OCD-HOBBS

Form 3160-5
(February 2005)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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.*

5. Lease Serial No.
NM 04591

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well
☑ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
New Mexico Federal 3

2. Name of Operator
Devon Energy Production Company, L.P. 6137

9. API Well No.
30-025-39741

3a. Address
20 North Broadway, Oklahoma City, OK 73102

3b. Phone No. *(include area code)*
405-235-3611

10. Field and Pool or Exploratory Area
Delaware

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*
510 FNL & 545 FEL SEC 24 T18S R33E

11. Country or Parish, State
Lea 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 Name Change
	☐ 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 Company L. P. respectfully requests to change the name of this well New Mexico Federal 3 to read:

NEW MEXICO 24 FEDERAL COM 3H

OPER. OGRID NO. 6137
PROPERTY NO. 38339
POOL CODE 21655
EFF. DATE 11-29-10
API NO. 30-025-39741

RECEIVED
OCT 07 2010
HOBBSOCD

SUBJECT TO LIKE APPROVAL BY STATE

14. I hereby certify that the foregoing is true and correct.
Name *(Printed/Typed)*
Judy A. Barnett

Title Regulatory Analyst

PETROLEUM ENGINEER

Signature

Date 07/28/2010

OCT 13 2010

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

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

APPROVED
OCT 5 2010
/s/ Dustin Winkler
BUREAU OF LAND MANAGEMENT
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)

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10. Field and Pool or Exploratory Area
Delaware

4. Location of Well *(Footage, Sec., T,R,M, or Survey Description)*
NE/4 NW/4 510 FNL & 545 FEL BHL. N/2 NE/2 SEC 24 T18S R33E

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Lea County, NM

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☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
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☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

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Devon Energy Production Company L. P. respectfully requests to change this well to a Horizontal Delaware producer. The well will be drilled vertically utilizing a Pilot Hole to ~6000'. The well will be logged and plugged back to ~4700'. Directional tools will be run & the direction curve will be drilled.

Hole Size	Hole Interval	OD Csg	Casing Interval	Weight	Collar	Grade
17 ½"	0-~~1750'~~ 1800	13 3/8"	0-~~1750'~~ 1800	54.5#	J-55	ST&C
12 ¼"	1800 ~~1750~~-3100'	9 5/8"	0-3100'	40#	J-55	LT&C
8 ¾"	3100-8300'	5 ½"	0-4800'	17#	N-80	LT&C
			4800-8300'	17#	N-80	BT&C

Cement geometry for PH plug: 780 sx Class H + 2% salt w/ .9 cf/sx yield.

Casing Size	Collapse Design Factor	Burst Design Factor	Tension Design Factor
13 3/8"	1.34	3.24	5.23
9 5/8"	1.58	2.45	4.52
5 ½"	1.53	1.88	2.46

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Mud Program

Depth	Mud Wt.	Visc	Fluid Loss	Type System
0-1750	8.5-9.0	30	NA	FW
1750-3100	10	35	NA	Brine
3100-8300	8.8-9.1	30	NA	FW

14. I hereby certify that the foregoing is true and correct.
Name *(Printed/Typed)*
Judy A. Barnett

Title Regulatory Analyst

Signature Judy A. Barnett

Date 07/29/2010

PETROLEUM ENGINEER
OCT 13 2010

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

APPROVED
OCT 5 2010
/s/ Dustin Winkler
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

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(Instructions on page 2)

RECEIVED
OCT 07 2010
HOBBSOCD

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 12, 2005

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-39741	21655	E-K /DELAWARE

Property Code	Property Name	Well Number
38339	NEW MEXICO "24" FEDERAL COM	3H

OGRID No.	Operator Name	Elevation
6137	DEVON ENERGY PRODUCTION COMPANY, L.P.	3963'

Surface Location

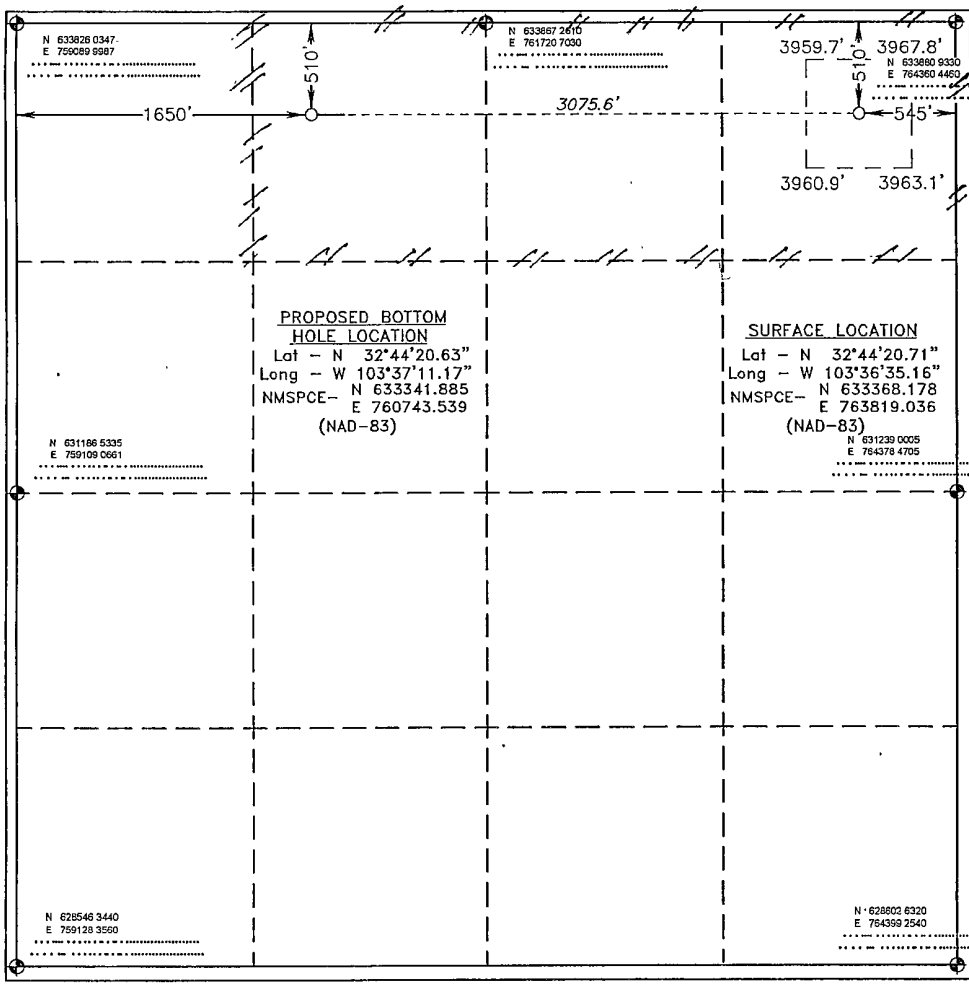
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	24	18 S	33 E		510	NORTH	545	EAST	LEA

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	County
C	24	18 S	33 E		510	NORTH	1650	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
120			

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



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature Date

Judy A. Barnett 7/28/10
Printed Name

Regulatory Analyst

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.

