

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

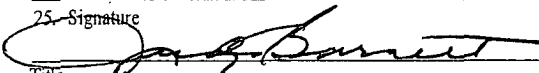
FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM-99147
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
2. Name of Operator Devon Energy Production Company, LP		7. If Unit or CA Agreement, Name and No.
3a. Address 20 North Broadway Oklahoma City, Oklahoma City 73102-8260		8. Lease Name and Well No. Slider 8 Federal 2H (38360)
3b. Phone No. (include area code) 405-228-8699		9. API Well No. 30-085-38281
4. Location of Well (Report location clearly and in accordance with any State requirements) At surface NW/4 SE/4 1680 FSL & 1385 FEL Unit J At proposed prod. zone NW/4 SW/4 1650 FSL & 330 FWL Unit L PP:1649 FSL & 657 FEL		10. Field and Pool, or Exploratory WILLOW LAKE, Rustler Bluffs, Upper Bone Springs, SE (96217)
11. Sec., T. R. M. or Blk. and Survey or Area SEC 8 T25S R29E		
14. Distance in miles and direction from nearest town or post office* Approximately 11 miles southeast of Loving, NM.		12. County or Parish Eddy County
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 65'		13. State NM
16. No. of acres in lease 960 Acres		17. Spacing Unit dedicated to this well N/2 SW/4 NW/4 SE/4 120 Acres
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. See Attached Map		19. Proposed Depth 7325' MD 7245' TVD (BHA) CO-1104
20. BLM/BIA Bond No. on file		
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 2965' GL		22. Approximate date work will start* 45 days
23. Estimated duration		

24. Attachments

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

- | | |
|---|--|
| 1. Well plat certified by a registered surveyor. | 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 shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature 	Name (Printed Typed) Judy A. Barnett	Date 09/09/2010
Title Regulatory Analyst		

Approved by (Signature) /s/ Don Peterson	Name (Printed Typed) /s/ Don Peterson	Date NOV 09 2010
Title FIELD MANAGER		
Office BLM Carlsbad Field Office		

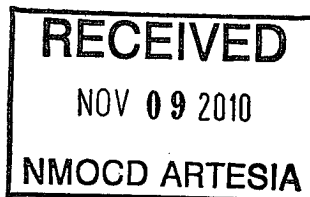
Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*(Instructions on page 2)

Carlsbad Controlled Water Basin



SEE ATTACHED FOR
CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

Subject to like approval by state -
Same acreage dedicated to Slider 8 Federal 1H

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

Form C-102

Revised October 15, 2009

Submit one copy to appropriate
District Office

OIL CONSERVATION DIVISION

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-015-70281	Pool Code 96217	Pool Name WILLOW LAKE
Property Code 38360	Property Name SLIDER "8" FEDERAL	Well Number 2H
OGRID No. 6137	Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.	Elevation 2965'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	8	25 S	29 E		1680	SOUTH	1385	EAST	EDDY

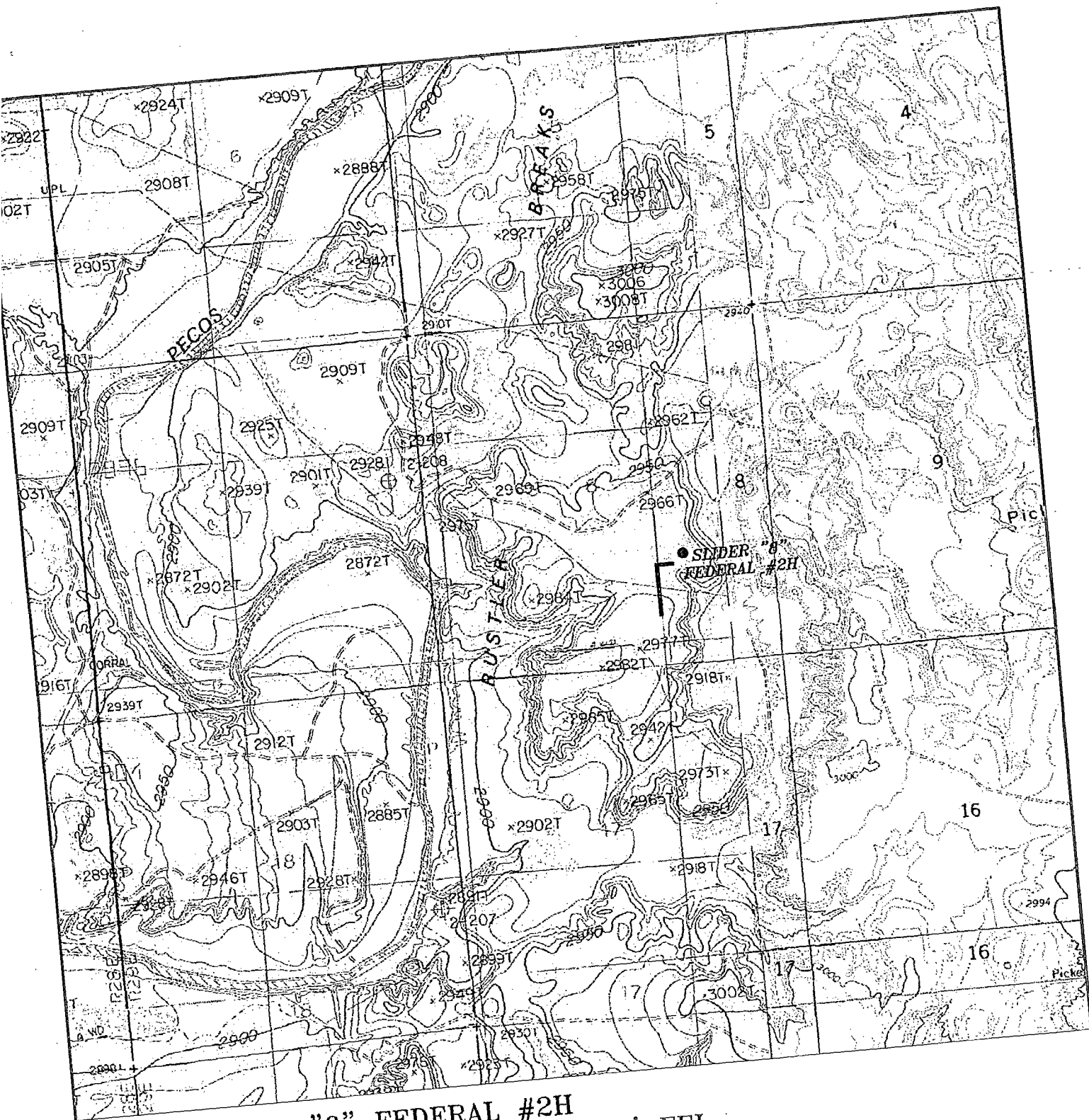
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	8	25 S	29 E		1650	SOUTH	330	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

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

<p>N: 419198.5150 E: 639788.6660</p> <p>PROPOSED BOTTOM HOLE LOCATION Lat - N 32°08'31.35" Long - W 104°00'51.02" NMSPCE- N 415556.947 E 640121.457 (NAD-83)</p> <p>N: 416553.9280 E: 639788.3150</p> <p>330' B.H.</p> <p>1680'</p> <p>CALC.</p> <p>N: 413882.0340 E: 642453.6130</p>	<p>N: 419157.1970 E: 645102.8230</p> <p>SURFACE LOCATION Lat - N 32°08'31.01" Long - W 104°00'09.10" NMSPCE- N 415533.653 E 643725.540 (NAD-83)</p> <p>2964.8'</p> <p>2936.9'</p> <p>1385'</p> <p>2965.1'</p> <p>2963.4'</p> <p>1680'</p>	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Judy A. Barnett</i> 8/4/10 Signature Date</p> <p>Judy A. Barnett Printed Name Regulatory Analyst</p> <p>SURVEYOR CERTIFICATION</p> <p>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>Date Surveyed Signature & Seal of Professional Surveyor</p> <p>GARY L. JONES 7977</p> <p>Certificate No. Gary L. Jones 7977</p> <p>BASIN SURVEYS</p>
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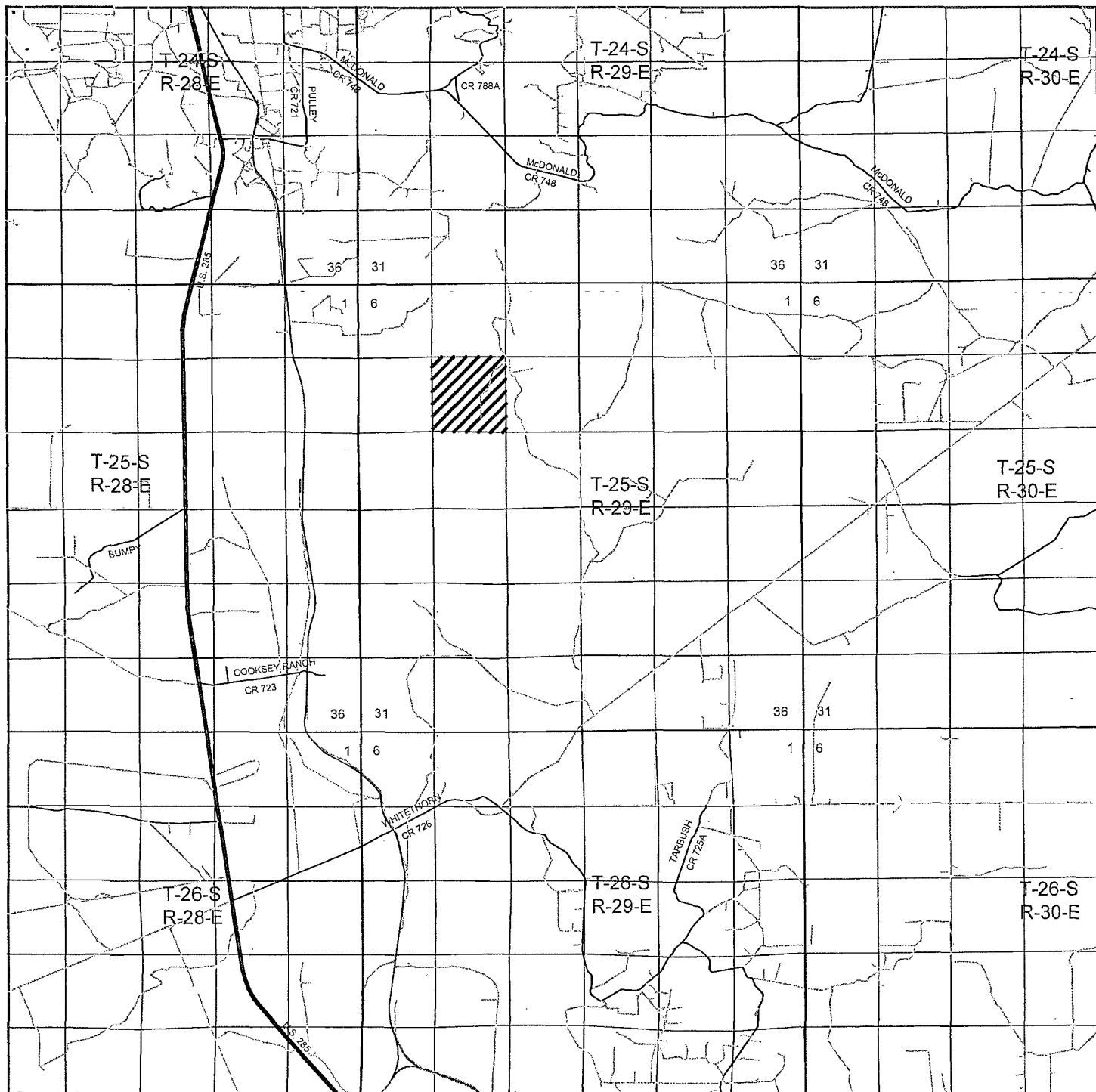
SLIDER "8" FEDERAL #2H
 Located 1680' FSL and 1385' FEL
 Section 8, Township 25 South, Range 29 East,
 N.M.P.M., Eddy County, New Mexico.



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 22154
Survey Date:	05-07-2010
Scale:	1" = 2000'
Date:	05-11-2010

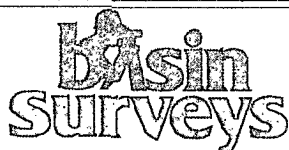
**DEVON ENERGY
 PRODUCTION
 COMPANY, L.P.**



SLIDER "8" FEDERAL #2H

Located 1680' FSL and 1385' FEL

Section 8, Township 25 South, Range 29 East,
N.M.P.M., Eddy County, New Mexico.



focused on excellence
in the oilfield

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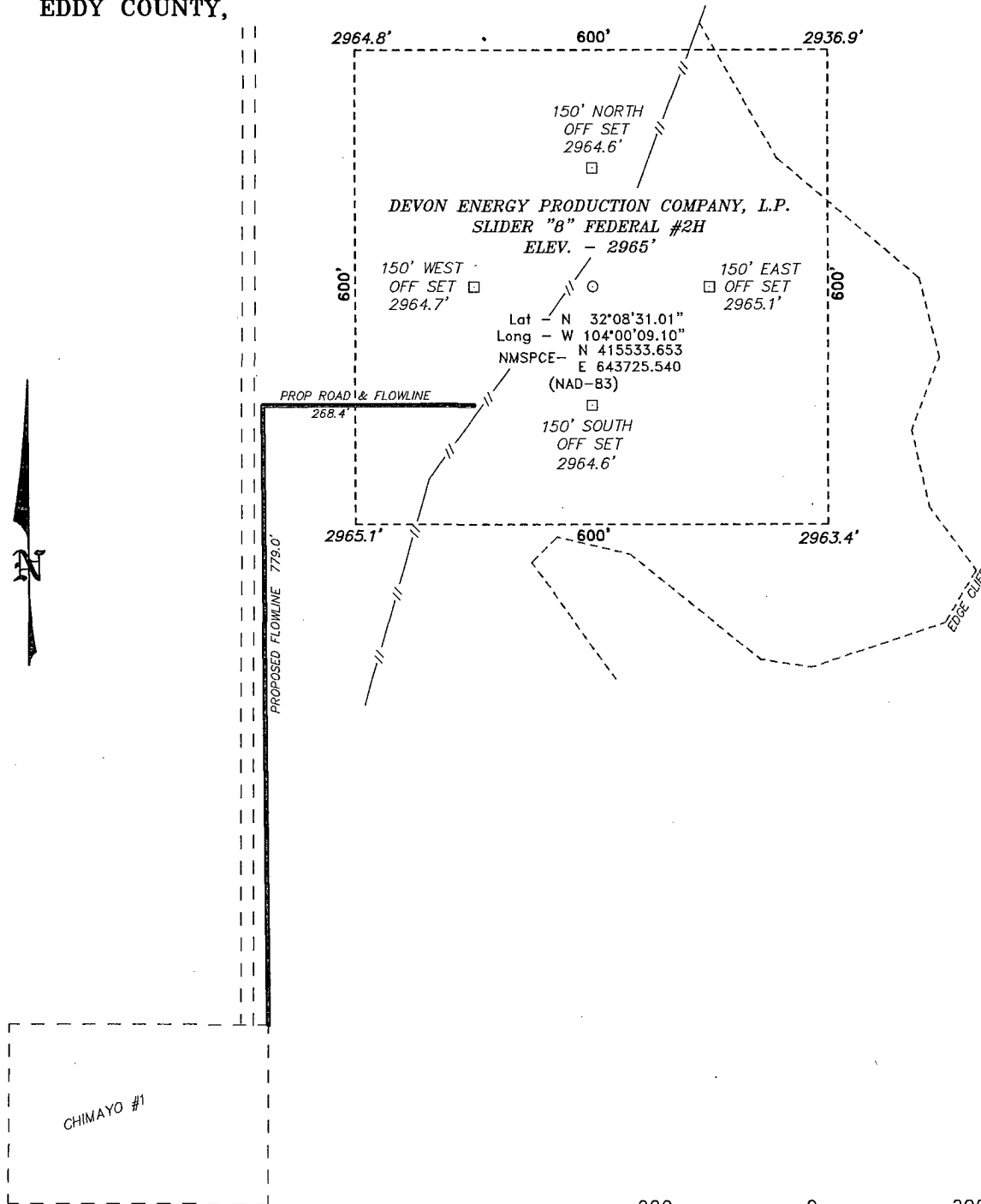
Survey Date: 05-07-2010

Scale: 1" = 2 Miles

Date: 05-11-2010

DEVON ENERGY
PRODUCTION
COMPANY, L.P.

