

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. SHL: NM-100558 / BHL: NM-102036	
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator RKI EXPLORATION & PRODUCTION, LLC.		7. If Unit or CA Agreement, Name and No.	
3a. Address 210 PARK AVENUE, SUITE 900 OKLAHOMA CITY, OK. 73102		8. Lease Name and Well No. RDX FED COM 10-5H	
3b. Phone No. (include area code) 405-996-5748 (BRENT UMBERHAM)		9. API Well No. 30-015-41087	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 2310 FSL & 2310 FEL, SECTION 10, T. 26 S., R. 30 E. At proposed prod. zone 330 FSL & 2245 FEL, SECTION 15, T. 26 S., R. 30 E.		10. Field and Pool of Exploration UNDESIGNATED BONE SPRING, South	
11. Sec., T. R. M. or Blk. and Survey or Area SHL: SECTION 10, T. 26 S., R. 30 E. BHL: SECTION 15, T. 26 S., R. 30 E.		12. County or Parish EDDY	
14. Distance in miles and direction from nearest town or post office* 14 MILES SOUTHEAST OF MALAGA, NM		13. State NM	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) SHL: 330' BHL: 330'		16. No. of acres in lease SHL: 960 BHL: 320	
17. Spacing Unit dedicated to this well 240		18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. SHL: 1120' to 10-4 BHL: 700' to 15-4	
19. Proposed Depth MD: 15,002' TVD: 7,908'		20. BLM/BIA Bond No. on file NLM-NMB-000460	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3138.3' GL		22. Approximate date work will start*	
23. Estimated duration 25 DAYS			

24. Attachments

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

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

25. Signature <i>Barry W. Hunt</i>	Name (Printed/Typed) BARRY W. HUNT	Date 11/27/12
Title PERMIT AGENT FOR RKI EXPLORATION & PRODUCTION, LLC.		
Approved by (Signature) <i>/s/ Don Peterson</i>	Name (Printed/Typed) <i>/s/ Don Peterson</i>	Date FEB - 5 2013
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

Approval Subject to General Requirements
& Special Stipulations Attached

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
DISTRICT II
511 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
DISTRICT III
1000 Rio Brazos Rd., Artesia, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-41087	Pool Code 13354	Pool Name Corral Canyon UNDESIGNATED BONE SPRING
Property Code 39714	Property Name RDX FED COM 10	Well Number 5H
GRID No. 246289	Operator Name RKI EXPLORATION & PRODUCTION	Elevation 3138.3

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	10	26 S	30 E		2310	SOUTH	2310	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
O	15	26 S	30 E		330	SOUTH	2245	EAST	EDDY
Dedicated Acres 240	Joint or Infill	Consolidated Code	Order No.						

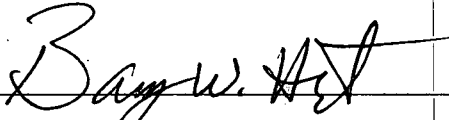
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

	RDX FED COM 10-5H NMSP-E (NAD 83) Y = 384524.1' N X = 685525.2' W LAT. = N32°03'22.62" LONG. = W103°52'04.48"	OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Barry W. Hunt</i> 11/27/12 Signature Date Barry W. Hunt Print Name E-mail Address
	NMSP-E (NAD 27) Y = 384466.5' N X = 644339.2' E LAT. = 32.056157309° LONG. = -103.867432936°	SURVEYORS CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. June 6, 2012 Date of Survey Signature and Seal of Professional Surveyor
	RDX FED COM 10-5H NMSP-E (NAD 83) Y = 377225.9 X = 685647.8 LAT. = N32° 02' 10.39" LONG. = W103° 52' 03.40"	JAMES E. TOMPKINS NEW MEXICO 14729 REGISTERED PROFESSIONAL LAND SURVEYOR <i>James E. Tompkins</i> Job No. WTC48545 JAMES E. TOMPKINS 14729 Certificate Number

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 RKI Exploration and Production, LLC am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U. S. C. 1001 for the filing of false statements. Executed this 27th. day of November 2012.

Signed: _____



Printed Name: Barry Hunt

Position: Agent for RKI Exploration & Production, LLC.

Address: 1403 Springs Farm Place, Carlsbad, NM 88220

Telephone: (575) 361-4078

E-mail: specialtpermitting@gmail.com

RKI Exploration & Production LLC

3817 NW Expressway, Suite 950, Oklahoma City, OK 73112
405-949-2221 Fax 405-949-2223

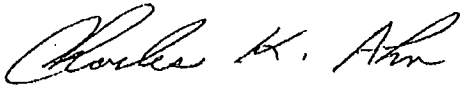
June 25th, 2012

To Whom It May Concern:

Please be advised that Mr. Barry Hunt has been retained by RKI Exploration & Production to sign as our agent on Application for Permit to Drill (APD) as well as Right of Way applications within the States of New Mexico and Texas.

If you have any questions or require additional information, please feel free to contact me at (405) 996-5771.

Sincerely,



Charles K. Ahn
EH&S/Regulatory Manager

DRILLING PLAN

Well RDX 10 Fed Com 5H

Location Surface: 2,310 FSL 2,310 FEL Sec 10-26S-30E
 Bottom Hole: 330 FSL 2,245 FEL Sec 15-26S-30E

County Eddy

State New Mexico

- 1) The elevation of the unprepared ground is 3,138 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 15,002 feet and run casing.
 This equipment will then be rigged down and the well will be completed with a workover rig.

4) Proposed depth is: 7,908 feet TVD 15,002 feet MD

5) Estimated tops:

	MD	TVD	
Alluvium		*	
Rustler	798	798	
Salado	1,140	1,140	
Castile	1,589	1,589	
Lamar Lime	3,361	3,361	
Base of Lime	3,548	3,548	
Delaware Top	3,578	3,578	
Bell Canyon Sand	3,578	3,578	Oil 1,574 psi
Cherry Canyon Sand	4,654	4,654	Oil 2,048 psi
Brushy Canyon Sand	5,710	5,710	Oil 2,512 psi
KOP	7,430	7,430	
Bone Spring Lime	7,501	7,500	
Landing Point (Avalon Shale)	8,180	7,908	Oil 3,480 psi
TD	15,002	7,908	165 Degrees F

*Fresh water anticipated at approximately 200 feet.

6) Pressure control equipment:

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram type (3,000 psi WP) preventer, a bag-type annular preventer (3,000 psi WP), and rotating head. Both units will be hydraulically operated and the ram type preventer will be equipped with blind rams on top and pipe rams (sized to accommodate the drill pipe size being utilized) on bottom. A 13 3/8" SOW x 13 5/8" 5M casing head will be installed on the 13 3/8" casing and utilized until total depth is reached. All BOP and associated equipment will be tested to 3,000 psi and the annular will be tested to 1,500 psi after setting each casing string. The 13 3/8" and 9 5/8" casing will be tested to .22 psi per ft of casing string length or 1,500 psi whichever is greater, but not to exceed 70% of the minimum yield. *5 1/2" shall be tested also*
 Pipe rams will be operated and checked each 24 hour period and each time the drill string is out of the hole. These function test will be documented on the daily driller's log.

