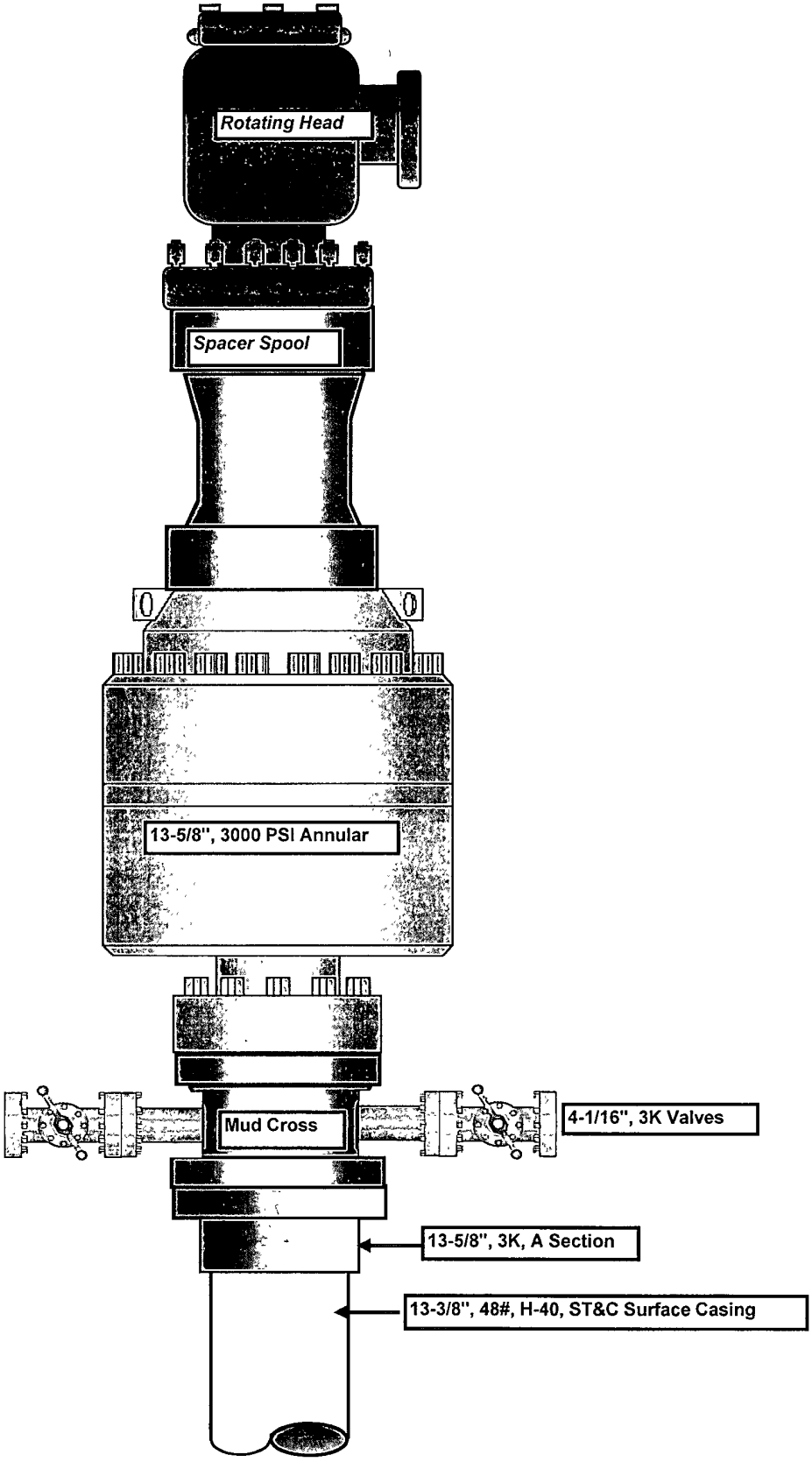
8. Will maintain a kelly cock attached to the kelly.

