

QCD-ARTESIA

Form 3160-3
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No 1004-0137
Expires July 31, 2010 **EA397**

5. Lease Serial No.
NM-054290

6. If Indian, Allottee or Tribe Name

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

8. Lease Name and Well No.
North Brushy Draw Federal 35-2H [38962]

9. API Well No.
30-015-40006

10. Field and Pool, or Exploratory
Corral Canyon Bone Spring South [13354]

11. Sec., T. R. M. or Blk. and Survey or Area
Section 35, T. 25 S., R. 29 E.

12. County or Parish
EDDY

13. State
NM

1a. Type of work: ☒ DRILL ☐ REENTER

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

2. Name of Operator **RKI EXPLORATION & PRODUCTION, LLC.** **[246289]**

3a. Address **3817 NW EXPRESSWAY, SUITE 950
OKLAHOMA CITY, OK 73112**

3b. Phone No. (include area code)
405-996-5750 (BILL AUBREY)

4. Location of Well (Report location clearly and in accordance with any State requirements *)

At surface **330 FNL & 660 FEL**

At proposed prod. zone **330 FSL & 660 FEL**

14. Distance in miles and direction from nearest town or post office*
APPROXIMATELY 9 MILES SOUTHEAST OF MALAGA, NM

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

16. No. of acres in lease
480

17. Spacing Unit dedicated to this well
160

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
330 FT.

19. Proposed Depth
**8300 FT. TVD
12,702.1 FT. MD**

20. BLM/BIA Bond No. on file
NLM-NMB-000460

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3031' GL

22. Approximate date work will start*

23. Estimated duration
30 DAYS

24. Attachments

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

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

25. Signature **[Signature]**

Name (Printed/Typed)
BARRY W. HUNT

Date
12/8/11

Title
PERMIT AGENT FOR RKI EXPLORATION & PRODUCTION, LLC.

Approved by (Signature)

Name (Printed/Typed)

Date
FEB 28 2012

Title
FIELD MANAGER

Office
CARLSBAD FIELD OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

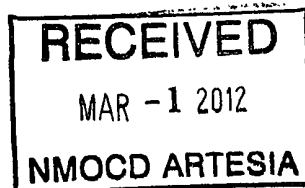
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

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

(Continued on page 2)

*(Instructions on page 2)



Carlsbad Controlled Water Basin
300X356

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements
& Special Stipulations Attached

OCD-ARTESIA

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No 1004-0137
Expires July 31, 2010

EA 397

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.5. Lease Serial No.
NM-054290

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE – Other instructions on page 2.

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator
RKI EXPLORATION & PRODUCTION, LLC.3a. Address
3817 NW EXPRESSWAY, SUITE 950
OKLAHOMA CITY, OK. 731123b. Phone No. (include area code)
405-996-5750 (BILL AUBREY)4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
330 FNL & 660 FEL, SECTION 35, T. 25 S., R. 29 E.

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

8. Well Name and No.
NORTH BRUSHY DRAW FEDERAL 35-2H

9. API Well No.

10. Field and Pool or Exploratory Area
CORRAL CANYON BONE SPRING SOUTH11. Country or Parish, State
EDDY, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <u>Change of</u>
	<input checked="" type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	<u>access road route</u>
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

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

RKI EXPLORATION & PRODUCTION, LLC. IS REQUESTING TO AMEND THE APD FOR THE PROPOSED ACCESS ROAD ON THE NORTH BRUSHY DRAW FED 35-2H AS SHOWN ON ATTACHED PLATS.

THE ROAD WILL FOLLOW THE PROPOSED 8" SWD PIPELINE AND WILL EXTEND THE EXISTING ROAD FROM THE NORTH BRUSHY DRAW FED 35-1H AND FRAC PIT, EAST, TYING IN THE #2H, AND EASTWARD TO AN EXISTING LEASE ROAD ON STATE LANDS IN SECTION 36. THE NEED FOR THE ACCESS ROAD WILL ASSIST IN ALLOWING A CORRIDOR FOR FUTURE FLOWLINES TO THE BATTERY AT THE #1H AND AVOID THE ARCHAEOLOGICAL SITE THAT THE EXISTING ROAD SYSTEM IN THE NE1/4 RUNS THROUGH.

THE TOTAL LENGTH OF ROAD WILL BE 2148.4 FT., 0.41 MILES OR 1.48 ACRES. 478 FT. OF THIS FOOTAGE WILL BE STATE OF NEW MEXICO LANDS AND AN APPLICATION WILL BE MADE WITH THE STATE. THE TOTAL LENGTH OF ROAD ON FEDERAL WILL BE 1670.4 FT. OR 1.15 ACRES.

NOTE: THIS ROUTE WAS ARCHAEOLOGICALLY CLEARED WITH THE 8" NORTH BRUSHY DRAW FED 35-1H SWD LINE.

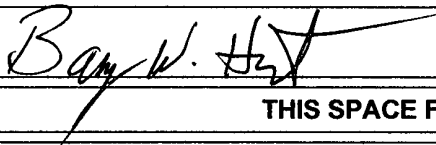
This action analyzed in EA 12-397 with APD EA.
Rec approval, RWR, 2-1-12.

14 I hereby certify that the foregoing is true and correct Name (Printed/Typed)

BARRY W. HUNT

Title PERMIT AGENT FOR RKI EXPLORATION & PRODUCTION, LLC.

Signature



Date

1/6/12

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

/s/ Don Peterson

Title

FEB 2 8 2

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

Office

BLM Carlsbad Field Office

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

(Instructions on page 2)

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

Form C-102

Revised July 16, 2010

Submit one copy to appropriate
District Office

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-015-40006	Pool Code 13354	Pool Name CORRAL CANYON BONE SPRING SOUTH
Property Code 38962	Property Name NORTH BRUSHY DRAW FEDERAL "35"	Well Number 2H
OGRID No. 246289	Operator Name RKI EXPLORATION & PRODUCTION LLC	Elevation 3031'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	35	25 S	29 E		330	NORTH	660	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	35	25 S	29 E		330	SOUTH	660	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

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

<p>SURFACE LOCATION Lat - N 32°05'33.56" Long - W 103°56'54.94" NMSPCE- N 397657.0 E 660482.2 (NAD-83)</p>	<p>PROPOSED BOTTOM HOLE LOCATION Lat - N 32°04'47.56" Long - W 103°56'54.89" NMSPCE- N 393009.0 E 660503.0 (NAD-83)</p>	<p>3028.3' 3034.8'</p> <p>330'</p> <p>660'</p> <p>3028.8' 3032.8'</p> <p>4649.2'</p> <p>330'</p> <p>660'</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>Barry W. Hunt</i> 12/8/11 Signature Date <i>Barry W. Hunt</i> Printed Name Email Address</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 7977</p>	
		<p>Certificate No. Gary L. Jones 7977</p>	
		<p>BASIN SURVEYS 25164</p>	

RKI EXPLORATION & PRODUCTION, LLC.

North Brushy Draw Federal 35-2H
Surface Location: 330' FNL & 660' FEL
Bottom Hole Location: 330' FSL & 660' FEL
35-25S-29E
Eddy County, NM

1. The elevation of the unprepared ground is 3,031' feet above sea level.
2. The geologic name of the surface formation is Quaternary - Alluvium.
3. A rotary rig will be utilized to drill the well to 12,702.1' MD (8,300' TVD) and run casing. This equipment will then be rigged down and the well will be completed with a workover rig.
4. Proposed total depth is 12,702.1' MD, 8,300' TVD.
5. Estimated tops of important geologic markers:

Rustler	800'
Salado	1,100'
Castile	1,450'
Lamar Lime	3,500'
Delaware Top	3,560'
Bell Canyon Sand	3,560'
Cherry Canyon Sand	4,630'
Brushy Canyon Sand	5,675'
KOP	7,663'
Bone Spring	7,300'
TVD	8,300' (130 degree F)

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

	Fresh Water (150-300')
Bell Canyon	Oil (1,565 psi)
Cherry Canyon	Oil (2,030 psi)
Brushy Canyon	Oil (2,489 psi)
Bone Spring	Oil (3,710 psi)

7. The proposed casing program is as follows:

Surface: 17-1/2" hole. 13-3/8" Casing, 54.5# J-55 ST&C new casing set from
0' - ~~1,000'~~ 575

Tension SF 2.0, Collapse SF 1.125, Burst SF 1.8.