SECTION 8, TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



Directions to Location:

FROM THE JUNCTION OF HWY 285 AND LONGHORN,
GO EAST ON LONG HORN FOR 3.9 MILES TO LEASE
ROAD, ON LEASE ROAD GO NORTHEAST 1.7 MILES
THEN TURN NORTH AT GRAVEL PIT AND GO 3.3
MILES TO LEASE ROAD, ON LEASE ROAD GO WEST
2.1 MILES BANKING LEFT FOR 0.2 MILES TO LEASE
ROAD, ON LEASE ROAD SOUTH 0.4 MILES TO
PROPOSED LEASE ROAD.

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

W.O. Number: 22154

Drawn By: J. SMALL

Date: 05-11-2010

Disk: JMS 22154

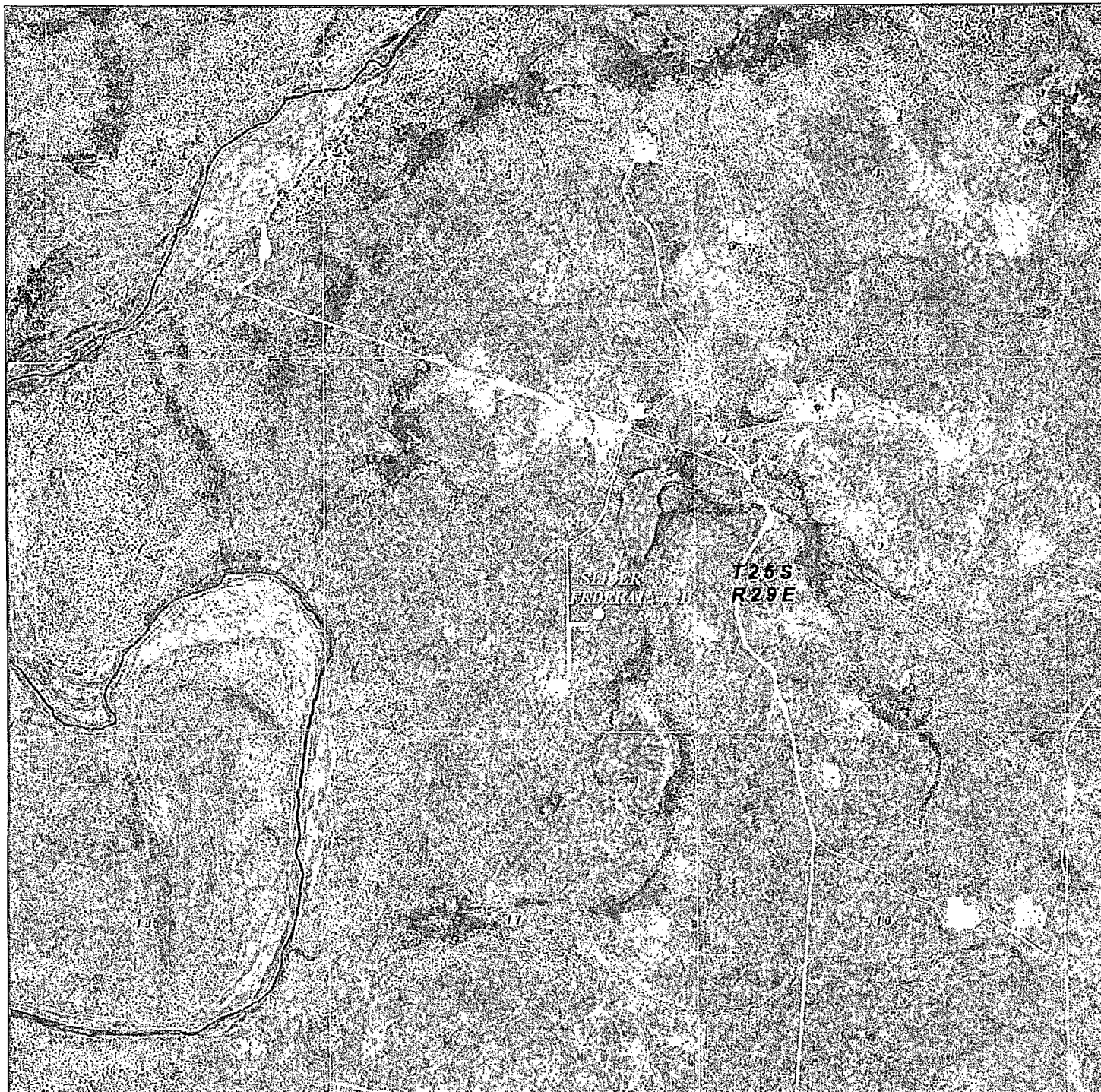
DEVON ENERGY PRODUCTION COMPANY, L.P.

REF: SLIDER "8" FEDERAL #2H / WELL PAD TOPO

THE SLIDER "8" FEDERAL #2H LOCATED 1680'
FROM THE SOUTH LINE AND 1385' FROM THE EAST LINE OF
SECTION 8, TOWNSHIP 25 SOUTH, RANGE 29 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 05-07-2010

Sheet 1 of 1 Sheets



SLIDER "8" FEDERAL #2H
 Located 1680' FSL and 1385' FEL
 Section 8, Township 25 South, Range 29 East,
 N.M.P.M., Eddy County, New Mexico.

basin
surveys

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 in the oilfield

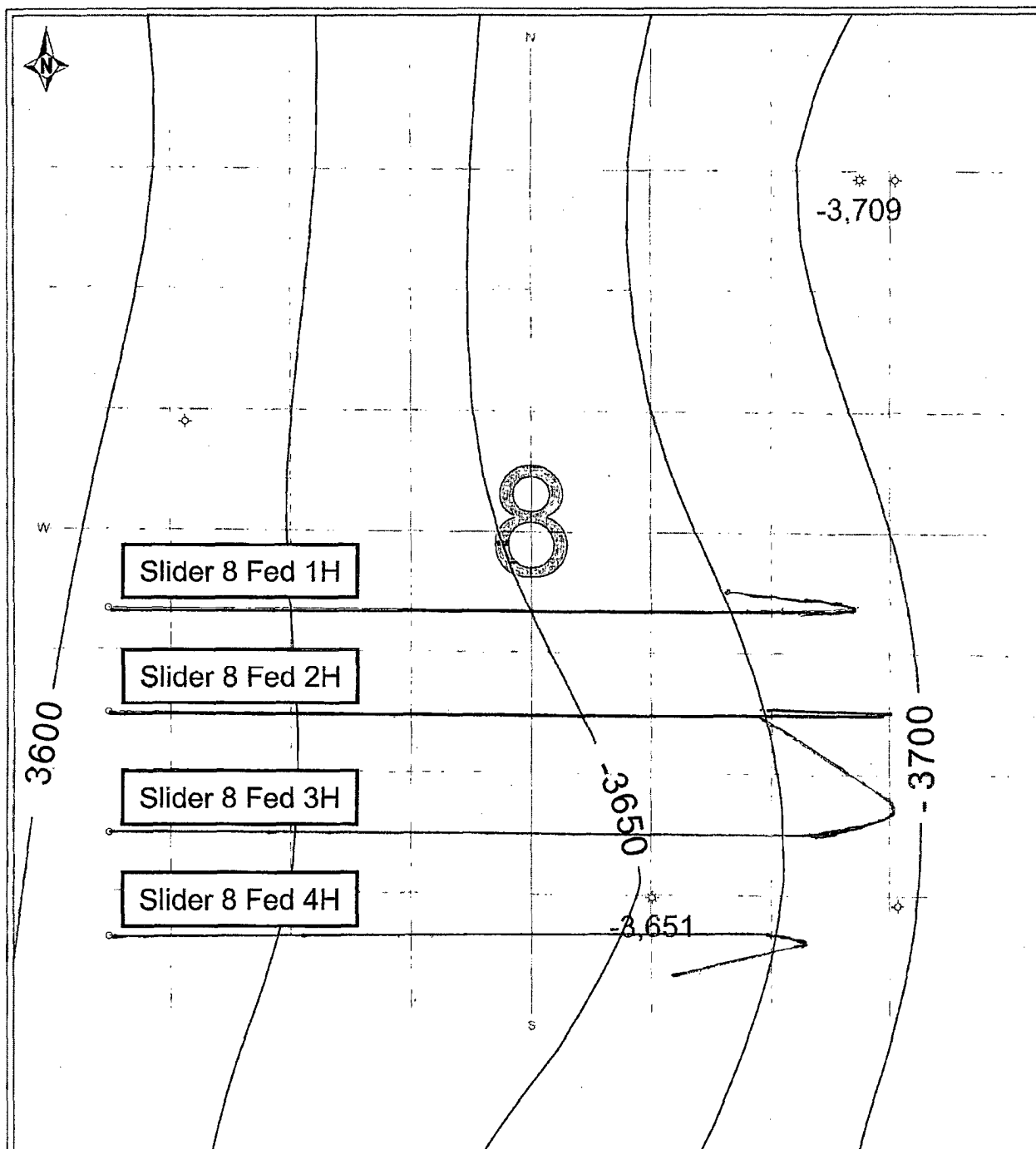
P.O. Box 1786
 1120 N. West County Rd.
 Hobbs, New Mexico 88241
 (575) 393-7316 - Office
 (575) 392-2206 - Fax
 basinsurveys.com

W.O. Number: JMS 22154

Scale: 1" = 2000'

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

DEVON ENERGY
PRODUCTION
COMPANY, L.P.




devon

Slider 8 Federal 1H, 2H, 3H & 4H

Structure - Top Bone Spring Fm



DRILLING PROGRAM

Devon Energy Production Company, LP

Slider 8 Federal 2H

Surface Location: 1680' FSL & 1385' FEL, Unit J, Sec 8 T25S R29E, Eddy, NM

Bottom Hole Location: 1650' FSL & 330' FWL, Unit L, Sec 8 T25S R29E, Eddy, NM

1. **Geologic Name of Surface Formation**

a. Rustler

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

a. Base Salt	2675'	
b. Delaware	2870'	
c. Bell Canyon	2907'	
d. Cherry Canyon	3775'	Oil
e. Brushy Canyon	5095'	Oil
f. Bone Spring	6680'	Oil & Gas
Total Depth	11,465'	

see COA

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13 3/8" casing at 250' and circulating cement back to surface. Fresh water sands will be protected by setting 9 5/8" casing at 2,850' and circulating cement to surface. The Bone Spring intervals will be isolated by setting 5 1/2" casing to total depth and circulating cement above the base of the 9 5/8" casing.

Casing Program:

<u>Hole</u> <u>Size</u>	<u>Hole</u> <u>Interval</u>	<u>OD Csg</u>	<u>Casing</u> <u>Interval</u>	<u>Weight</u>	<u>Collar</u>	<u>Grade</u>
<i>see COA</i> 17 1/2"	0 - 250'	13 3/8"	0' - 250' 480	48#	ST&C	H-40
12 1/4"	250-2850'	9 5/8"	0'-2850'	40#	LT&C	J-55
8 3/4"	2850-4000'	5 1/2"	0'-4000'	17#	LT&C	HCP110
8 3/4"	4000-11,465	5 1/2"	4000-11,465'	17#	BT&C	HCP110

Design Parameter Factors:

<u>Casing Size</u>	<u>Collapse Design</u> <u>Factor</u>	<u>Burst Design</u> <u>Factor</u>	<u>Tension Design</u> <u>Factor</u>
13 3/8"	6.58	14.79	26.83
9 5/8" 40#	1.24	1.90	3.06
5 1/2" 17#	3.35	4.13	1.86
5 1/2" 17#	1.84	2.27	3.70

3. Cement Program:

13 3/8" Surface

Tail: 300 sx Cl C + 2% bwoc Calcium Chloride + 0.125#/sx CF + 56.3% FW, 14.8 ppg Yld: 1.35 cf/sx. TOC @ surface. *See COA*

9 5/8" Intermediate

Lead: 770 sx (35:65) Poz (Fly Ash):Cl C + 5% bwow Sodium Chloride + 0.125#/sx CF + 6% bwoc Bentonite + 107.8% FW, 12.5 ppg. Yld: 2.04 cf/sx. TOC @ surface. Tail: 300 sx (60:40) Poz (Fly Ash):Cl C + 5% bwow Sodium Chloride + 0.125#/sx CF + 0.4% bwoc Sodium Metasilicate + 4% bwoc MPA-5 + 64.7% Wtr, 13.8 ppg. Yld: 1.38 cf/sx.

5 1/2" Production

1st Stage

Lead: 600 sx (35:65) Poz (Fly Ash):Cl H + 5% bwow Sodium Chloride + 0.3% bwoc CD-32 + 0.5% bwoc FL-25 + 2% bwoc Bentonite + 0.6% bwoc Sodium Metasilicate + 0.5% bwoc FL-52A + 102.5% FW, 12.5 ppg. Yld: 2.05 cf/sx. Tail: 950 sx (50:50) Poz (Fly Ash):Cl H + 1% bwow Sodium Chloride + 0.2% bwoc R-3 + 0.125#/sx CF + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 58.3% FW, 14.2 ppg. Yld: 1.28 cf/sx. DV TOOL at 5,500'.