A drilling spool or blowout preventer with 2 side outlets (choke side shall be 3" minimum diameter, kill side shall be at least 2" diameter).

2 kill line valves, one of which will be a check valve.

2 chokes on the manifold along with a pressure gauge.

Upper kelly cock valve with handle available.

Safety valve and subs to fit all drill string connections in use.

All BOP equipment connections subjected to pressure will be flanged, welded, or clamped.

Fill up line above the upper most preventer.

not
needed
below
and
cog.

7) Casing program: ALL NEW CASING

Hole Size	Top	Bottom	OD Csg	Wt/Grade	Connection	Collapse Design Factor	Burst Design Factor	Tension Design Factor
		See COA						
17 1/2"	0	825' 13 3/8"	54.5#/J-55	ST&C	3.11	15.04	11.43	
12 1/2"	0	3425' 9 5/8"	40#/J-55	LT&C	1.34	5.24	3.80	
8 3/4"	0	15,002 5 1/2"	17#/HCP-110	LT&C	1.30	1.55	4.73	
Collapse	1.125							
Burst	1.0							
Tension	2.0							

8) Cement program:

Surface 17 1/2" hole
Pipe OD 13 3/8"
Setting Depth ~~825 ft~~ 925' see COA
Annular Volume 0.69462 cf/ft
Excess 0.5 50 %
Total Annular Volume 590 cf
With Excess 886 cf
Lead 506 sx 1.75 cf/sk 13.5 ppg
Tail 200 sx 1.34 cf/sk 14.8 ppg
Lead: "C" + 4% PF20 (bentonite gel) + 2% PF1 (calcium chloride) + .125 pps PF29 (cellophane) + .2% PF46 (antifoam)
Tail: "C" + 1% PF1 (calcium chloride)

Top of cement: Surface

Intermediate 12 1/2" hole
Pipe OD 9 5/8"
Setting Depth ~~3425 ft~~ 3625' see COA
Annular Volume 0.31318 cf/ft 0.3627 cf/ft
Excess 0.5 50 %
Total Annular Volume 1113 cf
With Excess 1670 cf
Lead 678 sx 2.07 cf/sk 12.6 ppg
Tail 200 sx 1.33 cf/sk 14.8 ppg
Lead: 35/65 Poz "C" + 5% PF44 (salt) + 6% PF20 bentonite gel) + 3 pps PF42 (KolSeal) + .125 pps PF29 (cellophane) + .2% PF46 + L931% PF1 (calcium chloride)
Tail: "C" + .2% PF13 (retarder)

Top of cement: Surface

Production 8 3/4" hole
Pipe OD 5 1/2"
Setting Depth 15,002 ft
Annular Volume 0.2526 cf/ft 0.26074 cf/ft 300 ft
Excess 0.25 25 %
Total Annular Volume 3,003 cf
With Excess 3,753 cf
DV Tool Depth 5,500 ft

Stage 1

Lead: 1,604 sx 1.87 cf/sk 13.0 ppg
Lead: PVL + 30% PF151 (calcium carbonate) + 5% PF174 (expanding cement) + .7% PF606 (gel suppressant) + .2% PF153 (anti settling agent) + .5% PF13

Top of cement: DV tool

Stage 2

Lead: 209 sx 2.04 cf/sk 12.6 ppg
Tail: 175 sx 1.87 cf/sk 13.0 ppg
Lead: 35/65 Poz "C" + 5% PF44 + 6% PF20 + .2% PF13 + .125 pps PF29 + .25 pps PF46
Tail: PVL + 30% PF151 (calcium carbonate) + 5% PF174 (expanding cement) + .7% PF606 (gel suppressant) + .2% PF153 (anti settling agent) + .5% PF13

Top of cement: 3,125 ft

9) Mud program:

See COA

Top	Bottom	Mud Wt.	Vis	PV	YP	Fluid Loss	Type System
0	825 <i>925</i>	8.5 to 8.9	32 to 36	1 - 6	1 - 6	NC	Fresh Water
825 <i>925</i>	3,425 <i>3625</i>	9.8 to 10.0	28 to 30	1 - 3	1 - 3	NC	Brine
3,425 <i>3625</i>	15,002	8.9 to 9.1	28 to 36	1 - 3	1 - 3	NC	Fresh Water

10) Logging, coring, and testing program:

No drillstem test are planned

KOP to intermediate: CNL, Caliper, GR, DLL,

Intermediate to surface: CNL, GR

No coring is planned

11) Potential hazards:

No abnormal pressure or temperature is expected. No H2S is known to exist in the area.

Lost circulation is not anticipated, but lost circulation equipment will be on location and readily available if needed.

12) Anticipated start date

ASAP

Duration

25 days

RKI Exploration & Production

Project: Eddy County (NM83E)
Site: Sec 10-T26S-R30E
Well: RDX 10-5H
Wellbore: Wellbore #1
Design: Prelim Plan



M Azimuths to True North
Magnetic North: 7.54°
Magnetic Field
Strength: 48367.9snT
Dip Angle: 59.95°
Date: 11/08/2012
Model: IGRF2010

Wolverine
Directional

WELL DETAILS: RDX 10-5H

Ground Level: 0.0
+N/-S +E/-W Northing Easting Latitude Longitude
0.0 0.0 384524.10 685525.20 32° 3' 22.616 N 103° 52' 4.482 W
SHL: 2310' FSL / 2310' FEL
BHL: 330' FSL / 2245' FEL

