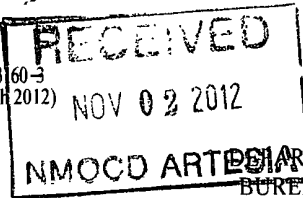


Form 3160-3
(March 2012)



R-111-POTASH OCD Artesia

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-89052	
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name TOS 11/5/2012	
2. Name of Operator DEVON ENERGY PRODUCTION COMPANY, L. P.		7. If Unit or CA Agreement, Name and No.	
3a. Address 333 W. SHERIDAN OKLAHOMA CITY, OK 73102		8. Lease Name and Well No. APACHE 25 FED 19H <31920>	
3b. Phone No. (include area code) 405-552-4524		9. API Well No. 30-015-40828	
4. Location of Well (Report location clearly and in accordance with any State requirements *) At surface 1030 FNL & 330 FEL At proposed prod. zone 660 FNL & 330 FWL		10. Field and Pool, or Exploratory LOS MEDANOS; BONE SPRING <40295>	
14. Distance in miles and direction from nearest town or post office* 17 MILES NORTHEAST OF LOVING, NM		11. Sec., T. R. M. or Blk. and Survey or Area SECTION 25, T. 22 S., R. 30 E.	
15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig. unit line, if any) 330 FT.		12. County or Parish EDDY	13. State NM
16. No. of acres in lease 560		17. Spacing Unit dedicated to this well 160	
18. Distance from proposed location* 50 ft to proposed 18H to nearest well, drilling, completed, applied for, on this lease, ft. 230' to existing 14H		20. BLM/BIA Bond No. on file NMB-000801 CO-1104	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3372.2' GL		22. Approximate date work will start* 30 DAYS	

24. Attachments

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

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

25. Signature <i>Barry W. Hunt</i>	Name (Printed/Typed) BARRY W. HUNT	Date 7/18/12
Title PERMIT AGENT FOR DEVON ENERGY PRODUCTION, L.P.		
Approved by (Signature) <i>/s/ Jesse J. Juen</i>	Name (Printed/Typed)	Date OCT 26 2012
Title STATE DIRECTOR	Office NM STATE 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.

(Continued on page 2)

*(Instructions on page 2)

Carlsbad Controlled Water Basin

Approval Subject to General Requirements
& Special Stipulations Attached

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

DISTRICT I
1625 N French Dr., Hobbs, NM 88240
Phone: (575) 591-6161 Fax: (575) 593-0720
DISTRICT II
911 S. First St., Artesia, NM 88210
Phone: (575) 746-1283 Fax: (575) 746-9720
DISTRICT III
1000 Las Brisas Rd., Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3400 Fax: (505) 476-3402

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-40828	Pool Code 40295	Pool Name LOS MEDANOS; BONE SPRING
Property Code 31920	Property Name APACHE 25 FED	Well Number 19H
GRID No. 6137	Operator Name DEVON ENERGY PRODUCTION COMPANY, LP.	Elevation 3372.2'

Surface Location

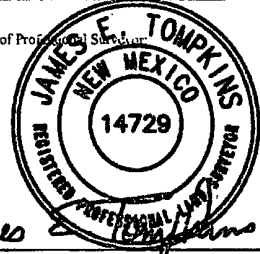
UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	25	22 S	30 E		1030	NORTH	330	EAST	EDDY

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
D	25	22 S	30 E		660	NORTH	330	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidated Code	Order No.
160			

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.

<p>660'</p> <p>330'</p> <p>APACHE 25 FED 19H BHL NMSP-E (NAD 83) Y = 498155.2' N X = 693064.9' E LAT. = N32° 22' 06.75" LONG. = W103° 50' 30.83"</p>	<p>NW COR SEC 25 NMSP-E (NAD 83) Y = 498814.3' N X = 692729.4' E LAT. = N32° 22' 13.28" LONG. = W103° 50' 34.71"</p>	<p>NE COR SEC 25 NMSP-E (NAD 83) Y = 498830.1' N X = 698096.1' E LAT. = N32° 22' 13.19" LONG. = W103° 49' 32.14"</p>	<p>1030'</p> <p>330'</p> <p>APACHE 25 FED 19H SHL NMSP-E (NAD 83) Y = 497799.2' N X = 697768.3' E LAT. = N32° 22' 03.01" LONG. = W103° 49' 36.01"</p>	<p>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 voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Barry W. Hunt</i> 7/18/12 Signature Date Barry W. Hunt Print Name E-mail Address</p>
				<p>SURVEYORS 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 supervision, and that the same is true and correct to the best of my belief.</p> <p>JUNE 7, 2012 Date of Survey Signature and Seal of Professional Surveyor  James E. Tompkins Job No.: WTC48540 JAMES E. TOMPKINS 14729 Certificate Number</p>
<p>SW COR SEC 25 NMSP-E (NAD 83) Y = 493636.6' N X = 692773.2' E LAT. = N32° 21' 21.06" LONG. = W103° 50' 34.48"</p>			<p>SE COR SEC 25 NMSP-E (NAD 83) Y = 493552.1' N X = 698117.4' E LAT. = N32° 21' 20.96" LONG. = W103° 49' 32.18"</p>	

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, 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. Executed this 18th day of July 2012.

Signed: Barry W. Hunt

Printed Name: Barry Hunt

Position: Agent for Devon Energy Production, LLC.

Address: 1403 Springs Farm Place, Carlsbad, NM 88220

Telephone: (575) 361-4078

E-mail: specialtpermitting@gmail.com

Field Representative: Don Mayberry

Address: P. O. Box 250, Artesia, NM 88211-0250

Telephone: Office: (575) 748-0164, Cell: (575) 748-5235



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

405 235 3611 Phone
www.devonenergy.com

June 5, 2012

To Whom It May Concern:

Mr. Barry Hunt is contracted by Devon Energy, L.P. to sign as their agent for APDs and Right of Ways in the state of New Mexico.

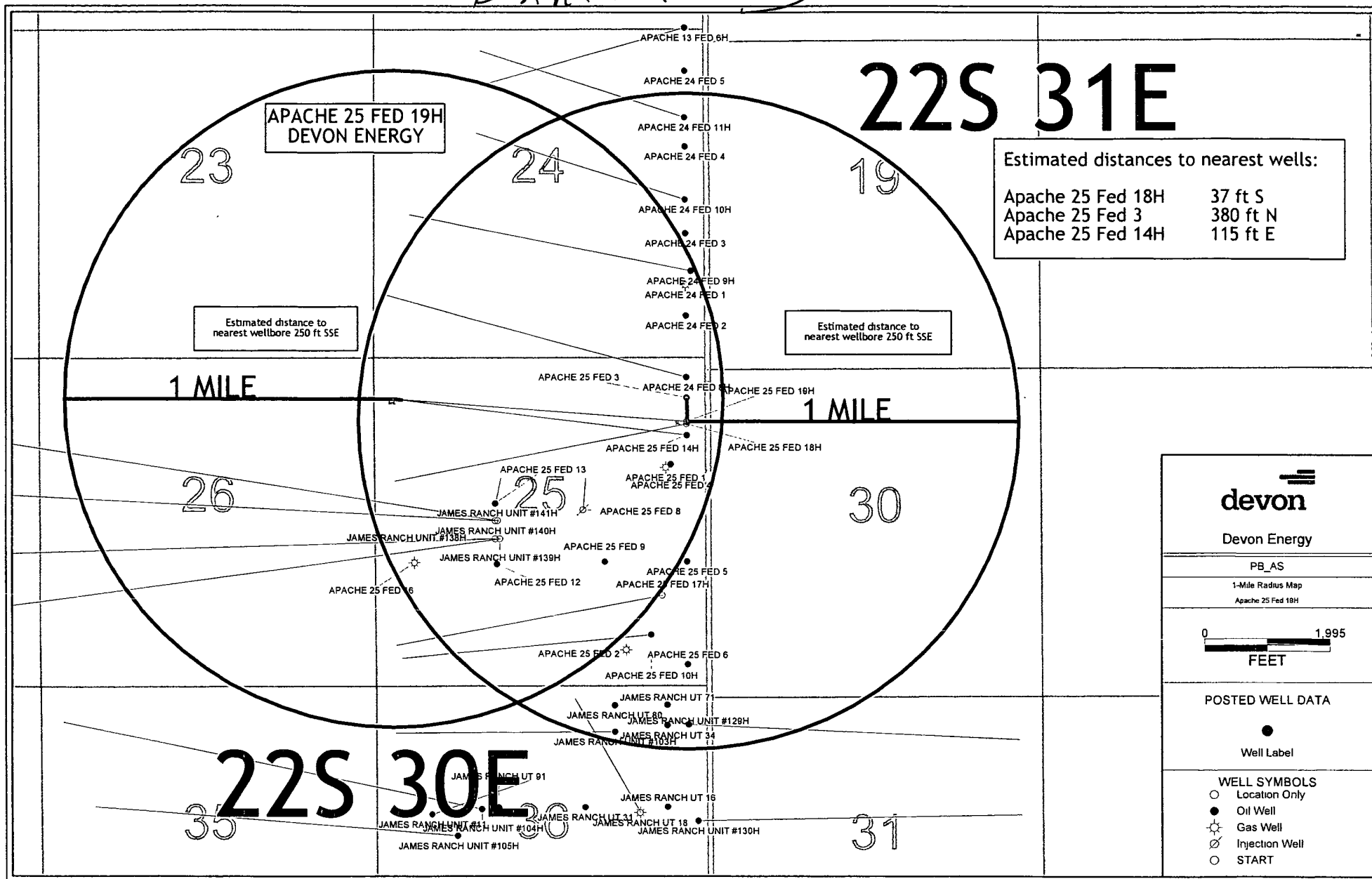
If you have any questions, please contact me at my office at (405) 228-8379.

Sincerely,


Victoria Sanchez

Supervisor, Regulatory Compliance
Mid-Continent Division
Devon Energy, L.P.

Exhibit B



DEVON ENERGY PRODUCTION, L. P.
DRILLING PLAN

APACHE 25 FEDERAL 19H
SHL: 1030 FNL & 330 FEL
BHL: 660 FNL & 330 FWL
Section 25-22S-30E
Eddy County, NM

The elevation of the unprepared ground is 3372.2' feet above sea level.

The geologic name of the surface formation is Quaternary - Alluvium.

A rotary rig will be utilized to drill the well.

Proposed total depth is: MD: 15451'. TVD: 10980'.

Estimated tops of important geologic markers:

Quaternary – Alluvium	Surface*
Rustler	435'
Top of Salt/Salado	720'
Base Salt	3630'
Delaware	3894'
Bell Canyon Sand	3931'
Cherry Canyon Sand	4878'
Brushy Canyon Sand	6080'
Bone Spring	7779'
Fist Bone Spring	8815'
Second Bone Spring	9630'
Third Bone Spring	10610'
TVD	10980' (145 degree F)

*Water anticipated at 200 feet.

Estimated depths at which anticipated water, oil, gas or other mineral bearing formations are expected to be encountered:

Delaware	Oil (1713 psi)
Bell Canyon	Oil (1729 psi)
Cherry Canyon	Oil (2146 psi)
Brushy Canyon	Oil (2675 psi)
Bone Spring	Oil (3422 psi)
TVD	Oil BHP (4831 psi)

APACHE 25 FED 19H- APD DRILLING PLAN
SKS 6.28.12

Casing Program (All new casing)

See
CoA

<u>Hole Size</u>	<u>Hole Interval</u>	<u>OD Csg</u>	<u>Casing Interval</u>	<u>Weight</u>	<u>Collar</u>	<u>Grade</u>
17-1/2"	0 - 710 520	13-3/8"	0 - 710	48#	STC	H-40
12-1/4"	710 - 3870	9-5/8"	0 - 3870	40#	LTC	J-55
8-3/4"	3870 - 10307	5-1/2"	0 - 10307	17#	LTC	P-110
8-3/4"	10307 - 15451	5-1/2"	10307 - 15451	17#	BTC	P-110

MAX TVD: 10,980 FT

Design Factors

<u>Casing Size</u>	<u>Collapse Design Factor</u>	<u>Burst Design Factor</u>	<u>Tension Design Factor</u>
13-3/8" 48# H-40 LTC	2.3	5.2	15.9
9-5/8" 40# J-55 LTC	1.3	2.0	4.1
5-1/2" 17# P-110 LTC	1.8	2.2	1.7
5-1/2" 17# P-110 BTC	1.7	2.1	5.1

NOTE REGARDING COLLAPSE DESIGN FACTOR FOR INTERMEDIATE CASING: The maximum possible collapse load that the intermediate casing will experience will result from evacuated casing with the pore pressure exerting a collapse load at TD. The pore pressure is estimated to be 9.0 ppg for this calculation. This results in a collapse design factor of 1.2 for the 9-5/8" 40# J-55 LTC casing at a depth of 3,870 ft. While running the intermediate casing, the casing string will never be completely evacuated. There is no potential for the intermediate casing to be used as a production string.