9. Hand wheels and wrenches will be properly installed and tested for safe operation.

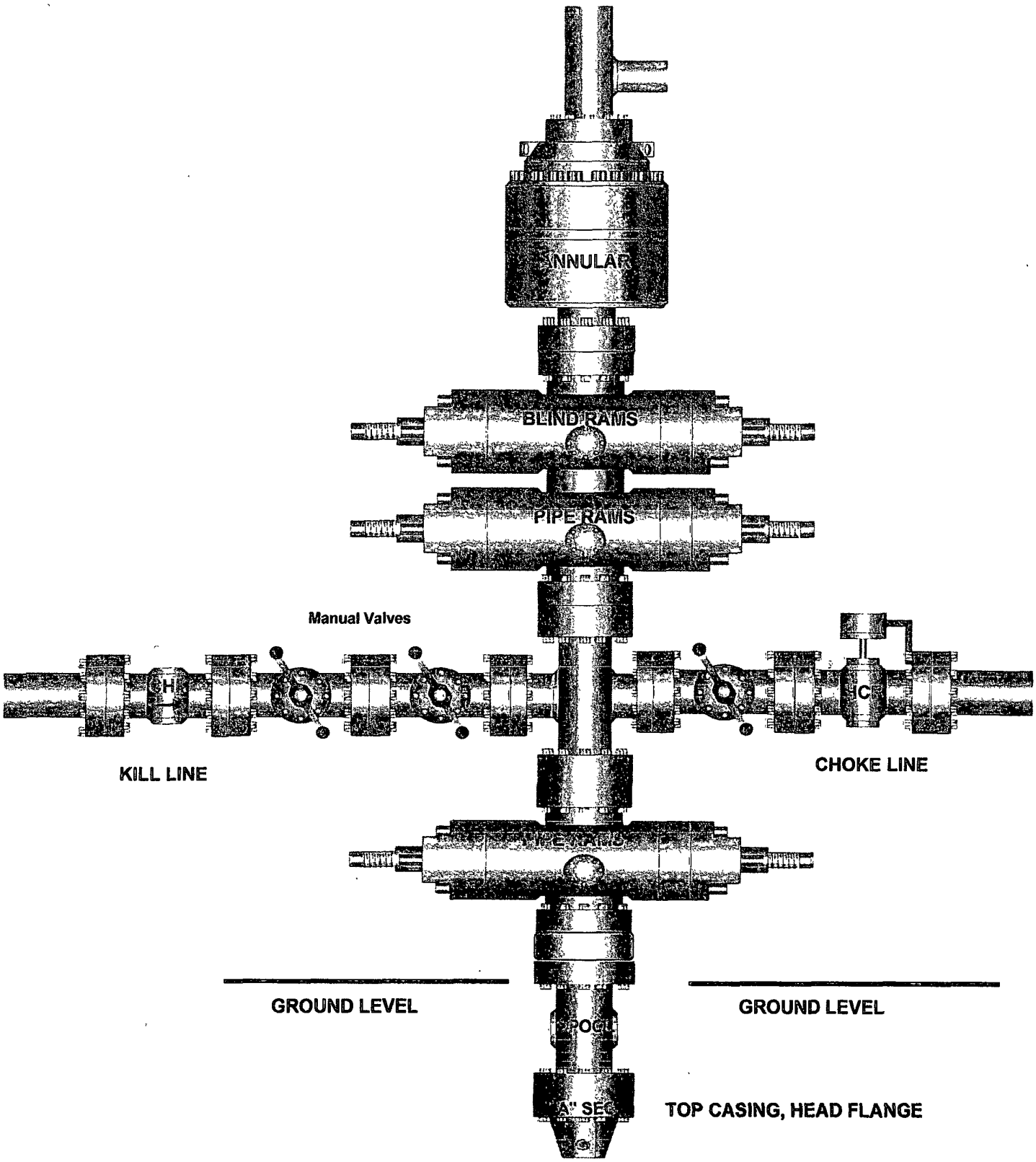
10. Hydraulic floor control for blowout preventer will be located as near in proximity to driller's controls as possible.