2nd Stage

Lead: 600 sx (35:65) Poz (Fly Ash):Cl C + 1% bwow Calcium Chloride + 0.125#/sx CF + 157.8% FW, 12.5 ppg. Yld: 2.04 cf/sx. TOC @ 2,350'.

Tail: 150 sx (60:40) Poz (Fly Ash):Cl C + 1% bwow Sodium Chloride + 0.2% bwoc R-3 + 0.125#/sx CF + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 63.2% FW, 13.8 ppg. Yld: 1.37cf/sx.

The above cement volumes could be revised pending the caliper measurement from the open hole logs. The top of cement is designed to reach approximately 500' above the 9 5/8" casing shoe. All casing is new and API approved.

Pressure Control Equipment

The BOP system used to drill the intermediate hole will consist of a 13-5/8" 5M Double 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" 5M Double 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 each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. 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.

Flex line varigance should be requested in this segment

Proposed Mud Circulation System

Depth	Mud Wt.	Visc	Fluid Loss	Type System
0' - 250'	8.4-9.0	28-34	NC	FW
250' - 2850'	9.8-10.0	28-32	NC	Brine
2850' - 11,465'	8.6-9.0	28-32	NC-12	FW

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

4. **Auxiliary Well Control and Monitoring Equipment:**
- A Kelly cock will be in the drill string at all times.
 - A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.
 - 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.
5. **Logging, Coring, and Testing Program:** *See COA*
- Drill stem tests will be based on geological sample shows.
 - 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.
 - The open hole electrical logging program will be:
 - Total Depth to Intermediate Casing Dual Laterolog-Micro Laterolog with SP and Gamma Ray. Compensated Neutron – Z Density log with Gamma Ray and Caliper.
 - Total Depth to Surface Compensated Neutron with Gamma Ray
 - No coring program is planned
 - 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.
6. **Potential Hazards:**
- No abnormal pressures or temperatures are expected. There is no known presence of H₂S in this area. If H₂S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6 No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 3350 psi and Estimated BHT 140°. No H₂S is anticipated to be encountered.
7. **Anticipated Starting Date and Duration of Operations:**
- Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 32 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.



Weatherford®

Drilling Services

Proposal



devon

SLIDER 8 FEDERAL #2H

EDDY COUNTY, NM

WELL FILE: PLAN 1

SEPTEMBER 3, 2010

Weatherford International, Ltd.

P.O. Box 61028

Midland, TX 79711 USA

+1.432.561.8892 Main

+1.432.561.8895 Fax

www.weatherford.com



Slider 8 Federal #2H
Eddy Co., NM

KB ELEV: 2990
GL ELEV: 2965

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	4000.00	0.00	0.00	4000.00	0.00	0.00	0.00	0.00	0.00	0.00
3	4619.47	18.58	92.30	4608.66	-3.99	99.50	3.00	0.00	-99.51	0.00
4	6489.17	18.58	92.30	6380.88	-27.89	694.89	0.00	0.00	-694.96	0.00
5	7862.27	91.27	270.61	7325.00	-30.00	0.04	8.00	178.21	-40.11	Lp Tgt
6	11464.98	91.27	270.61	7245.00	8.58	-3601.57	0.00	0.00	3601.58	Pbhl

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Slider 8 Federal #2H	0.00	0.00	415548.53	643723.05	32°08'31.153N	104°00'09.140W	N/A

TARGET DETAILS

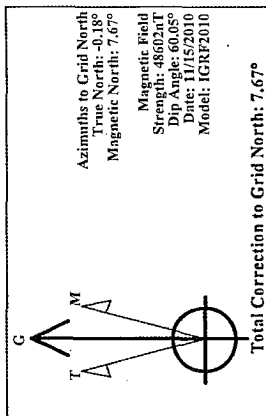
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
0° 4000 MD Start Build 3.00						
Pbhl	7245.00	8.58	-3601.57	415557.11	640121.48	Point
Lp Tgt	7325.00	-30.00	0.04	415518.53	643723.09	Point

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

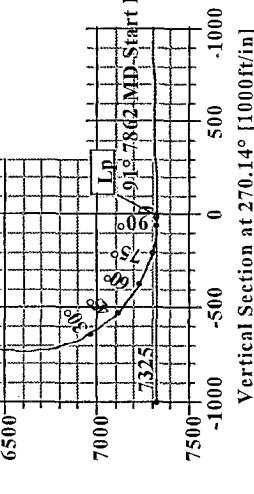
SITE DETAILS

Slider 8 Federal #2H
Site Centre Northing: 415548.53
Easting: 643723.05
Ground Level: 2965.00
Positional Uncertainty: 0.00
Convergence: 0.18

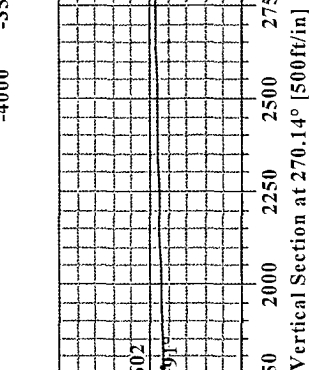


True Vertical Depth [1000ft/in]

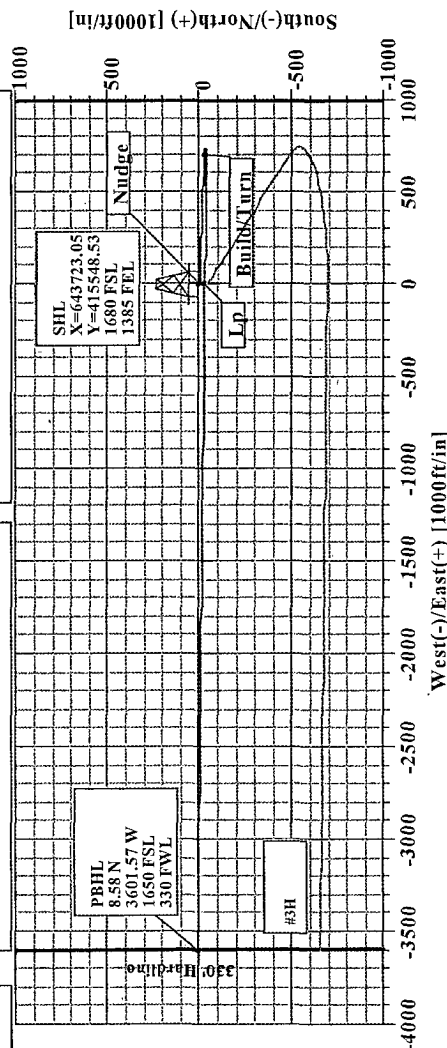
Vertical Section at 270.14° [1000ft/in]



True Vertical Depth [500ft/in]



LEGEND
Slider 8 Federal #3H (1)
Plan #1



Plan: Plan #1 (Slider 8 Federal #2H/1)

Created By: Russell W. Joyner

Date: 9/3/2010



Weatherford International Ltd.

WFT Plan Report - X & Y's

**Weatherford**

Company: Devon Energy	Date: 9/3/2010	Time: 06:19:20	Page: 1
Field: Eddy Co., NM (NAD 83)	Co-ordinate(NE) Reference: Well: Slider 8 Federal #2H, Grid North		
Site: Slider 8 Federal #2H	Vertical (TVD) Reference: SITE 2990.0		
Well: Slider 8 Federal #2H	Section (VS) Reference: Well (0.00N,0.00E,270.14Azi)		
Wellpath: 1	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Plan: Plan #1	Date Composed: 9/2/2010
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: Slider 8 Federal #2H
Site Position: Northing: 415548.53 ft Latitude: 32 8 31.153 N
From: Map Easting: 643723.05 ft Longitude: 104 0 9.140 W
Position Uncertainty: 0.00 ft North Reference: Grid
Ground Level: 2965.00 ft Grid Convergence: 0.18 deg

Well: Slider 8 Federal #2H	Slot Name:
Well Position: +N/-S 0.00 ft Northing: 415548.53 ft Latitude: 32 8 31.153 N	
+E/-W 0.00 ft Easting: 643723.05 ft Longitude: 104 0 9.140 W	
Position Uncertainty: 0.00 ft	

Wellpath: 1	Drilled From: Surface		
Current Datum: SITE	Tie-on Depth: 0.00 ft		
Magnetic Data: 11/15/2010	Above System Datum: Mean Sea Level		
Field Strength: 48602 nT	Declination: 7.85 deg		
Vertical Section: Depth From (TVD)	Mag Dip Angle: 60.05 deg		
ft	+N/-S	+E/-W	Direction
	ft	ft	deg
0.00	0.00	0.00	270.14

Plan Section Information										
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4000.00	0.00	0.00	4000.00	0.00	0.00	0.00	0.00	0.00	0.00	
4619.47	18.58	92.30	4608.66	-3.99	99.50	3.00	3.00	0.00	0.00	
6489.17	18.58	92.30	6380.88	-27.89	694.89	0.00	0.00	0.00	0.00	
7862.27	91.27	270.61	7325.00	-30.00	0.04	8.00	5.29	12.99	178.21	Lp Tgt
11464.98	91.27	270.61	7245.00	8.58	-3601.57	0.00	0.00	0.00	0.00	Pbhl

Survey										
MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
4000.00	0.00	0.00	4000.00	0.00	0.00	0.00	0.00	415548.53	643723.05	Nudge
4100.00	3.00	92.30	4099.95	-0.10	2.62	-2.62	3.00	415548.43	643725.67	
4200.00	6.00	92.30	4199.63	-0.42	10.45	-10.45	3.00	415548.11	643733.50	
4300.00	9.00	92.30	4298.77	-0.94	23.49	-23.50	3.00	415547.59	643746.54	
4400.00	12.00	92.30	4397.08	-1.67	41.70	-41.71	3.00	415546.86	643764.75	
4500.00	15.00	92.30	4494.31	-2.61	65.02	-65.03	3.00	415545.92	643788.07	
4600.00	18.00	92.30	4590.18	-3.75	93.40	-93.41	3.00	415544.78	643816.45	
4619.47	18.58	92.30	4608.66	-3.99	99.50	-99.51	3.00	415544.54	643822.55	Hold
4700.00	18.58	92.30	4685.00	-5.02	125.15	-125.16	0.00	415543.51	643848.20	
4800.00	18.58	92.30	4779.78	-6.30	156.99	-157.01	0.00	415542.23	643880.04	
4900.00	18.58	92.30	4874.57	-7.58	188.84	-188.85	0.00	415540.95	643911.89	
5000.00	18.58	92.30	4969.35	-8.86	220.68	-220.70	0.00	415539.67	643943.73	
5100.00	18.58	92.30	5064.14	-10.13	252.53	-252.55	0.00	415538.40	643975.58	
5200.00	18.58	92.30	5158.92	-11.41	284.37	-284.40	0.00	415537.12	644007.42	
5300.00	18.58	92.30	5253.71	-12.69	316.21	-316.24	0.00	415535.84	644039.26	



Weatherford International Ltd.

WFT Plan Report - X & Y's



Weatherford

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Slider 8 Federal #2H
Well: Slider 8 Federal #2H
Wellpath: 1

Date: 9/3/2010 Time: 06:19:20 Page: 2
Co-ordinate(NE) Reference: Well: Slider 8 Federal #2H, Grid North
Vertical (TVD) Reference: SITE 2990.0
Section (VS) Reference: Well (0.00N,0.00E,270.14Azi)
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	Comment
5400.00	18.58	92.30	5348.50	-13.97	348.06	-348.09	0.00	415534.56	644071.11	
5500.00	18.58	92.30	5443.28	-15.25	379.90	-379.94	0.00	415533.28	644102.95	
5600.00	18.58	92.30	5538.07	-16.52	411.74	-411.78	0.00	415532.01	644134.79	
5700.00	18.58	92.30	5632.85	-17.80	443.59	-443.63	0.00	415530.73	644166.64	
5800.00	18.58	92.30	5727.64	-19.08	475.43	-475.48	0.00	415529.45	644198.48	
5900.00	18.58	92.30	5822.42	-20.36	507.28	-507.32	0.00	415528.17	644230.33	
6000.00	18.58	92.30	5917.21	-21.64	539.12	-539.17	0.00	415526.89	644262.17	
6100.00	18.58	92.30	6012.00	-22.91	570.96	-571.02	0.00	415525.62	644294.01	
6200.00	18.58	92.30	6106.78	-24.19	602.81	-602.86	0.00	415524.34	644325.86	
6300.00	18.58	92.30	6201.57	-25.47	634.65	-634.71	0.00	415523.06	644357.70	
6400.00	18.58	92.30	6296.35	-26.75	666.49	-666.56	0.00	415521.78	644389.54	
6489.17	18.58	92.30	6380.88	-27.89	694.89	-694.96	0.00	415520.64	644417.94	Build/Turn
6500.00	17.72	92.39	6391.17	-28.03	698.26	-698.33	8.00	415520.50	644421.31	
6600.00	9.73	93.93	6488.23	-29.24	721.93	-722.00	8.00	415519.29	644444.98	
6700.00	1.80	109.05	6587.65	-30.33	731.86	-731.93	8.00	415518.20	644454.91	
6800.00	6.32	265.44	6687.48	-31.29	727.86	-727.93	8.00	415517.24	644450.91	
6900.00	14.30	268.36	6785.79	-32.08	710.00	-710.07	8.00	415516.45	644433.05	
7000.00	22.30	269.21	6880.66	-32.69	678.63	-678.71	8.00	415515.84	644401.68	
7100.00	30.30	269.62	6970.24	-33.12	634.37	-634.44	8.00	415515.41	644357.42	
7200.00	38.29	269.88	7052.78	-33.35	578.07	-578.15	8.00	415515.18	644301.12	
7300.00	46.29	270.06	7126.69	-33.38	510.83	-510.91	8.00	415515.15	644233.88	
7400.00	54.29	270.19	7190.53	-33.21	433.96	-434.04	8.00	415515.32	644157.01	
7500.00	62.29	270.30	7243.04	-32.84	348.96	-349.03	8.00	415515.69	644072.01	
7600.00	70.29	270.40	7283.22	-32.28	257.47	-257.55	8.00	415516.25	643980.52	
7700.00	78.29	270.48	7310.27	-31.54	161.29	-161.36	8.00	415516.99	643884.34	
7800.00	86.29	270.56	7323.68	-30.64	62.28	-62.35	8.00	415517.89	643785.33	
7862.27	91.27	270.61	7325.00	-30.00	0.04	-0.11	8.00	415518.53	643723.09	Lp Tgt
7900.00	91.27	270.61	7324.16	-29.60	-37.67	37.60	0.00	415518.93	643685.38	
8000.00	91.27	270.61	7321.94	-28.53	-137.64	137.58	0.00	415520.00	643585.41	
8100.00	91.27	270.61	7319.72	-27.45	-237.61	237.55	0.00	415521.08	643485.44	
8200.00	91.27	270.61	7317.50	-26.38	-337.58	337.52	0.00	415522.15	643385.47	
8300.00	91.27	270.61	7315.28	-25.31	-437.55	437.49	0.00	415523.22	643285.50	
8400.00	91.27	270.61	7313.06	-24.24	-537.52	537.46	0.00	415524.29	643185.53	
8500.00	91.27	270.61	7310.84	-23.17	-637.49	637.43	0.00	415525.36	643085.56	
8600.00	91.27	270.61	7308.62	-22.10	-737.46	737.41	0.00	415526.43	642985.59	
8700.00	91.27	270.61	7306.40	-21.03	-837.43	837.38	0.00	415527.50	642885.62	
8800.00	91.27	270.61	7304.18	-19.96	-937.40	937.35	0.00	415528.57	642785.65	
8900.00	91.27	270.61	7301.96	-18.89	-1037.37	1037.32	0.00	415529.64	642685.68	
9000.00	91.27	270.61	7299.74	-17.82	-1137.34	1137.29	0.00	415530.71	642585.71	
9100.00	91.27	270.61	7297.52	-16.75	-1237.31	1237.27	0.00	415531.78	642485.74	
9200.00	91.27	270.61	7295.30	-15.67	-1337.28	1337.24	0.00	415532.86	642385.77	
9300.00	91.27	270.61	7293.07	-14.60	-1437.25	1437.21	0.00	415533.93	642285.80	
9400.00	91.27	270.61	7290.85	-13.53	-1537.22	1537.18	0.00	415535.00	642185.83	
9500.00	91.27	270.61	7288.63	-12.46	-1637.19	1637.15	0.00	415536.07	642085.86	
9600.00	91.27	270.61	7286.41	-11.39	-1737.16	1737.13	0.00	415537.14	641985.89	
9700.00	91.27	270.61	7284.19	-10.32	-1837.13	1837.10	0.00	415538.21	641885.92	
9800.00	91.27	270.61	7281.97	-9.25	-1937.10	1937.07	0.00	415539.28	641785.95	
9900.00	91.27	270.61	7279.75	-8.18	-2037.07	2037.04	0.00	415540.35	641685.98	
10000.00	91.27	270.61	7277.53	-7.11	-2137.04	2137.01	0.00	415541.42	641586.01	
10100.00	91.27	270.61	7275.31	-6.04	-2237.01	2236.98	0.00	415542.49	641486.04	
10200.00	91.27	270.61	7273.09	-4.97	-2336.98	2336.96	0.00	415543.56	641386.07	
10300.00	91.27	270.61	7270.87	-3.90	-2436.94	2436.93	0.00	415544.63	641286.11	
10400.00	91.27	270.61	7268.65	-2.82	-2536.91	2536.90	0.00	415545.71	641186.14	