SECTION DETAILS

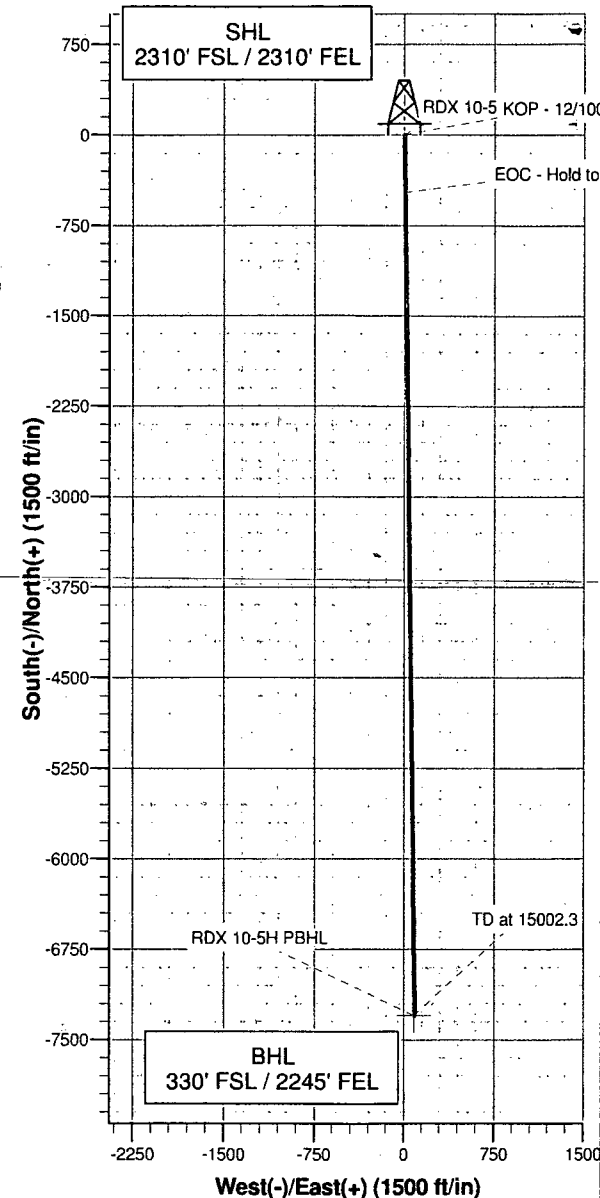
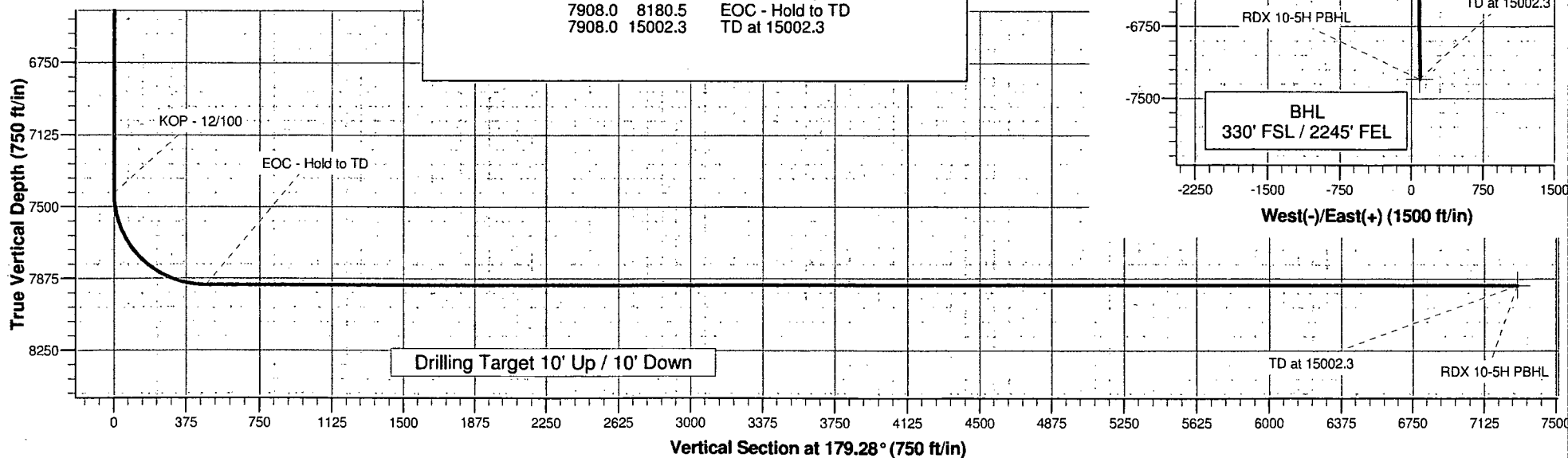
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	7430.5	0.00	0.00	7430.5	0.0	0.0	0.00	0.00	0.0	
3	8180.5	90.00	179.28	7908.0	-477.4	6.0	12.00	179.28	477.5	
4	15002.3	90.00	179.28	7908.0	-7298.7	91.1	0.00	0.00	7299.2	RDX 10-5H PBHL

PROJECT TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
RDX 10-5H PBHL	7908.0	-7298.7	91.1	377225.90	685647.80	Point

Annotations

TVD	MD	Annotation
7430.5	7430.5	KOP - 12/100
7908.0	8180.5	EOC - Hold to TD
7908.0	15002.3	TD at 15002.3



RKI Exploration & Production

Eddy County (NM83E)

Sec 10-T26S-R30E

RDX 10-5H

Wellbore #1

Plan: Prelim Plan

Standard Planning Report

08 November, 2012

Wolverine Directional, LLC

Planning Report

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well RDX-10-5H
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 10-T26S-R30E	North Reference:	True
Well:	RDX-10-5H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Prelim Plan		

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 10-T26S-R30E		
Site Position:		Northing:	377,225.90 ft
From:	Map	Easting:	685,647.80 ft
Position Uncertainty:	0.0 ft	Slot Radius:	"
		Latitude:	32° 2' 10.387 N
		Longitude:	103° 52' 3.423 W
		Grid Convergence:	0.25 °

Well	RDX-10-5H					
Well Position	+N/-S	0.0 ft	Northing:	377,225.90 ft	Latitude:	32° 2' 10.387 N
	+E/-W	0.0 ft	Easting:	685,647.80 ft	Longitude:	103° 52' 3.423 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	2012/11/08	7.54	59.93	48,356

Design	Prelim Plan			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	359.28

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(ft)	(ft)	Rate	Rate	Rate	(°)	
(ft)			(ft)			(°/100ft)	(°/100ft)	(°/100ft)		
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
7,430.5	0.00	0.00	7,430.5	0.0	0.0	0.00	0.00	0.00	0.00	
8,180.5	90.00	359.28	7,908.0	477.4	-6.0	12.00	12.00	0.00	359.28	
15,002.3	90.00	359.28	7,908.0	7,298.7	-91.1	0.00	0.00	0.00	0.00	RDX 10-5H PBHL

Wolverine Directional, LLC

Planning Report

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well RDX-10-5H
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 10-T26S-R30E	North Reference:	True
Well:	RDX-10-5H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Prelim Plan		

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 RDX-10-5H
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 10-T26S-R30E	North Reference:	True
Well:	RDX-10-5H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Prelim Plan		