Mud Program

<u>Depth</u>	<u>Mud Wt.</u>	<u>Visc.</u>	<u>Fluid Loss</u>	<u>Type System</u>
0 - 710 520	8.4 - 9.0	30 - 34	N/C	FW
710 - 3870	9.8 - 10.0	28 - 32	N/C	Brine
3870 - 15451	8.6 - 9.0	28 - 32	N/C	FW

Pressure Control Equipment

The BOP system used to drill the intermediate hole will consist of a 13-5/8" 3M Triple Ram and Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2 as a **3M system** prior to drilling out the surface casing shoe.

The BOP system used to drill the production hole will consist of a 13-5/8" 3M Triple Ram and Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2 as a **3M system** prior to drilling out the intermediate casing shoe.

The pipe rams will be operated and checked as per Onshore Order No 2. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at **3,000 psi WP**.

Devon requests a variance to use a flexible line with flanged ends between the BOP and the choke manifold (choke line). The line will be kept as straight as possible with minimal turns.

Cementing Program (cement volumes based on at least 25% excess)

13-3/8" Surface

Mix and pump 760 sks

HalCem – C

lbm/gal

2 % Calcium Chloride - Flake (Accelerator)

0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive)

Fluid Weight 14.80

Slurry Yield: 1.35 ft³/sk

Total Mixing Fluid: 6.37 Gal/sk

Top of Fluid: 0 ft

Calculated Fill: 710 ft

Volume: 181.96 bbl

Calculated Sacks: 759.03 sks

Proposed Sacks: 760 sks

9-5/8" Intermediate

Lead with 855 sks

EconoCem – HLC

lbm/gal

5 % Salt (Salt)

0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive)

Fluid Weight 12.90

Slurry Yield: 1.85 ft³/sk

Total Mixing Fluid: 9.81 Gal/sk

Top of Fluid: 0 ft

Calculated Fill: 3096 ft

Volume: 280.52 bbl

Calculated Sacks: 853.21 sks

Proposed Sacks: 855 sks

Tail-in with 335 sks

HalCem – C

lbm/gal

0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive)

Fluid Weight 14.80

Slurry Yield: 1.33 ft³/sk

Total Mixing Fluid: 6.32 Gal/sk

Top of Fluid: 3096 ft

Calculated Fill: 774 ft

Volume: 78.59 bbl

Calculated Sacks: 333.01 sks

Proposed Sacks: 335 sks

5-1/2" Production

Stage 1

Lead with 955 sks

EconoCem – HLH

lbm/gal

0.2 % HR-601 (Retarder)

Fluid Weight 12.50

Slurry Yield: 1.95 ft³/sk

Total Mixing Fluid: 10.81 Gal/sk

Top of Fluid: 5500 ft

Calculated Fill: 4907 ft

Volume: 331.14 bbl

Calculated Sacks: 952.96 sks

Proposed Sacks: 955 sks

Tail-in with 1315 sks

VersaCem – H

lbm/gal

0.5 % Halad(R)-344 (Low Fluid Loss Control)

0.4 % CFR-3 (Dispersant)

1 lbm/sk Salt (Salt)

0.1 % HR-601 (Retarder)

Fluid Weight 14.50

Slurry Yield: 1.22 ft³/sk

Total Mixing Fluid: 5.37 Gal/sk

Top of Fluid: 10407 ft

Calculated Fill: 5044 ft

Volume: 284.59 bbl

Calculated Sacks: 1310.78 sks

Proposed Sacks: 1315 sks

DV TOOL at 5,500 ft

Stage 2

Lead with 440 sks

ExtendaCem – C

lbm/gal

0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive)

Fluid Weight 11.40

Slurry Yield: 2.87 ft³/sk

Total Mixing Fluid: 17.69 Gal/sk

Top of Fluid: 0 ft

Calculated Fill: 4500 ft

Volume: 222.24 bbl

Calculated Sacks: 435.53 sks

Proposed Sacks: 440 sks

Tail-in with 290 sks

HalCem – C

lbm/gal

0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive)

Fluid Weight 14.80

Slurry Yield: 1.33 ft³/sk

Total Mixing Fluid: 6.32 Gal/sk

Top of Fluid: 4500 ft

Calculated Fill: 1000 ft

Volume: 67.48 bbl

Calculated Sacks: 285.96 sks

Proposed Sacks: 290 sks

TOC @ Surface

TOC for All Strings:

Surface: 0

Intermediate: 0

Production: 0

ACTUAL CEMENT VOLUMES WILL BE ADJUSTED BASED ON FLUID CALIPER AND CALIPER LOG DATA.

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 5 1/2" casing is cemented. Breathing equipment will be on location upon drilling the 13 3/8" shoe until total depth is reached.

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:
 1. Total depth to intermediate casing Dual Laterolog-Micro Laterolog with SP and Gamma Ray. Compensated Neutron – Z Density log with Gamma Ray and Caliper.
 2. Total Depth to Surface Compensated Neutron with Gamma Ray.
 3. No coring program is planned.
 4. Additional testing will be initiated subsequent to setting the 5 1/2" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.

POTENTIAL HAZARDS:

- a. No abnormal pressures or temperatures are expected. There is no known presence of H₂S in this area; therefore, no H₂S is anticipated. 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 4831 and estimated BHT 145.**

ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

- a. Road and location construction will begin after BLM has approved the APD. Anticipated spud date will be soon after BLM approval and as soon as a rig is 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 flowlines in order to place well on production.



Weatherford[®]

Drilling Services

Proposal



devon

APACHE 25 FED #19H

EDDY COUNTY, NM

WELL FILE: **PLAN 1**

JUNE 27, 2012

Weatherford International, Ltd.

P.O. Box 61028
Midland, TX 79711 USA
+1.432.561.8892 Main
+1.432.561.8895 Fax
www.weatherford.com



Apache 25 Fed #19H
Eddy Co., New Mexico

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	274.33	0.00	0.00	0.00	0.00	0.00	0.00	
2	10407.07	0.00	274.33	10407.07	0.00	0.00	0.00	0.00	0.00	
3	11312.61	90.55	274.33	10980.00	43.66	-576.85	10.00	274.33	578.46	
4	15451.16	90.55	274.33	10940.00	356.00	-4703.40	0.00	0.00	4716.59	PBHL

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
5 Fed #18H	0.00	0.00	497749.00	697768.40	32°22'02.501N	103°49'36.030W	N/A

TARGET DETAILS

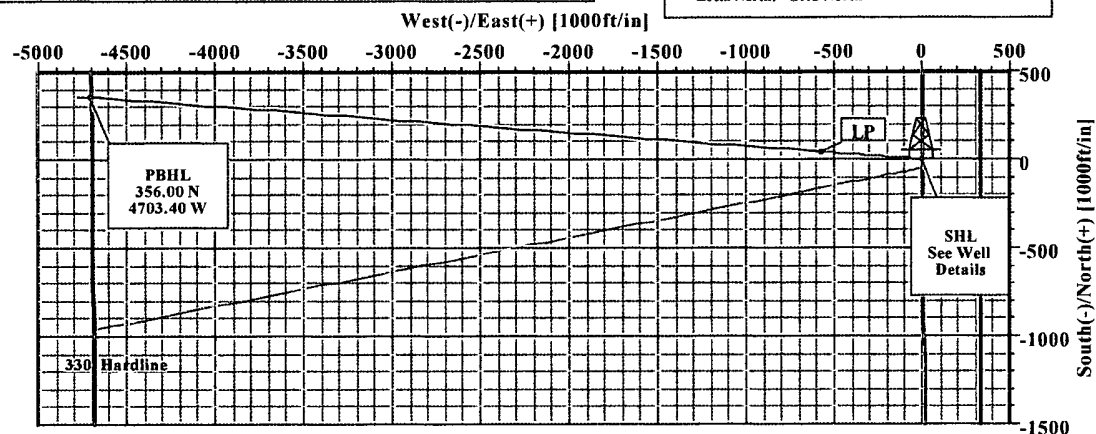
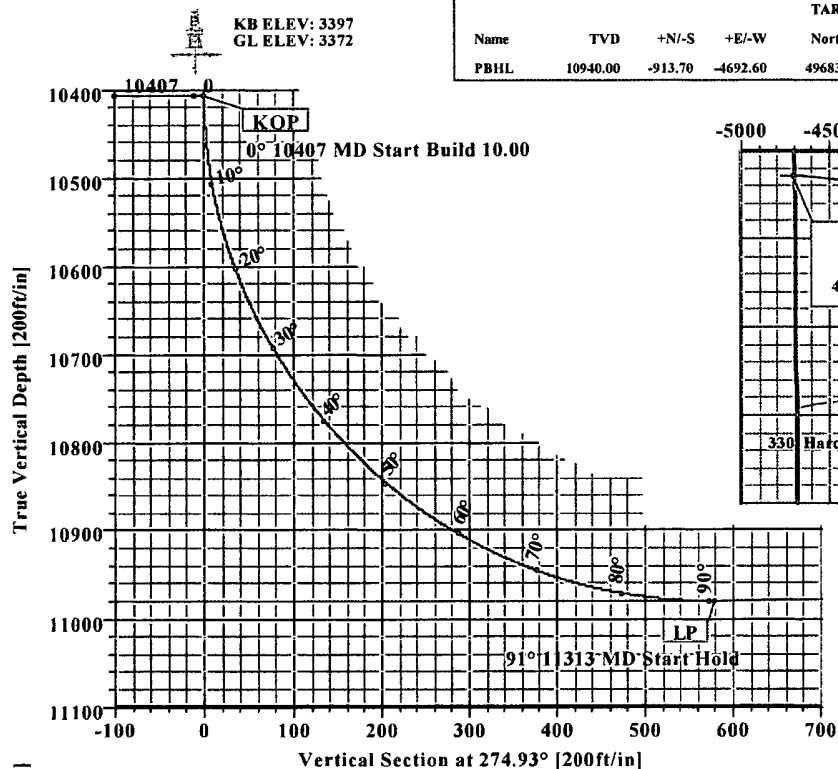
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	10940.00	-913.70	-4692.60	496835.30	693075.80	32°21'53.676N	103°50'30.793W	Point

SITE DETAILS

Apache 25 Fed #18H
Site Centre Northing: 497749.00
Easting: 697768.40
Ground Level: 3372.00
Positional Uncertainty: 0.00
Convergence: 0.27

FIELD DETAILS

Eddy Co., NM (NAD 83)
Geodetic System: US State Plane Coordinate System 1983
Ellipsoid: GRS 1980
Zone: New Mexico, Eastern Zone
Magnetic Model: IGRF2010
System Datum: Mean Sea Level
Local North: Grid North

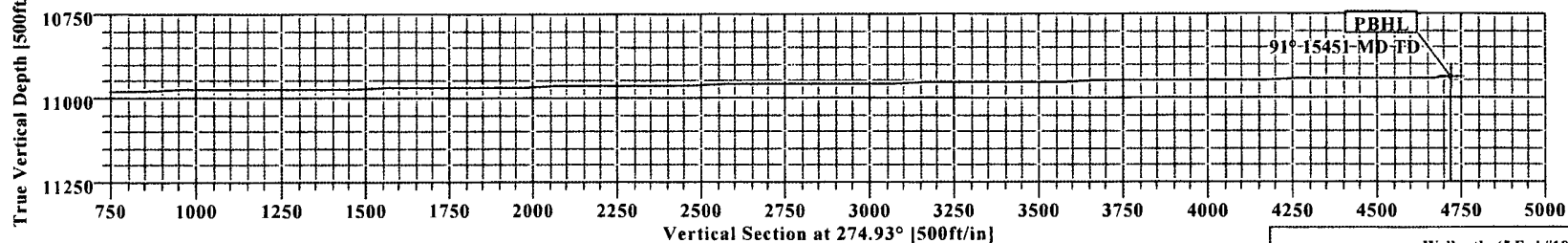
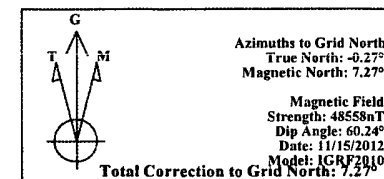


LEGEND

- 5 Fed #18H (1)
- Plan #1



Weatherford



Wellpath: (5 Fed #18H/1)

Created By: Russell W. Joyner

Date: 6/27/2012



Weatherford

WFT Plan Report - X & Y's



Company: Devon Energy		Date: 6/27/2012	Time: 11:14:12	Page: 1
Field: Eddy Co., NM (NAD 83)		Co-ordinate(NE) Reference: Well: 25 Fed #19H; Grid North		
Site: Apache 25 Fed #19H		Vertical (TVD) Reference: SITE 3397.0		
Well: 25 Fed #19H		Section (VS) Reference: Well (0.00N,0.00E;274.93Azi)		
Wellpath: 1		Survey Calculation Method: Minimum Curvature Db: Sybase		