Weatherford International Ltd.

WFT Plan Report - X & Y's



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Slider 8 Federal #2H
Well: Slider 8 Federal #2H
Wellpath: 1

Date: 9/3/2010 Time: 06:19:20 Page: 3
Co-ordinate(NE) Reference: Well: Slider 8 Federal #2H, Grid North
Vertical (TVD) Reference: SITE 2990.0
Section (VS) Reference: Well (0.00N,0.00E,270.14Azi)
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	Comment
10500.00	91.27	270.61	7266.43	-1.75	-2636.88	2636.87	0.00	415546.78	641086.17	
10600.00	91.27	270.61	7264.21	-0.68	-2736.85	2736.84	0.00	415547.85	640986.20	
10700.00	91.27	270.61	7261.99	0.39	-2836.82	2836.82	0.00	415548.92	640886.23	
10800.00	91.27	270.61	7259.77	1.46	-2936.79	2936.79	0.00	415549.99	640786.26	
10900.00	91.27	270.61	7257.55	2.53	-3036.76	3036.76	0.00	415551.06	640686.29	
11000.00	91.27	270.61	7255.33	3.60	-3136.73	3136.73	0.00	415552.13	640586.32	
11100.00	91.27	270.61	7253.10	4.67	-3236.70	3236.70	0.00	415553.20	640486.35	
11200.00	91.27	270.61	7250.88	5.74	-3336.67	3336.68	0.00	415554.27	640386.38	
11300.00	91.27	270.61	7248.66	6.81	-3436.64	3436.65	0.00	415555.34	640286.41	
11400.00	91.27	270.61	7246.44	7.88	-3536.61	3536.62	0.00	415556.41	640186.44	
11464.98	91.27	270.61	7245.00	8.58	-3601.57	3601.58	0.00	415557.11	640121.48	Pbhl

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude ---> Deg Min Sec			<--- Longitude ---> Deg Min Sec		
Pbhl			7245.00	8.58	-3601.57	415557.11	640121.48	32	8	31.346 N	104	0	51.030 W
Lp Tgt			7325.00	-30.00	0.04	415518.53	643723.09	32	8	30.856 N	104	0	9.140 W

Casing Points

MD	TVD	Diameter	Hole Size	Name

Annotation

MD ft	TVD ft	
4000.00	4000.00	Nudge
4619.47	4608.67	Hold
6489.17	6380.87	Build/Turn
7862.27	7325.00	Lp
11464.97	7245.00	Pbhl

Formations

MD	TVD	Formations	Lithology	Dip Angle	Dip Direction

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

GeoDec v5.03

Report Date: September 03, 2010
Job Number: _____
Customer: Devon Energy
Well Name: Slider 8 Federal #2H
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 415548.530 USFT	Latitude 32.1419893 DEG
East/West 643723.050 USFT	Longitude -104.0025347 DEG
Grid Convergence: .18°	
Total Correction: +7.67°	

Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude =	32.14199° N	32° 8 min 31.162 sec
Longitude =	104.00253° W	104° 0 min 9.125 sec

Magnetic Declination =	7.85°	[True North Offset]
Local Gravity =	.9988 g	Checksum = 6648
Local Field Strength =	48598 nT	Magnetic Vector X = 24036 nT
Magnetic Dip =	60.05°	Magnetic Vector Y = 3313 nT
Magnetic Model =	IGRF-2010g11	Magnetic Vector Z = 42108 nT
Spud Date =	Nov 15, 2010	Magnetic Vector H = 24263 nT

Signed: _____

Date: _____



Weatherford International Ltd.

Anticollision Report



Weatherford

Company: Devon Energy Date: 9/3/2010 Time: 07:48:51 Page: 1
Field: Eddy Co., NM (NAD 83)
Reference Site: Slider 8 Federal #2H Co-ordinate(NE) Reference: Well: Slider 8 Federal #2H, Grid North
Reference Well: Slider 8 Federal #2H Vertical (TVD) Reference: SITE 2990.0
Reference Wellpath: 1 Db: Sybase

NO GLOBAL SCAN: Using user defined selection & scan criteria
Interpolation Method: MD Interval: 100.00 ft
Depth Range: 0.00 to 11464.98 ft
Maximum Radius: 10000.00 ft

Reference: Plan: Plan #1
Error Model: ISCWSA Ellipse
Scan Method: Closest Approach 3D
Error Surface: Ellipse

Plan: Plan #1 Date Composed: 9/2/2010
Principal: Yes Version: 1
Tied-to: From Surface

Summary

Site	Well	Wellpath	Reference MD ft	Offset MD ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
Slider 8 Federal #3H	Slider 8 Federal #3H	1 V0 Plan: Plan #1 V1	4000.00	4000.00	40.00	22.30	2.26	

Site: Slider 8 Federal #3H
Well: Slider 8 Federal #3H
Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference MD ft	TVD ft	Offset MD ft	TVD ft	Semi-Major Axis Ref ft	Offset ft	TFO-HS deg	Offset Location North ft	East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	180.09	-40.00	-0.06	40.00			No Data
100.00	100.00	100.00	100.00	0.08	0.08	180.09	-40.00	-0.06	40.00	39.83	237.28	
200.00	200.00	200.00	200.00	0.31	0.31	180.09	-40.00	-0.06	40.00	39.38	64.71	
300.00	300.00	300.00	300.00	0.53	0.53	180.09	-40.00	-0.06	40.00	38.93	37.47	
400.00	400.00	400.00	400.00	0.76	0.76	180.09	-40.00	-0.06	40.00	38.48	26.36	
500.00	500.00	500.00	500.00	0.98	0.98	180.09	-40.00	-0.06	40.00	38.03	20.34	
600.00	600.00	600.00	600.00	1.21	1.21	180.09	-40.00	-0.06	40.00	37.58	16.55	
700.00	700.00	700.00	700.00	1.43	1.43	180.09	-40.00	-0.06	40.00	37.13	13.96	
800.00	800.00	800.00	800.00	1.66	1.66	180.09	-40.00	-0.06	40.00	36.68	12.07	
900.00	900.00	900.00	900.00	1.88	1.88	180.09	-40.00	-0.06	40.00	36.24	10.62	
1000.00	1000.00	1000.00	1000.00	2.11	2.11	180.09	-40.00	-0.06	40.00	35.79	9.49	
1100.00	1100.00	1100.00	1100.00	2.33	2.33	180.09	-40.00	-0.06	40.00	35.34	8.58	
1200.00	1200.00	1200.00	1200.00	2.56	2.56	180.09	-40.00	-0.06	40.00	34.89	7.82	
1300.00	1300.00	1300.00	1300.00	2.78	2.78	180.09	-40.00	-0.06	40.00	34.44	7.19	
1400.00	1400.00	1400.00	1400.00	3.01	3.01	180.09	-40.00	-0.06	40.00	33.99	6.65	
1500.00	1500.00	1500.00	1500.00	3.23	3.23	180.09	-40.00	-0.06	40.00	33.54	6.19	
1600.00	1600.00	1600.00	1600.00	3.46	3.46	180.09	-40.00	-0.06	40.00	33.09	5.79	
1700.00	1700.00	1700.00	1700.00	3.68	3.68	180.09	-40.00	-0.06	40.00	32.64	5.43	
1800.00	1800.00	1800.00	1800.00	3.91	3.91	180.09	-40.00	-0.06	40.00	32.19	5.12	
1900.00	1900.00	1900.00	1900.00	4.13	4.13	180.09	-40.00	-0.06	40.00	31.74	4.84	
2000.00	2000.00	2000.00	2000.00	4.35	4.35	180.09	-40.00	-0.06	40.00	31.29	4.59	
2100.00	2100.00	2100.00	2100.00	4.58	4.58	180.09	-40.00	-0.06	40.00	30.84	4.37	
2200.00	2200.00	2200.00	2200.00	4.80	4.80	180.09	-40.00	-0.06	40.00	30.39	4.16	
2300.00	2300.00	2300.00	2300.00	5.03	5.03	180.09	-40.00	-0.06	40.00	29.94	3.98	
2400.00	2400.00	2400.00	2400.00	5.25	5.25	180.09	-40.00	-0.06	40.00	29.49	3.81	
2500.00	2500.00	2500.00	2500.00	5.48	5.48	180.09	-40.00	-0.06	40.00	29.04	3.65	
2600.00	2600.00	2600.00	2600.00	5.70	5.70	180.09	-40.00	-0.06	40.00	28.59	3.51	
2700.00	2700.00	2700.00	2700.00	5.93	5.93	180.09	-40.00	-0.06	40.00	28.14	3.37	
2800.00	2800.00	2800.00	2800.00	6.15	6.15	180.09	-40.00	-0.06	40.00	27.69	3.25	
2900.00	2900.00	2900.00	2900.00	6.38	6.38	180.09	-40.00	-0.06	40.00	27.24	3.14	
3000.00	3000.00	3000.00	3000.00	6.60	6.60	180.09	-40.00	-0.06	40.00	26.80	3.03	
3100.00	3100.00	3100.00	3100.00	6.83	6.83	180.09	-40.00	-0.06	40.00	26.35	2.93	
3200.00	3200.00	3200.00	3200.00	7.05	7.05	180.09	-40.00	-0.06	40.00	25.90	2.84	
3300.00	3300.00	3300.00	3300.00	7.28	7.28	180.09	-40.00	-0.06	40.00	25.45	2.75	
3400.00	3400.00	3400.00	3400.00	7.50	7.50	180.09	-40.00	-0.06	40.00	25.00	2.67	
3500.00	3500.00	3500.00	3500.00	7.73	7.73	180.09	-40.00	-0.06	40.00	24.55	2.59	



Weatherford International Ltd.

Anticollision Report



Weatherford

Company: Devon Energy Date: 9/3/2010 Time: 07:48:51 Page: 2
Field: Eddy Co., NM (NAD 83)
Reference Site: Slider 8 Federal #2H
Reference Well: Slider 8 Federal #2H
Reference Wellpath: 1 Co-ordinate(NE) Reference: Well: Slider 8 Federal #2H, Grid North
Vertical (TVD) Reference: SITE 2990.0
Db: Sybase