11. All BOP equipment will meet API standards and include a minimum 40 gallon accumulator having two independent means of power to initiate closing operation.

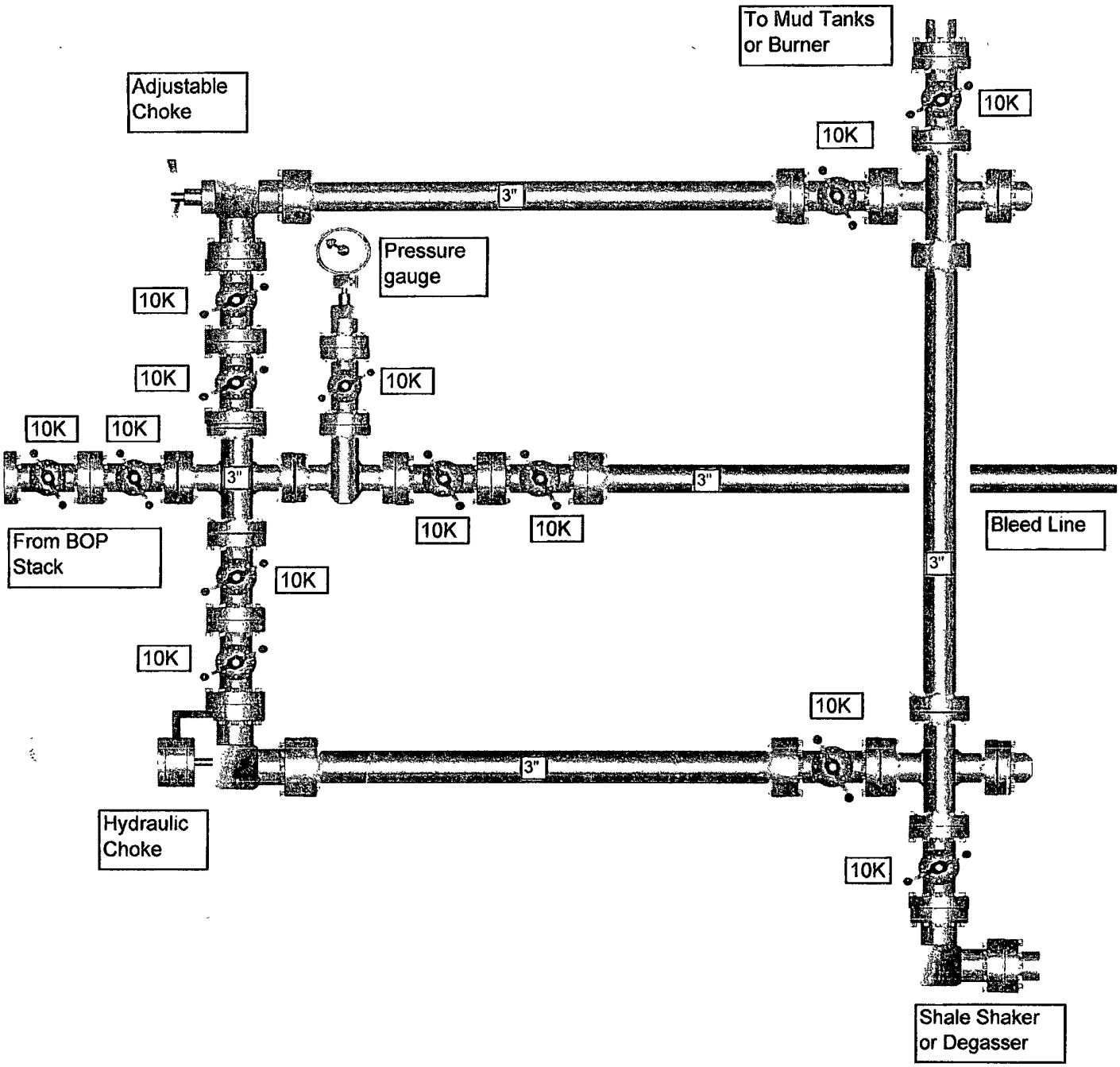
13-5/8" 3K Annular



13-5/8" x 10,000 psi BOP Stack

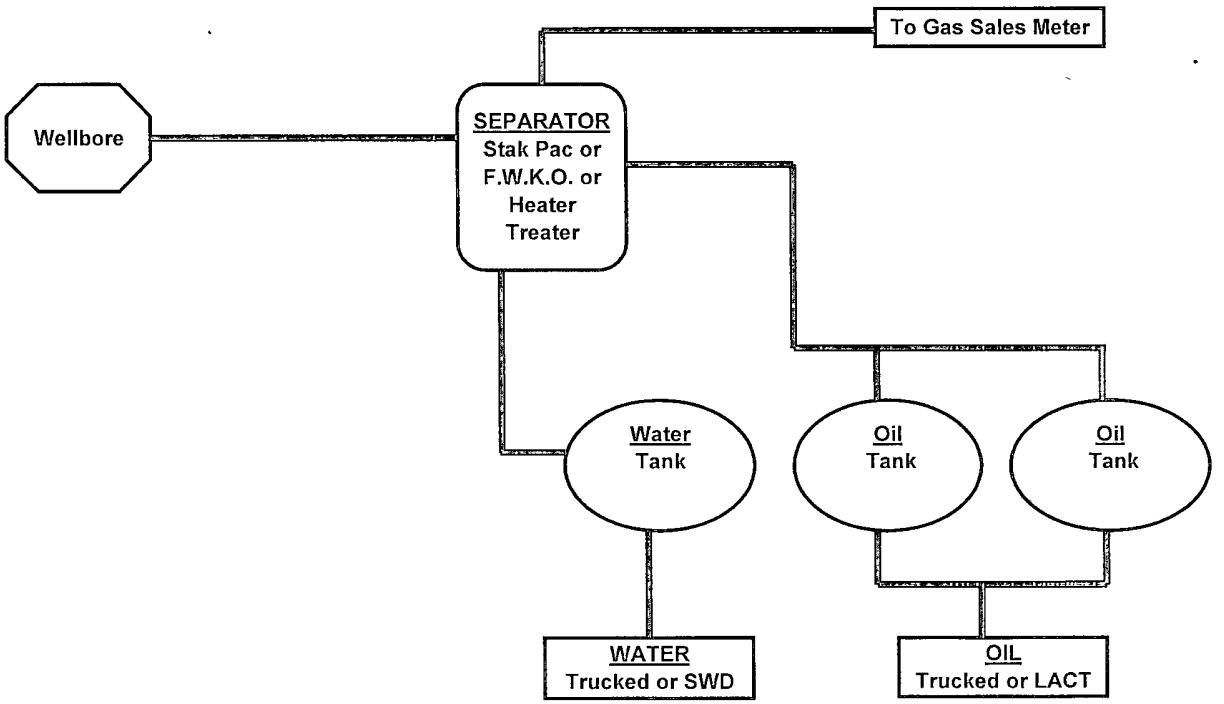


10,000 PSI CHOKE MANIFOLD



DEVON ENERGY PRODUCTION COMPANY LP

General Production Facilities Diagram



HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. All Company and Contract personnel admitted on location must be trained by a qualified H2S safety instructor to the following:
   a. Characteristics of H2S
   b. Physical effects and hazards
   c. Proper use of safety equipment and life support systems.
   d. Principle and operation of H2S detectors, warning system and briefing areas
   e. Evacuation procedures, routes and first aid.
   f. Proper use of 30-minute pressure demand air pack.

2. H2S Detection and Alarm System
   a. H2S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.

3. Windsock and/or wind streamers
   a. Windsock at mud pit area should be high enough to be visible
   b. Windsock at briefing area should be high enough to be visible
   c. There should be a windsock at entrance to location

4. Condition Flags and Signs
   a. Warning Sign on access road to location
   b. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H2S present in dangerous concentration. Only emergency personnel admitted to location.