SEPTEMBER 4, 2009
Date Surveyed

Signature & Seal of Professional Surveyor

GARY L. JONES
NEW MEXICO
7977
REGISTERED PROFESSIONAL LAND SURVEYOR

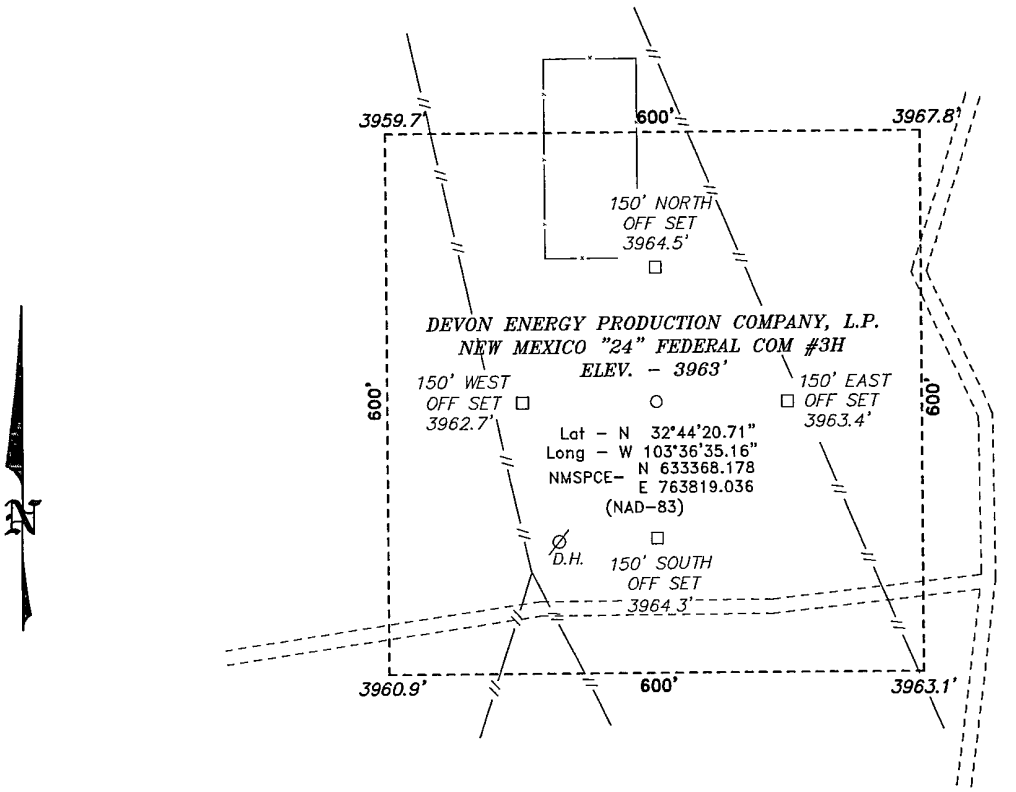
W.O.: 24163

Certificate No. Gary L. Jones 7977

BASIN SURVEYS

SECTION 24, TOWNSHIP 18 SOUTH, RANGE 33 EAST, N.M.P.M.,

LEA COUNTY, **NEW MEXICO.**



200 0 200 400 FEET

SCALE: 1" = 200'

Directions to Location:

FROM THE MILE MARKER 17 OF HWY 529; GO NORTHWEST 0.1 MILES TO LEASE ROAD, ON LEASE ROAD GO SOUTHWESTERLY THENCE SOUTH FOR 0.9 MILES TO PROPOSED LOCATION.

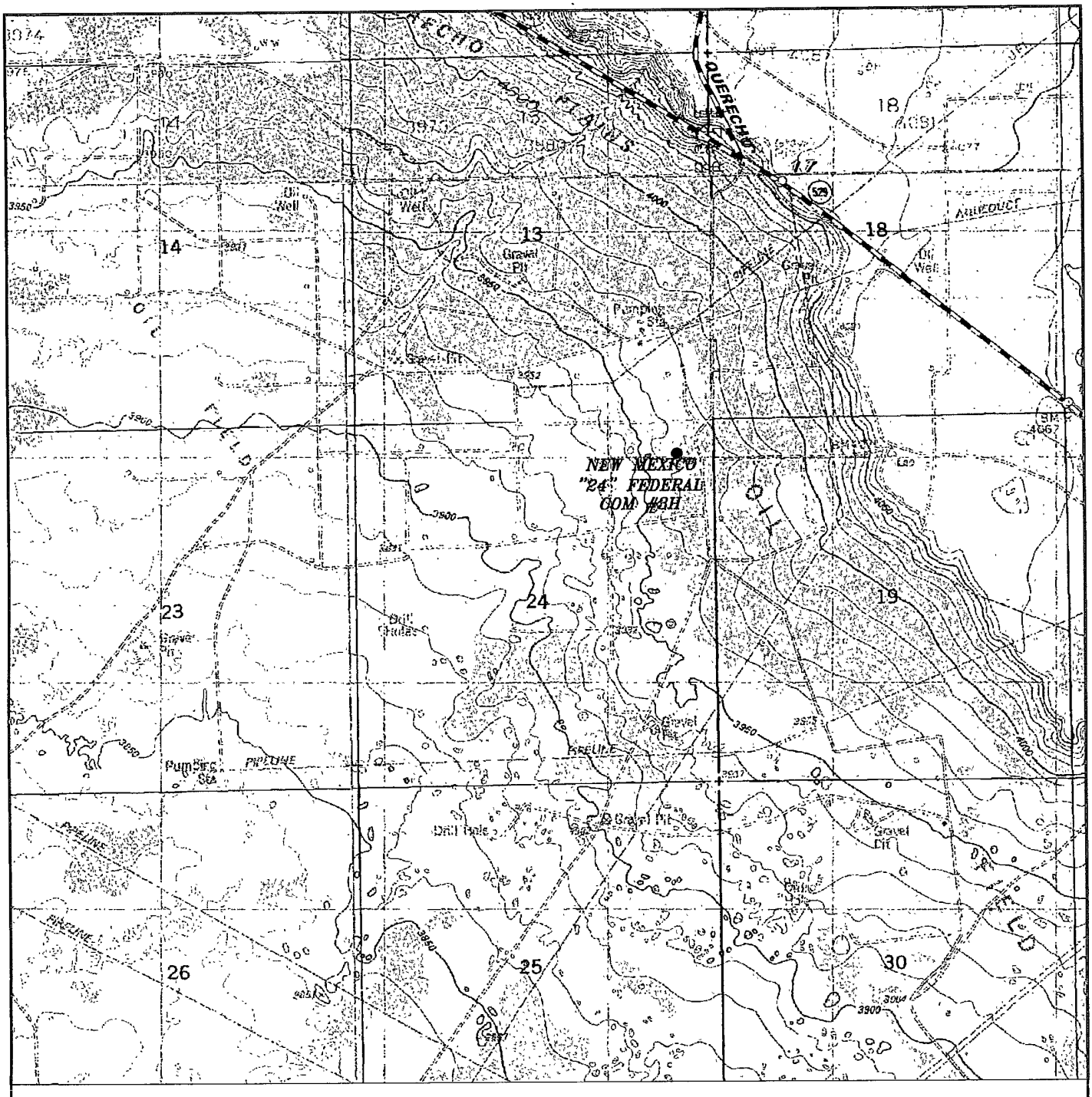
DEVON ENERGY PRODUCTION COMPANY, L.P.