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	
7,430.5	0.00	0.00	7,430.5	0.0	0.0	0.0	0.00	0.00	0.00	
KOP: 12/100										
7,450.0	2.34	359.28	7,450.0	0.4	0.0	0.4	12.00	12.00	0.00	
7,475.0	5.34	359.28	7,474.9	2.1	0.0	2.1	12.00	12.00	0.00	
7,500.0	8.34	359.28	7,499.8	5.0	-0.1	5.0	12.00	12.00	0.00	
7,525.0	11.34	359.28	7,524.4	9.3	-0.1	9.3	12.00	12.00	0.00	
7,550.0	14.34	359.28	7,548.8	14.9	-0.2	14.9	12.00	12.00	0.00	
7,575.0	17.34	359.28	7,572.8	21.7	-0.3	21.7	12.00	12.00	0.00	
7,600.0	20.34	359.28	7,596.5	29.8	-0.4	29.8	12.00	12.00	0.00	
7,625.0	23.34	359.28	7,619.7	39.1	-0.5	39.1	12.00	12.00	0.00	
7,650.0	26.34	359.28	7,642.4	49.6	-0.6	49.6	12.00	12.00	0.00	
7,675.0	29.34	359.28	7,664.5	61.2	-0.8	61.2	12.00	12.00	0.00	
7,700.0	32.34	359.28	7,685.9	74.0	-0.9	74.0	12.00	12.00	0.00	
7,725.0	35.34	359.28	7,706.7	88.0	-1.1	88.0	12.00	12.00	0.00	
7,750.0	38.34	359.28	7,726.7	102.9	-1.3	102.9	12.00	12.00	0.00	
7,775.0	41.34	359.28	7,745.9	119.0	-1.5	119.0	12.00	12.00	0.00	
7,800.0	44.34	359.28	7,764.2	135.9	-1.7	136.0	12.00	12.00	0.00	
7,825.0	47.34	359.28	7,781.6	153.9	-1.9	153.9	12.00	12.00	0.00	
7,850.0	50.34	359.28	7,798.1	172.7	-2.2	172.7	12.00	12.00	0.00	
7,875.0	53.34	359.28	7,813.5	192.3	-2.4	192.4	12.00	12.00	0.00	
7,900.0	56.34	359.28	7,827.9	212.8	-2.7	212.8	12.00	12.00	0.00	
7,925.0	59.34	359.28	7,841.2	233.9	-2.9	234.0	12.00	12.00	0.00	
7,950.0	62.34	359.28	7,853.4	255.8	-3.2	255.8	12.00	12.00	0.00	
7,975.0	65.34	359.28	7,864.4	278.2	-3.5	278.2	12.00	12.00	0.00	
8,000.0	68.34	359.28	7,874.3	301.2	-3.8	301.2	12.00	12.00	0.00	
8,025.0	71.34	359.28	7,882.9	324.6	-4.1	324.7	12.00	12.00	0.00	
8,050.0	74.34	359.28	7,890.3	348.5	-4.4	348.6	12.00	12.00	0.00	
8,075.0	77.34	359.28	7,896.4	372.8	-4.7	372.8	12.00	12.00	0.00	
8,100.0	80.34	359.28	7,901.2	397.3	-5.0	397.3	12.00	12.00	0.00	
8,125.0	83.34	359.28	7,904.8	422.0	-5.3	422.1	12.00	12.00	0.00	
8,150.0	86.34	359.28	7,907.0	446.9	-5.6	447.0	12.00	12.00	0.00	
8,175.0	89.34	359.28	7,908.0	471.9	-5.9	471.9	12.00	12.00	0.00	

Wolverine Directional, LLC

Planning Report

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well RDX-10-5H
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 10-T26S-R30E	North Reference:	True
Well:	RDX 10-5H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Prelim Plan		

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)
8,180.5	90.00	359.28	7,908.0	477.4	-6.0	477.5	12.00	12.00	0.00
EOC - Hold to TD									
8,200.0	90.00	359.28	7,908.0	496.9	-6.2	496.9	0.00	0.00	0.00
8,300.0	90.00	359.28	7,908.0	596.9	-7.5	596.9	0.00	0.00	0.00
8,400.0	90.00	359.28	7,908.0	696.9	-8.7	696.9	0.00	0.00	0.00
8,500.0	90.00	359.28	7,908.0	796.9	-9.9	796.9	0.00	0.00	0.00
8,600.0	90.00	359.28	7,908.0	896.9	-11.2	896.9	0.00	0.00	0.00
8,700.0	90.00	359.28	7,908.0	996.9	-12.4	996.9	0.00	0.00	0.00
8,800.0	90.00	359.28	7,908.0	1,096.8	-13.7	1,096.9	0.00	0.00	0.00
8,900.0	90.00	359.28	7,908.0	1,196.8	-14.9	1,196.9	0.00	0.00	0.00
9,000.0	90.00	359.28	7,908.0	1,296.8	-16.2	1,296.9	0.00	0.00	0.00
9,100.0	90.00	359.28	7,908.0	1,396.8	-17.4	1,396.9	0.00	0.00	0.00
9,200.0	90.00	359.28	7,908.0	1,496.8	-18.7	1,496.9	0.00	0.00	0.00
9,300.0	90.00	359.28	7,908.0	1,596.8	-19.9	1,596.9	0.00	0.00	0.00
9,400.0	90.00	359.28	7,908.0	1,696.8	-21.2	1,696.9	0.00	0.00	0.00
9,500.0	90.00	359.28	7,908.0	1,796.8	-22.4	1,796.9	0.00	0.00	0.00
9,600.0	90.00	359.28	7,908.0	1,896.8	-23.7	1,896.9	0.00	0.00	0.00
9,700.0	90.00	359.28	7,908.0	1,996.8	-24.9	1,996.9	0.00	0.00	0.00
9,800.0	90.00	359.28	7,908.0	2,096.8	-26.2	2,096.9	0.00	0.00	0.00
9,900.0	90.00	359.28	7,908.0	2,196.8	-27.4	2,196.9	0.00	0.00	0.00
10,000.0	90.00	359.28	7,908.0	2,296.8	-28.7	2,296.9	0.00	0.00	0.00
10,100.0	90.00	359.28	7,908.0	2,396.7	-29.9	2,396.9	0.00	0.00	0.00
10,200.0	90.00	359.28	7,908.0	2,496.7	-31.2	2,496.9	0.00	0.00	0.00
10,300.0	90.00	359.28	7,908.0	2,596.7	-32.4	2,596.9	0.00	0.00	0.00
10,400.0	90.00	359.28	7,908.0	2,696.7	-33.7	2,696.9	0.00	0.00	0.00
10,500.0	90.00	359.28	7,908.0	2,796.7	-34.9	2,796.9	0.00	0.00	0.00
10,600.0	90.00	359.28	7,908.0	2,896.7	-36.2	2,896.9	0.00	0.00	0.00
10,700.0	90.00	359.28	7,908.0	2,996.7	-37.4	2,996.9	0.00	0.00	0.00
10,800.0	90.00	359.28	7,908.0	3,096.7	-38.7	3,096.9	0.00	0.00	0.00
10,900.0	90.00	359.28	7,908.0	3,196.7	-39.9	3,196.9	0.00	0.00	0.00
11,000.0	90.00	359.28	7,908.0	3,296.7	-41.2	3,296.9	0.00	0.00	0.00
11,100.0	90.00	359.28	7,908.0	3,396.7	-42.4	3,396.9	0.00	0.00	0.00
11,200.0	90.00	359.28	7,908.0	3,496.7	-43.7	3,496.9	0.00	0.00	0.00
11,300.0	90.00	359.28	7,908.0	3,596.6	-44.9	3,596.9	0.00	0.00	0.00
11,400.0	90.00	359.28	7,908.0	3,696.6	-46.2	3,696.9	0.00	0.00	0.00
11,500.0	90.00	359.28	7,908.0	3,796.6	-47.4	3,796.9	0.00	0.00	0.00
11,600.0	90.00	359.28	7,908.0	3,896.6	-48.7	3,896.9	0.00	0.00	0.00
11,700.0	90.00	359.28	7,908.0	3,996.6	-49.9	3,996.9	0.00	0.00	0.00
11,800.0	90.00	359.28	7,908.0	4,096.6	-51.1	4,096.9	0.00	0.00	0.00
11,900.0	90.00	359.28	7,908.0	4,196.6	-52.4	4,196.9	0.00	0.00	0.00
12,000.0	90.00	359.28	7,908.0	4,296.6	-53.6	4,296.9	0.00	0.00	0.00
12,100.0	90.00	359.28	7,908.0	4,396.6	-54.9	4,396.9	0.00	0.00	0.00
12,200.0	90.00	359.28	7,908.0	4,496.6	-56.1	4,496.9	0.00	0.00	0.00
12,300.0	90.00	359.28	7,908.0	4,596.6	-57.4	4,596.9	0.00	0.00	0.00
12,400.0	90.00	359.28	7,908.0	4,696.6	-58.6	4,696.9	0.00	0.00	0.00
12,500.0	90.00	359.28	7,908.0	4,796.6	-59.9	4,796.9	0.00	0.00	0.00
12,600.0	90.00	359.28	7,908.0	4,896.5	-61.1	4,896.9	0.00	0.00	0.00
12,700.0	90.00	359.28	7,908.0	4,996.5	-62.4	4,996.9	0.00	0.00	0.00
12,800.0	90.00	359.28	7,908.0	5,096.5	-63.6	5,096.9	0.00	0.00	0.00
12,900.0	90.00	359.28	7,908.0	5,196.5	-64.9	5,196.9	0.00	0.00	0.00
13,000.0	90.00	359.28	7,908.0	5,296.5	-66.1	5,296.9	0.00	0.00	0.00
13,100.0	90.00	359.28	7,908.0	5,396.5	-67.4	5,396.9	0.00	0.00	0.00
13,200.0	90.00	359.28	7,908.0	5,496.5	-68.6	5,496.9	0.00	0.00	0.00
13,300.0	90.00	359.28	7,908.0	5,596.5	-69.9	5,596.9	0.00	0.00	0.00