Salt String: 12-1/4" hole. 9-5/8" Casing, 40# J-55 LT&C new casing set from

12/26/11

North Brushy Draw Federal 35-2H

0' - ~~3,400'~~ ³²⁰⁰

Tension SF 2.0, Collapse SF 1.125, Burst SF 1.8.

Intermediate: 8 3/4" hole. 7" Casing, 26# N-80 LT&C new casing set from
0' - 8,663'

Tension SF 2.0, Collapse SF 1.125, Burst SF 1.8.

^{1/8" per Bill Aubrey}

Liner: 6 1/2" hole. 4-1/2" Casing, 1.6# HCP-110 LT&C new casing from
7,663' - 12,702'

Tension SF 2.0, Collapse SF 1.125, Burst SF 1.8.

8. Casing setting depth and cementing program:

- a. 13-3/8" surface casing set at ⁵⁷⁵~~1,000'~~. Circulate cement to surface with 600 sx "C" with 4% D20, 2% S1, .2% D46, .125 pps D130 mixed at 12.9 ppg (1.96 cf/sk) followed by 200 sx "C" with .125 pps D130 mixed at 14.8 ppg (1.33 cf/sk) 100% excess.
- b. 9-5/8" intermediate casing set at ³²⁰⁰~~3,400'~~. Cement will be circulated to surface with 800 sx 35:65 Poz "C" with 5% D44, 6% D20, .2% D46, 2 pps D42, .125 pps D130, 27 pps D132, .1% D201 mixed at 12.6 ppg (2.08 cf/sk) followed by 200 sx "C" with .2% D201 mixed 14.8 ppg (1.33 cf/sk) 25% excess.
- c. 7" intermediate casing set at 8,663'. Cement will be calculated to bring TOC to 3,000'. The well will be cemented in two stages as follows: **Stage 1:** 477 sx "C" with 1.3% CC, 2% D174, .2% D46, .3% D167, .4% D13 mixed at 13.0 ppg (1.44 cf/sk) 25% excess.
Stage 2: 250 sx 35:65 Poz "C" with 5% D44, 27 pps D132, 6% D20, .2% D46, 2 ppg D42, .124 pps D130 mixed at 12.6 ppg (2.05 cf/sk) 25% excess.
DV tool at approximately 5000'
- d. 4 1/2" liner set at 12,702'. Liner will utilize packer isolation system.

9. Pressure Control Equipment

The blowout preventor equipment (BOP) will consist of a 5000 psi double ram type preventor, a bag-type (Hydril) preventor, and rotating head. Both units will be hydraulically operated and the ram type preventor will be equipped with blind rams on top and 4 -1/2" drill pipe rams on bottom. A 5M BOP will be installed on the 13-3/8" surface casing and utilized continuously until total depth is reached. BOP's and associated equipment will be tested as a 3M system prior to drilling out all casing shoes. All casing strings will be tested as per Onshore Order #2. Pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily drillers log.

The BOP equipment will consist of the following:

- Annular preventers
- Double ram with blind rams and pipe rams
- Drilling spool, or blowout preventer with 2 side outlets (choke side shall be a 3-inch minimum diameter, kill side shall be at least 2-inch diameter)
- Kill line (2 inch minimum)
- A minimum of 2 choke line valves (3 inch minimum)
- 3 inch diameter choke line
- 2 kill line valves, one of which shall be a check valve (2 inch minimum)
- 2 chokes
- Pressure gauge on choke manifold
- Upper kelly cock valve with handle available
- Safety valve and subs to fit all drill string connections in use
- All BOPE connections subjected to well pressure shall be flanged, welded, or clamped
- Fill-up line above the uppermost preventer.

10. Mud Program:

0' - 1,000' 575	Bentonite/Lime mud. Paper for losses and seepage. 8.6 to 8.9 ppg, PV 1 to 6, YP 1 to 6, WL NC.
1,000' - 3,400' 3200	Brine. As needed LCM for losses and seepage. 10.0 to 10.1 ppg, PV 1 to 3, YP 1 to 3, WL NC.
3,400' - 12,702'	Drill out fresh water/cut brine. MW 8.8 to 9.1 ppg, PV 1 to 3, YP 1 to 3, WL NC.

11. Testing, Logging and Coring Program: *See COA*

Testing program: No drillstem tests are anticipated.

Electric logging program: CNL/CAL/GR, DLL/CAL/GR. From 9 5/8" casing to kick off point. A gyro survey will also be run at kick off point.

Coring program: None.

12. No abnormal conditions or hazards 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. Estimated BHP will be calculated as follows: $8.6 \times 0.052 \times \text{TD} = 3710$. The Estimated BHT will be calculated by checking surrounding wells: 130 BHT.

RKI Exploration & Production

Project: Eddy County (NM83E)
 Site: Sec 35-T25S-R29E
 Well: North Brushy Draw Fed 35-2H
 Wellbore: Wellbore #1
 Design: 11-29-11



Azimuths to True North
 Magnetic North: 7.69°
 Magnetic Field
 Strength: 48474.7snT
 Dip Angle: 59.99°
 Date: 2011/11/29
 Model: IGRF2010

Wolverine
Directional

WELL DETAILS: North Brushy Draw Fed 35-2H

Ground Level: 0.0
 +N/-S +E/-W Northing Easting Latitude Longitude
 0.0 0.0 397657.00 660482.20 32° 5' 33.556 N 103° 56' 54.941 W
 SHL: 330' FNL / 660' FEL
 BHL: 330' FSL / 660' FEL

SECTION DETAILS

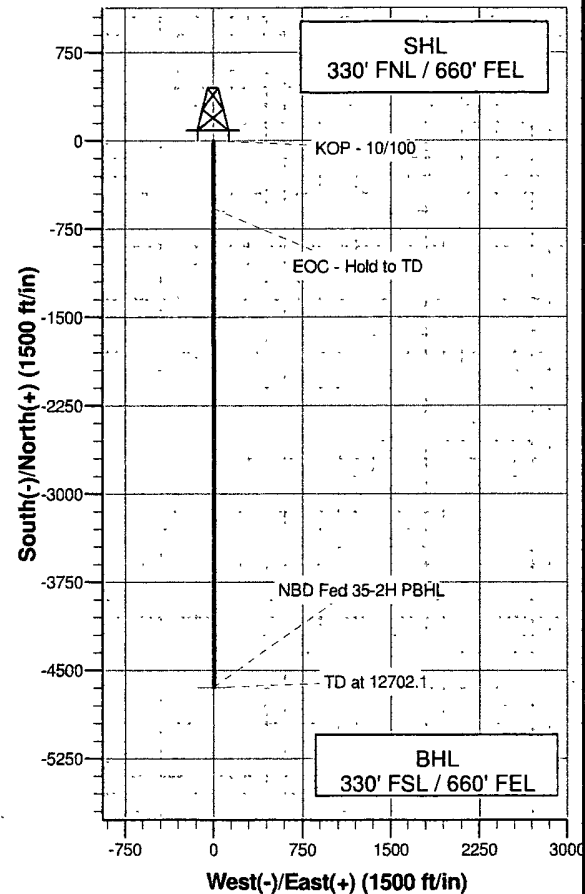
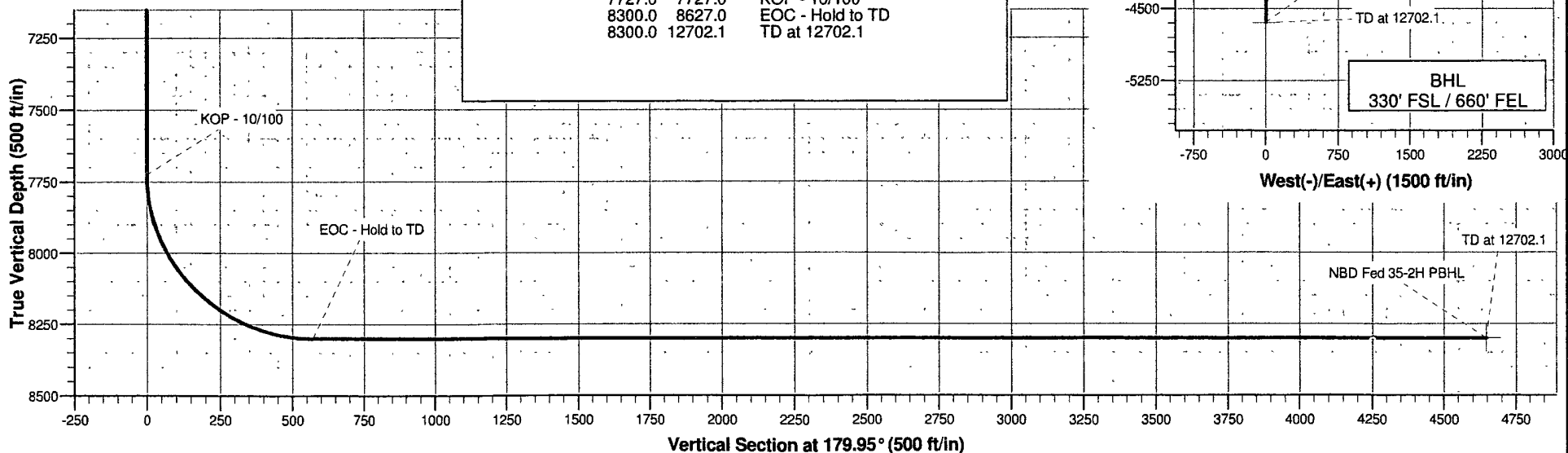
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	7727.0	0.00	0.00	7727.0	0.0	0.0	0.00	0.00	0.0	
3	8627.0	90.00	179.95	8300.0	-573.0	0.5	10.00	179.95	573.0	
4	12702.1	90.00	179.95	8300.0	-4648.1	4.2	0.00	0.00	4648.1	NBD Fed 35-2H PBHL