Plan: Plan #1	Date Composed: 6/27/2012
Principal: Yes	Version: 1
	Tied-to: From Surface

Field: Eddy Co., NM (NAD 83)	
Map System: US State Plane Coordinate System 1983	Map Zone: New Mexico, Eastern Zone
Geo Datum: GRS 1980	Coordinate System: Well Centre
Sys Datum: Mean Sea Level	Geomagnetic Model: IGRF2010

Site: Apache 25 Fed #19H	
Site Position:	Northing: 497799.20 ft Latitude: 32 22 2.998 N
From: Map	Easting: 697768.30 ft Longitude: 103 49 36.028 W
Position Uncertainty: 0.00 ft	North Reference: Grid
Ground Level: 3372.00 ft	Grid Convergence: 0.27 deg

Well: 25 Fed #19H		Slot Name:	
Well Position: +N/-S 0.00 ft	Northing: 497799.20 ft	Latitude: 32 22 2.998 N	
+E/-W 0.00 ft	Easting: 697768.30 ft	Longitude: 103 49 36.028 W	
Position Uncertainty: 0.00 ft			

Wellpath: 1		Drilled From: Surface	
Current Datum: SITE	Height: 3397.00 ft	Tie-on Depth: 0.00 ft	
Magnetic Data: 12/15/2012		Above System Datum: Mean Sea Level	
Field Strength: 48550 nT		Declination: 7.53 deg	
Vertical Section: Depth From (TVD)	+N/-S	Mag Dip Angle: 60.24 deg	
ft	ft	+E/-W	Direction
		ft	deg
0.00	0.00	0.00	274.93

Plan Section Information										
MD	Incl	Azim	TVD	+N/-S	+E/-W	DLS	Build	Turn	TFO	Target
ft	deg	deg	ft	ft	ft	deg/100ft	deg/100ft	deg/100ft	deg	
0.00	0.00	274.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
10407.07	0.00	274.33	10407.07	0.00	0.00	0.00	0.00	0.00	0.00	
11312.61	90.55	274.33	10980.00	43.66	-576.85	10.00	10.00	0.00	274.33	
15451.16	90.55	274.33	10940.00	356.00	-4703.40	0.00	0.00	0.00	0.00	PBHL

Survey										
MD	Incl	Azim	TVD	N/S	E/W	VS	DLS	MapN	MapE	Comment
ft	deg	deg	ft	ft	ft	ft	deg/100ft	ft	ft	
10407.07	0.00	274.33	10407.07	0.00	0.00	0.00	0.00	497799.20	697768.30	KOP
10450.00	4.29	274.33	10449.96	0.12	-1.60	1.61	10.00	497799.32	697766.70	
10500.00	9.29	274.33	10499.59	0.57	-7.50	7.52	10.00	497799.77	697760.80	
10550.00	14.29	274.33	10548.52	1.34	-17.68	17.73	10.00	497800.54	697750.62	
10600.00	19.29	274.33	10596.37	2.43	-32.08	32.17	10.00	497801.63	697736.22	
10650.00	24.29	274.33	10642.79	3.83	-50.59	50.73	10.00	497803.03	697717.71	
10700.00	29.29	274.33	10687.40	5.53	-73.06	73.26	10.00	497804.73	697695.24	
10750.00	34.29	274.33	10729.89	7.52	-99.31	99.59	10.00	497806.72	697668.99	
10800.00	39.29	274.33	10769.92	9.78	-129.17	129.53	10.00	497808.98	697639.13	
10850.00	44.29	274.33	10807.18	12.29	-162.38	162.84	10.00	497811.49	697605.92	
10900.00	49.29	274.33	10841.40	15.04	-198.71	199.27	10.00	497814.24	697569.59	
10950.00	54.29	274.33	10872.32	18.00	-237.88	238.54	10.00	497817.20	697530.42	
11000.00	59.29	274.33	10899.69	21.16	-279.58	280.36	10.00	497820.36	697488.72	
11050.00	64.29	274.33	10923.32	24.49	-323.50	324.41	10.00	497823.69	697444.80	
11100.00	69.29	274.33	10943.02	27.95	-369.31	370.35	10.00	497827.15	697398.99	
11150.00	74.29	274.33	10958.63	31.54	-416.66	417.82	10.00	497830.74	697351.64	
11200.00	79.29	274.33	10970.05	35.21	-465.18	466.48	10.00	497834.41	697303.12	



Weatherford

WFT Plan Report - X & Y's



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Apache 25 Fed #19H
Well: 25 Fed #19H
Wellpath: 1

Date: 6/27/2012 Time: 11:14:12 Page: 2
Co-ordinate(NE) Reference: Well: 25 Fed #19H, Grid North
Vertical (TVD) Reference: SITE 3397.0
Section (VS) Reference: Well (0.00N,0.00E,274.93Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comments
11250.00	84.29	274.33	10977.19	38.94	-514.51	515.95	10.00	497838.14	697253.79	
11300.00	89.29	274.33	10979.98	42.71	-564.27	565.86	10.00	497841.91	697204.03	
11312.61	90.55	274.33	10980.00	43.66	-576.85	578.46	10.00	497842.86	697191.45	LP
11400.00	90.55	274.33	10979.16	50.26	-663.98	665.85	0.00	497849.46	697104.32	
11500.00	90.55	274.33	10978.19	57.80	-763.69	765.84	0.00	497857.00	697004.61	
11600.00	90.55	274.33	10977.22	65.35	-863.40	865.83	0.00	497864.55	696904.90	
11700.00	90.55	274.33	10976.26	72.90	-963.11	965.82	0.00	497872.10	696805.19	
11800.00	90.55	274.33	10975.29	80.45	-1062.82	1065.81	0.00	497879.65	696705.48	
11900.00	90.55	274.33	10974.32	87.99	-1162.53	1165.80	0.00	497887.19	696605.77	
12000.00	90.55	274.33	10973.36	95.54	-1262.25	1265.79	0.00	497894.74	696506.05	
12100.00	90.55	274.33	10972.39	103.09	-1361.96	1365.78	0.00	497902.29	696406.34	
12200.00	90.55	274.33	10971.42	110.63	-1461.67	1465.77	0.00	497909.83	696306.63	
12300.00	90.55	274.33	10970.46	118.18	-1561.38	1565.76	0.00	497917.38	696206.92	
12400.00	90.55	274.33	10969.49	125.73	-1661.09	1665.75	0.00	497924.93	696107.21	
12500.00	90.55	274.33	10968.52	133.27	-1760.80	1765.73	0.00	497932.47	696007.50	
12600.00	90.55	274.33	10967.56	140.82	-1860.51	1865.72	0.00	497940.02	695907.79	
12700.00	90.55	274.33	10966.59	148.37	-1960.22	1965.71	0.00	497947.57	695808.08	
12800.00	90.55	274.33	10965.62	155.92	-2059.93	2065.70	0.00	497955.12	695708.37	
12900.00	90.55	274.33	10964.66	163.46	-2159.64	2165.69	0.00	497962.66	695608.66	
13000.00	90.55	274.33	10963.69	171.01	-2259.35	2265.68	0.00	497970.21	695508.95	
13100.00	90.55	274.33	10962.73	178.56	-2359.06	2365.67	0.00	497977.76	695409.24	
13200.00	90.55	274.33	10961.76	186.10	-2458.77	2465.66	0.00	497985.30	695309.53	
13300.00	90.55	274.33	10960.79	193.65	-2558.48	2565.65	0.00	497992.85	695209.82	
13400.00	90.55	274.33	10959.83	201.20	-2658.19	2665.64	0.00	498000.40	695110.11	
13500.00	90.55	274.33	10958.86	208.75	-2757.90	2765.63	0.00	498007.95	695010.40	
13600.00	90.55	274.33	10957.89	216.29	-2857.61	2865.62	0.00	498015.49	694910.69	
13700.00	90.55	274.33	10956.93	223.84	-2957.32	2965.61	0.00	498023.04	694810.98	
13800.00	90.55	274.33	10955.96	231.39	-3057.03	3065.60	0.00	498030.59	694711.27	
13900.00	90.55	274.33	10954.99	238.93	-3156.74	3165.59	0.00	498038.13	694611.56	
14000.00	90.55	274.33	10954.03	246.48	-3256.45	3265.58	0.00	498045.68	694511.85	
14100.00	90.55	274.33	10953.06	254.03	-3356.16	3365.57	0.00	498053.23	694412.14	
14200.00	90.55	274.33	10952.09	261.57	-3455.87	3465.56	0.00	498060.77	694312.43	
14300.00	90.55	274.33	10951.13	269.12	-3555.58	3565.55	0.00	498068.32	694212.72	
14400.00	90.55	274.33	10950.16	276.67	-3655.29	3665.54	0.00	498075.87	694113.01	
14500.00	90.55	274.33	10949.19	284.22	-3755.00	3765.53	0.00	498083.42	694013.30	
14600.00	90.55	274.33	10948.23	291.76	-3854.71	3865.52	0.00	498090.96	693913.59	
14700.00	90.55	274.33	10947.26	299.31	-3954.42	3965.51	0.00	498098.51	693813.88	
14800.00	90.55	274.33	10946.29	306.86	-4054.13	4065.50	0.00	498106.06	693714.17	
14900.00	90.55	274.33	10945.33	314.40	-4153.84	4165.49	0.00	498113.60	693614.46	
15000.00	90.55	274.33	10944.36	321.95	-4253.55	4265.48	0.00	498121.15	693514.75	
15100.00	90.55	274.33	10943.39	329.50	-4353.26	4365.47	0.00	498128.70	693415.04	
15200.00	90.55	274.33	10942.43	337.04	-4452.97	4465.46	0.00	498136.24	693315.33	
15300.00	90.55	274.33	10941.46	344.59	-4552.68	4565.45	0.00	498143.79	693215.62	
15400.00	90.55	274.33	10940.49	352.14	-4652.39	4665.44	0.00	498151.34	693115.91	
15451.16	90.55	274.33	10940.00	356.00	-4703.40	4716.59	0.00	498155.20	693064.90	PBHL

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude --->			<--- Longitude --->		
								Deg	Min	Sec	Deg	Min	Sec
PBHL			10940.00	356.00	-4703.40	498155.20	693064.90	32	22	6.737 N	103	50	30.849 W



Weatherford

WFT Plan Report - X & Y's



Company: Devon Energy	Date: 6/27/2012	Time: 11:14:12	Page: 3
Field: Eddy Co. NM (NAD 83)	Co-ordinate(NE) Reference: Well: 25 Fed #19H Grid North		
Site: Apache 25 Fed #19H	Vertical (TVD) Reference: SITE 3397.0		
Well: 25 Fed #19H	Section (VS) Reference: Well: (0.00N,0.00E,274.93Azi)		
Wellpath: 1	Survey Calculation Method: Minimum Curvature		Db: Sybase

Casing Points

MD	TVD	Diameter	Hole Size	Name

Annotation

MD ft.	TVD ft.	
10407.07	10407.07	KOP
11312.61	10980.00	LP
15451.15	10940.00	PBHL

Formations

MD	TVD	Formations	Lithology	Dip Angle	Dip Direction



Weatherford Anticollision Report



Company: Devon Energy Date: 6/27/2012 Time: 10:31:08 Page: 1
Field: Eddy Co., NM (NAD 83)
Reference Site: Apache 25 Fed #19H Co-ordinate(NE) Reference: Well: 25 Fed #19H, Grid: North
Reference Well: 25 Fed #19H Vertical (TVD) Reference: SITE 3397.0
Reference Wellpath: Db: Sybase

NO GLOBAL SCAN: Using user defined selection & scan criteria Reference: Plan: Plan #1
Interpolation Method: MD Interval: 100.00 ft Error Model: ISCWSA Ellipse
Depth Range: 0.00 to 15451.16 ft Scan Method: Closest Approach 3D
Maximum Radius: 60000.00 ft Error Surface: Ellipse

Plan: Plan #1 Date Composed: 6/27/2012
Principal: Yes Version: 1
Tied-to: From Surface

Summary

Site	Offset Wellpath	Reference	Offset	Ctr-Ctr	Edge	Separation	Warning
	Well	Wellpath	MD	MD	Distance	Distance	
			ft	ft	ft	ft	
Apache 25 Fed #18H	5 Fed #18H	1 V0 Plan: Plan #1 V1	10400.00	10400.00	50.20	3.73	1.08 Level 2