Wolverine Directional, LLC

Planning Report

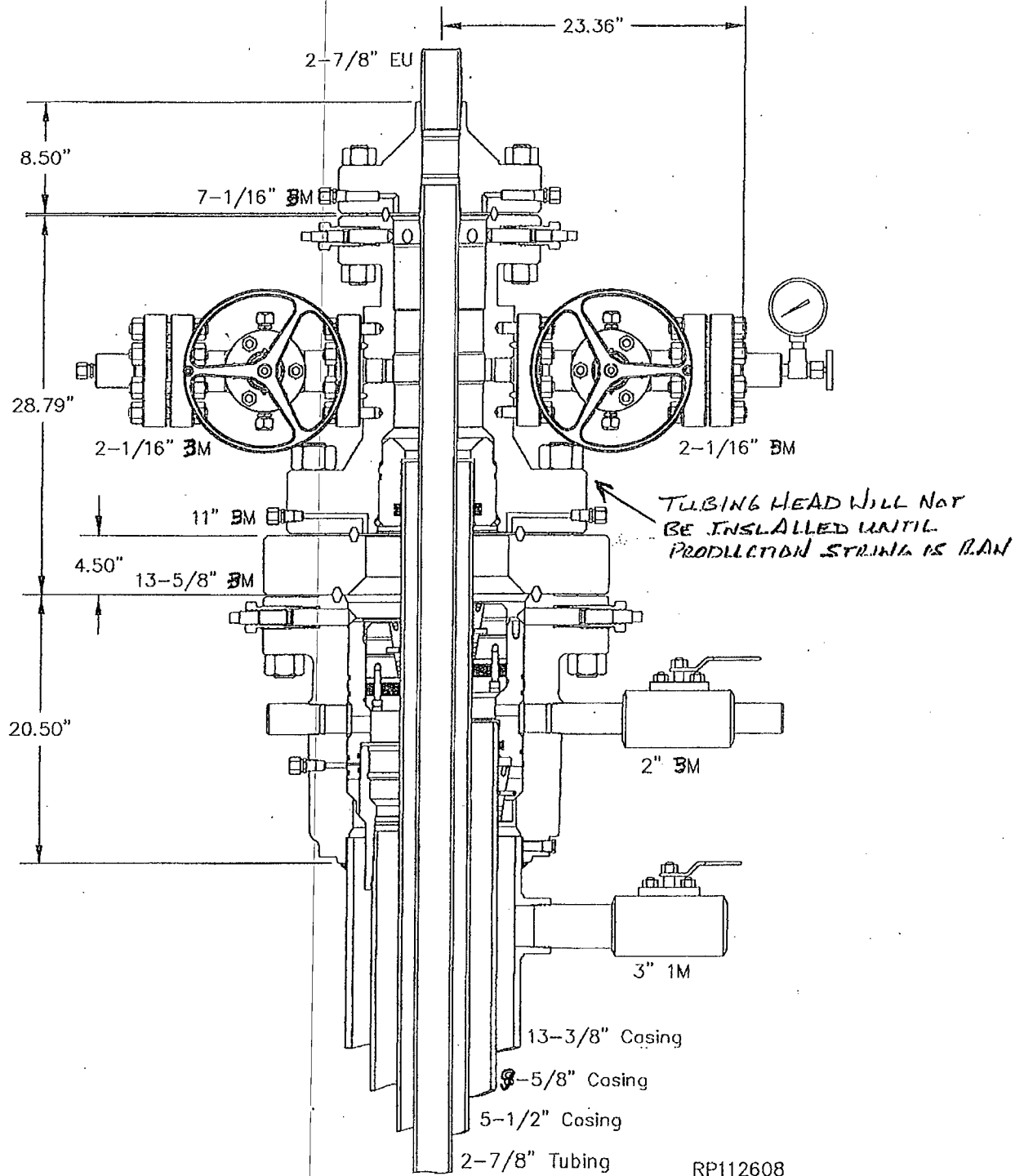
Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well RDX-10-5H
Company:	RKI Exploration & Production	TVD Reference:	WELL @ 0.0ft (Original Well Elev)
Project:	Eddy County (NM83E)	MD Reference:	WELL @ 0.0ft (Original Well Elev)
Site:	Sec 10-T26S-R30E	North Reference:	True
Well:	RDX 10-5H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Prelim Plan		