Site: Slider 8 Federal #3H
Well: Slider 8 Federal #3H
Wellpath: 1 VO Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis		Offset Location		TFO-HS	North		East	Ctr-Ctr Distance	Edge Distance	Separation Factor	Warning
MD	TVD	MD	TVD	Ref	Offset	North	East		ft	ft					
ft	ft	ft	ft	ft	ft	-deg-	ft					ft	ft		
3600.00	3600.00	3600.00	3600.00	7.95	7.95	180.09	-40.00	-0.06				40.00	24.10	2.52	
3700.00	3700.00	3700.00	3700.00	8.18	8.18	180.09	-40.00	-0.06				40.00	23.65	2.45	
3800.00	3800.00	3800.00	3800.00	8.40	8.40	180.09	-40.00	-0.06				40.00	23.20	2.38	
3900.00	3900.00	3900.00	3900.00	8.63	8.63	180.09	-40.00	-0.06				40.00	22.75	2.32	
4000.00	4000.00	4000.00	4000.00	8.85	8.85	180.09	-40.00	-0.06				40.00	22.30	2.26	
4100.00	4099.95	4098.86	4098.82	9.06	9.05	88.35	-41.38	2.09				41.30	23.19	2.28	
4200.00	4199.63	4197.62	4197.27	9.26	9.23	89.83	-45.53	8.53				45.21	26.73	2.45	
4300.00	4298.77	4296.16	4294.98	9.47	9.42	91.77	-52.41	19.21				51.78	32.91	2.74	
4400.00	4397.08	4394.39	4391.59	9.69	9.63	93.75	-61.97	34.06				61.02	41.74	3.16	
4500.00	4494.31	4492.20	4486.77	9.94	9.85	95.49	-74.15	52.97				72.94	53.20	3.70	
4600.00	4590.18	4589.51	4580.20	10.22	10.11	96.89	-88.86	75.83				87.48	67.23	4.32	
4700.00	4685.00	4686.28	4671.61	10.54	10.40	97.47	-106.04	102.50				104.38	83.54	5.01	
4800.00	4779.78	4783.40	4761.82	10.89	10.75	96.05	-125.50	132.73				122.97	101.46	5.72	
4900.00	4874.57	4881.54	4852.72	11.27	11.15	94.72	-145.53	163.84				141.89	119.66	6.38	
5000.00	4969.35	4979.69	4943.63	11.67	11.58	93.71	-165.57	194.95				160.88	137.86	6.99	
5100.00	5064.14	5077.84	5034.53	12.09	12.05	92.91	-185.60	226.06				179.90	156.04	7.54	
5200.00	5158.92	5175.98	5125.43	12.53	12.54	92.26	-205.63	257.17				198.95	174.22	8.04	
5300.00	5253.71	5274.13	5216.34	12.99	13.06	91.73	-225.66	288.28				218.02	192.37	8.50	
5400.00	5348.50	5372.28	5307.24	13.47	13.61	91.28	-245.69	319.39				237.11	210.51	8.91	
5500.00	5443.28	5470.42	5398.15	13.96	14.17	90.90	-265.72	350.50				256.20	228.63	9.29	
5600.00	5538.07	5568.57	5489.05	14.46	14.75	90.57	-285.75	381.62				275.31	246.72	9.63	
5700.00	5632.85	5666.71	5579.96	14.98	15.35	90.28	-305.79	412.73				294.42	264.81	9.94	
5800.00	5727.64	5764.86	5670.86	15.50	15.96	90.03	-325.82	443.84				313.54	282.87	10.22	
5900.00	5822.42	5863.01	5761.76	16.04	16.58	89.81	-345.85	474.95				332.67	300.93	10.48	
6000.00	5917.21	5961.15	5852.67	16.58	17.21	89.61	-365.88	506.06				351.80	318.97	10.71	
6100.00	6012.00	6059.30	5943.57	17.13	17.86	89.43	-385.91	537.17				370.93	336.99	10.93	
6200.00	6106.78	6157.45	6034.48	17.69	18.51	89.27	-405.94	568.28				390.07	355.01	11.13	
6300.00	6201.57	6255.59	6125.38	18.25	19.17	89.13	-425.98	599.39				409.21	373.01	11.31	
6400.00	6296.35	6353.74	6216.28	18.82	19.84	89.00	-446.01	630.50				428.35	391.01	11.47	
6500.00	6391.17	6451.88	6307.19	19.39	20.51	88.95	-466.04	661.61				447.49	409.00	11.63	
6600.00	6488.23	6549.54	6397.64	19.77	21.19	87.84	-485.97	692.57				466.55	427.19	11.85	
6700.00	6587.65	6644.12	6486.12	20.01	21.71	72.08	-505.45	719.55				486.00	446.15	12.20	
6800.00	6687.48	6739.91	6578.39	20.11	21.95	275.10	-525.71	735.00				506.37	466.33	12.65	
6900.00	6785.79	6838.40	6674.49	20.10	21.96	271.67	-546.75	737.61				527.29	487.34	13.20	
7000.00	6880.66	6939.98	6773.01	20.02	21.75	270.40	-568.25	726.15				548.33	508.58	13.80	
7100.00	6970.24	7045.04	6872.20	19.91	21.36	269.63	-589.83	699.43				569.00	529.49	14.40	
7200.00	7052.78	7153.92	6969.84	19.82	20.88	269.10	-610.99	656.39				588.80	549.50	14.98	
7300.00	7126.69	7266.86	7063.18	19.84	20.46	268.70	-631.14	596.31				607.16	567.92	15.47	
7400.00	7190.53	7383.91	7148.96	20.03	20.24	268.41	-649.55	519.02				623.56	584.02	15.77	
7500.00	7243.04	7504.90	7223.50	20.46	20.39	268.21	-665.42	425.24				637.46	597.09	15.79	
7600.00	7283.22	7629.32	7282.98	21.18	21.03	268.11	-677.94	316.85				648.38	606.47	15.47	
7700.00	7310.27	7756.38	7323.91	22.20	22.19	268.10	-686.34	197.04				655.91	611.71	14.84	
7800.00	7323.68	7884.96	7343.65	23.49	23.84	268.19	-690.07	70.21				659.78	612.58	13.98	
7900.00	7324.16	8000.50	7343.72	24.99	25.58	268.30	-689.56	-45.27				660.29	609.82	13.08	
8000.00	7321.94	8100.50	7340.94	26.68	27.27	268.35	-688.49	-145.22				660.28	606.43	12.26	
8100.00	7319.72	8200.50	7338.16	28.54	29.12	268.40	-687.42	-245.18				660.27	602.70	11.47	
8200.00	7317.50	8300.50	7335.39	30.53	31.10	268.45	-686.35	-345.13				660.25	598.71	10.73	
8300.00	7315.28	8400.49	7332.61	32.64	33.20	268.50	-685.28	-445.09				660.24	594.50	10.04	
8400.00	7313.06	8500.49	7329.83	34.83	35.38	268.54	-684.22	-545.04				660.23	590.11	9.42	
8500.00	7310.84	8600.49	7327.06	37.10	37.64	268.59	-683.15	-644.99				660.22	585.57	8.84	
8600.00	7308.62	8700.49	7324.28	39.43	39.96	268.64	-682.08	-744.95				660.21	580.90	8.32	



Weatherford International Ltd.

Anticollision Report

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Slider 8 Federal #2H
Reference Well: Slider 8 Federal #2H
Reference Wellpath: 1

Date: 9/3/2010

Time: 07:48:51

Page: 3

Co-ordinate(NE) Reference: Well: Slider 8 Federal #2H, Grid North
Vertical (TVD) Reference: SITE 2990.0

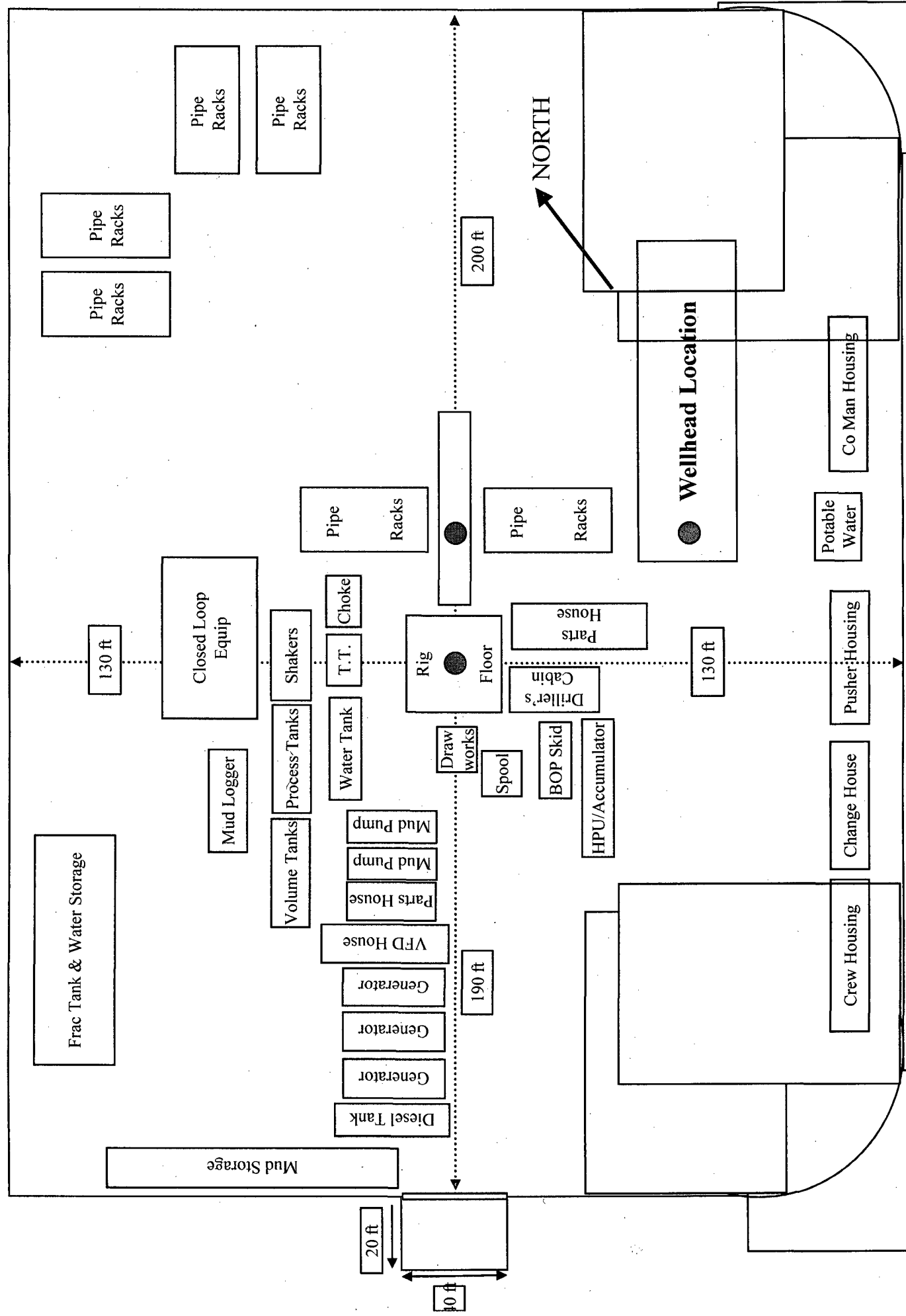
Db: Sybase

Site: Slider 8 Federal #3H
Well: Slider 8 Federal #3H
Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
MD ft	TVD ft	MD ft	TVD ft	Ref ft	Offset ft	TFO-HS deg	North ft	East ft				
8700.00	7306.40	8800.49	7321.51	41.81	42.33	268.69	-681.01	-844.90	660.20	576.13	7.85	
8800.00	7304.18	8900.49	7318.73	44.24	44.74	268.74	-679.94	-944.86	660.19	571.28	7.43	
8900.00	7301.96	9000.48	7315.95	46.70	47.19	268.78	-678.88	-1044.81	660.18	566.36	7.04	
9000.00	7299.74	9100.48	7313.18	49.19	49.68	268.83	-677.81	-1144.77	660.17	561.37	6.68	
9100.00	7297.52	9200.48	7310.40	51.71	52.19	268.88	-676.74	-1244.72	660.16	556.33	6.36	
9200.00	7295.30	9300.48	7307.63	54.25	54.72	268.93	-675.67	-1344.67	660.15	551.24	6.06	
9300.00	7293.07	9400.48	7304.85	56.81	57.27	268.98	-674.60	-1444.63	660.15	546.12	5.79	
9400.00	7290.85	9500.48	7302.07	59.39	59.84	269.03	-673.54	-1544.58	660.14	540.96	5.54	
9500.00	7288.63	9600.48	7299.30	61.98	62.43	269.07	-672.47	-1644.54	660.13	535.77	5.31	
9600.00	7286.41	9700.47	7296.52	64.59	65.03	269.12	-671.40	-1744.49	660.13	530.56	5.09	
9700.00	7284.19	9800.47	7293.74	67.21	67.64	269.17	-670.33	-1844.44	660.12	525.32	4.90	
9800.00	7281.97	9900.47	7290.97	69.83	70.26	269.22	-669.26	-1944.40	660.12	520.06	4.71	
9900.00	7279.75	10000.47	7288.19	72.47	72.90	269.27	-668.20	-2044.35	660.11	514.78	4.54	
10000.00	7277.53	10100.47	7285.42	75.12	75.54	269.32	-667.13	-2144.31	660.11	509.49	4.38	
10100.00	7275.31	10200.47	7282.64	77.77	78.19	269.36	-666.06	-2244.26	660.10	504.18	4.23	
10200.00	7273.09	10300.46	7279.86	80.43	80.84	269.41	-664.99	-2344.22	660.10	498.86	4.09	
10300.00	7270.87	10400.46	7277.09	83.09	83.50	269.46	-663.92	-2444.17	660.10	493.53	3.96	
10400.00	7268.65	10500.46	7274.31	85.77	86.17	269.51	-662.86	-2544.12	660.10	488.19	3.84	
10500.00	7266.43	10600.46	7271.54	88.44	88.84	269.56	-661.79	-2644.08	660.09	482.84	3.72	
10600.00	7264.21	10700.46	7268.76	91.12	91.52	269.60	-660.72	-2744.03	660.09	477.47	3.61	
10700.00	7261.99	10800.46	7265.98	93.81	94.20	269.65	-659.65	-2843.99	660.09	472.11	3.51	
10800.00	7259.77	10900.45	7263.21	96.49	96.88	269.70	-658.58	-2943.94	660.09	466.73	3.41	
10900.00	7257.55	11000.45	7260.43	99.19	99.57	269.75	-657.52	-3043.90	660.09	461.35	3.32	
11000.00	7255.33	11100.45	7257.66	101.88	102.27	269.80	-656.45	-3143.85	660.09	455.96	3.23	
11100.00	7253.10	11200.45	7254.88	104.58	104.96	269.85	-655.38	-3243.80	660.09	450.56	3.15	
11200.00	7250.88	11300.45	7252.10	107.28	107.66	269.89	-654.31	-3343.76	660.09	445.17	3.07	
11300.00	7248.66	11400.45	7249.33	109.98	110.36	269.94	-653.24	-3443.71	660.10	439.76	3.00	
11400.00	7246.44	11500.45	7246.55	112.69	113.06	269.99	-652.18	-3543.67	660.10	434.35	2.92	
11464.98	7245.00	11565.42	7244.75	114.45	114.82	270.02	-651.48	-3608.62	660.10	430.84	2.88	