REF: NEW MEXICO "24" FEDERAL COM #3H / WELL PAD TOPO

THE NEW MEXICO "24" FEDERAL COM #3H LOCATED 510' FROM THE NORTH LINE AND 545' FROM THE EAST LINE OF SECTION 24, TOWNSHIP 18 SOUTH, RANGE 33 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.

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

W.O. Number: 21683	Drawn By: J. SMALL		
Date: 09-10-2009	Disk: JMS 21683	Survey Date: 09-04-2009	Sheet 1 of 1 Sheets



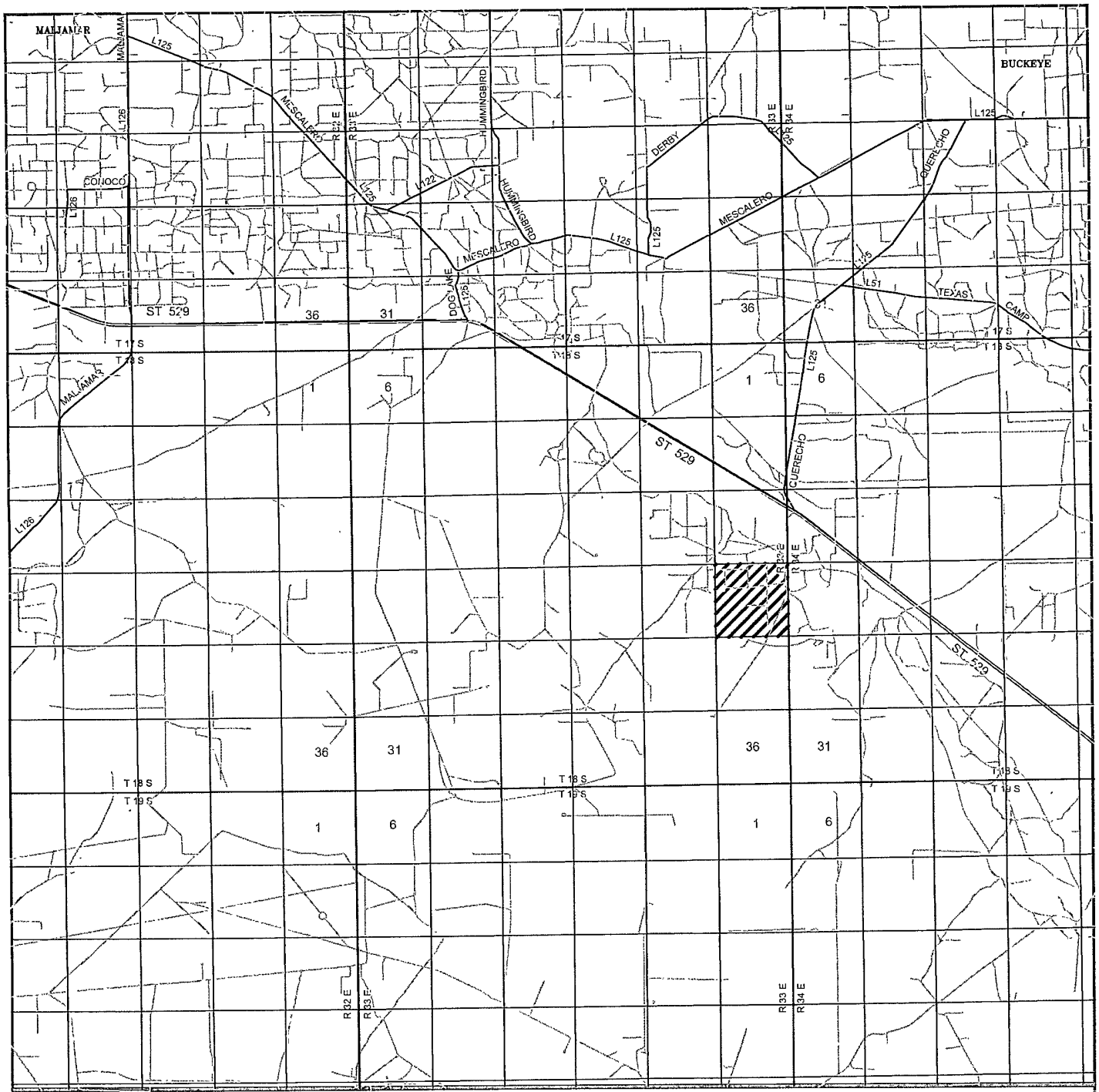
NEW MEXICO "24" FEDERAL COM #3H
Located 510' FNL and 545' FEL
Section 24, Township 18 South, Range 33 East,
N.M.P.M., Lea County, New Mexico.

Basin Surveys
focused 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 21683
Survey Date:	09-04-2009
Scale:	1" = 2000'
Date:	09-10-2009

N

DEVON ENERGY PRODUCTION COMPANY, L.P.