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)
13,400.0	90.00	359.28	7,908.0	5,696.5	-71.1	5,696.9	0.00	0.00	0.00
13,500.0	90.00	359.28	7,908.0	5,796.5	-72.4	5,796.9	0.00	0.00	0.00
13,600.0	90.00	359.28	7,908.0	5,896.5	-73.6	5,896.9	0.00	0.00	0.00
13,700.0	90.00	359.28	7,908.0	5,996.5	-74.9	5,996.9	0.00	0.00	0.00
13,800.0	90.00	359.28	7,908.0	6,096.5	-76.1	6,096.9	0.00	0.00	0.00
13,900.0	90.00	359.28	7,908.0	6,196.4	-77.4	6,196.9	0.00	0.00	0.00
14,000.0	90.00	359.28	7,908.0	6,296.4	-78.6	6,296.9	0.00	0.00	0.00
14,100.0	90.00	359.28	7,908.0	6,396.4	-79.9	6,396.9	0.00	0.00	0.00
14,200.0	90.00	359.28	7,908.0	6,496.4	-81.1	6,496.9	0.00	0.00	0.00
14,300.0	90.00	359.28	7,908.0	6,596.4	-82.4	6,596.9	0.00	0.00	0.00
14,400.0	90.00	359.28	7,908.0	6,696.4	-83.6	6,696.9	0.00	0.00	0.00
14,500.0	90.00	359.28	7,908.0	6,796.4	-84.9	6,796.9	0.00	0.00	0.00
14,600.0	90.00	359.28	7,908.0	6,896.4	-86.1	6,896.9	0.00	0.00	0.00
14,700.0	90.00	359.28	7,908.0	6,996.4	-87.4	6,996.9	0.00	0.00	0.00
14,800.0	90.00	359.28	7,908.0	7,096.4	-88.6	7,096.9	0.00	0.00	0.00
14,900.0	90.00	359.28	7,908.0	7,196.4	-89.9	7,196.9	0.00	0.00	0.00
15,002.3	90.00	359.28	7,908.0	7,298.7	-91.1	7,299.2	0.00	0.00	0.00
TD at 15002.3 - RDX 10-5H PBHL									

Targets									
Target Name	hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N-S (ft)	+E-W (ft)	Northing (ft)	Easting (ft)	Latitude Longitude
RDX 10-5H PBHL	- plan hits target	0.00	0.00	7,908.0	7,298.7	-91.1	384,524.10	685,525.20	32° 3' 22.616 N 103° 52' 4.482 W
	- Point								

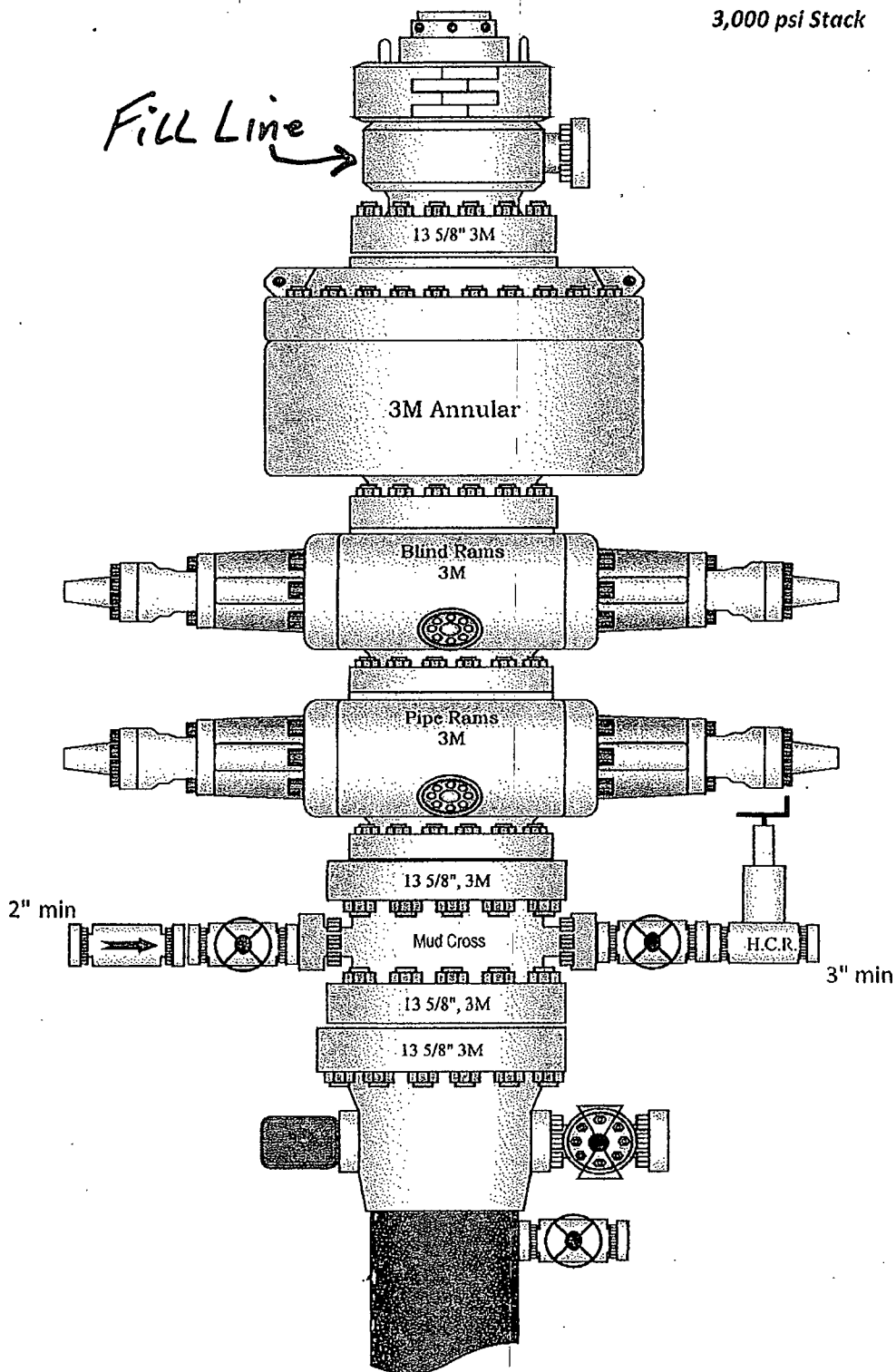
Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N-S (ft)	+E-W (ft)	
7,430.5	7,430.5	0.0	0.0	KOP - 12/100
8,180.5	7,908.0	477.4	-6.0	EOC - Hold to TD
15,002.3	7,908.0	7,298.7	-91.1	TD at 15002.3