Site: Apache 25 Fed #18H
Well: 5 Fed #18H
Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Edge		Separation		Warning
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor		
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft			
0.00	0.00	0.00	0.00	0.00	0.00	179.89	-50.20	0.10	50.20			No Data	
100.00	100.00	100.00	100.00	0.08	0.08	179.89	-50.20	0.10	50.20	50.03	297.79		
200.00	200.00	200.00	200.00	0.31	0.31	179.89	-50.20	0.10	50.20	49.58	81.22		
300.00	300.00	300.00	300.00	0.53	0.53	179.89	-50.20	0.10	50.20	49.13	47.02		
400.00	400.00	400.00	400.00	0.76	0.76	179.89	-50.20	0.10	50.20	48.68	33.09		
500.00	500.00	500.00	500.00	0.98	0.98	179.89	-50.20	0.10	50.20	48.23	25.53		
600.00	600.00	600.00	600.00	1.21	1.21	179.89	-50.20	0.10	50.20	47.78	20.78		
700.00	700.00	700.00	700.00	1.43	1.43	179.89	-50.20	0.10	50.20	47.33	17.52		
800.00	800.00	800.00	800.00	1.66	1.66	179.89	-50.20	0.10	50.20	46.88	15.14		
900.00	900.00	900.00	900.00	1.88	1.88	179.89	-50.20	0.10	50.20	46.44	13.33		
1000.00	1000.00	1000.00	1000.00	2.11	2.11	179.89	-50.20	0.10	50.20	45.99	11.91		
1100.00	1100.00	1100.00	1100.00	2.33	2.33	179.89	-50.20	0.10	50.20	45.54	10.76		
1200.00	1200.00	1200.00	1200.00	2.56	2.56	179.89	-50.20	0.10	50.20	45.09	9.82		
1300.00	1300.00	1300.00	1300.00	2.78	2.78	179.89	-50.20	0.10	50.20	44.64	9.02		
1400.00	1400.00	1400.00	1400.00	3.01	3.01	179.89	-50.20	0.10	50.20	44.19	8.35		
1500.00	1500.00	1500.00	1500.00	3.23	3.23	179.89	-50.20	0.10	50.20	43.74	7.77		
1600.00	1600.00	1600.00	1600.00	3.46	3.46	179.89	-50.20	0.10	50.20	43.29	7.26		
1700.00	1700.00	1700.00	1700.00	3.68	3.68	179.89	-50.20	0.10	50.20	42.84	6.82		
1800.00	1800.00	1800.00	1800.00	3.91	3.91	179.89	-50.20	0.10	50.20	42.39	6.43		
1900.00	1900.00	1900.00	1900.00	4.13	4.13	179.89	-50.20	0.10	50.20	41.94	6.08		
2000.00	2000.00	2000.00	2000.00	4.35	4.35	179.89	-50.20	0.10	50.20	41.49	5.76		
2100.00	2100.00	2100.00	2100.00	4.58	4.58	179.89	-50.20	0.10	50.20	41.04	5.48		
2200.00	2200.00	2200.00	2200.00	4.80	4.80	179.89	-50.20	0.10	50.20	40.59	5.22		
2300.00	2300.00	2300.00	2300.00	5.03	5.03	179.89	-50.20	0.10	50.20	40.14	4.99		
2400.00	2400.00	2400.00	2400.00	5.25	5.25	179.89	-50.20	0.10	50.20	39.69	4.78		
2500.00	2500.00	2500.00	2500.00	5.48	5.48	179.89	-50.20	0.10	50.20	39.24	4.58		
2600.00	2600.00	2600.00	2600.00	5.70	5.70	179.89	-50.20	0.10	50.20	38.79	4.40		
2700.00	2700.00	2700.00	2700.00	5.93	5.93	179.89	-50.20	0.10	50.20	38.34	4.23		
2800.00	2800.00	2800.00	2800.00	6.15	6.15	179.89	-50.20	0.10	50.20	37.89	4.08		
2900.00	2900.00	2900.00	2900.00	6.38	6.38	179.89	-50.20	0.10	50.20	37.44	3.94		
3000.00	3000.00	3000.00	3000.00	6.60	6.60	179.89	-50.20	0.10	50.20	37.00	3.80		
3100.00	3100.00	3100.00	3100.00	6.83	6.83	179.89	-50.20	0.10	50.20	36.55	3.68		
3200.00	3200.00	3200.00	3200.00	7.05	7.05	179.89	-50.20	0.10	50.20	36.10	3.56		
3300.00	3300.00	3300.00	3300.00	7.28	7.28	179.89	-50.20	0.10	50.20	35.65	3.45		
3400.00	3400.00	3400.00	3400.00	7.50	7.50	179.89	-50.20	0.10	50.20	35.20	3.35		
3500.00	3500.00	3500.00	3500.00	7.73	7.73	179.89	-50.20	0.10	50.20	34.75	3.25		



Weatherford Anticollision Report



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Apache 25 Fed #19H
Reference Well: 25 Fed #19H
Reference Wellpath:
Date: 6/27/2012
Time: 10:31:08
Page: 2
Co-ordinate(NE) Reference: Well: 25 Fed #19H, Grid North
Vertical (TVD) Reference: SITE 3397.0
Db: Sybase

Site: Apache 25 Fed #18H
Well: 5 Fed #18H
Wellpath: 1 V0 Plan, Plan #1 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Edge		Separation	Warning
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
3600.00	3600.00	3600.00	3600.00	7.95	7.95	179.89	-50.20	0.10	50.20	34.30	3.16	
3700.00	3700.00	3700.00	3700.00	8.18	8.18	179.89	-50.20	0.10	50.20	33.85	3.07	
3800.00	3800.00	3800.00	3800.00	8.40	8.40	179.89	-50.20	0.10	50.20	33.40	2.99	
3900.00	3900.00	3900.00	3900.00	8.63	8.63	179.89	-50.20	0.10	50.20	32.95	2.91	
4000.00	4000.00	4000.00	4000.00	8.85	8.85	179.89	-50.20	0.10	50.20	32.50	2.84	
4100.00	4100.00	4100.00	4100.00	9.07	9.07	179.89	-50.20	0.10	50.20	32.05	2.77	
4200.00	4200.00	4200.00	4200.00	9.30	9.30	179.89	-50.20	0.10	50.20	31.60	2.70	
4300.00	4300.00	4300.00	4300.00	9.52	9.52	179.89	-50.20	0.10	50.20	31.15	2.64	
4400.00	4400.00	4400.00	4400.00	9.75	9.75	179.89	-50.20	0.10	50.20	30.70	2.57	
4500.00	4500.00	4500.00	4500.00	9.97	9.97	179.89	-50.20	0.10	50.20	30.25	2.52	
4600.00	4600.00	4600.00	4600.00	10.20	10.20	179.89	-50.20	0.10	50.20	29.80	2.46	
4700.00	4700.00	4700.00	4700.00	10.42	10.42	179.89	-50.20	0.10	50.20	29.35	2.41	
4800.00	4800.00	4800.00	4800.00	10.65	10.65	179.89	-50.20	0.10	50.20	28.90	2.36	
4900.00	4900.00	4900.00	4900.00	10.87	10.87	179.89	-50.20	0.10	50.20	28.45	2.31	
5000.00	5000.00	5000.00	5000.00	11.10	11.10	179.89	-50.20	0.10	50.20	28.00	2.26	
5100.00	5100.00	5100.00	5100.00	11.32	11.32	179.89	-50.20	0.10	50.20	27.55	2.22	
5200.00	5200.00	5200.00	5200.00	11.55	11.55	179.89	-50.20	0.10	50.20	27.11	2.17	
5300.00	5300.00	5300.00	5300.00	11.77	11.77	179.89	-50.20	0.10	50.20	26.66	2.13	
5400.00	5400.00	5400.00	5400.00	12.00	12.00	179.89	-50.20	0.10	50.20	26.21	2.09	
5500.00	5500.00	5500.00	5500.00	12.22	12.22	179.89	-50.20	0.10	50.20	25.76	2.05	
5600.00	5600.00	5600.00	5600.00	12.45	12.45	179.89	-50.20	0.10	50.20	25.31	2.02	
5700.00	5700.00	5700.00	5700.00	12.67	12.67	179.89	-50.20	0.10	50.20	24.86	1.98	
5800.00	5800.00	5800.00	5800.00	12.90	12.90	179.89	-50.20	0.10	50.20	24.41	1.95	
5900.00	5900.00	5900.00	5900.00	13.12	13.12	179.89	-50.20	0.10	50.20	23.96	1.91	
6000.00	6000.00	6000.00	6000.00	13.35	13.35	179.89	-50.20	0.10	50.20	23.51	1.88	
6100.00	6100.00	6100.00	6100.00	13.57	13.57	179.89	-50.20	0.10	50.20	23.06	1.85	
6200.00	6200.00	6200.00	6200.00	13.80	13.80	179.89	-50.20	0.10	50.20	22.61	1.82	
6300.00	6300.00	6300.00	6300.00	14.02	14.02	179.89	-50.20	0.10	50.20	22.16	1.79	
6400.00	6400.00	6400.00	6400.00	14.24	14.24	179.89	-50.20	0.10	50.20	21.71	1.76	
6500.00	6500.00	6500.00	6500.00	14.47	14.47	179.89	-50.20	0.10	50.20	21.26	1.73	
6600.00	6600.00	6600.00	6600.00	14.69	14.69	179.89	-50.20	0.10	50.20	20.81	1.71	
6700.00	6700.00	6700.00	6700.00	14.92	14.92	179.89	-50.20	0.10	50.20	20.36	1.68	
6800.00	6800.00	6800.00	6800.00	15.14	15.14	179.89	-50.20	0.10	50.20	19.91	1.66	
6900.00	6900.00	6900.00	6900.00	15.37	15.37	179.89	-50.20	0.10	50.20	19.46	1.63	
7000.00	7000.00	7000.00	7000.00	15.59	15.59	179.89	-50.20	0.10	50.20	19.01	1.61	
7100.00	7100.00	7100.00	7100.00	15.82	15.82	179.89	-50.20	0.10	50.20	18.56	1.59	
7200.00	7200.00	7200.00	7200.00	16.04	16.04	179.89	-50.20	0.10	50.20	18.11	1.56	
7300.00	7300.00	7300.00	7300.00	16.27	16.27	179.89	-50.20	0.10	50.20	17.67	1.54	
7400.00	7400.00	7400.00	7400.00	16.49	16.49	179.89	-50.20	0.10	50.20	17.22	1.52	
7500.00	7500.00	7500.00	7500.00	16.72	16.72	179.89	-50.20	0.10	50.20	16.77	1.50	
7600.00	7600.00	7600.00	7600.00	16.94	16.94	179.89	-50.20	0.10	50.20	16.32	1.48	Level 3
7700.00	7700.00	7700.00	7700.00	17.17	17.17	179.89	-50.20	0.10	50.20	15.87	1.46	Level 3
7800.00	7800.00	7800.00	7800.00	17.39	17.39	179.89	-50.20	0.10	50.20	15.42	1.44	Level 3
7900.00	7900.00	7900.00	7900.00	17.62	17.62	179.89	-50.20	0.10	50.20	14.97	1.42	Level 3
8000.00	8000.00	8000.00	8000.00	17.84	17.84	179.89	-50.20	0.10	50.20	14.52	1.41	Level 3
8100.00	8100.00	8100.00	8100.00	18.07	18.07	179.89	-50.20	0.10	50.20	14.07	1.39	Level 3
8200.00	8200.00	8200.00	8200.00	18.29	18.29	179.89	-50.20	0.10	50.20	13.62	1.37	Level 3
8300.00	8300.00	8300.00	8300.00	18.52	18.52	179.89	-50.20	0.10	50.20	13.17	1.36	Level 3
8400.00	8400.00	8400.00	8400.00	18.74	18.74	179.89	-50.20	0.10	50.20	12.72	1.34	Level 3
8500.00	8500.00	8500.00	8500.00	18.96	18.96	179.89	-50.20	0.10	50.20	12.27	1.32	Level 3
8600.00	8600.00	8600.00	8600.00	19.19	19.19	179.89	-50.20	0.10	50.20	11.82	1.31	Level 3



Weatherford Anticollision Report



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Apache 25 Fed #19H
Reference Well: 25 Fed #19H
Reference Wellpath:
Date: 6/27/2012
Time: 10:31:08
Page: 3
Co-ordinate(NE) Reference: Well: 25 Fed #19H, Grid North
Vertical (TVD) Reference: SITE 3397.0
Db: Sybase