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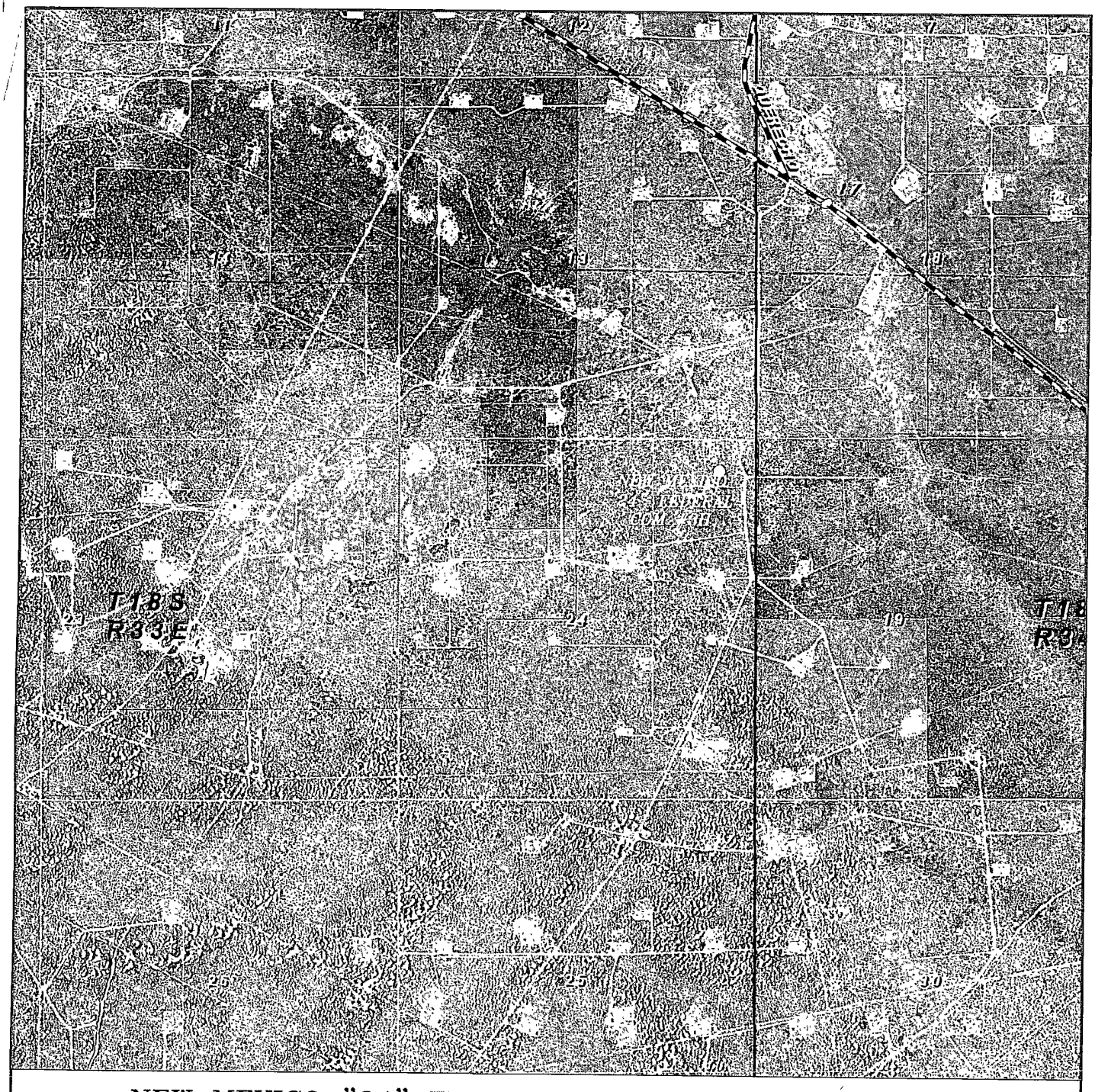
W.O. Number:	JMS 21683
Survey Date:	09-04-2009
Scale:	1" = 2 Miles
Date:	09-10-2009

N

DEVON ENERGY PRODUCTION COMPANY, L.P.



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

N

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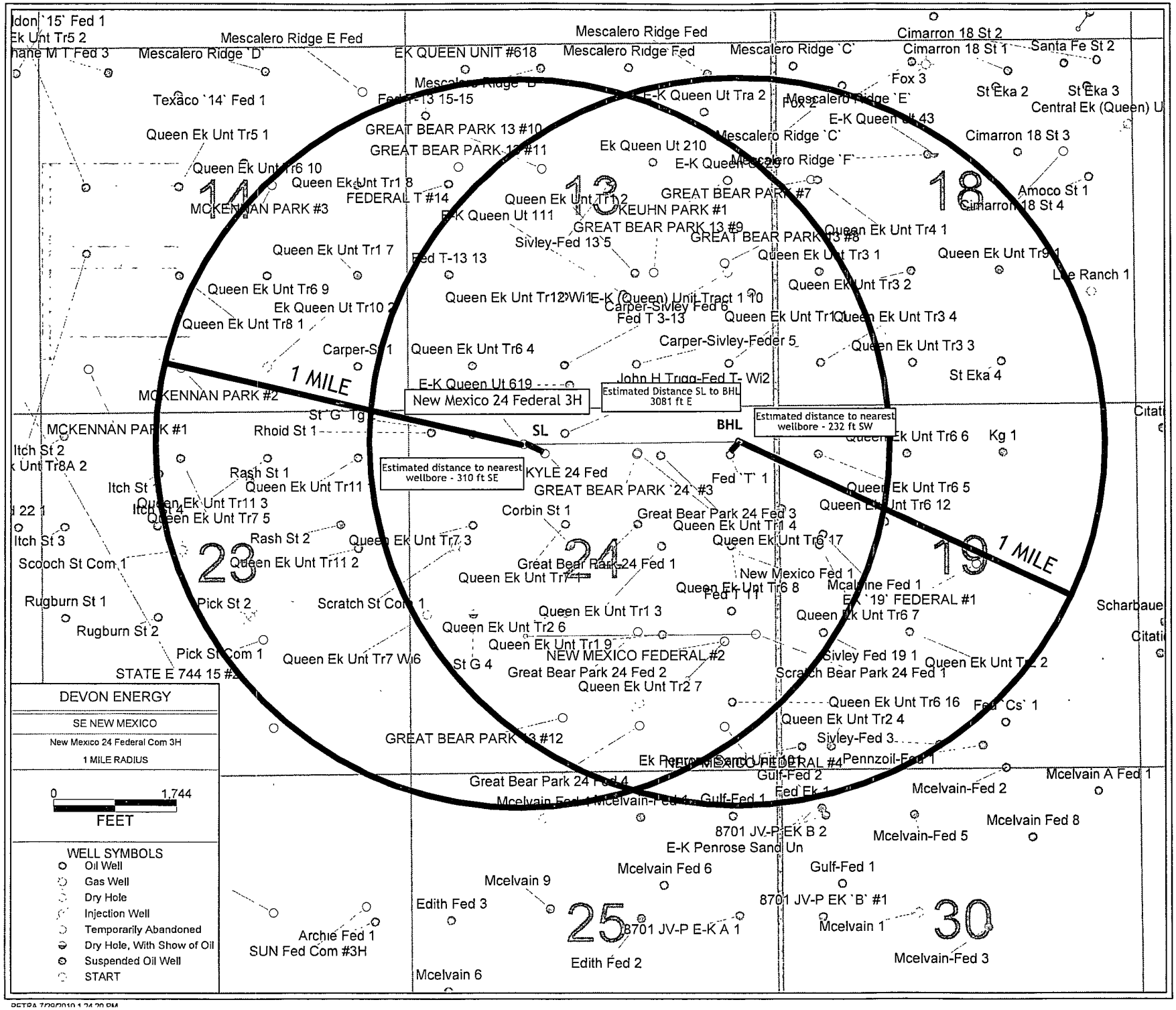