Wellbore TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
NBD Fed 35-2H PBHL	8300.0	-4648.1	4.2	393009.00	660503.00	Point

Annotations

TVD	MD	Annotation
7727.0	7727.0	KOP - 10/100
8300.0	8627.0	EOC - Hold to TD
8300.0	12702.1	TD at 12702.1



RKI Exploration & Production

Eddy County (NM83E)

Sec 35-T25S-R29E

North Brushy Draw Fed 35-2H

Wellbore #1

Plan: 11-29-11

Standard Planning Report

29 November, 2011

Wolverine Directional, LLC

Planning Report

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well North Brushy Draw Fed 35-2H
Company:	RKI Exploration & Production	TVD Reference:	WELL @ 0.0ft (Original Well Elev)
Project:	Eddy County (NM83E)	MD Reference:	WELL @ 0.0ft (Original Well Elev)
Site:	Sec 35-T25S-R29E	North Reference:	True
Well:	North Brushy Draw Fed 35-2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	11-29-11		

Project	Eddy County (NM83E)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site		Sec 35-T25S-R29E			
Site Position:		Northing:	397,657.00ft	Latitude:	32° 5' 33.556 N
From:	Map	Easting:	660,482.20ft	Longitude:	103° 56' 54.941 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.20 °

Well		North Brushy Draw Fed 35-2H				
Well Position	+N/-S	0.0 ft	Northing:	397,657.00 ft	Latitude:	32° 5' 33.556 N
	+E/-W	0.0 ft	Easting:	660,482.20 ft	Longitude:	103° 56' 54.941 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	0.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2011/11/29	7.69	59.99	48,475

Design: 11-29-11				
Audit Notes:				
Version:		Phase: PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	179.95

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
7,727.0	0.00	0.00	7,727.0	0.0	0.0	0.00	0.00	0.00	0.00	
8,627.0	90.00	179.95	8,300.0	-573.0	0.5	10.00	10.00	0.00	179.95	
12,702.1	90.00	179.95	8,300.0	-4,648.1	4.2	0.00	0.00	0.00	0.00	NBD Fed 35-2H PE

Wolverine Directional, LLC

Planning Report

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well North Brushy Draw Fed 35-2H
Company:	RKI Exploration & Production	TVD Reference:	WELL @ 0.0ft (Original Well Elev)
Project:	Eddy County (NM83E)	MD Reference:	WELL @ 0.0ft (Original Well Elev)
Site:	Sec 35-T25S-R29E	North Reference:	True
Well:	North Brushy Draw Fed 35-2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	11-29-11		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00

Wolverine Directional, LLC

Planning Report

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well North Brushy Draw Fed 35-2H
Company:	RKI Exploration & Production	TVD Reference:	WELL @ 0.0ft (Original Well Elev)
Project:	Eddy County (NM83E)	MD Reference:	WELL @ 0.0ft (Original Well Elev)
Site:	Sec 35-T25S-R29E	North Reference:	True
Well:	North Brushy Draw Fed 35-2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	11-29-11		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,600.0	0.0	0.0	0.0	0.00	0.00	0.00
7,700.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.00	0.00	0.00
7,727.0	0.00	0.00	7,727.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - 10/100									
7,750.0	2.30	179.95	7,750.0	-0.5	0.0	0.5	10.00	10.00	0.00
7,800.0	7.30	179.95	7,799.8	-4.6	0.0	4.6	10.00	10.00	0.00
7,850.0	12.30	179.95	7,849.1	-13.1	0.0	13.1	10.00	10.00	0.00
7,900.0	17.30	179.95	7,897.4	-25.9	0.0	25.9	10.00	10.00	0.00
7,950.0	22.30	179.95	7,944.4	-42.8	0.0	42.8	10.00	10.00	0.00
8,000.0	27.30	179.95	7,989.8	-63.8	0.1	63.8	10.00	10.00	0.00
8,050.0	32.30	179.95	8,033.2	-88.6	0.1	88.6	10.00	10.00	0.00
8,100.0	37.30	179.95	8,074.2	-117.2	0.1	117.2	10.00	10.00	0.00
8,150.0	42.30	179.95	8,112.6	-149.2	0.1	149.2	10.00	10.00	0.00
8,200.0	47.30	179.95	8,148.1	-184.4	0.2	184.4	10.00	10.00	0.00
8,250.0	52.30	179.95	8,180.4	-222.5	0.2	222.5	10.00	10.00	0.00
8,300.0	57.30	179.95	8,209.2	-263.4	0.2	263.4	10.00	10.00	0.00
8,350.0	62.30	179.95	8,234.3	-306.6	0.3	306.6	10.00	10.00	0.00
8,400.0	67.30	179.95	8,255.6	-351.8	0.3	351.8	10.00	10.00	0.00
8,450.0	72.30	179.95	8,272.9	-398.7	0.4	398.7	10.00	10.00	0.00
8,500.0	77.30	179.95	8,286.0	-447.0	0.4	447.0	10.00	10.00	0.00
8,550.0	82.30	179.95	8,294.8	-496.1	0.5	496.1	10.00	10.00	0.00
8,600.0	87.30	179.95	8,299.4	-545.9	0.5	545.9	10.00	10.00	0.00
8,627.0	90.00	179.95	8,300.0	-573.0	0.5	573.0	10.00	10.00	0.00
EOC - Hold to TD									
8,700.0	90.00	179.95	8,300.0	-645.9	0.6	645.9	0.00	0.00	0.00
8,800.0	90.00	179.95	8,300.0	-745.9	0.7	745.9	0.00	0.00	0.00
8,900.0	90.00	179.95	8,300.0	-845.9	0.8	845.9	0.00	0.00	0.00
9,000.0	90.00	179.95	8,300.0	-945.9	0.9	945.9	0.00	0.00	0.00
9,100.0	90.00	179.95	8,300.0	-1,045.9	0.9	1,045.9	0.00	0.00	0.00
9,200.0	90.00	179.95	8,300.0	-1,145.9	1.0	1,145.9	0.00	0.00	0.00
9,300.0	90.00	179.95	8,300.0	-1,245.9	1.1	1,245.9	0.00	0.00	0.00

