

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-101
June 16, 2001

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit to appropriate District Office

☐ AMENDED REPORT

**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN,
PLUGBACK, OR ADD A ZONE**

¹ Operator Name and Address RKI Exploration & Production, LLC. 3817 NW Expressway, Suite 950 Oklahoma City, Oklahoma, 73112		² OGRID Number 246289
		³ API Number 30 - 015 - 38292
³ Property Code 36900	⁵ Property Name RDX 16	⁶ Well No. 1110H
⁹ Proposed Pool 1 Undesignated Bone Spring		¹⁰ Proposed Pool 2

⁷ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	16	26 S	30 E		330	North	2110	East	Eddy

⁸ Proposed 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	16	26 S	30 E		330	South	2310	East	Eddy

Additional Well Information

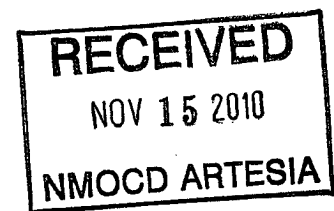
¹¹ Work Type Code N	¹² Well Type Code O	¹³ Cable/Rotary R	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3094
¹⁶ Multiple No	¹⁷ Proposed Depth 12690	¹⁸ Formation Bone Spring	¹⁹ Contractor	²⁰ Spud Date ASAP

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17-1/2"	13-3/8"	54.5#	900'	675	
12-1/4"	9-5/8"	40#	3300'	840	
8-3/4"	5-1/2"	17#	12690	1720	3000
	SEE	ATTACHED	DRILLING	PLAN	

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

See Attachments



²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.		OIL CONSERVATION DIVISION	
Signature:		Approved by:	
Printed name: Barry W. Hunt		Title: DIST II Supervisor	
Title: Permit Agent for RKI Exploration & Production, LLC.		Approval Date: NOV 23 2010	Expiration Date:
E-mail Address: specialtpemitting@gmail.com			
Date: 11/12/10	Phone: 575-361-4078 (Agent) Bill Aubrey 405-996-5750 (Contact)	Conditions of Approval Attached <input type="checkbox"/>	

KAE 11/29/10

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State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised July 16, 2010

Submit one copy to appropriate
District Office

OIL CONSERVATION DIVISION

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-015-38292	Pool Code 96403	Pool Name WILDCAT UNDESIGNATED BONE SPRING
Property Code 36900	Property Name RDX 16	Well Number 1H
GRID No. 246289	Operator Name RKI EXPLORATION & PRODUCTION LLC	Elevation 3094'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	16	26 S	30 E		330	NORTH	2110	EAST	EDDY

Bottom Hole Location If Different From Surface

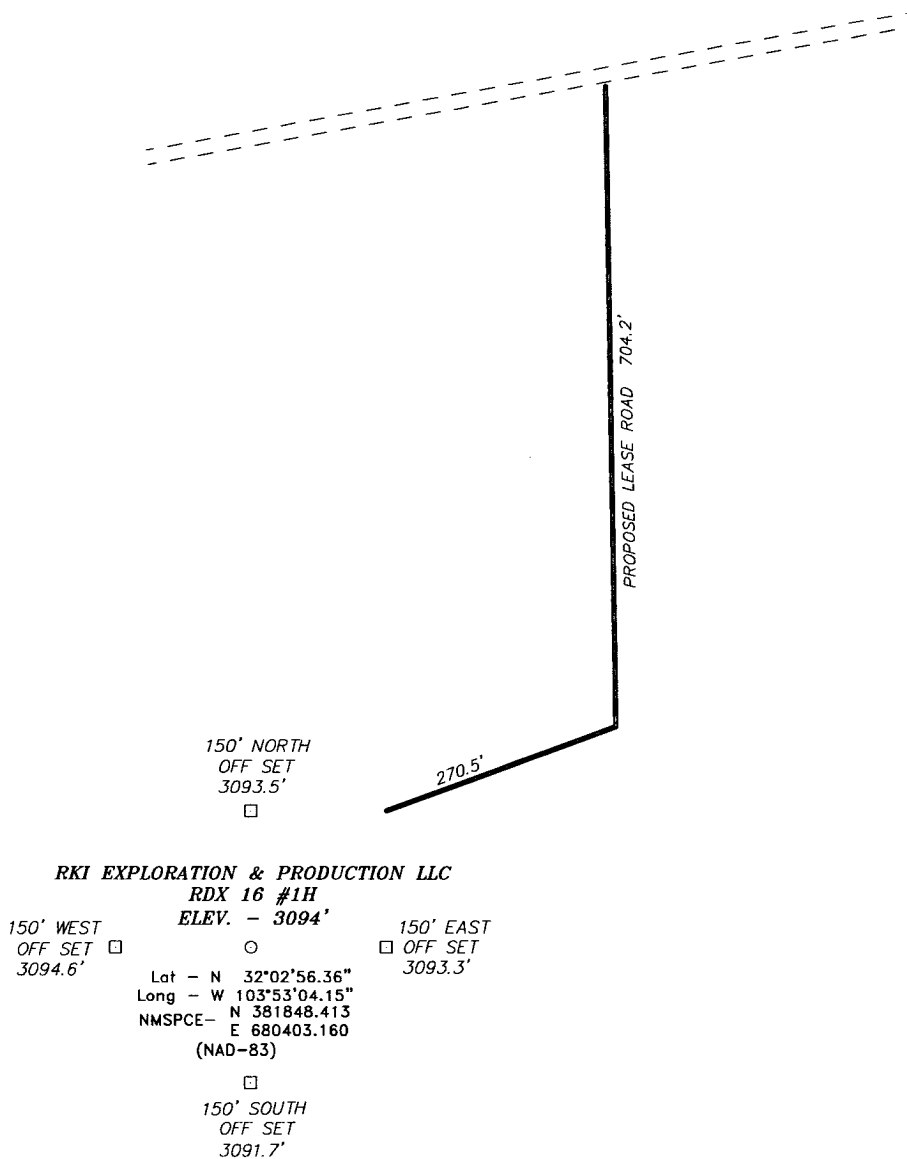
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	16	26 S	30 E		330	SOUTH	2310	EAST	EDDY