Site: Apache 25 Fed #18H
Well: 5 Fed #18H
Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Edge		Separation		Warning
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor		
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft			
8700.00	8700.00	8700.00	8700.00	19.41	19.41	179.89	-50.20	0.10	50.20	11.37	1.29	Level 3	
8800.00	8800.00	8800.00	8800.00	19.64	19.64	179.89	-50.20	0.10	50.20	10.92	1.28	Level 3	
8900.00	8900.00	8900.00	8900.00	19.86	19.86	179.89	-50.20	0.10	50.20	10.47	1.26	Level 3	
9000.00	9000.00	9000.00	9000.00	20.09	20.09	179.89	-50.20	0.10	50.20	10.02	1.25	Level 2	
9100.00	9100.00	9100.00	9100.00	20.31	20.31	179.89	-50.20	0.10	50.20	9.57	1.24	Level 2	
9200.00	9200.00	9200.00	9200.00	20.54	20.54	179.89	-50.20	0.10	50.20	9.12	1.22	Level 2	
9300.00	9300.00	9300.00	9300.00	20.76	20.76	179.89	-50.20	0.10	50.20	8.67	1.21	Level 2	
9400.00	9400.00	9400.00	9400.00	20.99	20.99	179.89	-50.20	0.10	50.20	8.23	1.20	Level 2	
9500.00	9500.00	9500.00	9500.00	21.21	21.21	179.89	-50.20	0.10	50.20	7.78	1.18	Level 2	
9600.00	9600.00	9600.00	9600.00	21.44	21.44	179.89	-50.20	0.10	50.20	7.33	1.17	Level 2	
9700.00	9700.00	9700.00	9700.00	21.66	21.66	179.89	-50.20	0.10	50.20	6.88	1.16	Level 2	
9800.00	9800.00	9800.00	9800.00	21.89	21.89	179.89	-50.20	0.10	50.20	6.43	1.15	Level 2	
9900.00	9900.00	9900.00	9900.00	22.11	22.11	179.89	-50.20	0.10	50.20	5.98	1.14	Level 2	
10000.00	10000.00	10000.00	10000.00	22.34	22.34	179.89	-50.20	0.10	50.20	5.53	1.12	Level 2	
10100.00	10100.00	10100.00	10100.00	22.56	22.56	179.89	-50.20	0.10	50.20	5.08	1.11	Level 2	
10200.00	10200.00	10200.00	10200.00	22.79	22.79	179.89	-50.20	0.10	50.20	4.63	1.10	Level 2	
10300.00	10300.00	10300.00	10300.00	23.01	23.01	179.89	-50.20	0.10	50.20	4.18	1.09	Level 2	
10400.00	10400.00	10400.00	10400.00	23.24	23.24	179.89	-50.20	0.10	50.20	3.73	1.08	Level 2	
10500.00	10499.59	10498.45	10498.06	23.46	23.46	265.50	-51.59	-7.04	52.18	5.27	1.11	Level 2	
10600.00	10596.37	10596.54	10593.11	23.68	23.68	265.38	-56.13	-30.37	58.68	11.34	1.24	Level 2	
10700.00	10687.40	10694.18	10682.32	23.93	23.92	265.38	-63.66	-69.05	69.50	21.70	1.45	Level 3	
10800.00	10769.92	10791.23	10763.09	24.22	24.20	265.61	-73.91	-121.65	84.30	35.94	1.74		
10900.00	10841.40	10887.65	10833.25	24.61	24.57	266.11	-86.51	-186.40	102.62	53.51	2.09		
11000.00	10899.69	10983.53	10891.08	25.16	25.07	266.87	-101.10	-261.33	123.92	73.74	2.47		
11100.00	10943.02	11079.07	10935.26	25.93	25.76	267.83	-117.27	-344.36	147.55	95.90	2.86		
11200.00	10970.05	11174.56	10964.77	26.94	26.64	268.94	-134.60	-433.38	172.85	119.27	3.23		
11300.00	10979.98	11270.37	10978.85	28.18	27.73	270.14	-152.70	-526.30	199.06	143.15	3.56		
11400.00	10979.16	11366.76	10979.49	29.61	29.02	270.07	-171.11	-620.88	225.53	166.90	3.85		
11500.00	10978.19	11463.20	10978.57	31.22	30.46	270.06	-189.54	-715.54	251.99	190.32	4.09		
11600.00	10977.22	11559.63	10977.65	32.98	32.04	270.06	-207.97	-810.19	278.46	213.44	4.28		
11700.00	10976.26	11656.06	10976.73	34.87	33.75	270.06	-226.40	-904.84	304.92	236.30	4.44		
11800.00	10975.29	11752.50	10975.81	36.88	35.56	270.06	-244.83	-999.49	331.39	258.95	4.57		
11900.00	10974.32	11848.93	10974.90	38.97	37.47	270.06	-263.26	-1094.15	357.85	281.41	4.68		
12000.00	10973.36	11945.37	10973.98	41.15	39.45	270.06	-281.69	-1188.80	384.31	303.71	4.77		
12100.00	10972.39	12041.80	10973.06	43.39	41.51	270.06	-300.12	-1283.45	410.78	325.88	4.84		
12200.00	10971.42	12138.24	10972.14	45.69	43.62	270.05	-318.55	-1378.11	437.24	347.94	4.90		
12300.00	10970.46	12234.67	10971.22	48.04	45.78	270.05	-336.98	-1472.76	463.71	369.89	4.94		
12400.00	10969.49	12331.11	10970.31	50.43	47.98	270.05	-355.41	-1567.41	490.17	391.76	4.98		
12500.00	10968.52	12427.54	10969.39	52.86	50.22	270.05	-373.84	-1662.06	516.64	413.56	5.01		
12600.00	10967.56	12523.98	10968.47	55.32	52.50	270.05	-392.27	-1756.72	543.10	435.29	5.04		
12700.00	10966.59	12620.41	10967.55	57.80	54.80	270.05	-410.70	-1851.37	569.57	456.97	5.06		
12800.00	10965.62	12716.84	10966.63	60.31	57.12	270.05	-429.13	-1946.02	596.03	478.59	5.08		
12900.00	10964.66	12813.28	10965.72	62.85	59.47	270.05	-447.56	-2040.67	622.50	500.18	5.09		
13000.00	10963.69	12909.71	10964.80	65.40	61.84	270.05	-465.99	-2135.33	648.96	521.72	5.10		
13100.00	10962.73	13006.15	10963.88	67.97	64.23	270.05	-484.42	-2229.98	675.43	543.23	5.11		
13200.00	10961.76	13102.58	10962.96	70.55	66.63	270.05	-502.85	-2324.63	701.89	564.71	5.12		
13300.00	10960.79	13199.02	10962.05	73.14	69.05	270.05	-521.28	-2419.28	728.36	586.17	5.12		
13400.00	10959.83	13295.45	10961.13	75.75	71.48	270.05	-539.71	-2513.94	754.82	607.59	5.13		
13500.00	10958.86	13391.89	10960.21	78.37	73.92	270.05	-558.14	-2608.59	781.29	629.00	5.13		
13600.00	10957.89	13488.32	10959.29	81.00	76.37	270.05	-576.57	-2703.24	807.75	650.39	5.13		
13700.00	10956.93	13584.76	10958.37	83.63	78.83	270.05	-595.00	-2797.89	834.22	671.75	5.13		

Company: Devon Energy	Date: 6/27/2012	Time: 10:31:08	Page: 4
Field: Eddy Co., NM (NAD 83)	Co-ordinate(NE) Reference: Well: 25 Fed #19H, Grid North		
Reference Site: Apache 25 Fed #19H	Vertical (TVD) Reference: SITE 3397.0		
Reference Well: 25 Fed #19H	Db: Sybase		
Reference Wellpath:			

Site: Apache 25 Fed #18H
 Well: 5 Fed #18H
 Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Edge		Separation	Warning
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
13800.00	10955.96	13681.19	10957.46	86.28	81.30	270.05	-613.43	-2892.55	860.68	693.11	5.14	
13900.00	10954.99	13777.62	10956.54	88.93	83.77	270.05	-631.86	-2987.20	887.14	714.44	5.14	
14000.00	10954.03	13874.06	10955.62	91.59	86.25	270.05	-650.29	-3081.85	913.61	735.77	5.14	
14100.00	10953.06	13970.49	10954.70	94.25	88.74	270.05	-668.72	-3176.50	940.07	757.08	5.14	
14200.00	10952.09	14066.93	10953.78	96.93	91.24	270.05	-687.15	-3271.16	966.54	778.38	5.14	
14300.00	10951.13	14163.36	10952.87	99.60	93.74	270.05	-705.58	-3365.81	993.00	799.67	5.14	
14400.00	10950.16	14259.80	10951.95	102.28	96.24	270.05	-724.01	-3460.46	1019.47	820.94	5.14	
14500.00	10949.19	14356.23	10951.03	104.97	98.75	270.05	-742.44	-3555.12	1045.93	842.21	5.13	
14600.00	10948.23	14452.67	10950.11	107.65	101.27	270.05	-760.87	-3649.77	1072.40	863.48	5.13	
14700.00	10947.26	14549.10	10949.19	110.35	103.79	270.05	-779.30	-3744.42	1098.86	884.73	5.13	
14800.00	10946.29	14645.54	10948.28	113.04	106.31	270.05	-797.73	-3839.07	1125.33	905.98	5.13	
14900.00	10945.33	14741.97	10947.36	115.74	108.83	270.05	-816.16	-3933.73	1151.79	927.22	5.13	
15000.00	10944.36	14838.40	10946.44	118.44	111.36	270.05	-834.59	-4028.38	1178.26	948.45	5.13	
15100.00	10943.39	14934.84	10945.52	121.15	113.89	270.05	-853.02	-4123.03	1204.72	969.68	5.13	
15200.00	10942.43	15031.27	10944.60	123.86	116.43	270.05	-871.45	-4217.68	1231.19	990.90	5.12	
15300.00	10941.46	15127.71	10943.69	126.57	118.96	270.05	-889.88	-4312.34	1257.65	1012.12	5.12	
15400.00	10940.49	15224.14	10942.77	129.28	121.50	270.05	-908.31	-4406.99	1284.12	1033.34	5.12	
15451.16	10940.00	15273.48	10942.30	130.67	122.80	270.05	-917.74	-4455.41	1297.65	1044.19	5.12	

**Weatherford®****Weatherford Drilling Services**

GeoDec v5.03

Report Date: June 27, 2012
Job Number: _____
Customer: Devon Energy
Well Name: Apache 25 Fed #19H
API Number: _____
Rig Name: _____
Location: Eddy Co., NM (NAD 83)
Block: _____
Engineer: RWJ

US State Plane 1983	Geodetic Latitude / Longitude
System: New Mexico Eastern Zone	System: Latitude / Longitude
Projection: Transverse Mercator/Gauss Kruger	Projection: Geodetic Latitude and Longitude
Datum: North American Datum 1983	Datum: North American Datum 1983
Ellipsoid: GRS 1980	Ellipsoid: GRS 1980
North/South 497799.200 USFT	Latitude 32.3675020 DEG
East/West 697768.300 USFT	Longitude -103.8266699 DEG
Grid Convergence: .27°	
Total Correction: +7.27°	

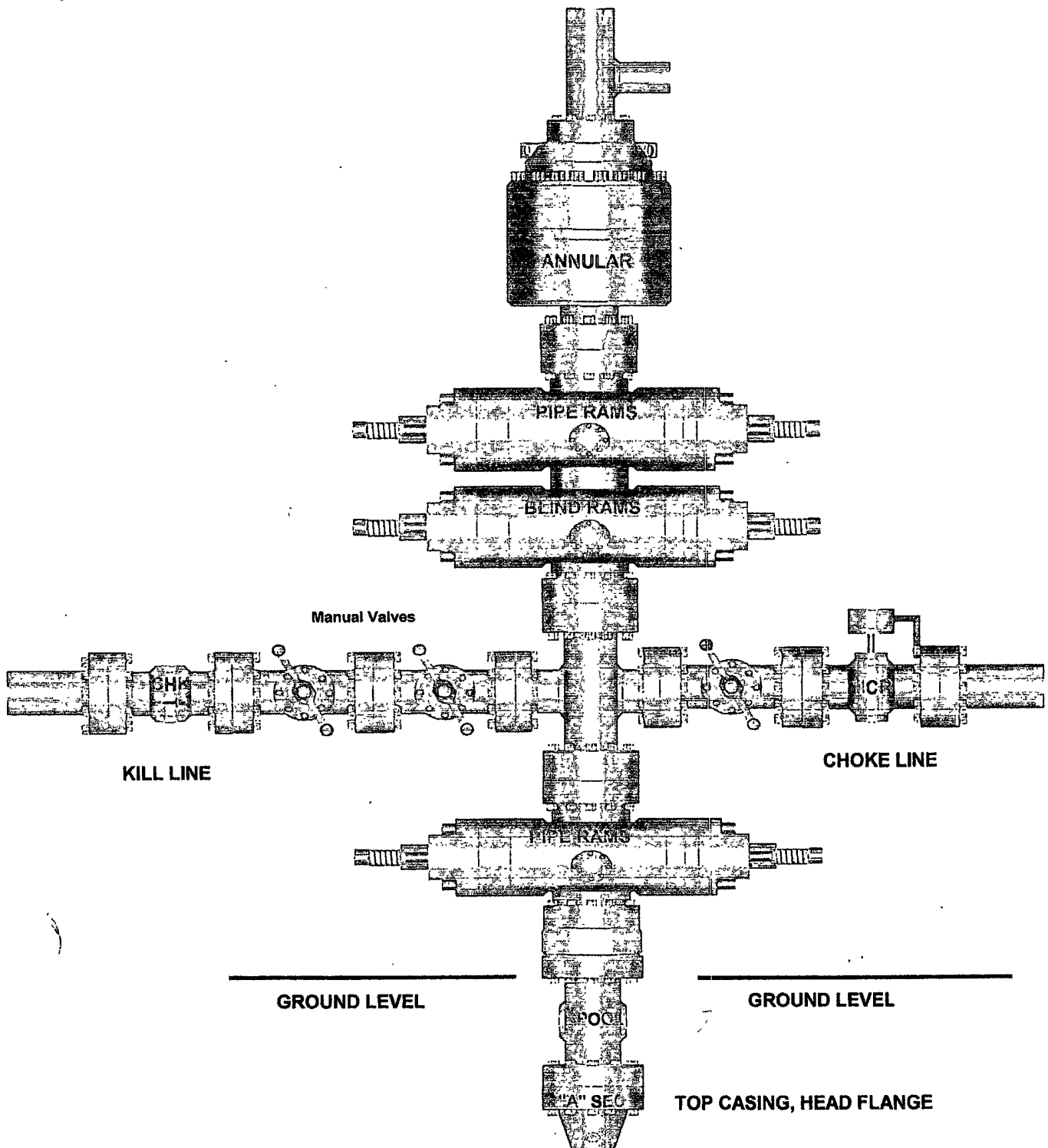
Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude =	32.36750° N	32° 22 min 3.007 sec
Longitude =	103.82667° W	103° 49 min 36.012 sec