Wolverine Directional, LLC

Planning Report

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well North Brushy Draw Fed 35-2H
Company:	RKI Exploration & Production	TVD Reference:	WELL @ 0.0ft (Original Well Elev)
Project:	Eddy County (NM83E)	MD Reference:	WELL @ 0.0ft (Original Well Elev)
Site:	Sec 35-T25S-R29E	North Reference:	True
Well:	North Brushy Draw Fed 35-2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	11-29-11		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,400.0	90.00	179.95	8,300.0	-1,345.9	1.2	1,345.9	0.00	0.00	0.00
9,500.0	90.00	179.95	8,300.0	-1,445.9	1.3	1,445.9	0.00	0.00	0.00
9,600.0	90.00	179.95	8,300.0	-1,545.9	1.4	1,545.9	0.00	0.00	0.00
9,700.0	90.00	179.95	8,300.0	-1,645.9	1.5	1,645.9	0.00	0.00	0.00
9,800.0	90.00	179.95	8,300.0	-1,745.9	1.6	1,745.9	0.00	0.00	0.00
9,900.0	90.00	179.95	8,300.0	-1,845.9	1.7	1,845.9	0.00	0.00	0.00
10,000.0	90.00	179.95	8,300.0	-1,945.9	1.8	1,945.9	0.00	0.00	0.00
10,100.0	90.00	179.95	8,300.0	-2,045.9	1.9	2,045.9	0.00	0.00	0.00
10,200.0	90.00	179.95	8,300.0	-2,145.9	1.9	2,145.9	0.00	0.00	0.00
10,300.0	90.00	179.95	8,300.0	-2,245.9	2.0	2,245.9	0.00	0.00	0.00
10,400.0	90.00	179.95	8,300.0	-2,345.9	2.1	2,345.9	0.00	0.00	0.00
10,500.0	90.00	179.95	8,300.0	-2,445.9	2.2	2,445.9	0.00	0.00	0.00
10,600.0	90.00	179.95	8,300.0	-2,545.9	2.3	2,545.9	0.00	0.00	0.00
10,700.0	90.00	179.95	8,300.0	-2,645.9	2.4	2,645.9	0.00	0.00	0.00
10,800.0	90.00	179.95	8,300.0	-2,745.9	2.5	2,745.9	0.00	0.00	0.00
10,900.0	90.00	179.95	8,300.0	-2,845.9	2.6	2,845.9	0.00	0.00	0.00
11,000.0	90.00	179.95	8,300.0	-2,945.9	2.7	2,945.9	0.00	0.00	0.00
11,100.0	90.00	179.95	8,300.0	-3,045.9	2.8	3,045.9	0.00	0.00	0.00
11,200.0	90.00	179.95	8,300.0	-3,145.9	2.9	3,145.9	0.00	0.00	0.00
11,300.0	90.00	179.95	8,300.0	-3,245.9	2.9	3,245.9	0.00	0.00	0.00
11,400.0	90.00	179.95	8,300.0	-3,345.9	3.0	3,345.9	0.00	0.00	0.00
11,500.0	90.00	179.95	8,300.0	-3,445.9	3.1	3,445.9	0.00	0.00	0.00
11,600.0	90.00	179.95	8,300.0	-3,545.9	3.2	3,545.9	0.00	0.00	0.00
11,700.0	90.00	179.95	8,300.0	-3,645.9	3.3	3,645.9	0.00	0.00	0.00
11,800.0	90.00	179.95	8,300.0	-3,745.9	3.4	3,745.9	0.00	0.00	0.00
11,900.0	90.00	179.95	8,300.0	-3,845.9	3.5	3,845.9	0.00	0.00	0.00
12,000.0	90.00	179.95	8,300.0	-3,945.9	3.6	3,945.9	0.00	0.00	0.00
12,100.0	90.00	179.95	8,300.0	-4,045.9	3.7	4,045.9	0.00	0.00	0.00
12,200.0	90.00	179.95	8,300.0	-4,145.9	3.8	4,145.9	0.00	0.00	0.00
12,300.0	90.00	179.95	8,300.0	-4,245.9	3.9	4,245.9	0.00	0.00	0.00
12,400.0	90.00	179.95	8,300.0	-4,345.9	3.9	4,345.9	0.00	0.00	0.00
12,500.0	90.00	179.95	8,300.0	-4,445.9	4.0	4,445.9	0.00	0.00	0.00
12,600.0	90.00	179.95	8,300.0	-4,545.9	4.1	4,545.9	0.00	0.00	0.00
12,702.1	90.00	179.95	8,300.0	-4,648.1	4.2	4,648.1	0.00	0.00	0.00
TD at 12702.1 - NBD Fed 35-2H PBHL									

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
NBD Fed 35-2H PBHL	0.00	0.00	8,300.0	-4,648.1	4.2	393,009.00	660,503.00	32° 4' 47.558 N	103° 56' 54.892 W
- plan hits target									
- Point									

Wolverine Directional, LLC

Planning Report

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well North Brushy Draw Fed 35-2H
Company:	RKI Exploration & Production	TVD Reference:	WELL @ 0.0ft (Original Well Elev)
Project:	Eddy County (NM83E)	MD Reference:	WELL @ 0.0ft (Original Well Elev)
Site:	Sec 35-T25S-R29E	North Reference:	True
Well:	North Brushy Draw Fed 35-2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	11-29-11		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
7,727.0	7,727.0	0.0	0.0	KOP - 10/100
8,627.0	8,300.0	-573.0	0.5	EOC - Hold to TD
12,702.1	8,300.0	-4,648.1	4.2	TD at 12702.1

N. BRUSHY DRAW FED 35-2H

FILL LINE →

KB elev = 3048

KB-Grd = 17.0'

30"

109"

46"

13 3/4" x 5000#

21"

52 1/2"

19.5"

23 1/2"

8"