Dedicated Acres 160	Joint or Infill	Consolidation Code	Order No.
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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°02'56.36" Long - W 103°53'04.15" NMSPCE- N 381848.413 E 680403.160 (NAD-83)</p>	<p>PROPOSED BOTTOM HOLE LOCATION Lat - N 32°02'10.26" Long - W 103°53'06.62" NMSPCE- N 377190.322 E 680208.463 (NAD-83)</p>	<p>OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Gary W. Hunt</i> 11/12/10 Signature Date <i>Gary W. Hunt</i> Printed Name Email Address</p> <p>SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p><i>GARY L. JONES</i> Date Surveyed Signature & Seal of Professional Surveyor Certificate No. Gary L. Jones 7977 BASIN SURVEYS 23089</p>
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SECTION 16, TOWNSHIP 26 SOUTH, RANGE 30 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



RKI EXPLORATION & PRODUCTION LLC

RDX 16 #1H

ELEV. - 3094'

Lat - N 32°02'56.36"
Long - W 103°53'04.15"
NMSPC - N 381848.413
E 680403.160
(NAD-83)

200 0 200 400 FEET
SCALE: 1" = 200'

Directions to Location:

FROM THE JUNCTION OF HWY 285 AND LONG HORN, GO EAST 3.9 MILES TO SECOND ROAD ON RIGHT PAST LOW WATER CROSSING, GO EAST 5.9 MILES TO LEASE ROAD, ON LEASE ROAD GO SOUTH 1.0 MILES TO LEASE ROAD, ON LEASE ROAD GO EAST 0.7 MILES TO PROPOSED LEASE ROAD.