System Drawing

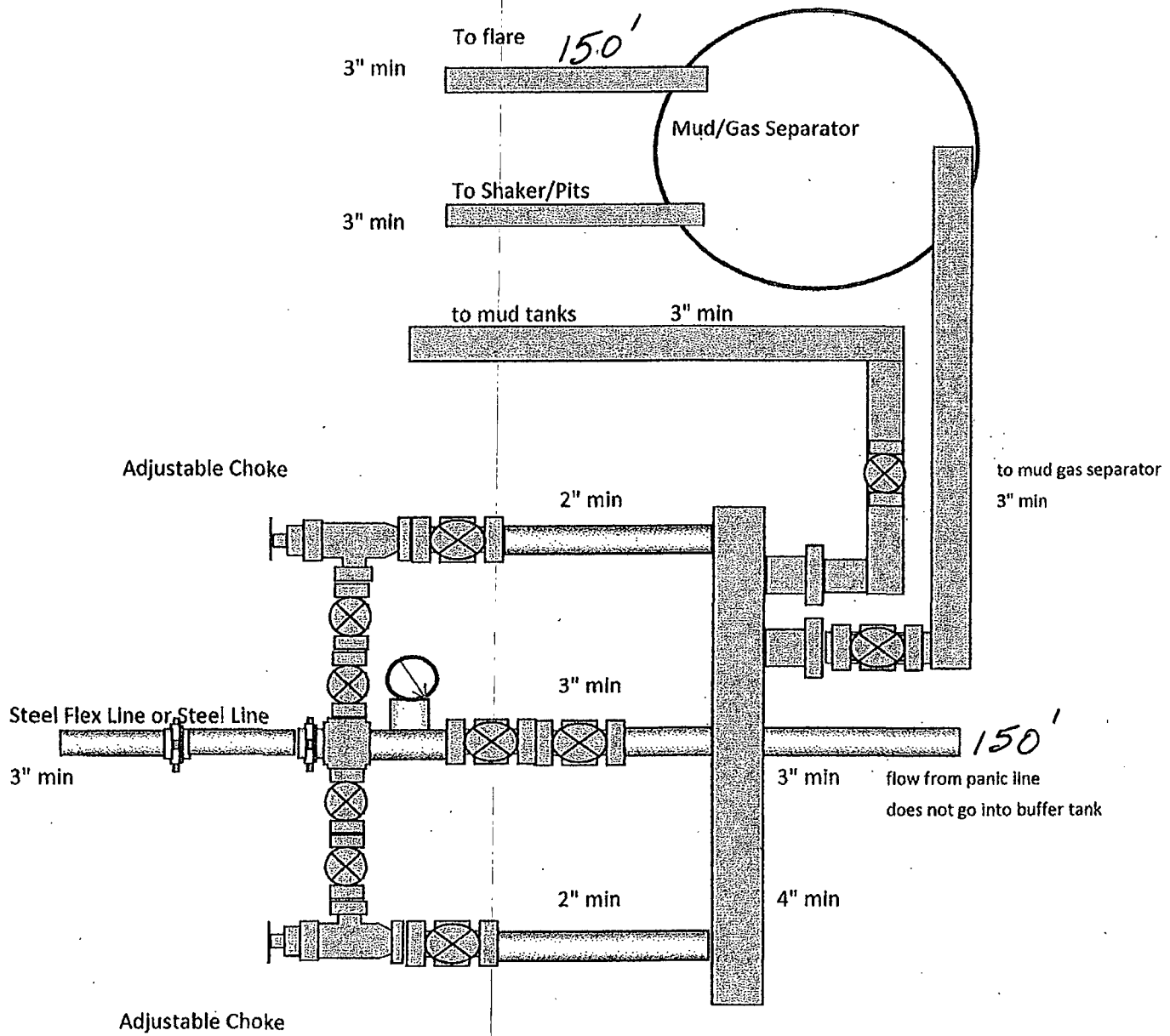


3,000 psi Stack

Fill Line



3,000 psi Manifold



The diagram illustrates the layout of an offshore platform with the following components and dimensions:

- Suction Pit**: Dimensions 38.14 and 20.53.
- Mud House**: Dimensions 38.14 and 20.53.
- Mud Mixer**: Dimensions 38.14 and 20.53.
- Suitcase**: Dimensions 38.14 and 20.53.
- #1 Pump**: Dimensions 38.14 and 20.53.
- #2 Pump**: Dimensions 38.14 and 20.53.
- Water Tank**: Dimensions 38.14 and 20.53.
- Generator House**: Dimensions 38.14 and 20.53.
- Diesel Tank**: Dimensions 38.14 and 20.53.
- Bottom Dog House**: Dimensions 38.14 and 20.53.
- Top Dog House**: Dimensions 38.14 and 20.53.
- Closing Unit**: Dimensions 38.14 and 20.53.
- Manifold**: Dimensions 38.14 and 20.53.
- Sub**: Dimensions 3.80 and 40.00.
- Sub**: Dimensions 3.80 and 40.00.
- Catwalk**: Dimensions 10.50 and 3.80.
- Pipe Rack**: Dimensions 10.50 and 3.80.
- Dimensions**: 120, 38.14, 20.53, 38, 3.80, 40.00, 10.50, 3.80.

RKI Exploration and Production
3817 N. W. Expressway, Suite 950
Oklahoma City, OK. 73112

Closed Loop System

Design Plan

Equipment List

- 2 - 414 Swaco Centrifuges
- 2 - 4 screen Mongoose shale shakers
- 2 - 250 bbl. tanks to hold fluid
- 2 - CRI Bins with track system
- 2 - 500 bbl. frac tanks for fresh water
- 2 - 500 bbl. frac tanks for brine water

Operation and Maintenance

- Closed Loop equipment will be inspected daily by each tour and any necessary maintenance performed
- Any leak in system will be repaired and/or contained immediately
- OCD notified within 48 hours
- Remediation process started

Closure Plan

During drilling operations, all liquids, drilling fluids and cuttings will be hauled off via CRI (Controlled Recovery Incorporated). Permit #: R-9166.