CHECK VALVE

Mud Cross

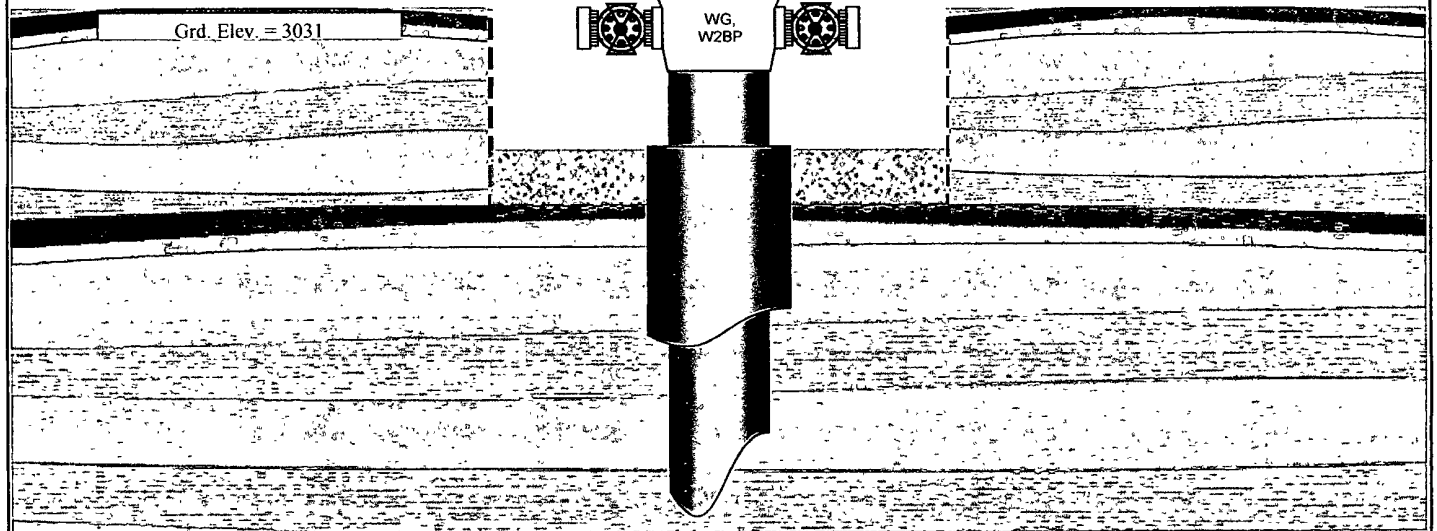
13 3/4", 5M

3M x 13 3/4", 5M

3M

WG, W28P

Grd. Elev. = 3031



Drilling Operations Choke Manifold 5M Service

Exhibit E-1 – Choke Manifold Diagram

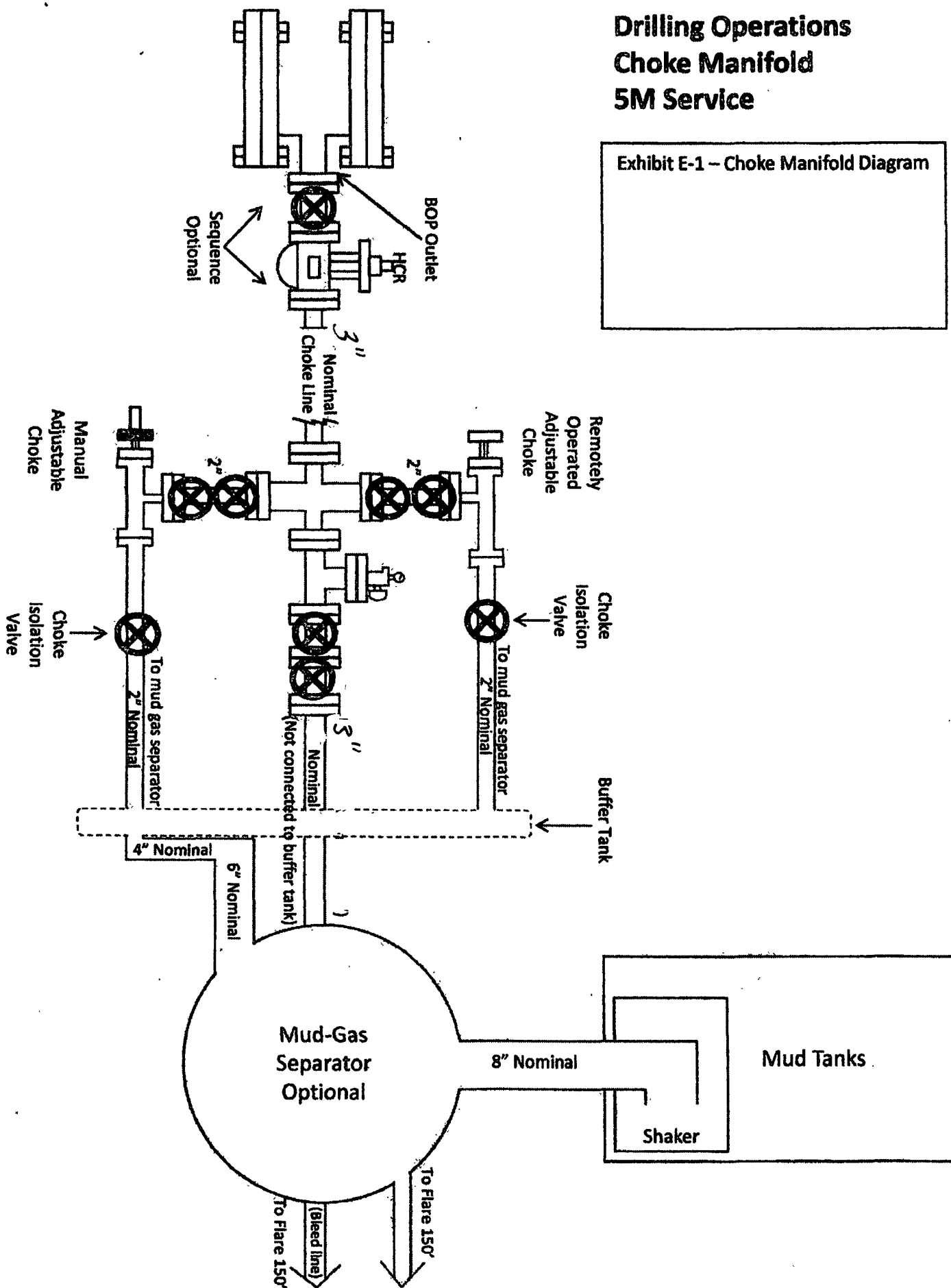
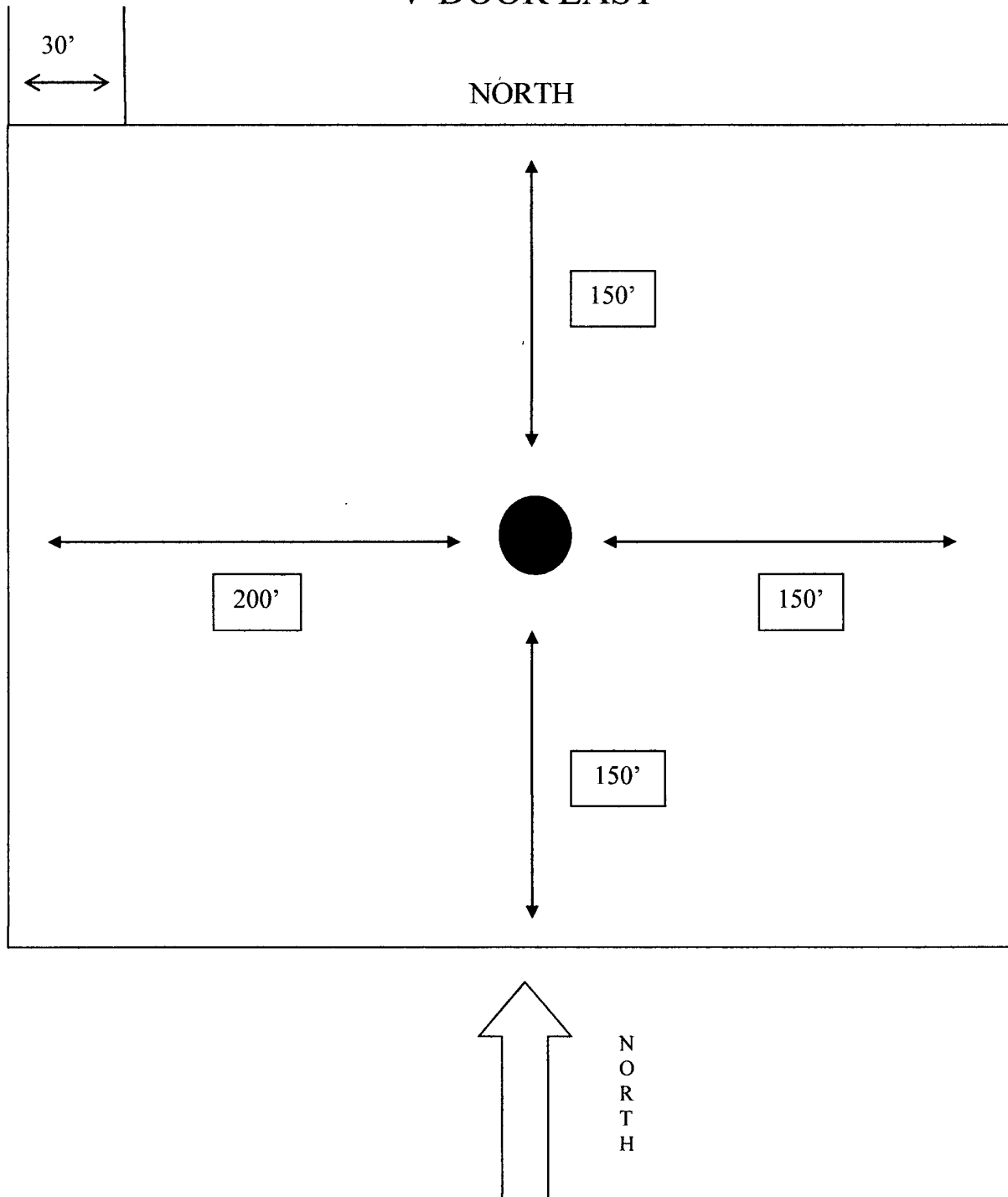


EXHIBIT 'A'

**Rig Plat Only
N. BRUSHY DRAW FED 35-2H
V-DOOR EAST**



RKI Exploration & Production
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

This well and its anticipated facility are not expected to have Hydrogen Sulfide releases. However, there may be Hydrogen Sulfide production in the nearby area. There are no private Residences in the area but a contingency plan has been orchestrated. RKI Exploration and Production will have a Company Representative available to rig personnel through out drilling or production operations. If hydrogen sulfide is detected or suspected, monitoring equipment will be acquired for monitoring and/or testing.

RKI Exploration & Production
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

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RKI Exploration & Production
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

General H2S Emergency Actions:

1. All personnel will immediately evacuate to an up-wind and if possible up-hill "safe area".
2. If for any reason a person must enter the hazardous area, they must wear a SCBA (Self Contained Breathing Apparatus).
3. Always use the "buddy system"
4. Isolate the well/problem if possible
5. Account for all personnel
6. Display the proper colors warning all unsuspecting personnel of the danger at hand.
7. Contact the Company personnel as soon as possible if not at the location (use the enclosed call list as instructed)

At this point the company representative will evaluate the situation and coordinate the necessary duties to bring the situation under control, and if necessary, the notification of the emergency response agencies and nearby residents.

EMERGENCY PROCEDURES FOR AN UNCONTROLLABLE RELEASE OF H2S

1. All personnel will don the self contained breathing apparatus
2. Remove all personnel to the "safe area" (always use the buddy system)
3. Contact company personnel if not on location]
4. Set in motion the steps to protect and or remove the general public to and upwind "safe area" Maintain strict security & safety procedures while dealing with the source.
5. No entry to any unauthorized personnel
6. Notify the appropriate agencies: City Police -- City Street(s)
 State Police -- State Rd.
 County Sheriff -- County Rd.
7. Call the NMOCD

RKI Exploration & Production LLC

Hydrogen Sulfide Contingency Plan For Drilling/Workover/Facility

If at this time the supervising person determines the release of H₂S cannot be contained to the site location and the general public is in harms way he will take the necessary steps to protect the workers and the public.