5. Well Control Equipment
   a. See Exhibit "E" & "E-1"

6. Communication
   a. While working under masks chalkboards will be used for communication.
   b. Hand signals will be used where chalk board is inappropriate
   c. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.

7. Drill stem Testing
   a. Exhausts will be watered
   b. Flare line will be equipped with an electric igniter or a propane pilot light in case gas reaches the surface.
   c. If the location is near to a dwelling a closed DST will be performed.

8. Drilling contractor supervisor will be required to be familiar with the effects H2S has on tubular goods and other mechanical equipment.
   If H2S is encountered, mud system will be altered if necessary to maintain control or formation. A mud gas separator will be brought into service along with H2S scavengers if necessary.

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 – Ron Hays.....	(405) 464-4214....	(405) 552-8150....	(405) 359-7015

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 2136 Hobbs NM 88240 (505) 631-9561

SURFACE USE PLAN
Devon Energy Production Company, LP
Serrano 29 Federal 1
Surface Location: 1980' FNL & 660' FEL, Unit H, Sec 29 T24S R27E, Eddy, NM
Bottom hole Location: 1980' FNL & 660' FEL, Unit H, Sec 29 T24S R27E, Eddy, NM

1. **Existing Roads:**
   a. The well site and elevation plat for the proposed well are reflected on the well site layout; Form C-102. The well was staked by Basin Surveys.
   b. All roads into the location are depicted on Exhibit 3.
   c. Directions to Location: From the junction of Black River and John D Forehand, go south on John D Forehand for 1.5 miles to old lease road, and proposed lease road.

2. **New or Reconstructed Access Roads:**
   a. The well site layout, Form C-102 shows the existing County Road. Approximately 826' of new access road will be constructed as follows:
   b. The maximum width of the road will be 15'. It will be crowned and made of 6" of rolled and compacted caliche. Water will be deflected, as necessary, to avoid accumulation and prevent surface erosion.
   c. Surface material will be native caliche. This material will be obtained from a BLM approved pit nearest in proximity to the location. The average grade will be approximately 1%.
   d. No cattle guards, grates or fence cuts will be required. No turnouts are planned.

3. **Location of Existing Wells:**
   1 Mile Radius Plat shows all existing and proposed wells within a one-mile radius of the proposed location. See attached plat.

4. **Location of Existing and/or Proposed Production Facilities:**
   a. In the event the well is found productive, the Serrano 29 Federal 1 tank battery 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. All flow lines will adhere to API standards.
   d. If the well is productive, rehabilitation plans are as follows:
      i. The reserve pit will be back-filled after the contents of the pit are dry (within 120 days after completion, weather permitting).
      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.

5. **Location and Types of Water Supply:**
This location will be drilled using a combination of water mud systems (outlined in the Drilling Program). The water will be obtained from commercial water stations in the area and hauled to location by transport truck using the existing and proposed roads shown in the C-102. On occasion, water will be obtained from a pre-existing water well, running a pump directly to the drill rig. In these cases where a poly pipeline is used to transport water for drilling purposes, proper authorizations will be secured. If a poly pipeline is used, the size, distance, and map showing route will be provided to the BLM via sundry notice.

6. **Construction Materials:**
All caliche utilized for the drilling pad and proposed access road will be obtained from an existing BLM approved pit or from prevailing deposits found under the location. All roads will be constructed of 6" rolled and compacted caliche. Will use BLM recommended use of extra caliche from other locations close by for roads, if available.