New Mexico 24 Federal 3H
Estimated Distance SL to BHL 3081 ft E
SL
BHL
Estimated distance to nearest wellbore - 310 ft SE
Estimated distance to nearest wellbore - 232 ft SW
1 MILE
1 MILE
11
13
18
23
24
19
25
30
DEVON ENERGY
SE NEW MEXICO
New Mexico 24 Federal Com 3H
1 MILE RADIUS
0
1,744
FEET
WELL SYMBOLS
Oil Well
Gas Well
Dry Hole
Injection Well
Temporarily Abandoned
Dry Hole, With Show of Oil
Suspended Oil Well
START

Job Number:
Company: Devon Energy
Lease/Well: New Mexico 24 Federal Com 3H
Location:
Rig Name:
RKB:
G.L. or M.S.L.:

State/Country: New Mexico
Declination:
Grid:
File name: P:\SURVEYS\DEVON\NMFED3H.SVY
Date/Time: 29-Jun-10 / 11:25
Curve Name: plan Rev 0 6.29.10

Inwell Inc

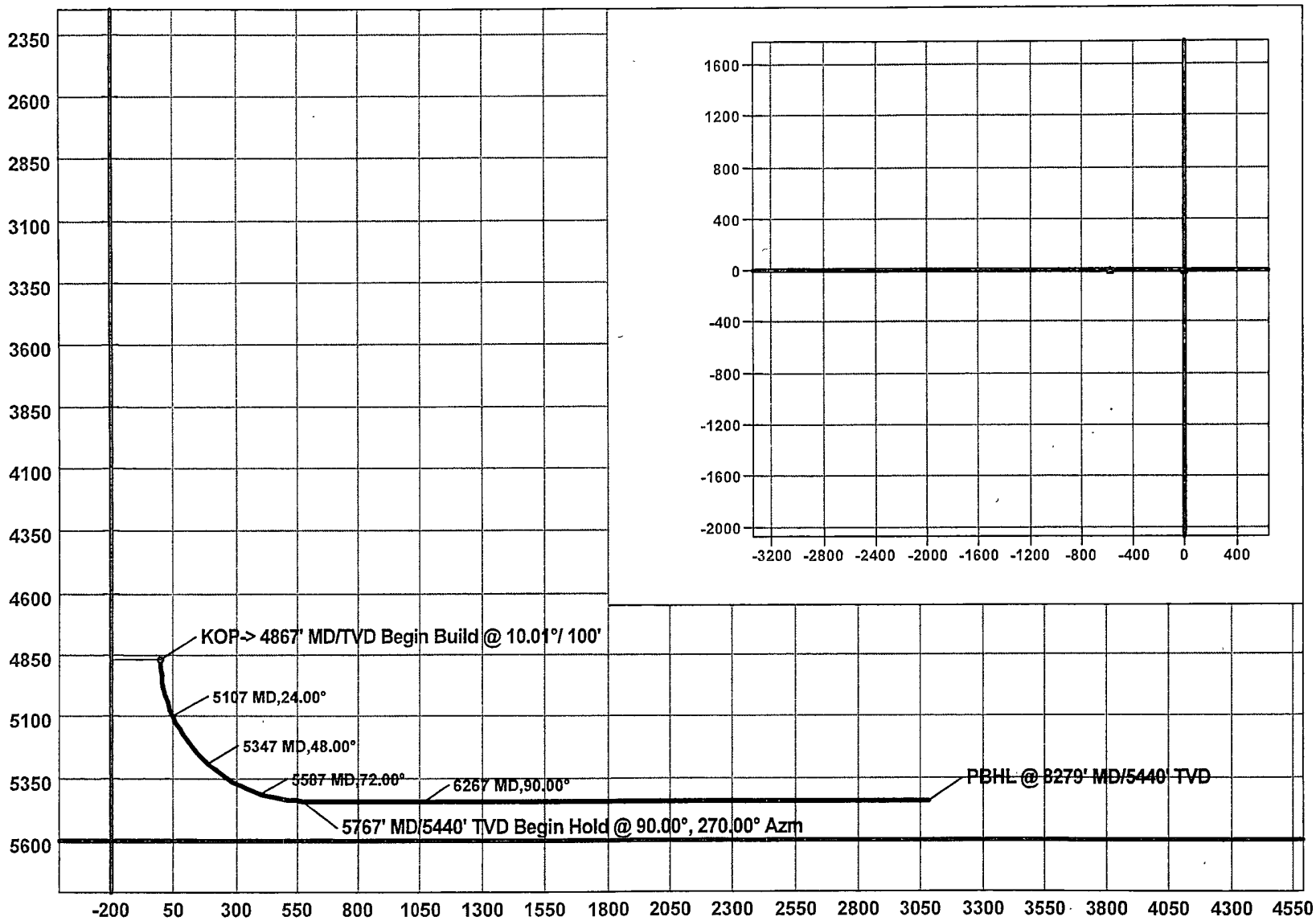
WINSERVE PROPOSAL REPORT
Minimum Curvature Method
Vertical Section Plane 270.00
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	*Incl Angle Deg*	*Drift Direction Deg*	*True Vertical Depth*	*N-S FT*	*E-W FT*	*Vertical Section FT*	*Dogleg Severity Deg/100*
KOP-> 4867' MD/TVD Begin Build @ 10.01°/ 100'							
4867.04	.00	270.00	4867.04	.00	.00	.00	.00
4897.04	3.00	270.00	4897.03	.00	-.79	.79	10.00
4927.04	6.00	270.00	4926.93	.00	-3.14	3.14	10.00
4957.04	9.00	270.00	4956.67	.00	-7.05	7.05	10.00
4987.04	12.00	270.00	4986.17	.00	-12.52	12.52	10.00
5017.04	15.00	270.00	5015.33	.00	-19.52	19.52	10.00
5047.04	18.00	270.00	5044.10	.00	-28.04	28.04	10.00
5077.04	21.00	270.00	5072.37	.00	-38.06	38.06	10.00