EMERGENCY CALL LIST: (Start and continue until ONE of these people has been contacted)

	OFFICE	MOBILE	HOME
RKI E&P	1-800-667-6958		
Gene Simer	575-885-1313	575-706-3225	575-885-6302
Tim Haddican	405-949-2329	405-823-2872	405-348-5515

EMERGENCY RESPONSE NUMBERS:

State Police	Eddy County		575 -748-9718
State Police	Lea County		575-392-5588
Sheriff	Eddy County		575-746-2701
Sheriff	Lea County		
Emergency Medical Service (Ambulance)	Eddy County		911 or 505-746-2701
	Lea County	Eunice	911 or 505-394-3258
Emergency Response	Eddy County SERC		575--476-9620
	Lea County		
Artesia Police Dept			575--746-5001
Artesia Fire Dept			575--746-5001
Carlsbad Police Dept			575-885-2111
Carlsbad Fire Dept			575--885-3125

EMERGENCY CALL LIST (CONT.)

Loco Hills Police Dept		575- 677-2349
Jal Police Dept		575-.395-2501
Jal Fire Dept		575-.395-2221
Jal Ambulance		575-.395-2221
Eunice Police Dept		575- 394-0112
Eunice Fire Dept		575-.394-3258
Eunice Ambulance		575-.394-3258
Hobbs Police Dept		575- .397-3365
Hobbs Fire Dept		575-.397-9308
NMOCD	District 1 (Lea, Roosevelt, Curry)	575- .393-6161
	District 2 (Eddy, Chavez)	575--748-1283
Lea County Information		575--393-8203
Callaway Safety	Eddy/Lea Counties	575--392-2973
BJ Services	Artesia	575--746-3140
	Hobbs	575--392-5556
Halliburton	Artesia	1-800-523-2482
	Hobbs	1-800-523-2482
Wild Well Control	Midland	432-550-6202
	Mobile	432-553-1166

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Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

PROTECTION OF THE GENERAL PUBLIC (ROE)

- 100 ppm at any public area (any place not associated with this site)
- 500 ppm at any public road (any road with the general public may travel)
- 100 ppm radius of ¼ mile in New Mexico will be assumed if there is insufficient data to do the calculations, and there is a reasonable expectation that H₂S could be present in concentrations greater than 100 ppm in the gas mixture

CALCULATIONS FOR THE 100 PPM (ROE) "PASQUILL-GIFFORD EQUATION"

$X = [(1.589) (\text{mole fraction}) (Q\text{-volume in std cu ft}) \text{ to the power of } (0.6258)]$

CALCULATION FOR THE 500 PPM ROE:

$X = [(.4546) (\text{mole fraction}) (Q - \text{volume in std cu ft}) \text{ to the power of } (0.6258)]$

Example:

If a well/facility has been determined to have 150 / 500 ppm H₂S in the gas mixture and the well/facility is producing at a gas rate of 100 MCFPD then:

150 ppm $X = [(1.589) (.00015) (100,000 \text{ cfd}) \text{ to the power of } (.6258)]$
 $X = 7 \text{ ft.}$

500 ppm $X = [(.4546) (.0005) (100,000 \text{ cfd}) \text{ to the power of } (.6258)]$
 $X = 3.3 \text{ ft.}$

(These calculations will be forwarded to the appropriate District NMOC D office when Applicable)

PUBLIC EVACUATION PLAN:

- Notification of the emergency response agencies of the hazardous condition and implement evacuation procedures.
- A trained person in H₂S safety shall monitor with detection equipment the H₂S concentration, wind and area exposure (ROE). This person will determine the outer perimeter of the hazardous area. The extent of the evacuation area will be determined from the data being collected. Monitoring shall continue until the situation has been resolved. (All monitoring equipment shall be UL approved, for use in class 1 groups A, B, C & D, Division 1, hazardous locations. All monitor will have a minimum capability of measuring H₂S, oxygen and flammable values.)

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Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

- Law enforcement shall be notified to set up necessary barriers and maintain such for the duration of the situation as well as aid in the evacuation procedure.
- The company supervising personnel shall stay in communication with all agencies through out the duration of the situation and inform such agencies when the situation has been contained and the effected area(s) is safe to enter.

PROCEDURE FOR IGNITING AN UNCONTROLABLE CONDITION:

1. Human life and/or property are in danger.
2. There is no hope of bringing the situation under control with the prevailing conditions at the site.

INSTRUCTION FOR IGNITION:

1. Two people are required. They must be equipped with positive pressure, self contained breathing apparatus and a "D" ring style full body, OSHA approved safety harness. Non flammable rope will be attached.
2. One of the people will be qualified safety person who will test the atmosphere for H₂S, oxygen and LFL. The other person will be the company supervisor; he is responsible for igniting the well.
3. Ignite up wind from a distance no closer than necessary. Make sure that where you ignite from has the maximum escape avenue available. A 25 mm flare gun shall be used, with a \pm 500 ft. range to ignite the gas.
4. Prior to ignition, make a final check with combustible gases.
5. Following ignition, continue with the emergency actions & procedures as before.

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Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

REQUIRED EMERGENCY EQUIPMENT:

1. **Breathing apparatus:**
 - Rescue packs (SCBA) – 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
 - Work/Escapes packs – 4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity
 - Emergency Escape Packs – 4 packs shall be stored in the doghouse for emergency evacuation.
2. **Signage & Flagging:**
 - One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
 - A colored conditioned flag will be on display, reflecting the condition at the site at the time.
3. **Briefing Area:**
 - Two perpendicular areas will be designated by signs and readily accessible.
4. **Wind Socks:**
 - Two windsocks will be placed in strategic locations, visible from all angles.
5. **H2S Detectors & Alarms:**
 - The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible at 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: (Gas sample tubes will be stored in the safety trailer)
 - Rig Floor
 - Bell Nipple
 - End of flow line or where well bore fluid are being discharged.
6. **Auxiliary Rescue Equipment:**
 - Stretcher
 - Two OSHA full body harness
 - 100 ft. 5/8 inch OSHA approved rope.
 - 1 – 20# class ABC fire extinguisher
 - Communication via cell phones on location and vehicles on location.

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Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

USING SELF CONTAINED BREATHING AIR EQUIPMENT (SCBA):

- (SCBA) SHOULD BE WORN WHEN ANY OF THE FOLLOWING ARE PERFORMED:
 - Working near the top or on the top of a tank
 - Disconnecting any line where H₂S can reasonably be expected
 - Sampling air in the area to determine if toxic concentration of H₂S can exist.
 - Working in areas where over 10 ppm on H₂S has been detected.
 - At any time there is a doubt as the level of H₂S in the area.
- All personnel shall be trained in the use of SCBA prior to working in a potentially hazardous location.
- Facial hair and standard eyeglasses are not allowed with SCBA.
- Contact lenses are never allowed with SCBA.
- Air quality shall be continuously checked during the entire operation.
- After each use, the SCBA unit shall be cleaned, disinfected, serviced and inspected.
- All SCBA shall be inspected monthly.

RESCUE AND FIRST AID FOR VICTIMS OF HYDROGEN SULFIDE (H₂S) POISONING:

- Do not panic
- Remain calm and think
- Get on the breathing apparatus

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Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

- Remove the victim to the safe breathing area as quickly as possible. Up wind and uphill from source or cross wind to achieve upwind.
- Notify emergency response personnel.
- Provide artificial respiration and or CPR, as necessary.
- Remove all contaminated clothing to avoid further exposure.
- A minimum of two personnel on location shall be trained in CPR and First Aid.

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Hydrogen Sulfide Contingency Plan For Drilling/Workover/Facility

H₂S is extremely toxic. The acceptable ceiling for eight hours of exposure is 10 ppm, which is .001% by volume. H₂S is approximately 20% heavier than air (Sp. Gr = 1.19) (Air = 1) and colorless. It forms an explosive mixture with air between 4.3% and 46%. By volume hydrogen sulfide is almost as toxic as hydrogen cyanide and is 5-6 times more toxic than carbon monoxide.