Location Layout



PROPOSED FACILITY EXPANSION

Chimayo Unit #1/
Slider 8 Federal Facility
S8 - T26S - R29E

Lat. 32°08' 16.83" & Long. 104°00' 14.77

Production System: Closed

Ledger for Site Diagram

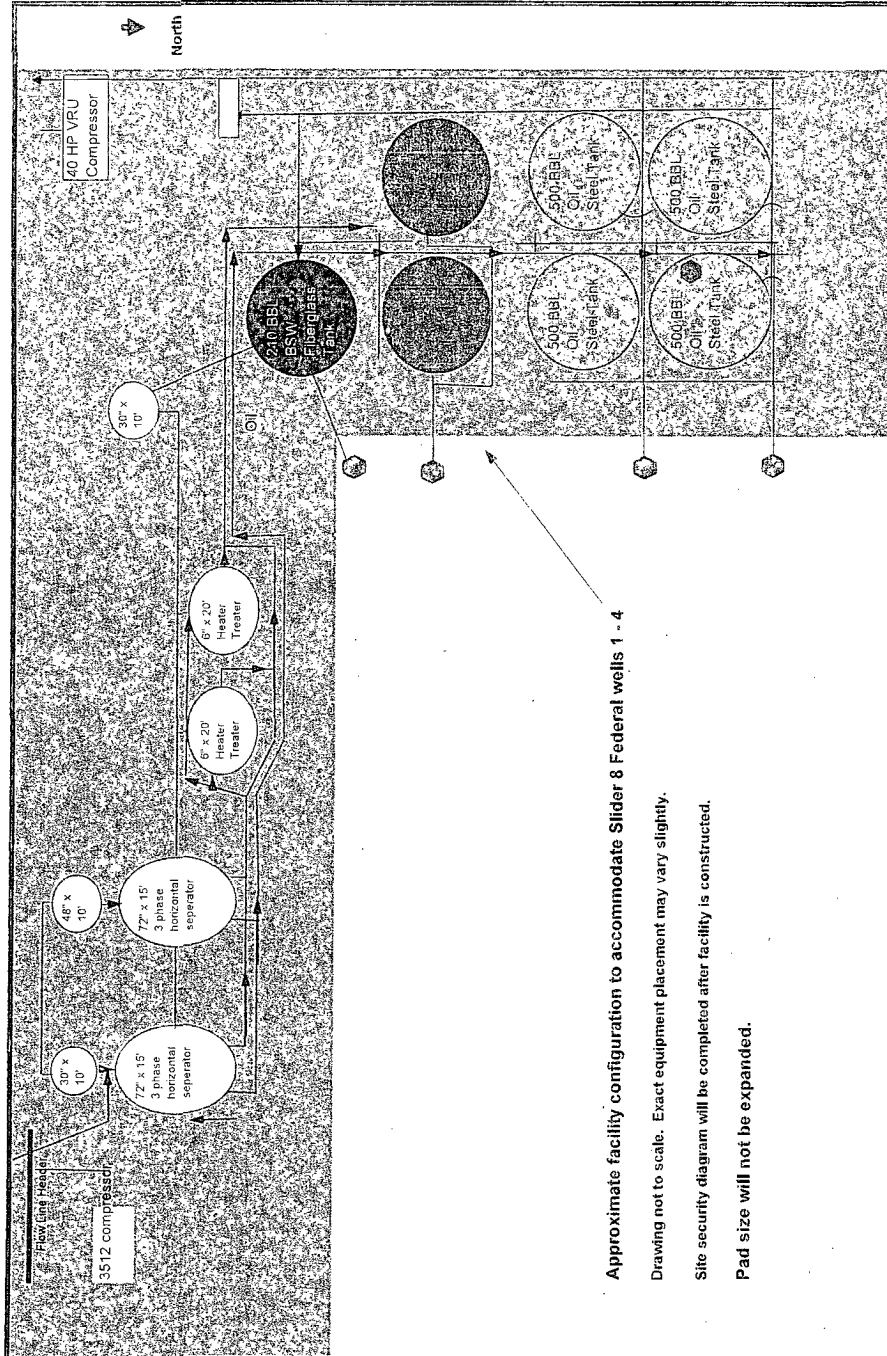
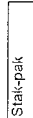
Buried Lines:

Wellhead:

Stalk-pak:

Production line:

Water line:



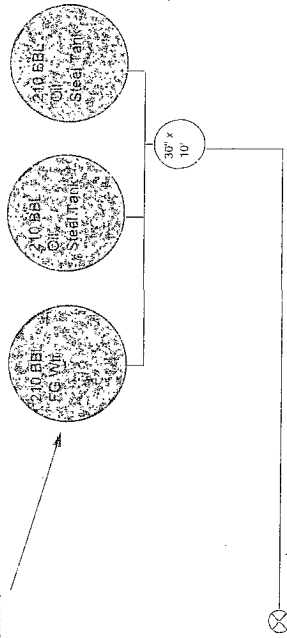
Approximate facility configuration to accommodate Slider 8 Federal wells 1 - 4

Drawing not to scale. Exact equipment placement may vary slightly.

Site security diagram will be completed after facility is constructed.

Pad size will not be expanded.

Existing equipment.



CHIMAYO UNIT #1



Fluid Technology

ContiTech Beattie Corp.
Website: www.contitechbeattie.com

Monday, June 14, 2010

RE: Drilling & Production Hoses
Lifting & Safety Equipment

To Helmerich & Payne,

A Continental ContiTech hose assembly can perform as intended and suitable for the application regardless of whether the hose is secured or unsecured in its configuration. As a manufacturer of High Pressure Hose Assemblies for use in Drilling & Production, we do offer the corresponding lifting and safety equipment, this has the added benefit of easing the lifting and handling of each hose assembly whilst affording hose longevity by ensuring correct handling methods and procedures as well as securing the hose in the unlikely event of a failure; but in no way does the lifting and safety equipment affect the performance of the hoses providing the hoses have been handled and installed correctly. It is good practice to use lifting & safety equipment but not mandatory.

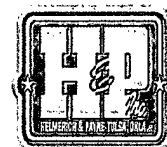
Should you have any questions or require any additional information/clarifications then please do not hesitate to contact us.

ContiTech Beattie is part of the Continental AG Corporation and can offer the full support resources associated with a global organization.

Best regards,

Robin Hodgson
Sales Manager
ContiTech Beattie Corp

ContiTech Beattie Corp,
11535 Brittmoore Park Drive,
Houston, TX 77041
Phone: +1 (832) 327-0141
Fax: +1 (832) 327-0148
www.contitechbeattie.com





QUALITY DOCUMENT

PHOENIX RUBBER
INDUSTRIAL LTD.6728 Szeged, Budapesti út 10, Hungary • H-6701 Szeged, P. O. Box 152
Phone: (3662) 566-737 • Fax: (3662) 566-738SALES & MARKETING: H-1092 Budapest, Ráday u. 42-44, Hungary • H-1440 Budapest, P. O. Box 26
Phone: (361) 456-4200 • Fax: (361) 217-2972, 456-4273 • www.taurusemerge.hu

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE				CERT. N°: 552	
PURCHASER: Phoenix Beattie Co.			P.O. N°: 1519FA-871		
PHOENIX RUBBER order N°: 170466		HOSE TYPE: 3" ID Choke and Kill Hose			
HOSE SERIAL N°: 34128		NOMINAL / ACTUAL LENGTH: 11,43 m			
W.P. 68,96 MPa 10000 psi		T.P. 103,4 MPa 15000 psi		Duration: 60 min.	
Pressure test with water at ambient temperature					
See attachment. (1 page)					
↑ 10 mm = 10 Min. → 10 mm = 25 MPa					
COUPLINGS					
Type	Serial N°		Quality	Heat N°	
3" coupling with 4 1/16" Flange end	720 719		AISI 4130	C7626	
			AISI 4130	47357	
API Spec 16 C Temperature rate: "B"					
All metal parts are flawless					
WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.					
Date: 29. April. 2002.	Inspector		Quality Control PHOENIX RUBBER Industrial Ltd. Hose Inspection and Verification Dept. PHOENIX RUBBER & C.		

40920-0-00015 N800L

6	GN↓ +0.000	PC	14:00		
	RD↓ +0.000	PC	14:00		
	BL	13:17	55		
7	GN↓ +0.000	PC	13:40	40	60
	RD↓ +0.000	PC	13:40		80
	BL	13:17	55		
6	GN↓ +0.000	PC	13:20		
	RD↓ +0.000	PC	13:20		
	BL	13:52	55		
5	GN↓ +0.000	PC	13:00		
	RD↓ +0.000	PC	13:00		
	BL	13:55	55		
4					
3					
2					

22-100
GENEX RUBBER
Industrial Ltd.
Hose Inspection and
Certification Dept.

VERIFIED TRUE CO.
PHOENIX RUBBER CO.

NOTES REGARDING BLOWOUT PREVENTERS

Devon Energy Production Company, LP

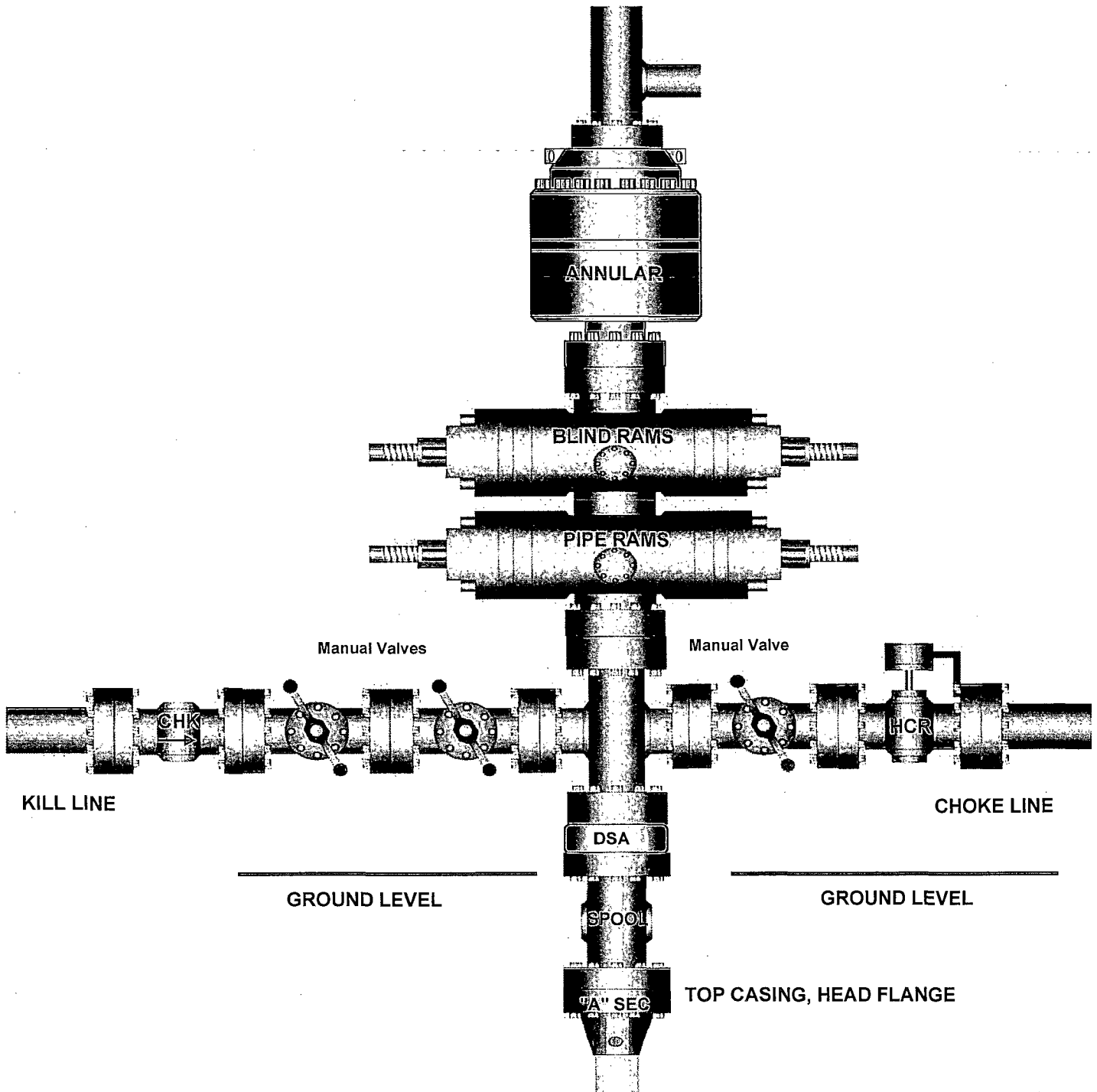
Slider 8 Federal 2H

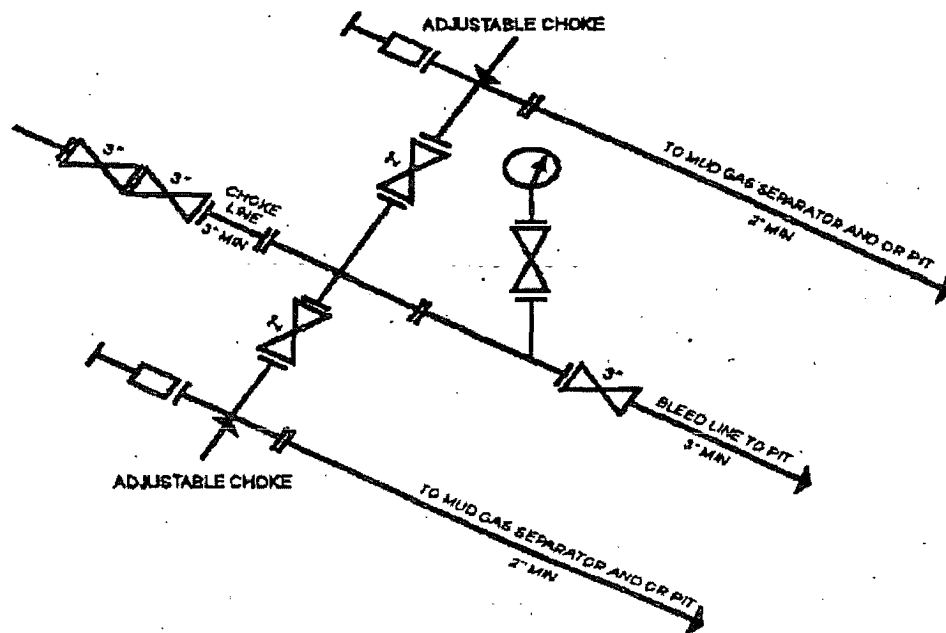
Surface Location: 1680' FSL & 1385' FEL, Unit J, Sec 8 T25S R29E, Eddy, NM

Bottom hole Location: 1650' FSL & 330' FWL, Unit L, Sec 8 T25S R29E, 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 3000 psi working pressure.
4. All fittings will be flanged.
5. A full bore safety valve tested to a minimum 3000 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" x 3,000 psi BOP Stack





3M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY
 [54 FR 39528, Sept. 27, 1989]

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)

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) ..