BASIN SURVEYS

P.O. BOX 1786 - HOBBS, NEW MEXICO

W.O. Number: 23089

Drawn By: J. SMALL

Date: 08-03-2010

Disk: JMS 23089

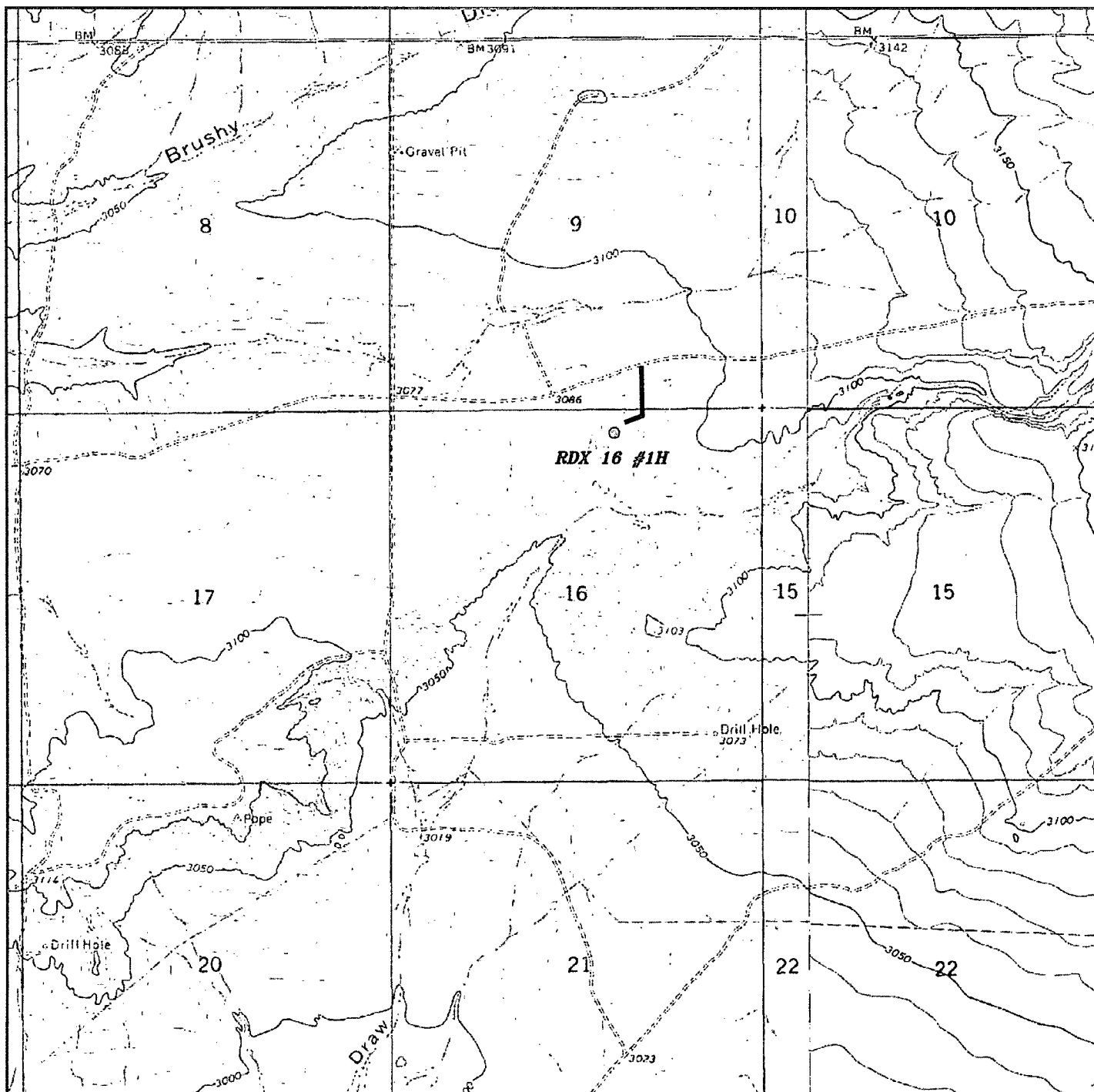
RKI EXPLORATION & PRODUCTION LLC

REF: RDX 16 #1H / WELL PAD TOPO

THE RDX 16 #1H LOCATED 330'
FROM THE NORTH LINE AND 2110' FROM THE EAST LINE OF
SECTION 16, TOWNSHIP 26 SOUTH, RANGE 30 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 07-30-2010

Sheet 1 of 1 Sheets



RDY 16 #1H
 Located 330' FNL and 2110' FEL
 Section 16, Township 26 South, Range 30 East,
 N.M.P.M., Eddy County, New Mexico.