7. **Methods of Handling Waste Material:**
   a. Drill cuttings will be disposed of in the reserve pits.
   b. All trash, junk and other waste material will be contained in trash cages or trash bins to prevent scattering. When the job is completed all contents will be removed and disposed of in an approved sanitary landfill.
   c. The supplier, including broken sacks, will pick up salts remaining after completion of well.
   d. A Porto-john will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.
   e. Remaining drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry enough to be broken out for further drying. If the drilling fluids do not evaporate in a reasonable time they will be hauled off by transports to a state approved disposal site. Later pits will be broken out to speed dry. Water produced during completion will be put in reserve pits. Oil and condensate produced will be put in a storage tank and sold.
   f. Disposal of fluids to be transported by the following companies:
      i. American Production Service Inc, Odessa TX
      ii. Gandy Corporation, Lovington NM
      iii. I & W Inc, Loco Hill NM
      iv. Jims Water Service of Co Inc, Denver CO

8. **Ancillary Facilities:** No campsite or other facilities will be constructed as a result of this well.

9. **Well Site Layout**
   a. Exhibit D shows the proposed well site layout with dimensions of the pad layout.
   b. This exhibit indicated proposed location of reserve and sump pits and living facilities.
   c. A closed loop system will be utilized; Devon will comply with the NMOCD requirements 19.15.17 and submit form C-144 to the appropriate NMOCD District Office.

10. Plans for Surface Reclamation:

a. After concluding the drilling and/or completion operations, if the well is found non-commercial, the caliche will be removed from the pad and transported to the original caliche pit or used for other drilling locations. The road will be reclaimed as directed by the BLM. The original top soil will again be returned to the pad and contoured, as close as possible, to the original topography. We will use a closed loop system.
b. The location and road will be rehabilitated as recommended by the BLM.
c. If the well is deemed commercially productive, caliche from areas of the pad site not required for operations will be reclaimed. The original top soil will be returned to the area of the drill pad not necessary to operate the well. These unused areas of the drill pad will be contoured, as close as possible, to match the original topography.

11. Surface Ownership

a. The surface is owned by the US Government and is administered by the Bureau of Land Management. The surface is multiple use with the primary uses of the region for the grazing of livestock and the production of oil and gas.
b. The proposed road routes and the surface location will be restored as directed by the BLM.

12. Other Information:

a. The area surrounding the well site is grassland. The topsoil is very sandy in nature. The vegetation is moderately sparse with native prairie grass, sagebush, yucca and miscellanous weeds. No wildlife was observed but it is likely that deer, rabbits, coyotes, and rodents traverse the area.
b. There is no permanent or live water in the general proximity of the location.
c. There are no dwellings within 2 miles of location.
d. A Cultural Resources Examination will be completed by Southern New Mexico Archaeological Services, Inc. and forwarded to the BLM office in Carlsbad, New Mexico.

13. Bond Coverage:

Bond Coverage is Nationwide; Bond # is CO-1104

Operators Representative:

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

Greg McGowen
Operations Engineer Advisor

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

(405) 228-8965 (office)
(405) 464-9769 (cell)

Don Mayberry
Superintendent

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

(505) 748-0164 (office)
(505) 748-5235 (cell)

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 _04th_ day of _January_ , 2010.
Printed Name: Stephanie A. Ysasaga
Signed Name: _____
Position Title: Sr. Staff Engineering Technician
Address: 20 North Broadway, OKC OK 73102
Telephone: (405)-552-7802
Field Representative (if not above signatory): Don Mayberry (see above)
Address (if different from above):
Telephone (if different from above):
E-mail (optional):

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Devon Energy Prod Co
LEASE NO.:	NM112269
WELL NAME & NO.:	1 Serrano 29 Federal
SURFACE HOLE FOOTAGE:	1980' FNL & 660' FEL
BOTTOM HOLE FOOTAGE	Same
LOCATION:	Section 29, T. 24 S., R 27 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)

Prevent damage to underground waterline for ranch at the entrance to the new access road from John D. Forehand road by marking the crossing prior to construction.

V-Door East

Access road will be limited to a 15 foot total width of disturbance.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 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. V-DOOR DIRECTION: East

C. TOPSOIL

The operator shall stockpile the topsoil in a low profile manner in order to prevent wind/water erosion of the topsoil. The topsoil to be stripped is approximately 10 inches in depth. The topsoil will be used for interim and final reclamation.

D. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

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

E. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call theCarlsbad Field Office at (575) 234-5972.