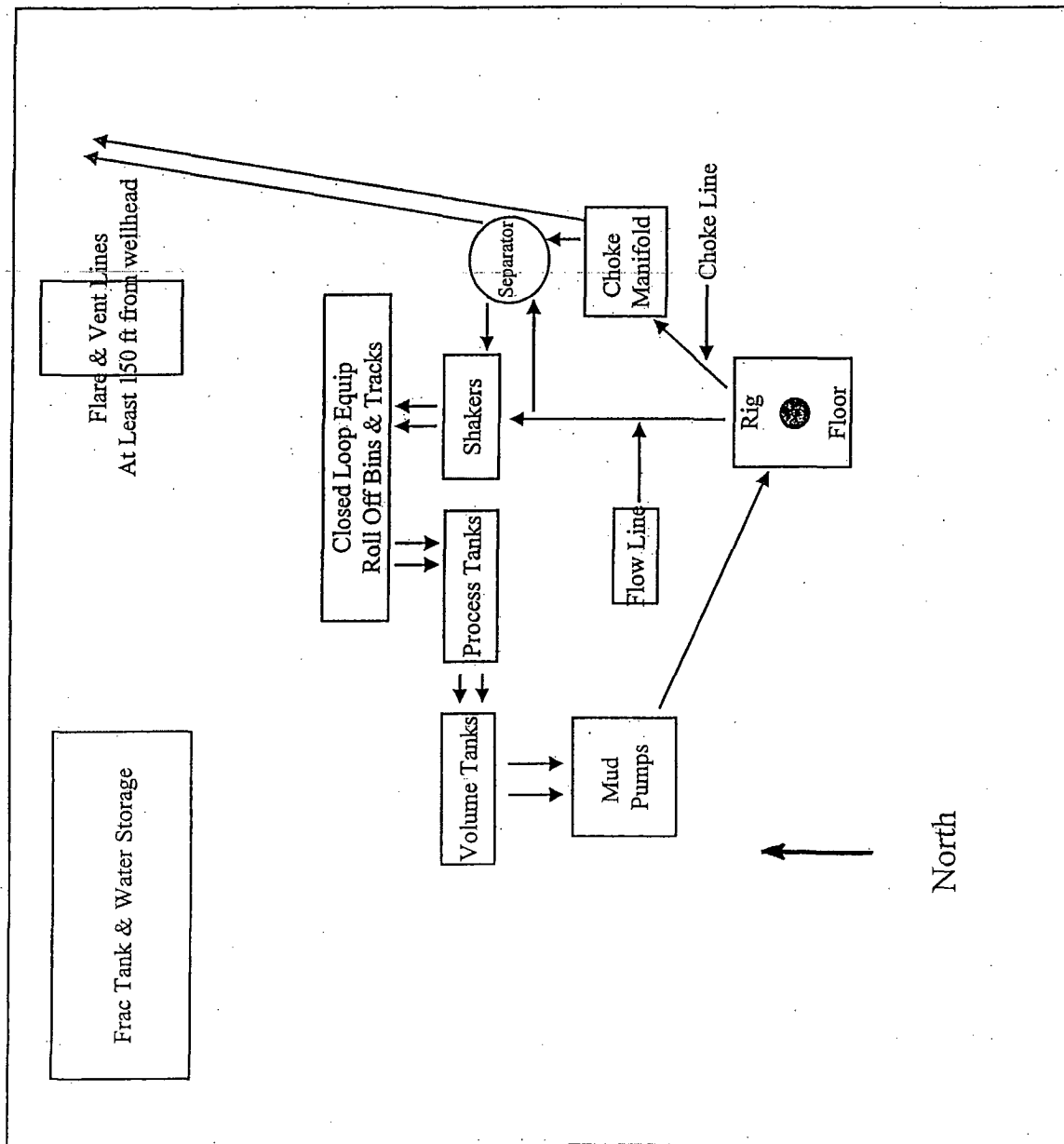
Emergency Services

	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 of;

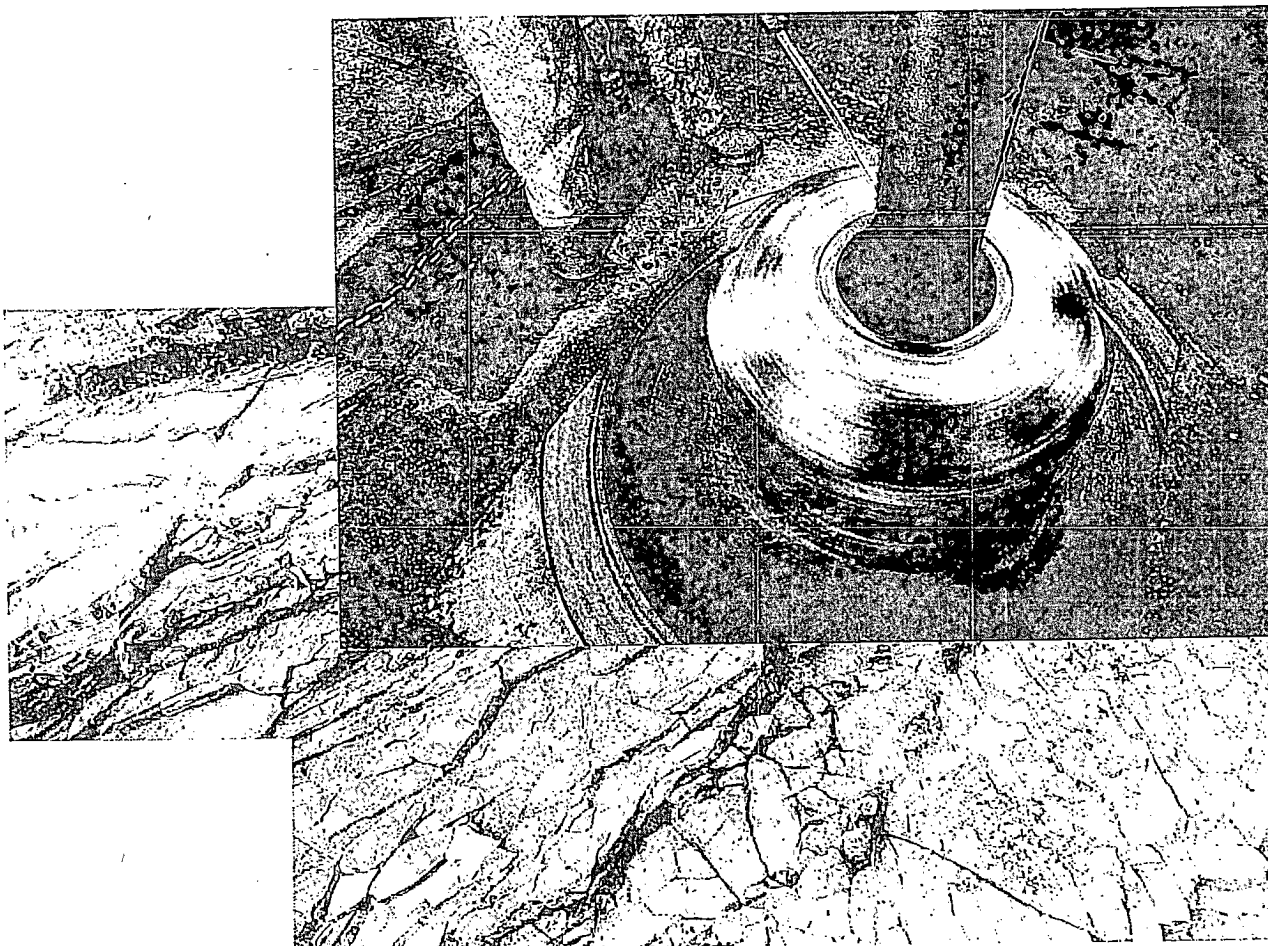


Closed Loop Equipment Diagram





Commitment Runs Deep



Design Plan
Operation and Maintenance Plan
Closure Plan

SENM - Closed Loop Systems
April 2010

I. Design Plan

Devon uses various high efficient closed loop systems (CLS). The CLS shown is designed to maintain drill solids at or below 5%. The equipment is arranged to progressively remove solids from the largest to the smallest size. Drilling fluids can thus be reused and savings is realized on mud and disposal costs. Dewatering may be required with the centrifuges to insure removal of ultra fine solids.

The drilling location is constructed to allow storm water to flow to a central sump normally the cellar. This insures no contamination leaves the drilling pad in the event of a spill. Storm water is reused in the mud system or stored in a reserve fluid tank farm until it can be reused. All lubricants, oils, or chemicals are removed immediately from the ground to prevent the contamination of storm water. An oil trap is normally installed on the sump if an oil spill occurs during a storm.

A tank farm is utilized to store drilling fluids including fresh water and brine fluids. The tank farm is constructed on a 20 ml plastic lined, bermed pad to prevent the contamination of the drilling site during a spill. Fluids from other sites may be stored in these tanks for processing by the solids control equipment and reused in the mud system. At the end of the well the fluids are transported from the tank farm to an adjoining well or to the next well for the rig.

Prior to installing a closed-loop system on site, the topsoil, if present, will be stripped and stockpiled for use as the final cover or fill at the time of closure.

Signs will be posted on the fence surrounding the closed-loop system unless the closed-loop system is located on a site where there is an existing well, that is operated by Devon.

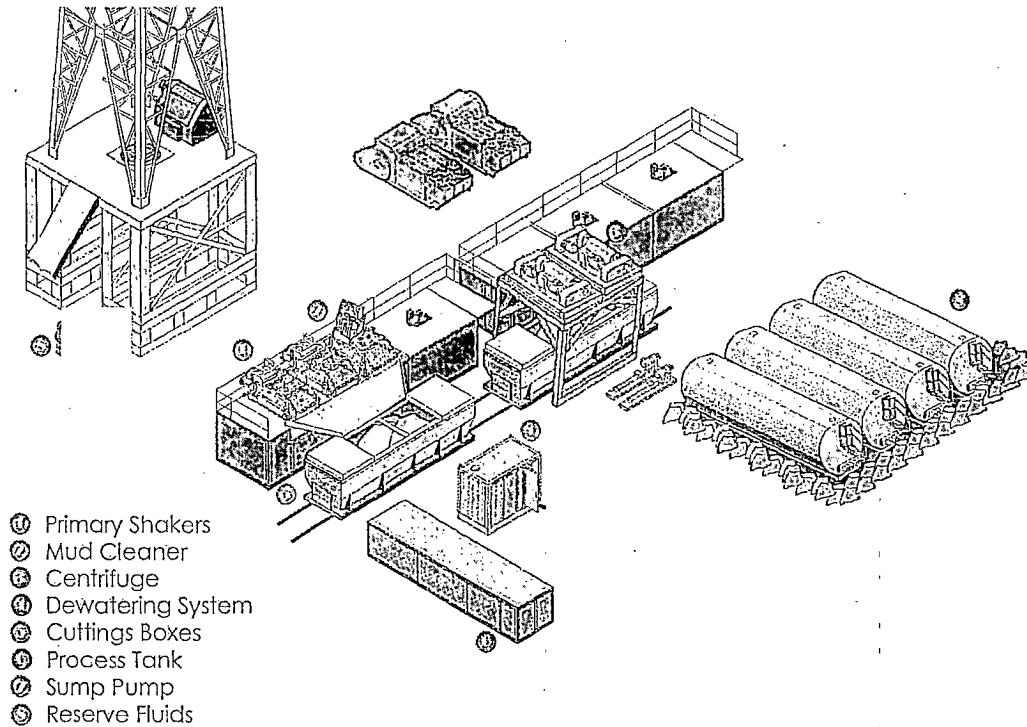
II. Operations and Maintenance Plan

Primary Shakers: The primary shakers make the first removal of drill solids from the drilling mud as it leaves the well bore. The shakers are sized to handle maximum drilling rate at optimal screen size. The shakers normally remove solids down to 74 microns.

Mud Cleaner: The Mud Cleaner cleans the fluid after it leaves the shakers. A set of hydrocyclones are sized to handle 1.25 to 1.5 times the maximum circulating rate. This ensures all the fluid is being processed to an average cut point of 25 microns. The wet discharged is dewatered on a shaker equipped with ultra fine mesh screens and generally cut at 40 microns.

devon

Closed Loop Schematic



Centrifuges: The centrifuges can be utilized depending on the well's anticipated solids volume. One or two centrifuges can be used depending on the well geometry or depth of well. The centrifuges are sized to maintain low gravity solids at 5% or below. They may or may not need a dewatering system to enhance the removal rates. The centrifuges can make a cut point of 8-10 microns depending on bowl speed, feed rate, solids loading and other factors.

The centrifuge system is designed to work on the active system and be flexible to process incoming fluids from other locations. This set-up is also dependant on well factors.

Dewatering System: The dewatering system is a chemical mixing and dosing system designed to enhance the solids removal of the centrifuge. Not commonly used in shallow wells. It may contain pH adjustment, coagulant mixing and dosing, and polymer mixing and dosing. Chemical flocculation binds

ultra fine solids into a mass that is within the centrifuge operating design. The dewatering system improves the centrifuge cut point to infinity or allows for the return of clear water or brine fluid. This ability allows for the ultimate control of low gravity solids.

Cuttings Boxes: Cuttings boxes are utilized to capture drill solids that are discarded from the solids control equipment. These boxes are set upon a rail system that allows for the removal and replacement of a full box of cuttings with an empty one. They are equipped with a cover that insures no product is spilled into the environment during the transportation phase.

Process Tank: (Optional) The process tank allows for the holding and process of fluids that are being transferred into the mud system. Additionally, during times of lost circulation the process tank may hold active fluids that are removed for additional treatment. It can further be used as a mixing tank during well control conditions.

Sump and Sump Pump: The sump is used to collect storm water and the pump is used to transfer this fluid to the active system or to the tank for to hold in reserve. It can also be used to collect fluids that may escape during spills. The location contains drainage ditches that allow the location fluids to drain to the sump.

Reserve Fluids (Tank Farm): A series of frac tanks are used to replace the reserve pit. These are steel tanks that are equipped with a manifold system and a transfer pump. These tanks can contain any number of fluids used during the drilling process. These can include fresh water, cut brine, and saturated salt fluid. The fluid can be from the active well or reclaimed fluid from other locations. A 20 ml liner and berm system is employed to ensure the fluids do not migrate to the environment during a spill.

If a leak develops, the appropriate division district office will be notified within 48 hours of the discovery and the leak will be addressed. Spill prevention is accomplished by maintaining pump packing, hoses, and pipe fittings to insure no leaks are occurring. During an upset condition the source of the spill is isolated and repaired as soon as it is discovered. Free liquid is removed by a diaphragm pump and returned to the mud system. Loose topsoil may be used to stabilize the spill and the contaminated soil is excavated and placed in the cuttings boxes. After the well is finished and the rig has moved, the entire location is scrapped and testing will be performed to determine if a release has occurred.

All trash is kept in a wire mesh enclosure and removed to an approved landfill when full. All spent motor oils are kept in separate containers and they are removed and sent to an approved recycling center. Any spilled lubricants, pipe

dope, or regulated chemicals are removed from soil and sent to landfills approved for these products.

These operations are monitored by Solids Control service technicians. Daily logs are maintained to ensure optimal equipment operation and maintenance. Screen and chemical use is logged to maintain inventory control. Fluid properties are monitored and recorded and drilling mud volumes are accounted for in the mud storage farm. This data is kept for end of well review to insure performance goals are met. Lessons learned are logged and used to help with continuous improvement.

III. Closure Plan

A maximum 170' X 170' caliche pad is built per well. All of the trucks and steel tanks fit on this pad. All fluid cuttings go to the steel tanks to be hauled by various trucking companies to an agency approved disposal.