Magnetic Declination =	7.54°	[True North Offset]
Local Gravity =	.9988 g	Checksum = 6590
Local Field Strength =	48554 nT	Magnetic Vector X = 23891 nT
Magnetic Dip =	60.24°	Magnetic Vector Y = 3163 nT
Magnetic Model =	IGRF-2010g11	Magnetic Vector Z = 42151 nT
Spud Date =	Nov 15, 2012	Magnetic Vector H = 24100 nT

Signed: _____

Date: _____

13-5/8" x 3,000 psi BOP Stack

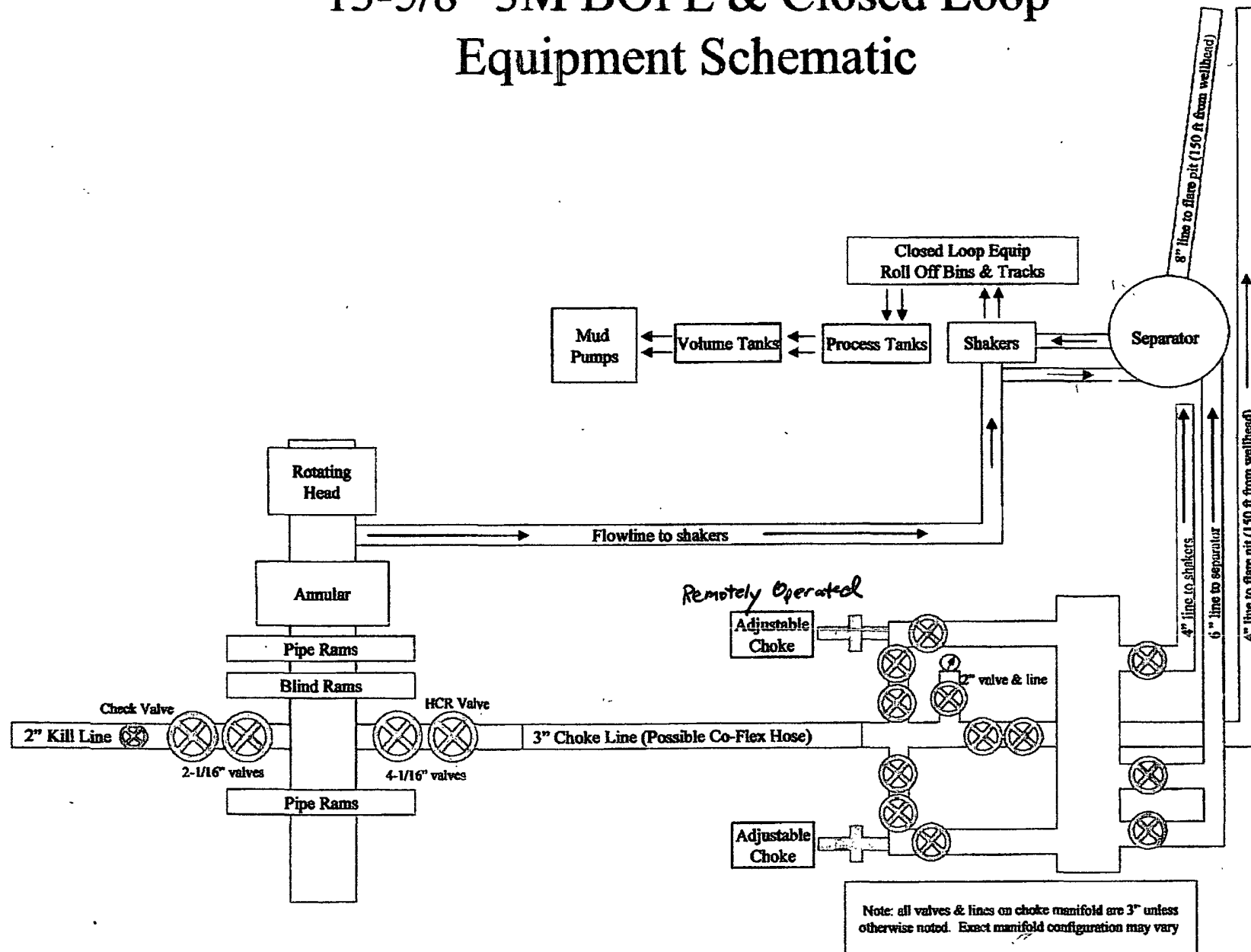


Attachment to Exhibit #1
NOTES REGARDING BLOWOUT PREVENTERS
Devon Energy Production Company, LP
Apache 25 Fed 19H

Surface Location: 1030' FNL & 330' FEL, Unit A, Sec 25 T22S R30E, Eddy, NM
Bottom Hole Location: 660' FNL & 330' FWL, Unit D, Sec 25 T22S R30E, 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" 3M BOPE & Closed Loop Equipment Schematic



Hydrostatic Test Certificate

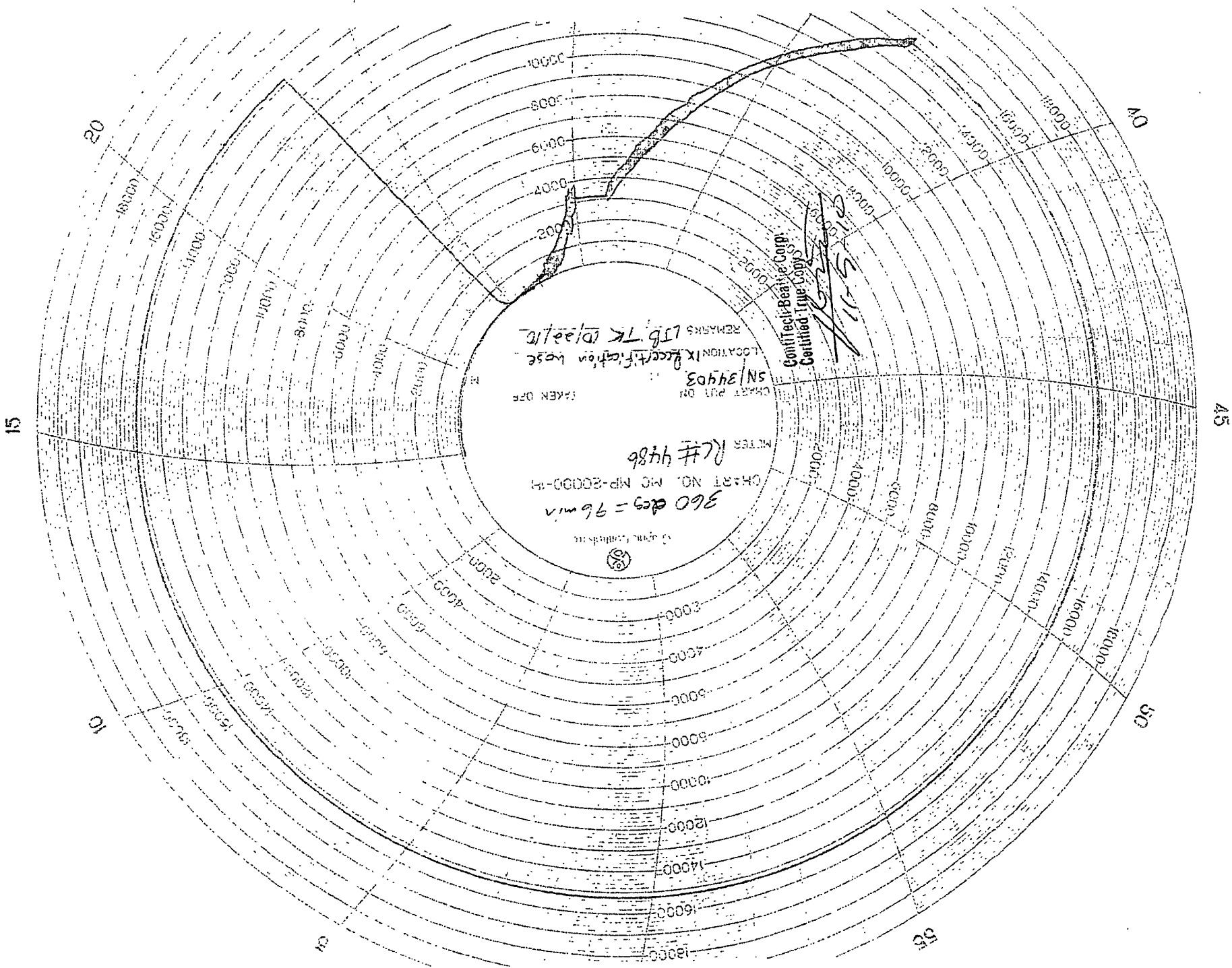


Certificate Number: 4520	PBC No: 10321	Customer Name & Address:
Customer Purchase Order No: RIG 300		HELMERICH & PAYNE INTL DRILLING CO 1437 SOUTH BOULDER TULSA, OK 74119
Project:		
Test Centre Address:	Accepted by ContiTech Beattie Inspection:	Accepted by Client Inspection:
ContiTech Beattie Corp. 11535 Brittmoore Park Drive Houston, TX 77041 USA	Signed: Josh Sims Date: 10/27/10	

We certify that the goods detailed hereon have been inspected by our Quality Management System, and to the best of our knowledge are found to conform to relevant industrial standards within the requirements of the purchase order as issued to ContiTech Beattie Corporation.

These goods were made in the United States of America.

Item	Part No.	Description	Qty	Serial Number	As-Built Length (m)	Work Press.	Test Press.	Test Time (minutes)
1		3" ID 10K Choke & Kill Hose x 35ft OAL End A: 4 1/16" 10Kpsi API Spec 6A Type 6BX Flange End B: 4 1/16" 10Kpsi API Spec 6A Type 6BX Flange Working Pressure: 10,000psi Test Pressure: 15,000psi Serial#: 49106	1	49106		10 kpsi	15 kpsi	60