F. 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.

G. 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 (12) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (15) 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.

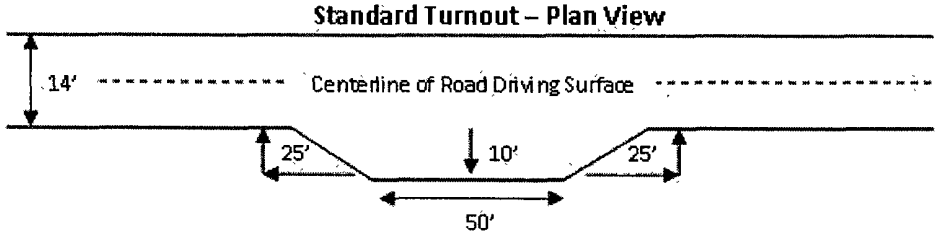
Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

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.

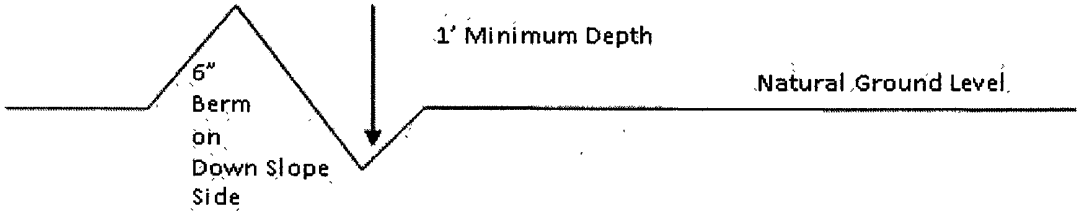
Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:



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.

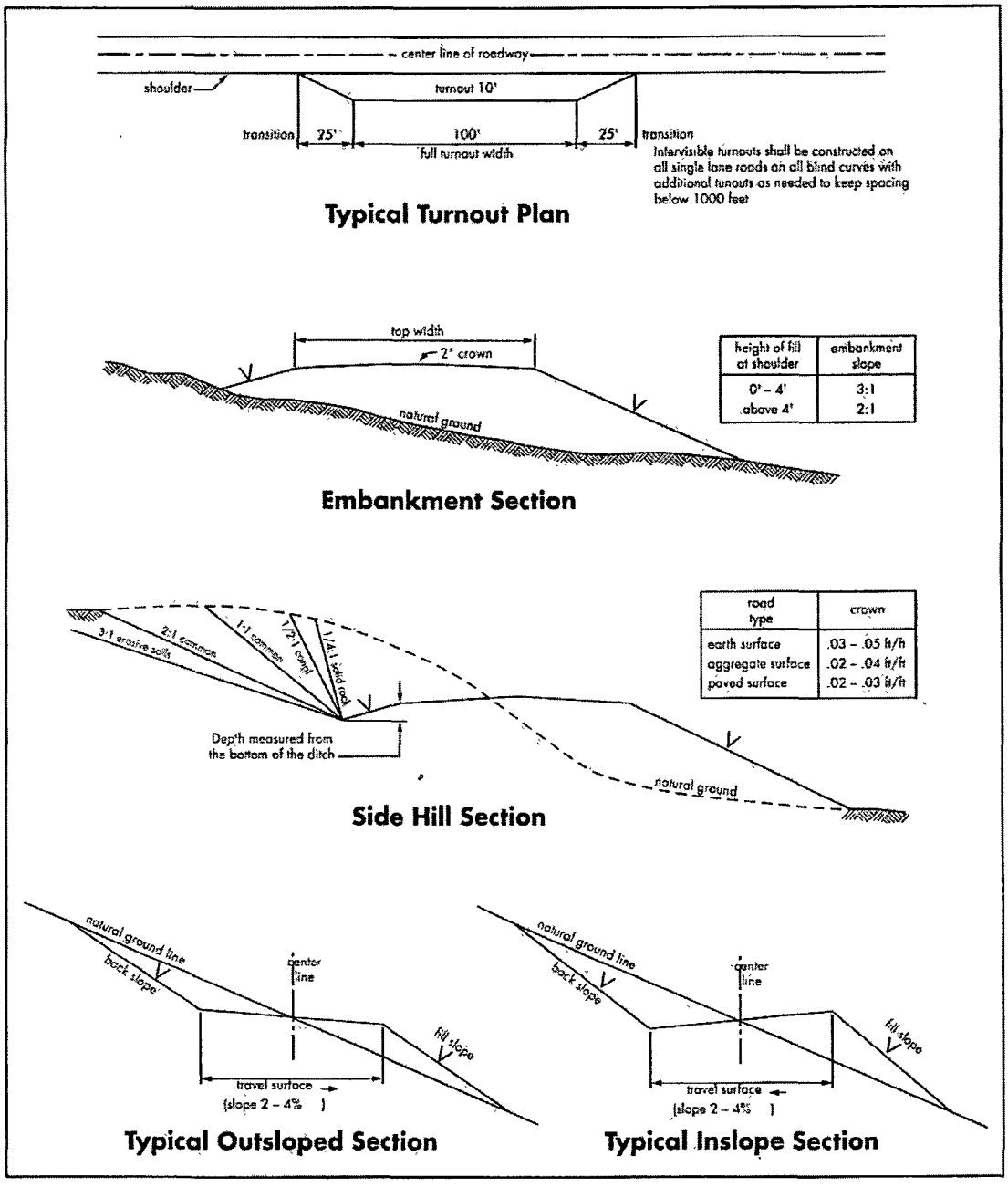
A gate shall be constructed and fastened securely to H-braces.