COMMON NAME	CHEMICAL ABBREV.	SPECIFIC GRVTY.	THRESHOLD LIMITS	HAZARDOUS LIMITS	LETHAL CONCENTRATIONS
Hydrogen Sulfide	H ₂ S	1.19	10 ppm 15 ppm	100 ppm/hr	600ppm
Hydrogen Cyanide	HCN	0.94	10 ppm	150 ppm/hr	300 ppm
Sulfur Dioxide	SO ₂	2.21	2 ppm	N/A	1000 ppm
Chlorine	Cl ₂	2.45	1 ppm	4 ppm/hr	1000 ppm
Carbon Monoxide	CO	0.97	50 ppm	400 ppm/hr	1000 ppm
Carbon Dioxide	CO ₂	1.52	5000 ppm	5%	10%
Methane	CH ₄	0.55	90,000	Combustible @ 5%	N/A

Threshold Limit: Concentrations at which it is believed that all workers may be repeatedly exposed, day after day without adverse effects.

Hazardous Limit: Concentrations that may cause death.

Concentrations: Concentrations that will cause death with short term exposure.

Threshold Limit: NIOSH guide to chemical hazards
(10 ppm)

PHYSICAL EFFECTS OF HYDROGEN SULFIDE:

CONCENTRATION	PHYSICAL EFFECTS
.001% 10 ppm	Obvious and unpleasant odor. Safe for 8 hr. exposure
.005% 50 ppm	Can cause some flu like symptoms and can cause pneumonia.
.01% 100 ppm	Kills the sense of smell in 3-15 minutes. May irritate the eyes and throat.
.02% 200 ppm	Kills the sense of smell rapidly. Severely irritates the eyes and throat. Severe flu-like symptoms after 4 or more hours May cause lung damage and or death.
.06% 600 ppm	Loss of consciousness quickly, death will result if not rescued promptly.

H2S Briefing Areas & Alarm Locations

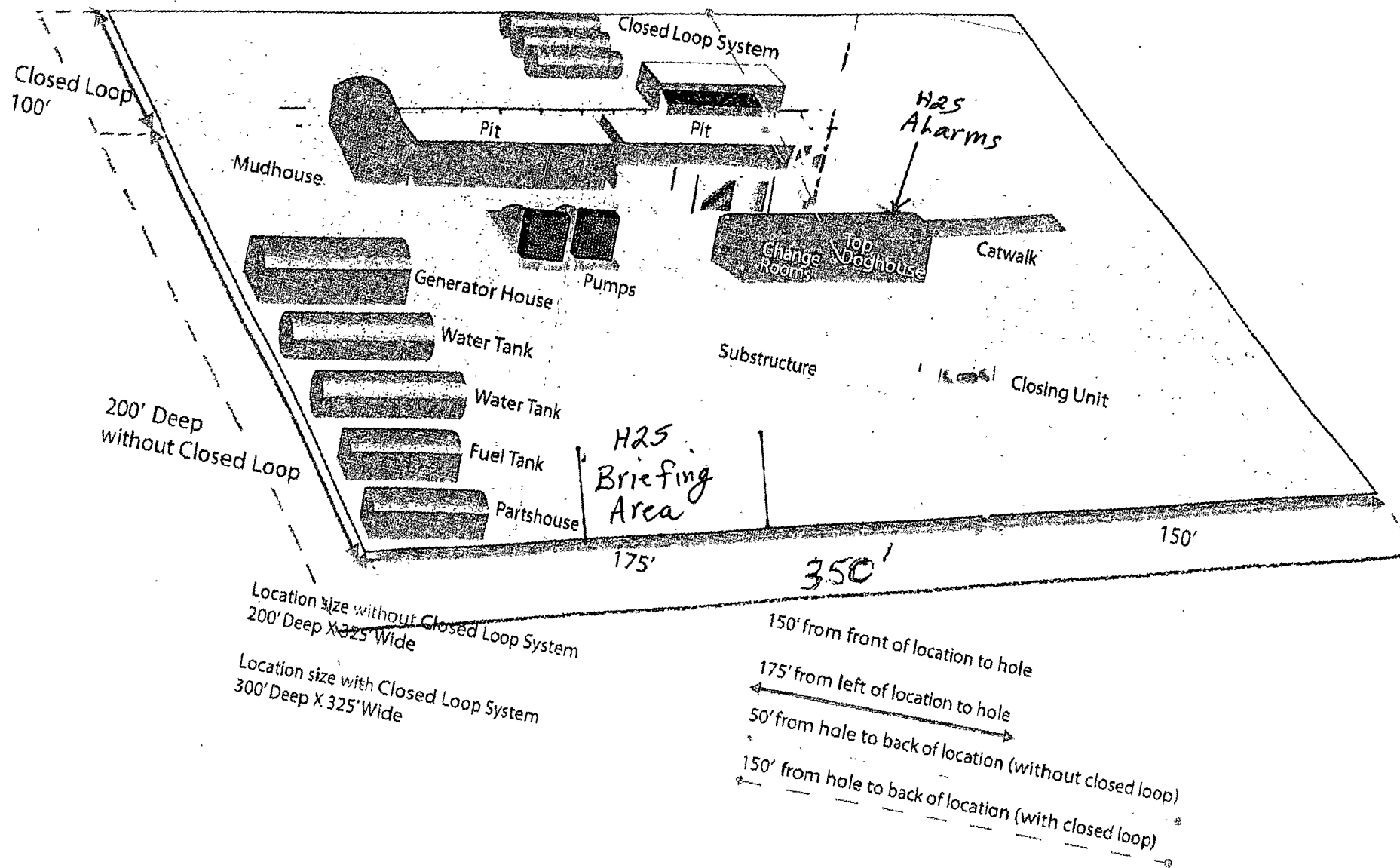
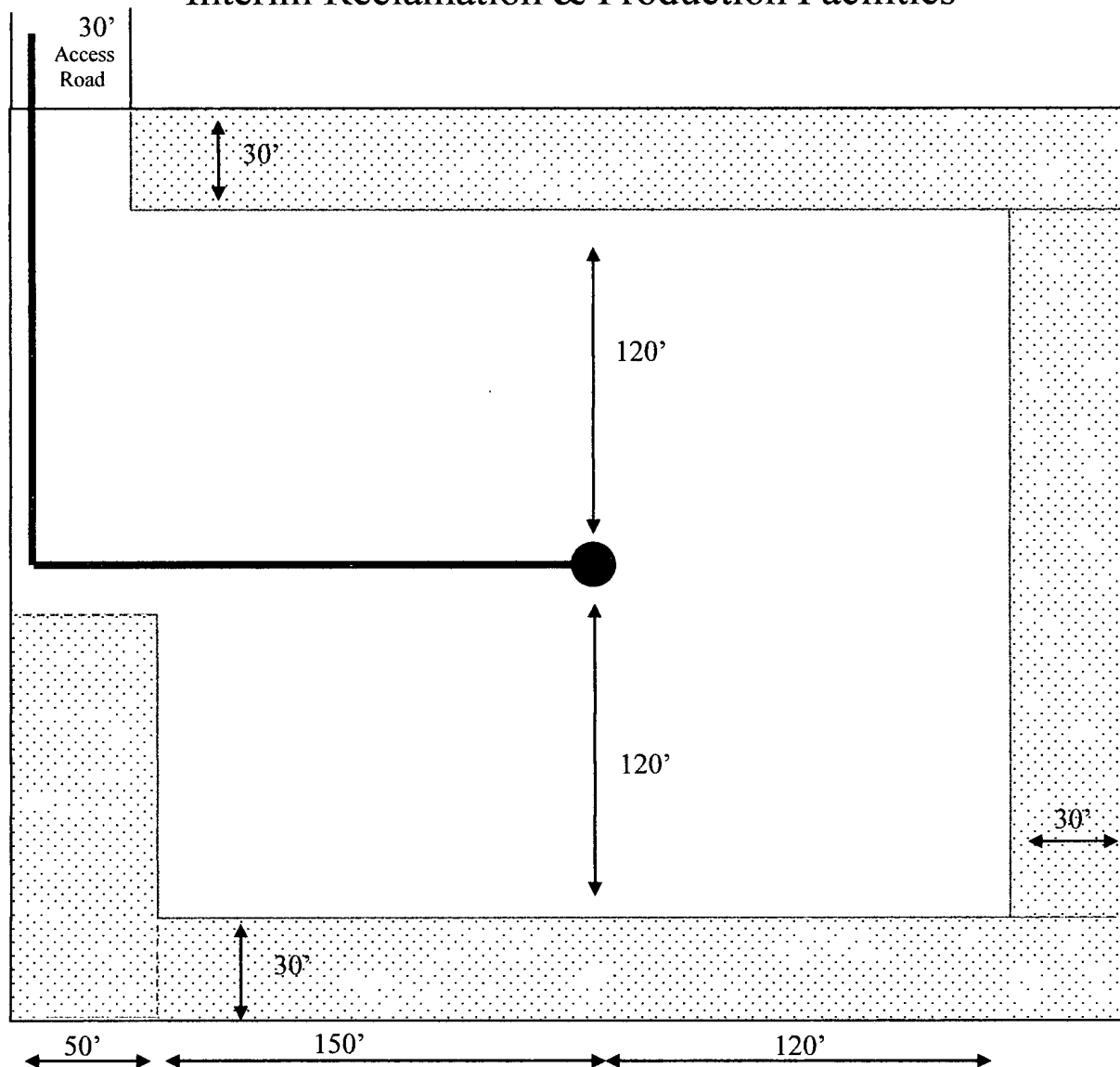