45

40

50

55

60

10

15



**Devon Energy Corporation
333 West Sheridan
Oklahoma City, Oklahoma 73102-5010**

Hydrogen Sulfide (H₂S) Contingency Plan

For

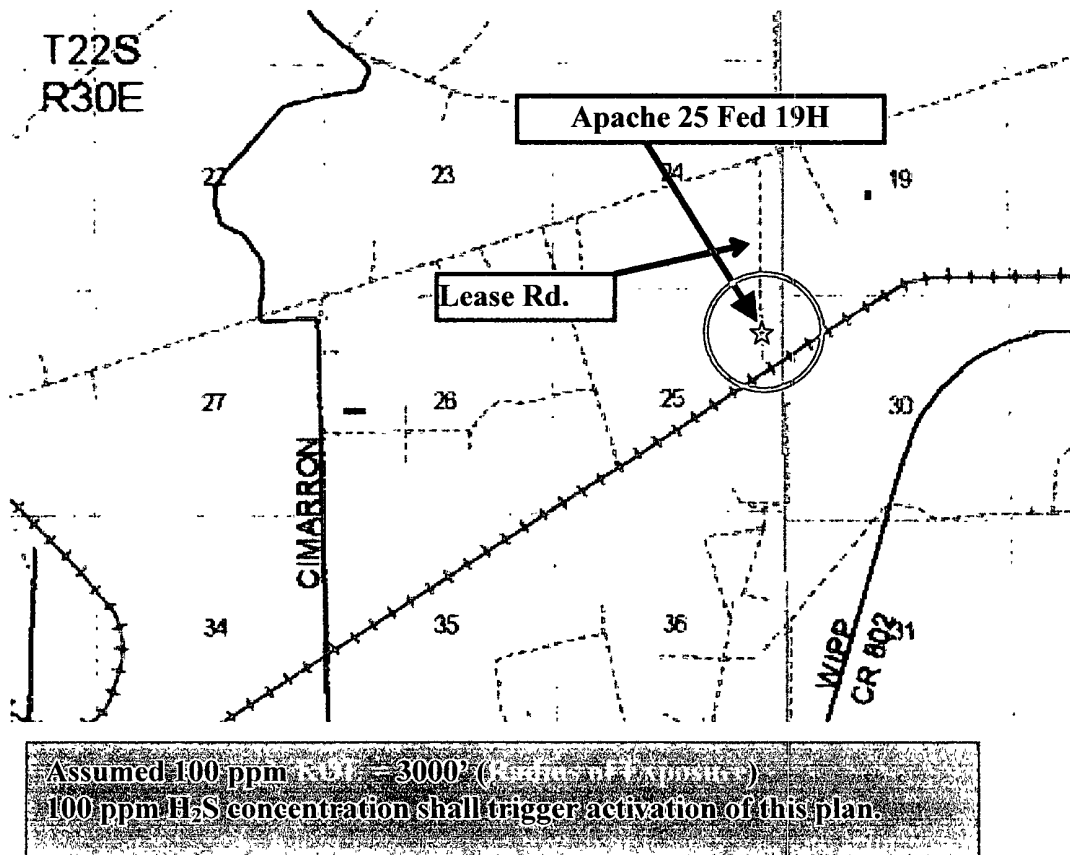
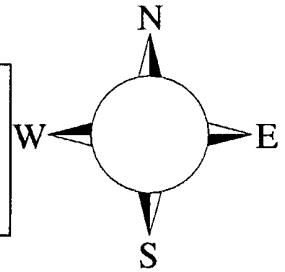
Apache 25 Fed 19H

**Sec-25, T-22S R-30E
1030' FNL & 330' FEL,
LAT. = 32.220301'N (NAD83)
LONG = 103.493601'W**

Eddy County NM

Apache 25 fed 19H

This is an open drilling site. H₂S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H₂S, including warning signs, wind indicators and H₂S monitor.



Escape

Crews shall escape upwind of escaping gas in the event of an emergency release of gas. Escape can be facilitated from the location entrance North on lease road. Crews should then block the road so as not to allow anyone traversing into a hazardous area. The blockade should be at a safe distance outside of the ROE. There are no homes or buildings in or near the ROE. The WIPP site is North approximately 1.6 miles. Efforts should be made to communicate the hazards to their personnel, in the case of an emergency release.

Assumed 100 ppm ROE = 3000'

100 ppm H₂S concentration shall trigger activation of this plan.

Emergency Procedures

In the event of a release of gas containing H₂S, the first responder(s) must

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H₂S monitors and air packs in order to control the release.
- Use the “buddy system” to ensure no injuries occur during the response
- Take precautions to avoid personal injury during this operation.
- Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the
 - Detection of H₂S, and
 - Measures for protection against the gas,
 - Equipment used for protection and emergency response.

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO₂). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

Characteristics of H₂S and SO₂

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

Contacting Authorities

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

Hydrogen Sulfide Drilling Operation Plan

I. HYDROGEN SULFIDE (H₂S) TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide (H₂S)
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H₂S metal components. If high tensile tubular are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the H₂S Drilling Operations Plan and Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S Drilling Operations Plan and the Public Protection Plan.

II. HYDROGEN SULFIDE TRAINING

Note: All H₂S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonable expected to contain H₂S.

1. Well Control Equipment

- A. Flare line
- B. Choke manifold
- C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
- D. Auxiliary equipment may include if applicable: annular preventer and rotating head.

2. Protective equipment for essential personnel:

- A. 30-minute SCBA units located in the doghouse and at briefing areas, as indicated on well site diagram. As it may be difficult to communicate audibly while wearing these units, hand signals shall be utilized.

3. H₂S detection and monitoring equipment:

- A. Portable H₂S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H₂S levels of 20 PPM are reached. These units are usually capable of detecting SO₂, which is a byproduct of burning H₂S.

4. Visual warning systems:

- A. Wind direction indicators as shown on well site diagram
- B. Caution/ Danger signs shall be posted on roads providing direct access to locations. Signs will be painted a high visibility yellow with black lettering of sufficient size to be reasonable distance from the immediate location. Bilingual signs will be used when appropriate..

5. Mud program:

- A. The mud program has been designed to minimize the volume of H₂S circulated to surface. Proper mud weight, safe drilling practices and the

use of H₂S scavengers will minimize hazards when penetrating H₂S bearing zones.

6. Metallurgy:

- A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold lines, and valves shall be H₂S trim.
- B. All elastomers used for packing and seals shall be H₂S trim.

7. Communication:

- A. Radio communications in company vehicles including cellular telephones and 2-way radio
- B. Land line (telephone) communications at Office

8. Well testing:

- A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safety and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill-stem-testing operations conducted in an H₂S environment will use the closed chamber method of testing.
- B. There will be no drill stem testing.

Devon Energy Corp. Company Call List

<u>Artesia (575)</u>	<u>Cellular</u>	<u>Office</u>	<u>Home</u>
Foreman – Robert Bell	748-7448	748-0178	746-2991
Asst. Foreman –Tommy Polly.....	748-5290	748-0165	748-2846
Don Mayberry	748-5235	748-0164	746-4945
Montral Walker	390-5182	748-0193	936-414-6246
Engineer – Marcos Ortiz.....	(405) 317-0666....	(405) 552-8152....	(405) 381-4350

Agency Call List

<u>Lea</u>	<u>Hobbs</u>
<u>County</u>	State Police
<u>(575)</u>	City Police
	Sheriff's Office
	Ambulance
	Fire Department
	LEPC (Local Emergency Planning Committee).....
	NMOCD
	US Bureau of Land Management

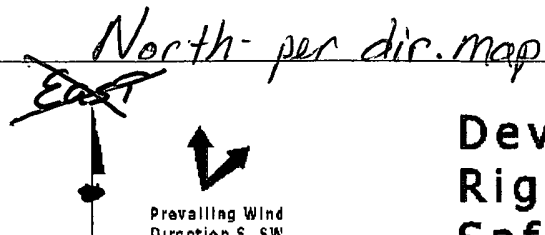
<u>Eddy</u>	<u>Carlsbad</u>
<u>County</u>	State Police
<u>(575)</u>	City Police
	Sheriff's Office
	Ambulance
	Fire Department
	LEPC (Local Emergency Planning Committee).....
	US Bureau of Land Management
	New Mexico Emergency Response Commission (Santa Fe) ...
	24 HR
	National Emergency Response Center (Washington, DC) ..

Emergency Services

	Boots & Coots IWC
	Cudd Pressure Control.....
	Halliburton
	B. J. Services.....
<i>Give</i>	Flight For Life - Lubbock, TX
<i>GPS</i>	Aerocare - Lubbock, TX
<i>position:</i>	Med Flight Air Amb - Albuquerque, NM
	Lifeguard Air Med Svc. Albuquerque, NM

Prepared in conjunction with
Wade Rohloff





Devon Energy - 2 Well Pad Rig Location Layout Safety Equipment Location

CAUTION
 Hot Surfaces
 400 °F or Higher

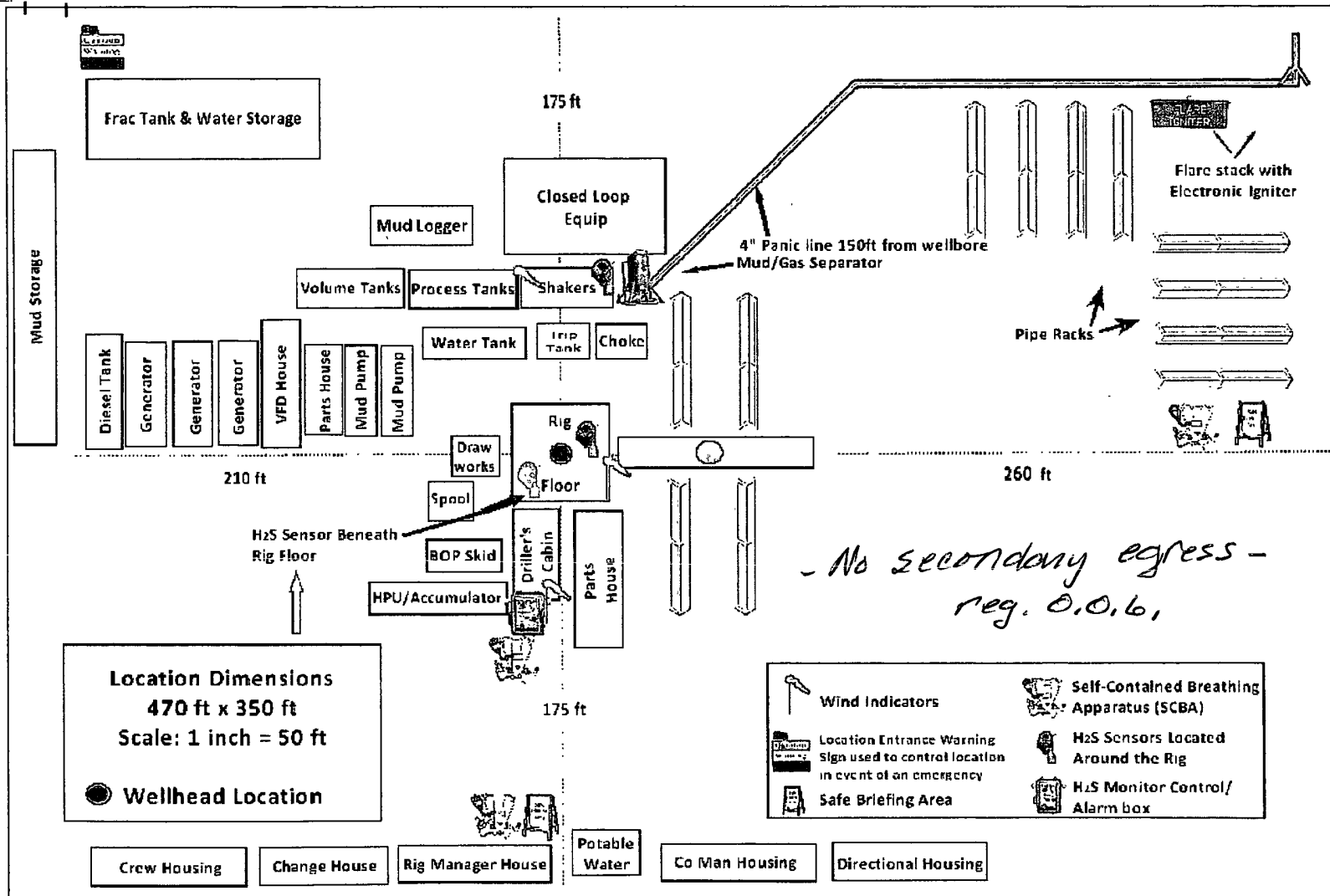
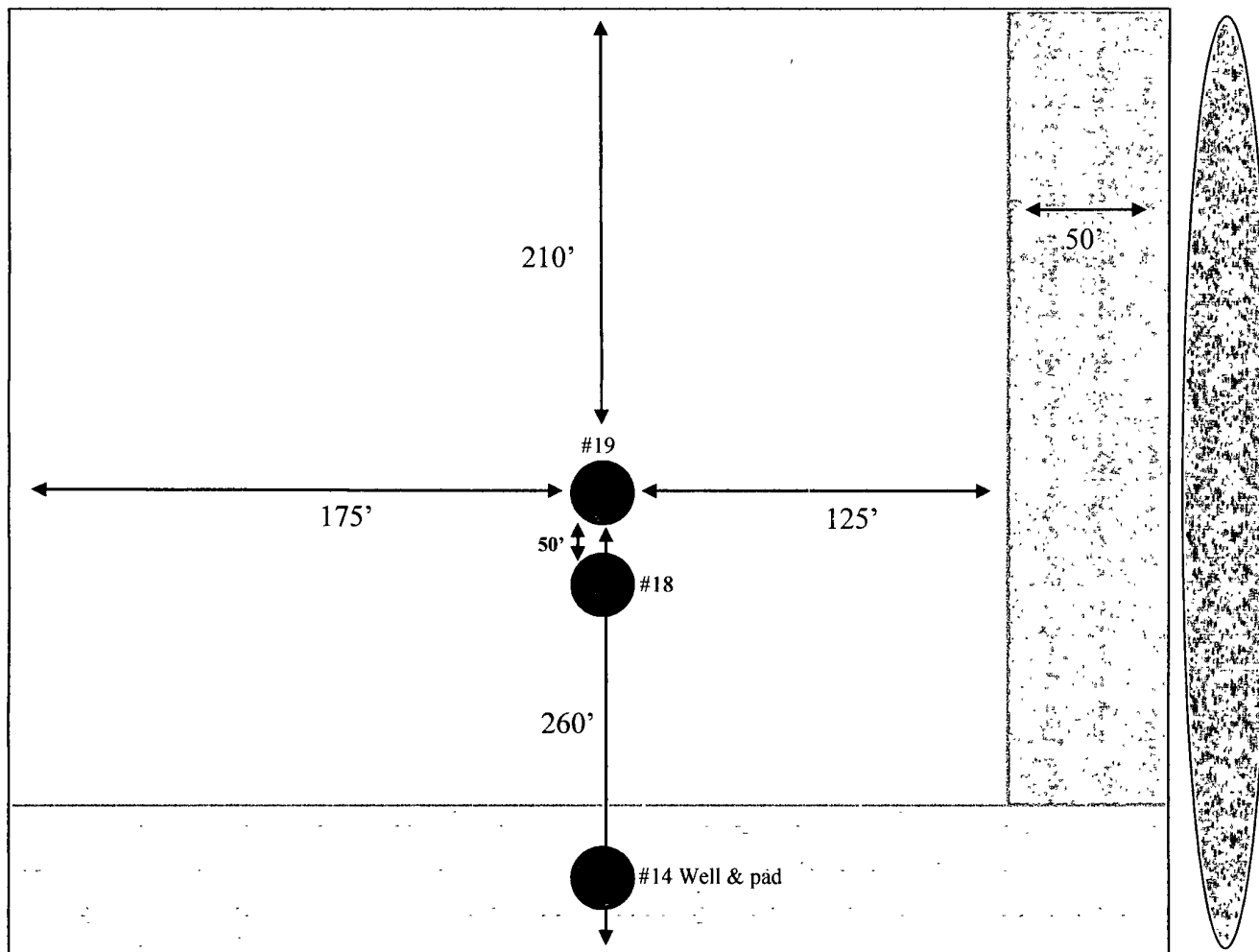