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

A. DRILLING OPERATIONS REQUIREMENTS

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

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

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

1. **Although Hydrogen Sulfide has not been reported in this section, it is always a possible hazard. It has been reported in the Township to the north. 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.

4. **The record of the drilling rate along with the CAL/GR/N well log run from TD to surface will be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

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.

Medium cave/karst
Possible lost circulation in the Chinle and Delaware Formation.
Possible high pressure gas in the Wolfcamp Formation and the Pennsylvanian Section.

1. The **13-3/8** inch surface casing shall be set at **approximately 90 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. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

    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.
    Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.

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 (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

3. The minimum required fill of cement behind the **7** 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 to surface. If cement does not circulate, contact the appropriate BLM office. **Additional cement may be required as the excess cement calculates to be 21%**

Formation below the 7" 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.

4. The minimum required fill of cement behind the **4-1/2** inch production casing is:

   ☒ Cement to top of liner. Operator shall provide method of verification.

5. 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 surface casing shoe shall be **3000 (3M)** psi. **Operator installing a 10M but plans to test against the casing without a plug or a cup packer.**

   a. **For surface casing only:** If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.

3. 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. **Operator installing a 10M but testing as a 5M.**

4. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 7 inch production casing shoe shall be **10000 (10M)** psi. **10M 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.**

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. Casing cut-off and BOP installation will not be initiated until the cement has had 4-6 hours of setup time in a water basin and 12 hours in the potash areas. This time will start after the cement plug is bumped. Testing the BOP/BOPE against a plug can commence after meeting the above conditions plus the BOP installation time.

    b. The tests shall be done by an independent service company utilizing a test plug.

    c. The results of the test shall be reported to the appropriate BLM office.

    d. 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.**

    e. 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.

    f. 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.

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.

Proposed mud weight may not be adequate for drilling through Wolfcamp.

E. DRILL STEM TEST

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

CRW 012710

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 – not requested in APD

C. ELECTRIC LINES – not requested in APD

IX. 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.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation 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 that is free of contaminants 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.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

X. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared; these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Seed Mixture 1, for Loamy 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 regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (small/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 lovegrass (Eragrostis intermedia)	0.5
Sand dropseed (Sporobolus cryptandrus)	1.0
Sideoats grama (Bouteloua curtipendula)	5.0

*Pounds of pure live seed:

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