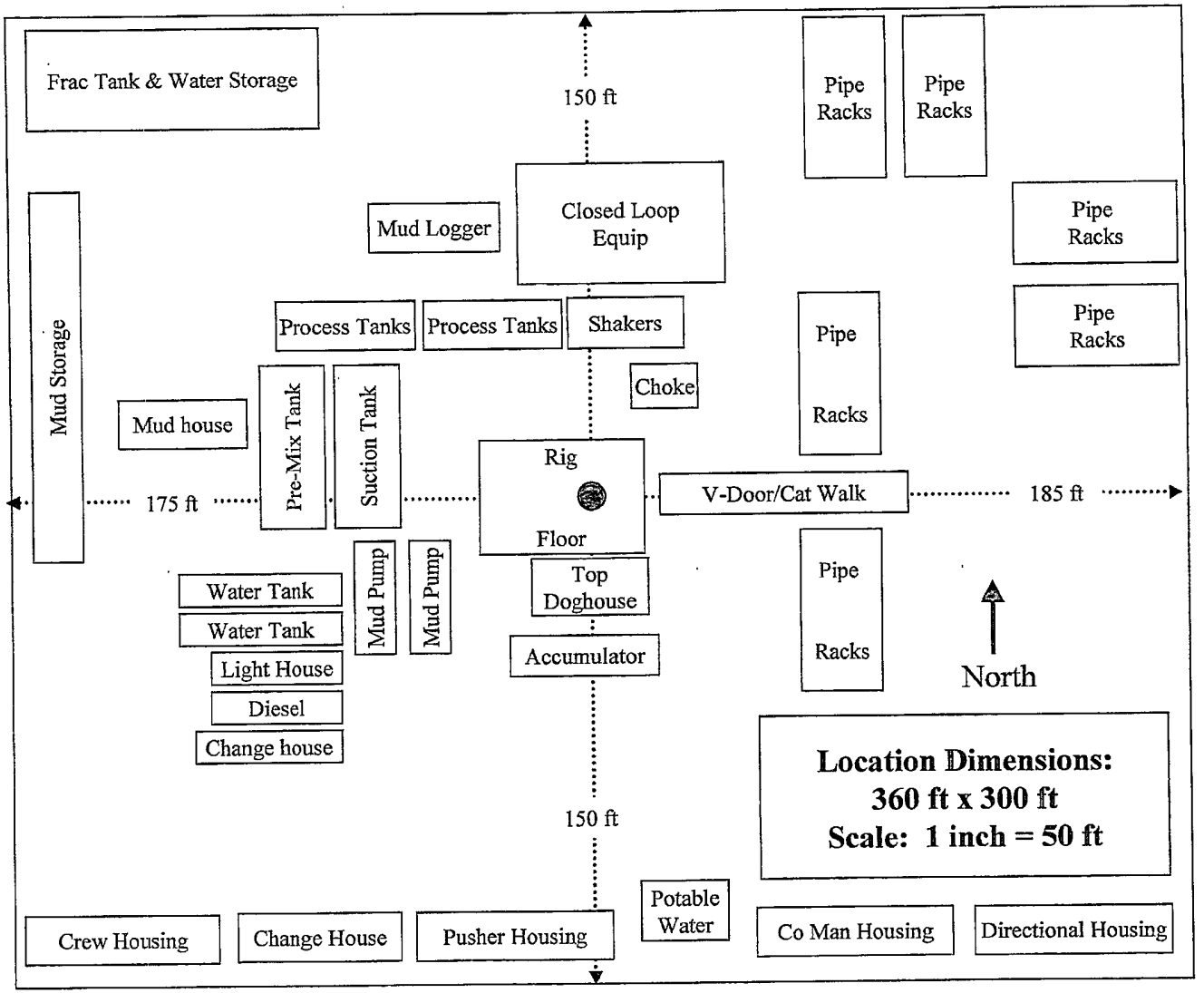
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	Dogleg Severity Deg/100
5107.04	24.00	270.00	5100.08	.00	-49.53	49.53	10.00
5137.04	27.00	270.00	5127.16	.00	-62.45	62.45	10.00
5167.04	30.00	270.00	5153.52	.00	-76.76	76.76	10.00
5197.04	33.00	270.00	5179.10	.00	-92.43	92.43	10.00
5227.04	36.00	270.00	5203.82	.00	-109.42	109.42	10.00
5257.04	39.00	270.00	5227.62	.00	-127.69	127.69	10.00
5287.04	42.00	270.00	5250.43	.00	-147.17	147.17	10.00
5317.04	45.00	270.00	5272.18	.00	-167.81	167.81	10.00
5347.04	48.00	270.00	5292.83	.00	-189.57	189.57	10.00
5377.04	51.00	270.00	5312.31	.00	-212.38	212.38	10.00
5407.04	54.00	270.00	5330.58	.00	-236.18	236.18	10.00
5437.04	57.00	270.00	5347.57	.00	-260.90	260.90	10.00
5467.04	60.00	270.00	5363.24	.00	-286.48	286.48	10.00
5497.04	63.00	270.00	5377.55	.00	-312.84	312.84	10.00
5527.04	66.00	270.00	5390.47	.00	-339.91	339.91	10.00
5557.04	69.00	270.00	5401.95	.00	-367.63	367.63	10.00
5587.04	72.00	270.00	5411.96	.00	-395.90	395.90	10.00
5617.04	75.00	270.00	5420.48	.00	-424.66	424.66	10.00
5647.04	78.00	270.00	5427.48	.00	-453.83	453.83	10.00
5677.04	81.00	270.00	5432.95	.00	-483.33	483.33	10.00
5707.04	84.00	270.00	5436.86	.00	-513.07	513.07	10.00
5737.04	87.00	270.00	5439.22	.00	-542.97	542.97	10.00
5767.04	90.00	270.00	5440.00	.00	-572.96	572.96	10.00
5767' MD/5440' TVD Begin Hold @ 90.00°, 270.00° Azm							
5767.05	90.00	270.00	5440.00	.00	-572.96	572.96	10.01
6267.05	90.00	270.00	5440.00	.00	-1072.96	1072.96	.00
6767.05	90.00	270.00	5440.00	.00	-1572.96	1572.96	.00
7267.05	90.00	270.00	5440.00	.00	-2072.96	2072.96	.00
7767.05	90.00	270.00	5440.00	.00	-2572.96	2572.96	.00

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	Dogleg Severity Deg/100
8267.05	90.00	270.00	5440.00	.00	-3072.96	3072.96	.00
PBHL @ 8279' MD/5440' TVD							
8279.09	90.00	270.00	5440.00	.00	-3085.00	3085.00	.00