EXHIBIT D

**Rig Plat Only
RDX FED COM 10-5H
V-DOOR EAST**

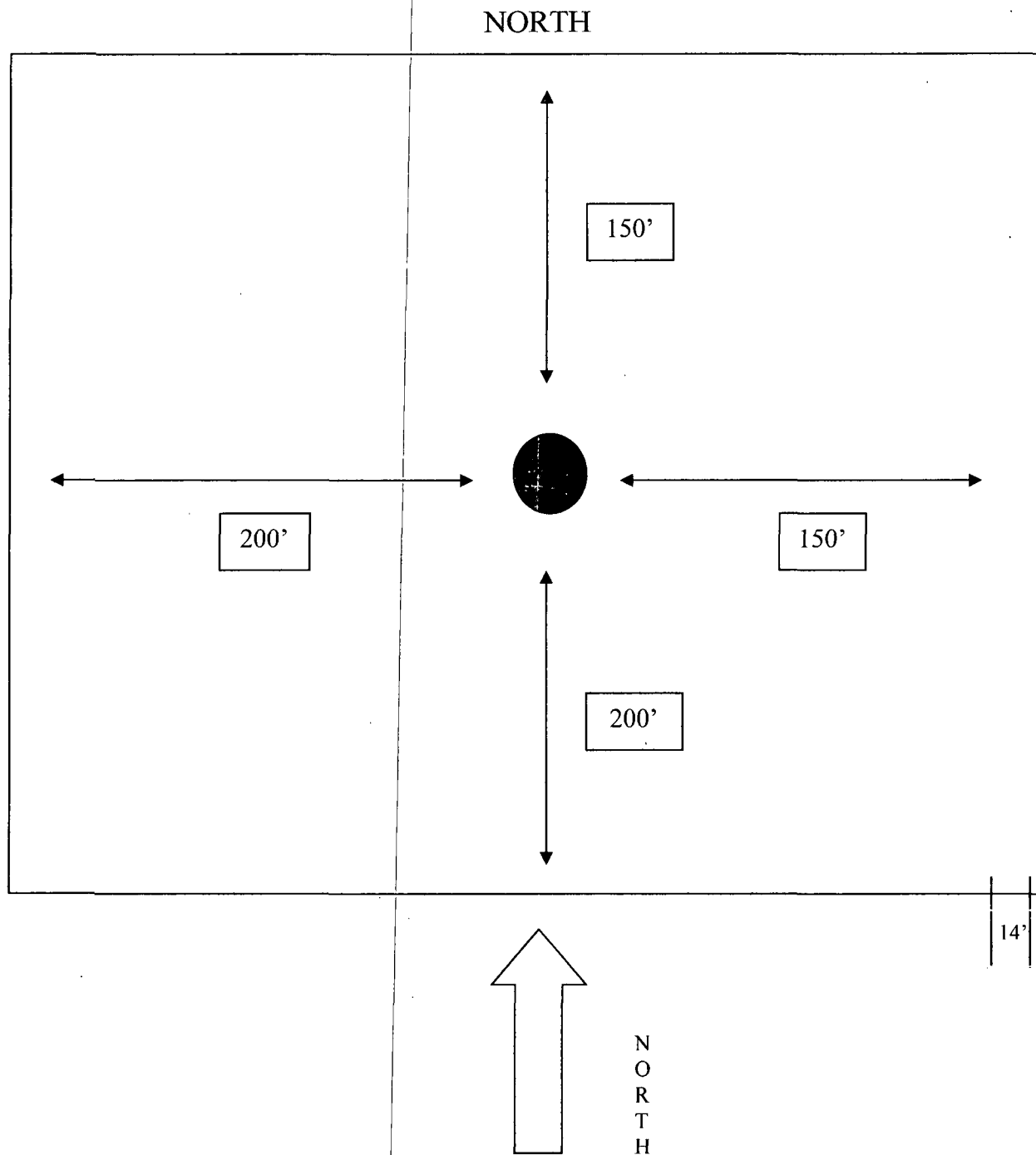
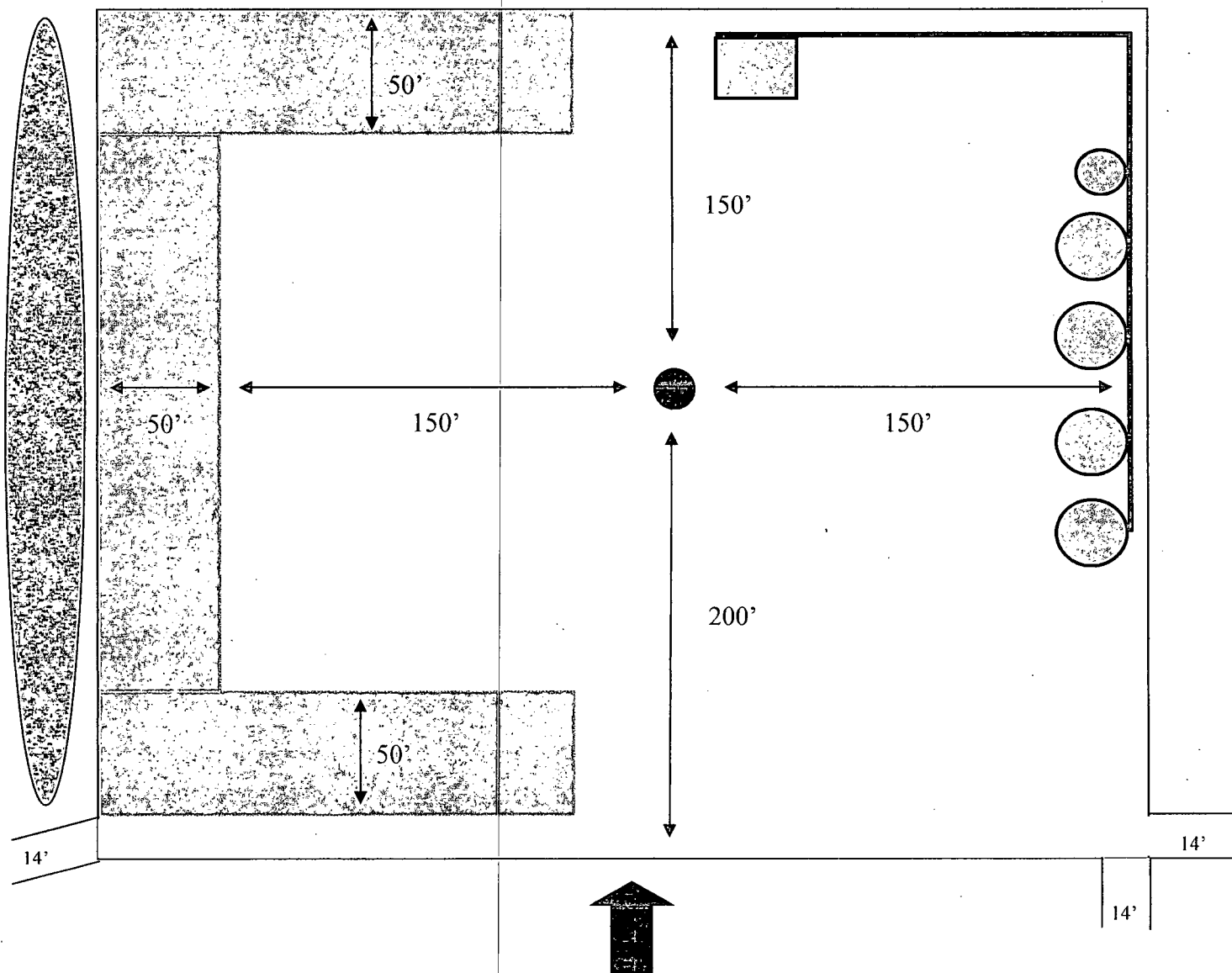


EXHIBIT C

**Interim Reclamation & Production Facilities
RDX FED COM 10-5H
V-DOOR EAST**



LEGEND



Well Bore



Topsoil



Interim Reclamation



Production Facilities



NORTH

PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	RKI Exploration and Production, LLC.
LEASE NO.:	NM-102036
WELL NAME & NO.:	RDX Federal Com 10-5H
SURFACE HOLE FOOTAGE:	2310' FSL & 2310' FEL
BOTTOM HOLE FOOTAGE:	0330' FSL & 2245' FEL Sec. 15, T. 26 S., R 30 E.,
LOCATION:	Section 10, T. 26 S., R 30 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

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

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
 - Phantom Bank Heronries**
- ☐ **Construction**
 - Notification
 - Topsoil
 - Closed Loop System
 - Federal Mineral Material Pits
 - Well Pads
 - Roads
- ☐ **Road Section Diagram**
- ☒ **Drilling**
 - Medium Cave/Karst
 - Logging Requirements
 - Waste Material and Fluids
- ☐ **Production (Post Drilling)**
 - Well Structures & Facilities
 - Pipelines
 - Electric Lines
- ☐ **Interim Reclamation**
- ☐ **Final Abandonment & Reclamation**