EXHIBIT 'B'
N. Brushy Draw 35-2H

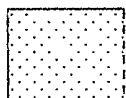
Interim Reclamation & Production Facilities



LEGEND



Well Bore



Interim Reclamation



Production Facilities



NORTH

PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	RKI EXPLORATION & PRODUCTION
LEASE NO.:	NM54290
WELL NAME & NO.:	2H NORTH BRUSHY DRAW FEDERAL 35
SURFACE HOLE FOOTAGE:	330' FNL & 660' FEL
BOTTOM HOLE FOOTAGE:	330' FSL & 660' FEL
LOCATION:	Section 35, T.25 S., R.29 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
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- ☐ **Construction**
 - Notification
 - Topsoil
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 - Federal Mineral Material Pits
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- ☐ **Road Section Diagram**
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 - Medium Cave/Karst
 - Logging Requirements
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- ☐ **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)

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-6235 at least 3 working days prior to commencing construction of the access road and/or well pad.

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

B. TOPSOIL

The operator shall stockpile the topsoil in a low profile manner in order to prevent wind/water erosion of the topsoil. The topsoil to be stripped is approximately 4 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.

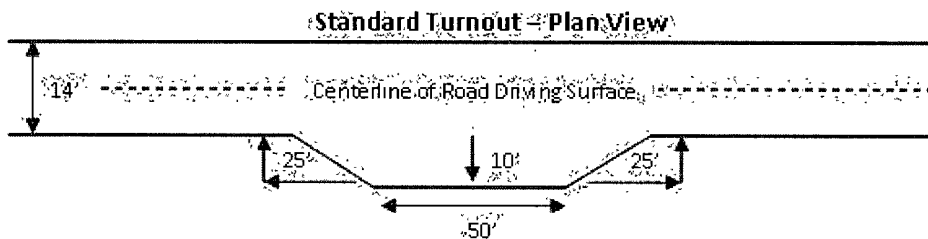
Crowning

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

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:

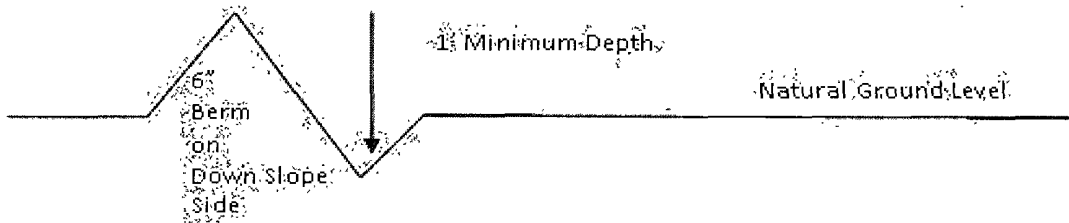


Drainage

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

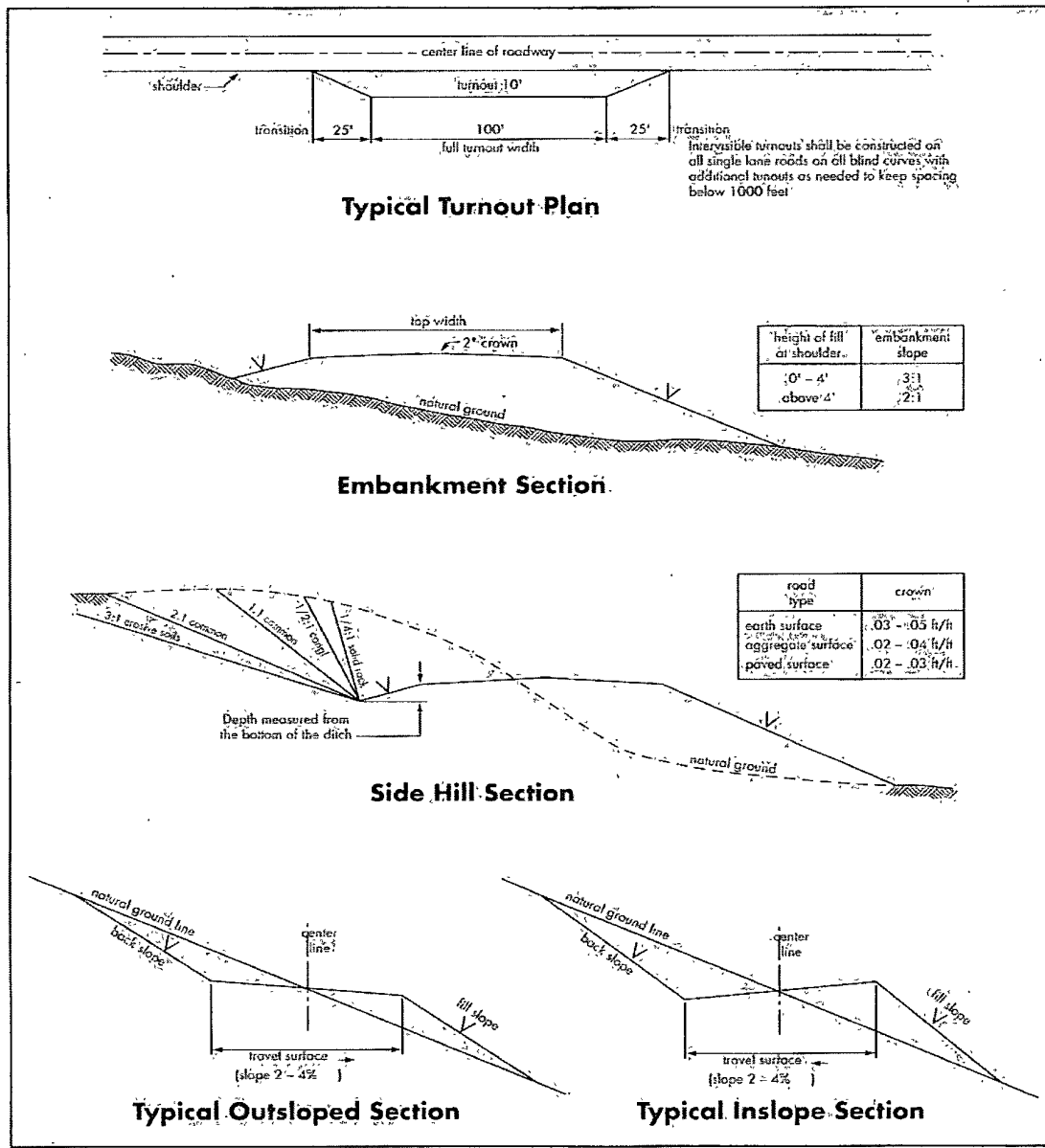
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

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 is located, this does not include the dog house or stairway area.
4. **The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. CASING

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.).

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time prior to drilling out for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

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

Medium cave/karst.

Possible water flows in the Salado and Delaware Mountain groups.

Possible lost circulation in the Delaware and Bone Spring formations.

1. The **13-3/8 inch** surface casing shall be set at **approximately 575 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the **9-5/8 inch** intermediate casing, **which is to be set in the Lamar or Castile at approximately 3200', is:**
 - ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.

3. The minimum required fill of cement behind the 7 inch production casing is:
 - a. First stage to DV tool:
 - ☒ 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.
Additional cement may be required – excess calculates to 23%.
 - b. Second stage above DV tool:
 - ☒ Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.
4. Cement not required on the 4-1/2" casing. **Packer system being used.**
5. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.
 - a. **For surface casing only:** If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.
3. 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, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin

after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

- b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (18 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- c. The results of the test shall be reported to the appropriate BLM office.
- d. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**
- e. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

D. DRILL STEM TEST

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

E. WASTE MATERIAL AND FLUIDS

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

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

CRW 022712

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

Surface Pipeline COAs.

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.

6. (a) Where a polyline is laid along a County Road, the operator will lay that polyline ten (10) feet out from the center of the ditch to prevent obstructing County Maintenance activities.
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.

16. 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, powerline 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.

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.

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

<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