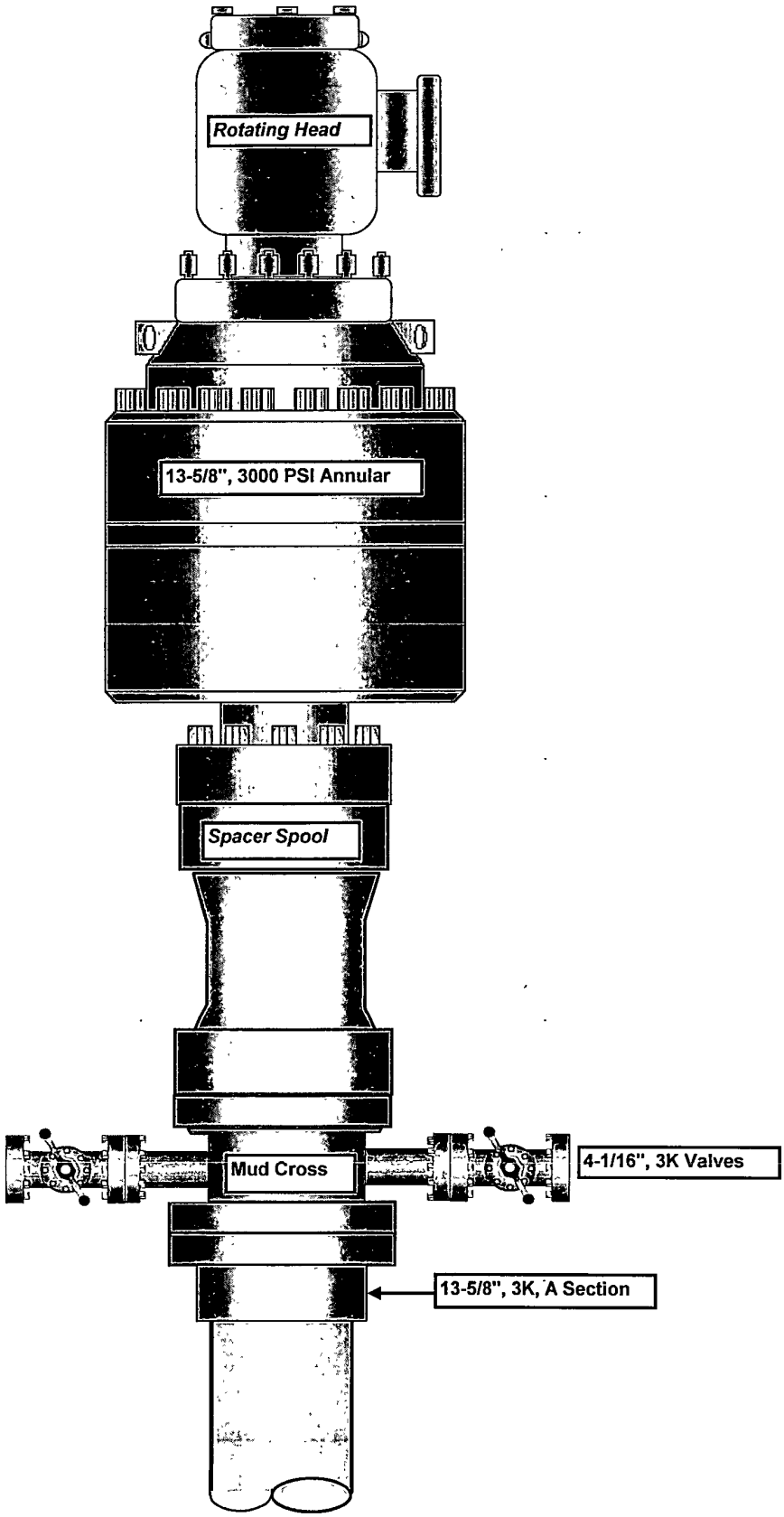
Company: Devon Energy
Lease/Well: New Mexico 24 Federal Com 3H
State/Country: New Mexico



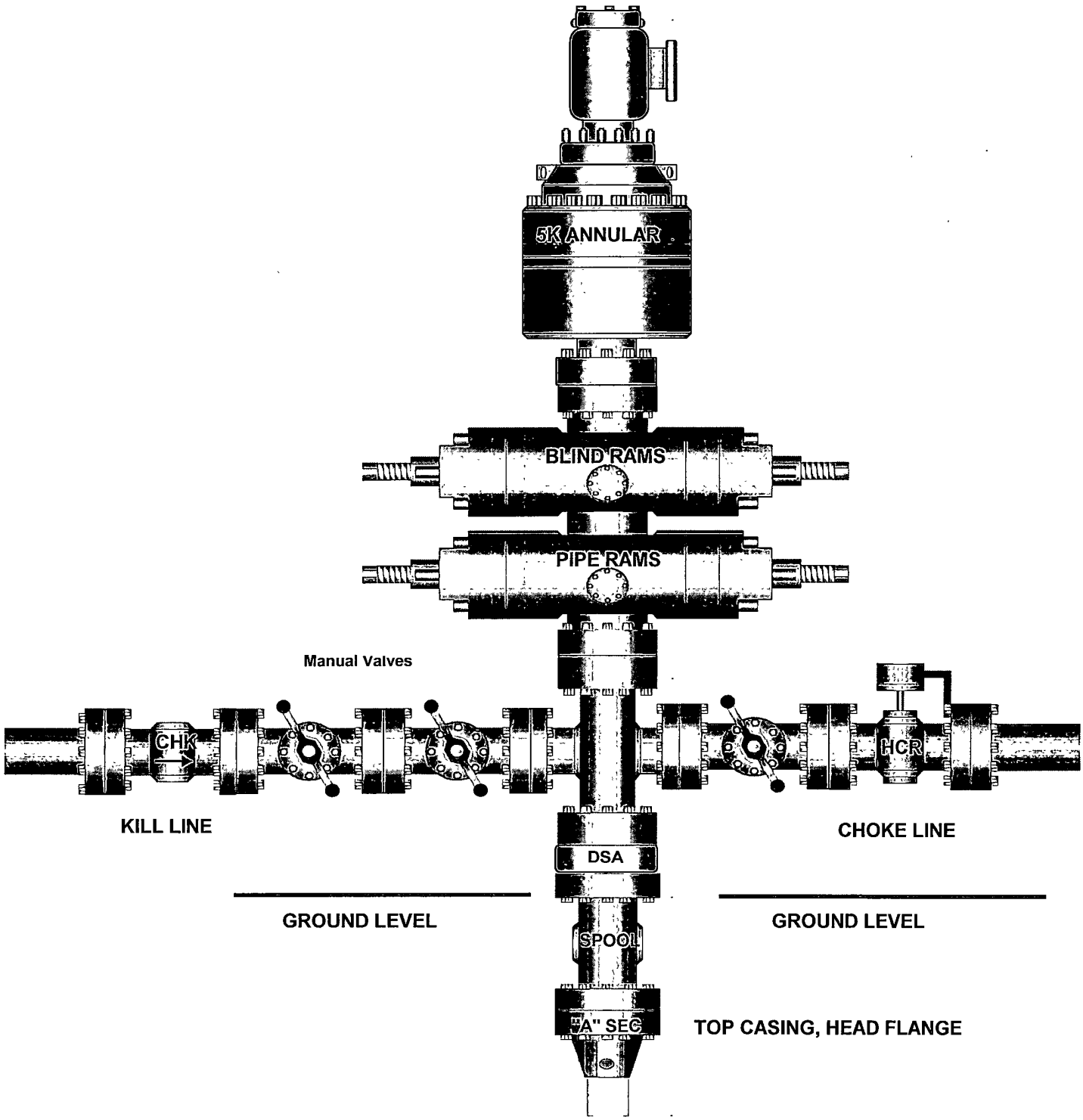
Conventional Rig Location Layout



13-5/8" 3K Annular



11" x 5,000 psi BOP Stack



Proposal No: 215856209A

Devon Energy Corp
New Mexico 24 Fed #3H

Lea County, New Mexico
July 27, 2010

Well Proposal

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:
Hobbs
Bus Phone: (575) 392-5556
Fax: (575) 392-7307

Service Representatives:
Steve Matlock
District Sales Supervisor
Hobbs, New Mexico
Bus Phone:

Operator Name: Devon Energy Corp
Well Name: New Mexico 24 Fed #3H
Job Description: Surface Casing
Date: July 27, 2010