SURFACE USE PLAN

Devon Energy Production Company, LP

Slider 8 Federal 2H

Surface Location. 1680' FSL & 1385' FEL, Unit J, Sec 8 T25S R29E, Eddy, NM

Bottom hole Location: 1650' FSL & 330' FWL, Unit L, Sec 8 T25S R29E, Eddy, NM

1. Existing Roads:

- a. The well site and elevation plat for the proposed well are reflected on the well site layout; Form C-102. The well was staked by Basin Surveys.
- b. All roads into the location are depicted on Exhibit 3.
- c. Directions to Location. From the junction of Hwy 285 and Longhorn, go east 3.9 miles to lease road go northeast 1.7 miles then north at gravel pit and go 3.3 miles to lease road, on lease road go west 2.1 miles banking left for 0.2 miles to lease road, on lease road south 0.4 miles to proposed lease road.

2. New or Reconstructed Access Roads:

- a. The well site layout, Form C-102 shows the existing County road. Approximately 268.4' of new access road will be constructed as follows.
- b. The maximum width of the road will be 14'. It will be crowned and made of 6" rolled and compacted caliche. Water will be deflected, as necessary, to avoid accumulation and prevent surface erosion.
- c. Surface material will be native caliche. This material will be obtained from a BLM approved pit nearest in proximity to the location. The average grade will be approximately 1%.
- d. No cattle guards, grates or fence cuts will be required. No turnouts are planned.

3. Location of Existing Wells:

One Mile Radius Plat shows all existing and proposed wells within a one-mile radius of the proposed location. See attached plat.

4. Location of Existing and/or Proposed Production Facilities:

- a. In the event the well is found productive, the Chimayo Unit #1 Sec 8 T25S R29E will be utilized and the necessary production equipment will be installed at the well site.
- b. If necessary, the well will be operated by means of an electric prime mover. Electric power poles will be set along side of the access road.
- c. All flow lines will be buried 3" steel lines 1440 psi adhering to API standards. These flow lines will carry the full well stream, oil, water and gas.
- d. If the well is productive, rehabilitation plans are as follows:
 - i. The original topsoil from the well site will be returned to the location. The drill site will then be contoured as close as possible to the original state.

5. Location and Types of Water Supply:

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

6. Construction Materials:

The caliche utilized for the drilling pad and proposed access road will be from minerals that are located onsite or will be used onsite. If minerals are not available onsite, then an established mineral pit will be used to build the location and stem road.

7. Methods of Handling Waste Material:

- a. Drill cuttings will be disposed.
- b. All trash, junk and other waste material will be contained in trash cages or trash bins to prevent scattering. When the job is completed all contents will be removed and disposed of in an approved sanitary landfill.
- c. The supplier, including broken sacks, will pick up salts remaining after completion of well.
- d. A Porto-john will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.
- e. Remaining drilling fluids will be sent to a closed loop system. Water produced during completion will be put into a closed loop system. Oil and condensate produced will be put into a storage tank and sold.
- f. Disposal of fluids to be transported by the following companies:
 - i. American Production Service Inc, Odessa TX
 - ii. Gandy Corporation, Lovington NM
 - iii. I & W Inc, Loco Hill NM
 - iv. Jims Water Service of Co Inc, Denver CO

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

9. Well Site Layout

- a. Exhibit D shows the proposed well site layout with dimensions of the pad layout.
- b. This exhibit indicated proposed location of sump pits and living facilities.
- c. Mud pits in the active circulating system will be steel pits.
- d. A closed loop system will be utilized.
- e. If a pit or closed loop system is utilized, Devon will comply with the NMOCD requirements 19.15.17 and submit form C-144 to the appropriate NMOCD District Office. A copy to be provided to the BLM.

10. Plans for Surface Reclamation Include Both final & Interim:

- a. After concluding the drilling and/or completion operations, if the well is found non-commercial, the caliche will be removed from the pad and transported to the original caliche pit or used for other drilling locations. The road will be reclaimed as directed by the BLM. The original top soil will again be returned to the pad and contoured, as close as possible, to the original topography.
- b. The location and road will be rehabilitated as recommended by the BLM.
- c. If the well is deemed commercially productive, caliche from areas of the pad site not required for operations will be reclaimed. The original top soil will be returned to the area of the drill pad not necessary to operate the well. These unused areas of the drill pad will be contoured, as close as possible, to match the original topography.
- d. All disturbed areas not needed for active support of production operations will undergo interim reclamation. The portions of the cleared well site not needed for operational and safety purposes will be recontoured to a final or intermediate contour that blends with the surrounding topography as much as possible. Topsoil will be respread over areas not needed for all-weather operations.

11. Surface Ownership

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

12. Other Information:

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

13. Bond Coverage:

Bond Coverage is Nationwide; Bond # is CO-1104

Operators Representative:

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

Jim Cromer - Operations Engineer Advisor
Devon Energy Production Company, L.P.
20 North Broadway
Oklahoma City, OK 73102-8260
(405) 228-4464 (office)
(405) 694-7718 (Cellular)

Don Mayberry - Superintendent
Devon Energy Production Company, L.P.
Post Office Box 250
Artesia, NM 88211-0250
(575) 748-3371 (office)
(575) 746-4945 (home)

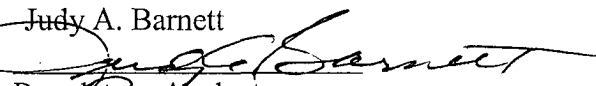
Certification

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

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

Executed this _ 9th of _ September, 2010.

Printed Name: Judy A. Barnett

Signed Name: 

Position Title: Regulatory Analyst

Address: 20 North Broadway, OKC OK 73102

Telephone: (405)-228-8699

Field Representative (if not above signatory):

Address (if different from above):

Telephone (if different from above):

PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	DEVON ENERGY
LEASE NO.:	NM99147
WELL NAME & NO.:	2H-SLIDER 8 FEDERAL
SURFACE HOLE FOOTAGE:	1680' FSL & 1385' FEL
BOTTOM HOLE FOOTAGE:	1650' FSL & 0330' FWL
LOCATION:	Section 08, T. 25 S., R. 29 E., NMPM
COUNTY:	Eddy County, New Mexico

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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**
 - Hydrology
- ☐ **Construction**
 - Notification
 - Topsoil
 - Closed Loop System
 - Federal Mineral Material Pits
 - Well Pads
 - Roads
- ☐ **Road Section Diagram**
- ☒ **Drilling**
 - Logging requirements
 - Medium cave/karst
 - Casing depth
 - Waste Material and Fluids
- ☐ **Production (Post Drilling)**
 - Well Structures & Facilities
 - Pipelines
 - Electric Lines
- ☐ **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)

Limit disturbance to 130' East of Center.

Avoid causing any disturbance to the east edge of the location. Fragile soils and dangerous drop-off to the east.

Stockpile topsoil to the West of the location.

The east side of well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad and migrating toward the playa. In addition, the north and south sides of the pad will be bermed from the NE and SE corners west for $\frac{1}{4}$ the length of the pad on these sides.

Topsoil shall not be used to construct the berm. Any water flow across the pad shall be contained by this berm.

The berm shall be maintained through the life of the well and after interim reclamation has been completed.

Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5972 at least 3 working days prior to commencing construction of the access road and/or well pad.

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

B. 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 3 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

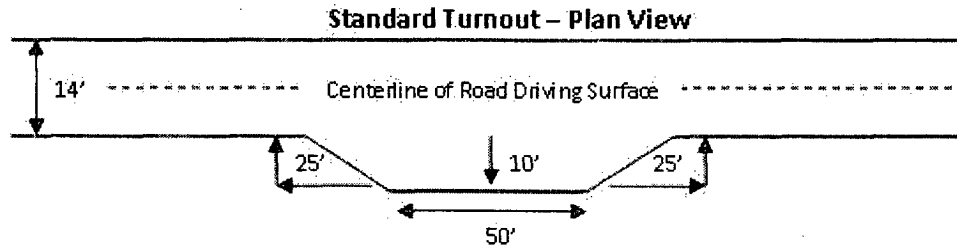
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

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:

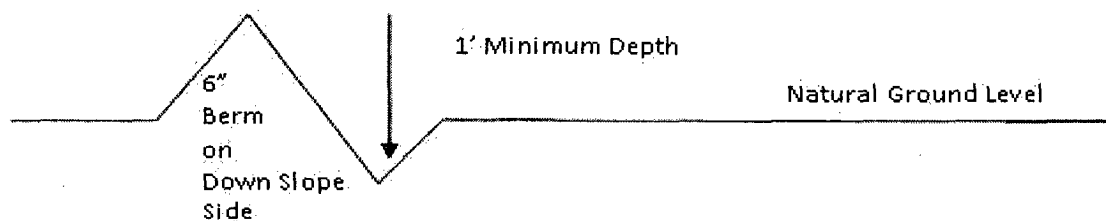


Drainage

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

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

Cross Section of a Typical Lead-off Ditch



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

Formula for Spacing Interval of Lead-off Ditches

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

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

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

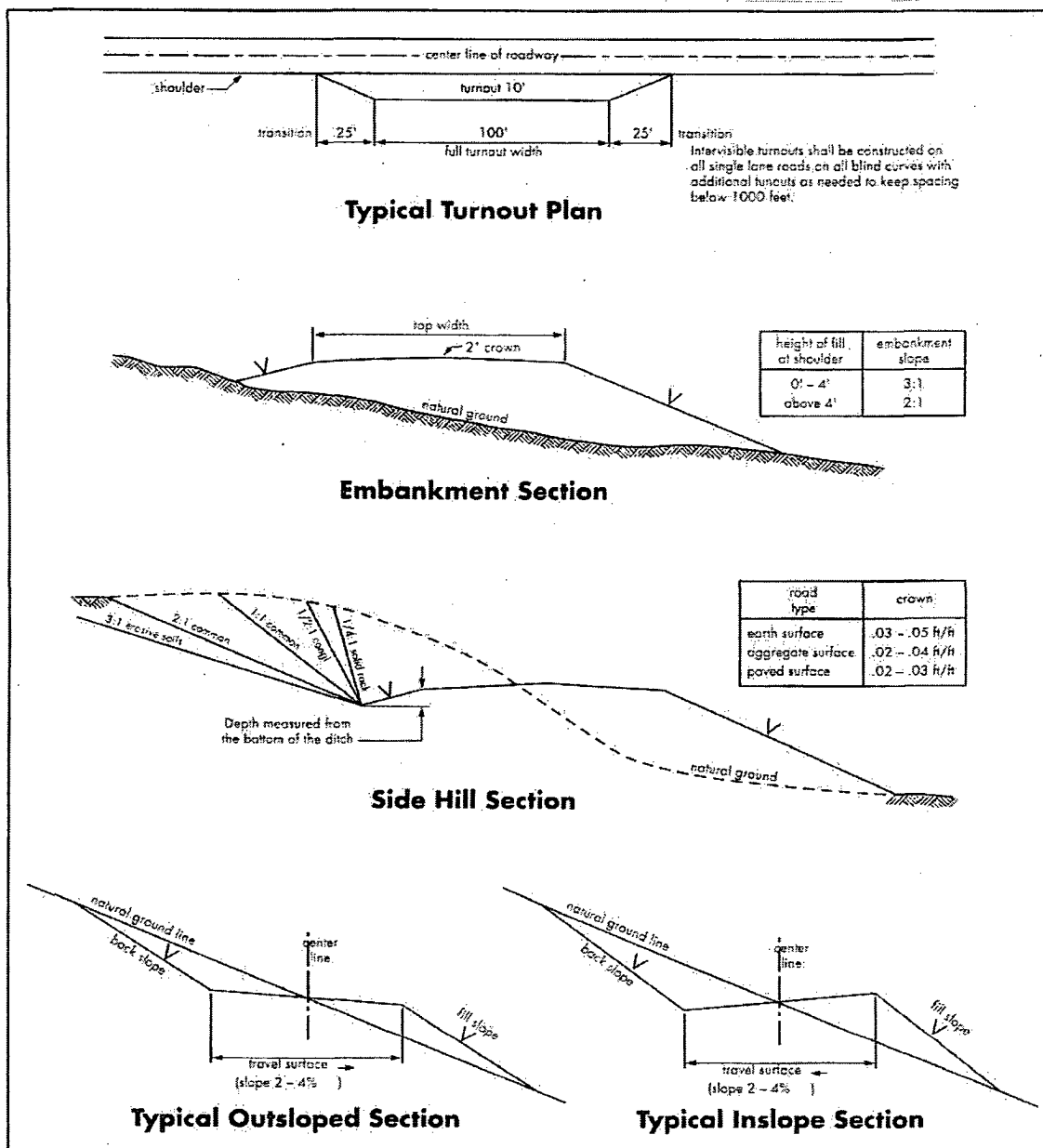
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

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. **Although Hydrogen Sulfide has not been reported in the area, it is always a potential hazard. If Hydrogen Sulfide is encountered, please report measured amounts and formations to the BLM.**
2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. **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.

Medium cave/karst.

Possible water/brine flows in the Salado and Delaware Mountain Groups.

Possible lost circulation in the Delaware.

1. The **13-3/8** inch surface casing shall be set at approximately **480** feet and cemented to the surface. If the salt is encountered, set casing 25 feet above the salt. Fresh water mud to be used to setting depth. **Additional cement will be needed due to the additional casing 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 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. Casing to be set in the base of the Castile or in the Lamar Limestone. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.**

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

3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
 - a. First stage to DV tool, cement shall:
 - ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.
 - b. Second stage above DV tool, cement shall:
 - ☒ Cement should tie-back at least 500 feet into previous casing string. Operator shall provide method of verification.
4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. **Variance approved to use flex line with Serial #34128 from BOP to choke manifold. Check condition of 3" 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. Anchor requirements to be onsite for review.**
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. Operator installing 5M and testing as 3M.
 - 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 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.

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.

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VIII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Containment Structures

The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

Painting Requirement

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color
Shale Green, Munsell Soil Color Chart # 5Y 4/2

B. PIPELINES

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

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

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

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

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

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

- a. Activities of the holder including, but not limited to construction, operation, maintenance, and termination of the facility.
- b. Activities of other parties including, but not limited to:
 - (1) Land clearing.
 - (2) Earth-disturbing and earth-moving work.
 - (3) Blasting.
 - (4) Vandalism and sabotage.
- c. Acts of God.

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

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

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

6. All construction and maintenance activity will be confined to the authorized right-of-way width of 25 feet.
7. No blading or clearing of any vegetation will be allowed unless approved in writing by the Authorized Officer.
8. The holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky or dune areas, the pipeline will be "snaked" around hummocks and dunes rather than suspended across these features.
9. The pipeline shall be buried with a minimum of 24 inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.
10. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.
11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.
12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.
13. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. Signs will be maintained in a legible condition for the life of the pipeline.
14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.

15. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the authorized officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the authorized officer after consulting with the holder.

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).

Seed Mixture 3, for Shallow 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.

<u>Species</u>	<u>lb/acre</u>
Plains Bristlegrass (<i>Setaria magrostachya</i>)	1.0
Green Spangletop (<i>Leptochloa dubia</i>)	2.0
Side oats Grama (<i>Bouteloua curtipendula</i>)	5.0

*Pounds of pure live seed:

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