EXHIBIT C

**Interim Reclamation & Production Facilities
APACHE 25 FED #18 & #19
V-DOOR SOUTH**



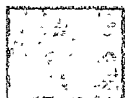
LEGEND



Well Bore



Topsoil



Interim Reclamation



Production Facilities



NORTH

PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	DEVON ENERGY
LEASE NO.:	NM89052
WELL NAME & NO.:	19H-APACHE 25 FED
SURFACE HOLE FOOTAGE:	1030'/N. & 330'/E.
BOTTOM HOLE FOOTAGE:	660'/N. & 330'/W.
LOCATION:	Section 25, T. 22 S., R. 30 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.

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
 - Lesser Prairie-Chicken Timing Stipulations
 - Ground-level Abandoned Well Marker
 - Cave/Karst
- ☐ **Construction**
 - Notification
 - Topsoil
 - Closed Loop System
 - Federal Mineral Material Pits
 - Well Pads
 - Roads
- ☐ **Road Section Diagram**
- ☒ **Drilling**
 - Logging Requirements
 - High Cave/Karst
 - R-111-P Potash
 - Waste Material and Fluids
- ☐ **Production (Post Drilling)**
 - Well Structures & Facilities
 - Pipelines – not requested
 - Electric Lines – not requested
- ☐ **Interim Reclamation**
- ☒ **Final Abandonment & Reclamation**

I. GENERAL PROVISIONS

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

II. PERMIT EXPIRATION

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

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

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

IV. NOXIOUS WEEDS

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

V. SPECIAL REQUIREMENT(S)

Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken:

Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

*Note: Due to the location occurring in a Lesser Prairie-Chicken Habitat Evaluation Area (HEA), as described in the 2008 Special Status Species Resource Management Plan Amendment, **non-emergency exceptions to this condition-of-approval will not be granted.**

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

Cave and Karst

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

Cave/Karst Surface Mitigation

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

Construction:

In the advent that any underground voids are opened up during construction activities, construction activities will be halted and the BLM will be notified immediately.

No Blasting:

No blasting will be utilized for pad construction. The pad will be constructed and leveled by adding the necessary fill and caliche.

Tank Battery Liners and Berms:

Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.

Leak Detection System:

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

Automatic Shut-off Systems:

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

Cave/Karst Subsurface Mitigation

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

Rotary Drilling with Fresh Water:

Fresh water will be used as a circulating medium in zones where caves or karst features are expected. SEE ALSO: Drilling COAs for this well.

Directional Drilling:

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

Lost Circulation:

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

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

Abandonment Cementing:

Upon well abandonment in high cave karst areas additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

Pressure Testing:

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

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) 234-6235 at least 3 working days prior to commencing construction of the access road and/or well pad.

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

B. TOPSOIL

The operator shall stockpile the topsoil in a low profile manner in order to prevent wind/water erosion of the topsoil. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be used for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

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

D. FEDERAL MINERAL MATERIALS PIT

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

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

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

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

F. ON LEASE ACCESS ROADS

Road Width

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty (20) feet.

Surfacing

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

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

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

Crowning

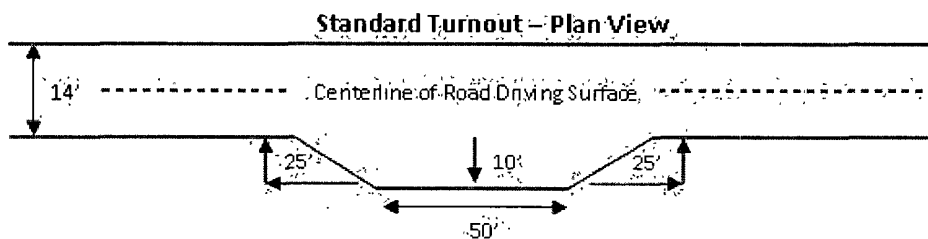
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching

Ditching shall be required on both sides of the road.

Turnouts

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

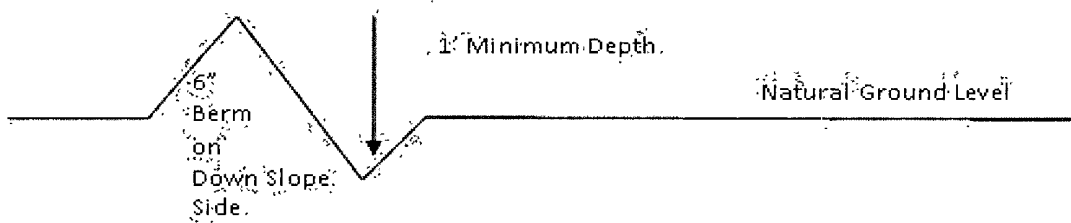


Drainage

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

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

Cross Section of a Typical Lead-off Ditch



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

Formula for Spacing Interval of Lead-off Ditches

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

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

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

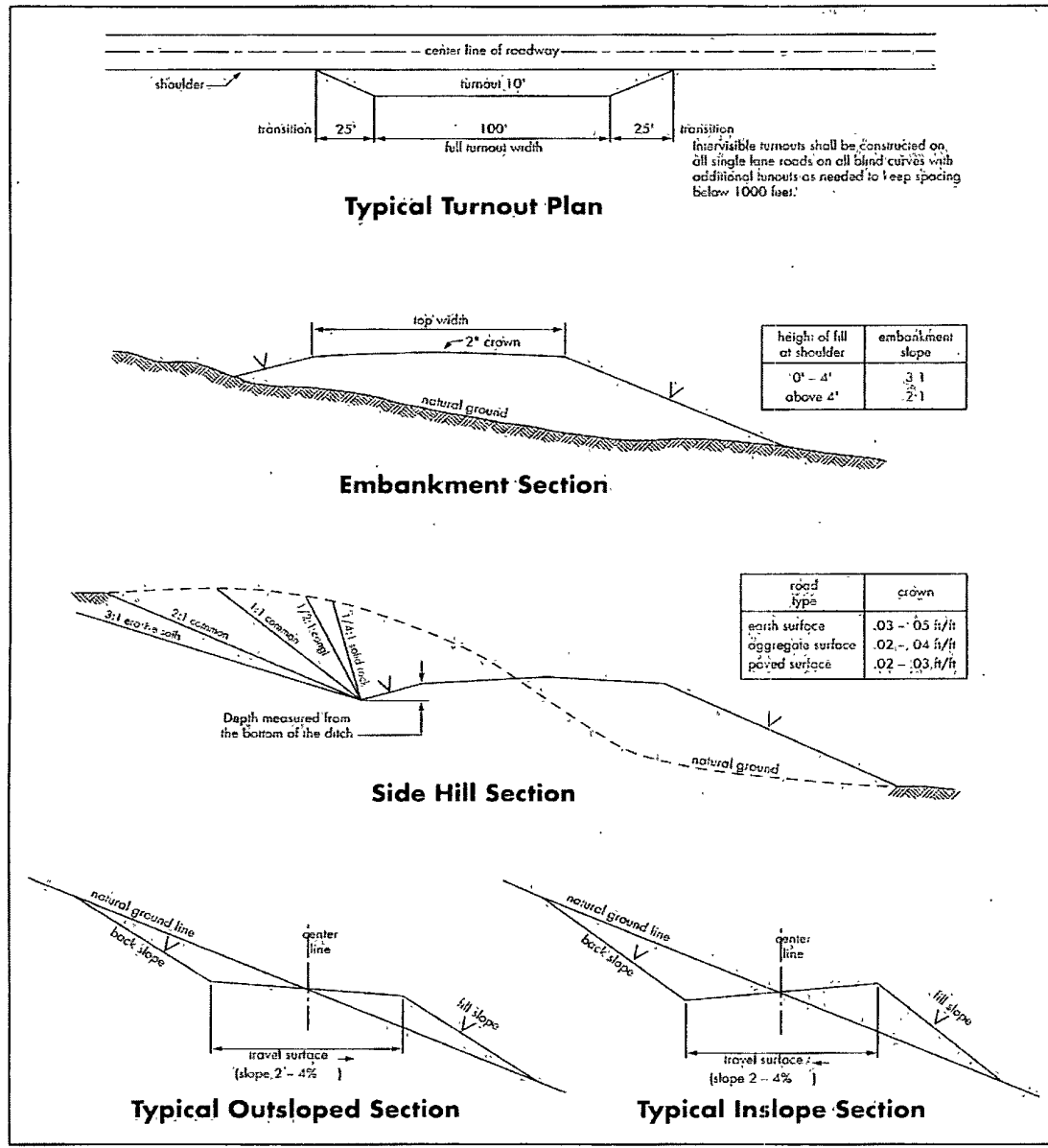
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

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. **Due to recent H2S encounters in the salt formation, it is recommended that monitoring equipment be onsite for potential Hydrogen Sulfide prior to drilling out the surface shoe. If Hydrogen Sulfide is encountered, please report measurements 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 is 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) shall 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 program need prior approval if the items substituted are of lesser grade or different casing size. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#).

Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.).

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.

**R-111-P Potash/WIPP
HIGH CAVE/KARST**

Possible water and brine flows in the Rustler, Salado and Castile formations.

Possible lost circulation within the Rustler, Delaware and Bone Spring.

1. The 13-3/8 inch surface casing shall be set at approximately **520** 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 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 and potash.**
3. The minimum required fill of cement behind the **5-1/2** inch production casing is:
 - a. First stage to DV tool, cement shall:
 - ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.
 - 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 – excess calculates to 16%.**
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.
5. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

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. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).

3. 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.
 - 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.
4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In potash areas, 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. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time.
 - 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) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
 - 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.

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.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

F. WIPP Requirements

The proposed well is located within 330' of the WIPP Land Withdrawal Area boundary. As a result, Devon Energy Production Company, L. P. is required to submit daily drilling reports, logs and deviation survey information to the Bureau of Land Management and the Department of Energy per requirements of the Joint Powers Agreement until a total vertical depth of 7,000 feet is reached. These reports will have at a minimum the rate of penetration and a clearly marked section showing the deviation for each 500 foot interval. Operator may be required to do more frequent deviation surveys based on the daily information submitted and may be required to take other corrective measures. Information from this well will be included in the Quarterly Drilling Report. Information will also be provided to the New Mexico Oil Conservation Division after drilling activities have been completed. Upon completion of the well, the operator shall submit a complete directional survey. Any future entry into the well for purposes of completing additional drilling will require supplemental information.

Devon Energy Production Company, L. P. can email the required information to Mr. Melvin Balderrama at Melvin.Balderama@wipp.ws or Mr. J. Neatherlin at Jimmy.Neatherlin@wipp.ws fax to his attention at 575-234-6062.

CRW 101012

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

C. ELECTRIC LINES – not requested

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).

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

Seed Mixture 2, for Sandy Sites

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

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

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

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

*Pounds of pure live seed:

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