Proposal No: 215856209A

FLUID SPECIFICATIONS

Spacer — 20.0 bbls Fresh Water @ 8.34 ppg

FLUID	VOLUME CU-FT		VOLUME FACTOR	AMOUNT AND TYPE OF CEMENT
Lead Slurry	2065	/	1.97	= 1050 sacks (35:65) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 4% bwoc Bentonite + 5% bwoc MPA-5 + 0.8% bwoc Sodium Metasilicate + 3 lbs/sack LCM-1 + 98.2% Fresh Water
Tail Slurry	401	/	1.34	= 300 sacks Class C Cement + 1% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 56.2% Fresh Water

Displacement — 264.4 bbls Mud @ 9 ppg

CEMENT PROPERTIES

	SLURRY NO.1	SLURRY NO.2
Slurry Weight (ppg)	12.80	14.80
Slurry Yield (cf/sack)	1.97	1.34
Amount of Mix Water (gps)	10.24	6.34
Estimated Pumping Time - 70 BC (HH:MM)	4:00	2:30
COMPRESSIVE STRENGTH		
8 hrs @ 92 ° F (psi)		500
12 hrs @ 92 ° F (psi)	300	1150
17 hrs @ 92 ° F (psi)	500	
24 hrs @ 92 ° F (psi)	700	2100
72 hrs @ 92 ° F (psi)		2700

ACTUAL CEMENT VOLUMES MAY VARY BASED ON FLUID CALIPER.

Operator Name: Devon Energy Corp
Well Name: New Mexico 24 Fed #3H
Job Description: Intermediate Casing
Date: July 27, 2010

Proposal No: 215856209A

FLUID SPECIFICATIONS

Spacer — 20.0 bbls Fresh Water @ 8.34 ppg

FLUID	VOLUME CU-FT		VOLUME FACTOR	AMOUNT AND TYPE OF CEMENT
Lead Slurry	1311	/	1.97	= 670 sacks (35:65) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 4% bwoc Bentonite + 0.8% bwoc Sodium Metasilicate + 5% bwoc MPA-5 + 3 lbs/sack LCM-1 + 98.2% Fresh Water
Tail Slurry	398	/	1.33	= 300 sacks Class C Cement + 0.125 lbs/sack Cello Flake + 56.1% Fresh Water

Displacement — 232.0 bbls Mud @ 10.2 ppg

CEMENT PROPERTIES

	SLURRY NO.1	SLURRY NO.2
Slurry Weight (ppg)	12.80	14.80
Slurry Yield (cf/sack)	1.97	1.33
Amount of Mix Water (gps)	10.24	6.32
Estimated Pumping Time - 70 BC (HH:MM)	3:30	2:30
COMPRESSIVE STRENGTH		
12 hrs @ 95 ° F (psi)		
15 hrs @ 95 ° F (psi)	340	
24 hrs @ 95 ° F (psi)	500	
8 hrs @ 101 ° F (psi)	800	
12 hrs @ 101 ° F (psi)		500
24 hrs @ 101 ° F (psi)		850
72 hrs @ 101 ° F (psi)		2250
		3000

ACTUAL CEMENT VOLUMES MAY VARY BASED ON CALIPER.

Operator Name: Devon Energy Corp
Well Name: New Mexico 24 Fed #3H
Job Description: Long String
Date: July 27, 2010

Proposal No: 215856209A

FLUID SPECIFICATIONS

Spacer — 10.0 bbls Fresh Water @ 8.34 ppg

Spacer — 1,500.0 gals Mud Clean II @ 8.45 ppg

Spacer — 10.0 bbls Fresh Water @ 8.34 ppg

FLUID	VOLUME CU-FT		VOLUME FACTOR	AMOUNT AND TYPE OF CEMENT
Lead Slurry	939	/	2.04	= 460 sacks (35:65) Poz (Fly Ash):Class H Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.1% bwoc ASA-301 + 6% bwoc Bentonite + 0.2% bwoc FL-52A + 107.8% Fresh Water
Tail Slurry	1187	/	1.28	= 930 sacks (50:50) Poz (Fly Ash):Class H Cement + 5% bwow Sodium Chloride + 0.3% bwoc CD-32 + 0.5% bwoc FL-25 + 0.6% bwoc Sodium Metasilicate + 0.2% bwoc FL-52A + 57.4% Fresh Water
Displacement				192.0 bbls Displacement Fluid

CEMENT PROPERTIES

	SLURRY NO.1	SLURRY NO.2
Slurry Weight (ppg)	12.50	14.20
Slurry Yield (cf/sack)	2.04	1.28
Amount of Mix Water (gps)	11.25	5.78
Estimated Pumping Time - 70 BC (HH:MM)	5:00	4:30
Free Water (mls) @ ° F @ 90 ° Angle		0.0
Fluid Loss (cc/30min) at 1000 psi and ° F		50.0
COMPRESSIVE STRENGTH		
12 hrs @ 124 ° F (psi)	200	250
24 hrs @ 124 ° F (psi)	500	1200
72 hrs @ 124 ° F (psi)	650	1600

CEMENT VOLUMES MAY VARY BASED ON CALIPER.

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Devon Energy Production Company, LP**
LEASE NO.:	**NM-04591**
WELL NAME & NO.:	**New Mexico 24 Fed Com #3H**
SURFACE HOLE FOOTAGE:	**510' FNL & 545' FEL**
BOTTOM HOLE FOOTAGE	**510' FNL & 1650' FWL**
LOCATION:	**Section 24, T. 18 S., R 33 E., NMPM**
COUNTY:	**Lea County, New Mexico**

I. 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

☒ **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 **Queen** 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. 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. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a "Major" violation.**

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 GR/N well log run from TD to surface (horizontal well – vertical portion of hole) 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 prior to drilling out 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. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

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

Possible water flows in the Salado and Artesia Groups.
Possible lost circulation in the Grayburg Formation.

1. The **13-3/8** inch surface casing shall be set at **approximately 1800 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the surface. **Fresh water mud to be used to setting depth.**

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.

    b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.

    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

d. If cement falls back, remedial cementing will be done prior to drilling out that string.

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

☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.

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.

Pilot Hole: **Pilot hole to be plugged back with a 160' plug at TD (minimum 25sx, WOC and tag) and a 500'+ kick off plug from ~5200' to `4700'. Kick off plug to cover the top of the Delaware.**

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:

☒ Cement should tie-back at least 500 feet into previous casing string. Operator shall provide method of verification.

4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.

   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** 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.**

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

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips or where the float does not hold, the minimum wait time before cut-off is eight hours after bumping the plug or when the cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. BOP/BOPE testing can begin after the above conditions are satisfied.

    b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (18 hours) or potash (24 hours) prior to initiating the test.

    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. **Effective November 1, 2008, no variances will be granted on reduced pressure tests on the surface casing and BOP/BOPE. Onshore Order 2 requirements will be in effect.**

D. DRILL STEM TEST

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

E. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

DHW 090110