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

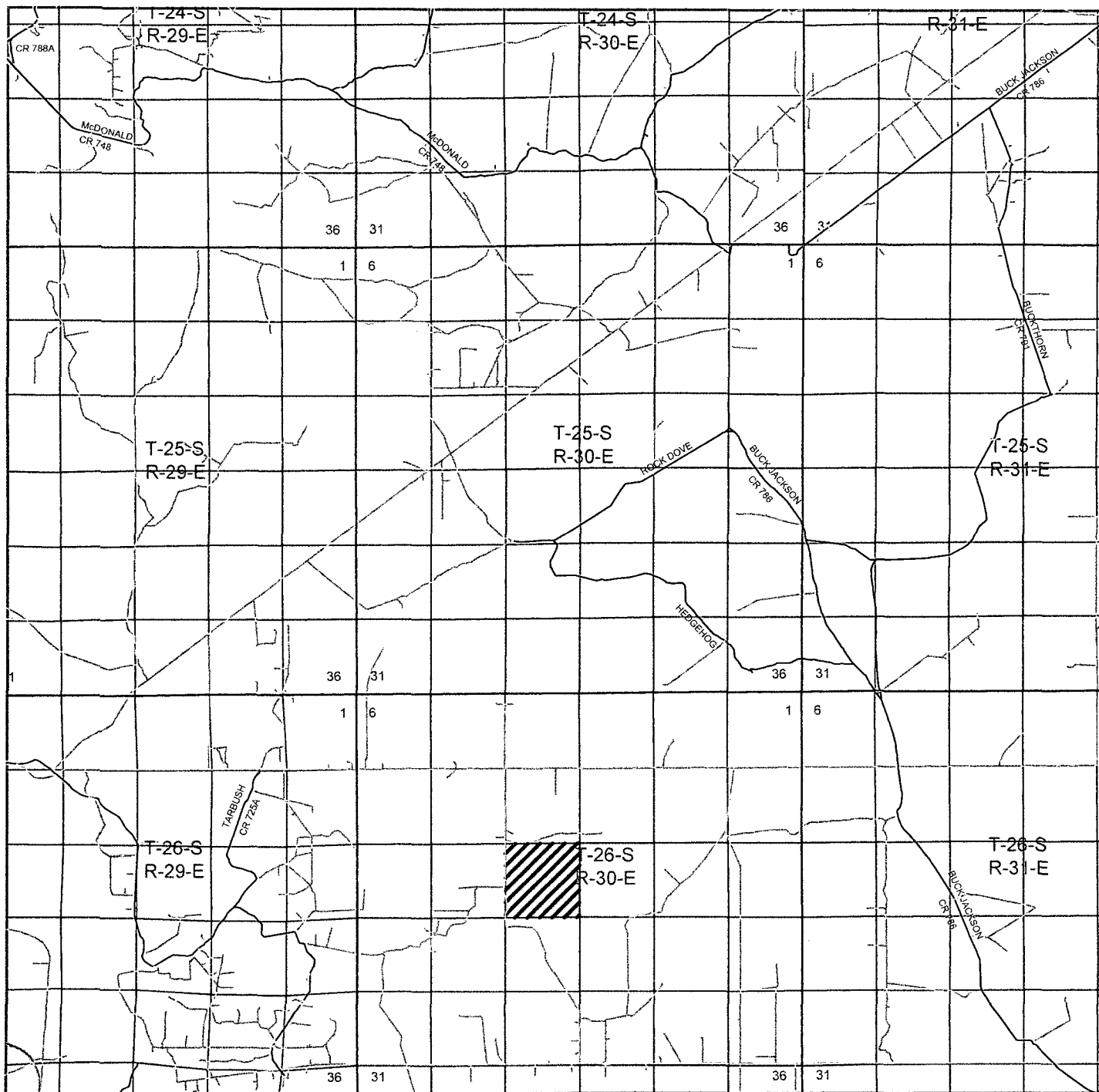
W.O. Number: JMS 23089

Survey Date: 07-30-2010

Scale: 1" = 2000'

Date: 08-03-2010

**RKI EXPLORATION
 & PRODUCTION
 LLC**



RDX 16 #1H

Located 330' FNL and 2110' FEL

Section 16, Township 26 South, Range 30 East,
N.M.P.M., Eddy County, New Mexico.

basin
surveys
focused on excellence
in the oilfield

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

W.O. Number: JMS 23089

Survey Date: 07-30-2010

Scale: 1" = 2 Miles

Date: 08-03-2010

**RKI EXPLORATION
& PRODUCTION
LLC**

RKI EXPLORATION & PRODUCTION, LLC.

RDX 16-1H

Surface Location: 330' FNL & 2,110' FEL

Bottom Hole Location: 330' FSL & 2,310' FEL

Section 16, T26S, R30E

Eddy County, NM

1. The elevation of the unprepared ground is 3,094' 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 12,690' MD 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 12,690' MD, 8,300' TVD.
5. Estimated tops of important geologic markers:

Rustler	800'
Salado	1,100'
Castile	1,440'
Lamar Lime	3,540'
Bell Canyon Sand	3,610'
Cherry Canyon Sand	4,685'
Brushy Canyon Sand	5,770'
Bone Spring	7,400' (135 degree F)

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

Bell Canyon	Oil (1,565 psi)
Cherry Canyon	Oil (2,030 psi)
Brushy Canyon	Oil (2,489 psi)
Bone Spring	Oil (3,221 psi)

7. The proposed casing program is as follows:

Surface: 13-3/8" 54.5# J-55 ST&C new casing set from 0' - 900'
Tension SF 2.0, Collapse SF 1.125, Burst SF 1.8.

Intermediate: 9-5/8" 40# J-55 LT&C new casing set from 0' - 3,300'
Tension SF 2.0, Collapse SF 1.125, Burst SF 1.8.

Production: 5-1/2" 17# P-110 LT&C new casing set from 0' - 12,690'
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 900' in 17-1/2" hole. Circulate cement to surface with 675 sx "C" with 4% D20, 2% S1, .2% D46, .125 pps D130 mixed at 12.9 ppg (1.97 cf/sk) followed by 200 sx "C" with 1% S1, .125 pps D130 mixed at 14.8 ppg (1.34 cf/sk).
- b. 9-5/8" intermediate casing set at 3,300' in 12 1/4" hole. A fluid caliper will be run to determine exact cement volume required. Cement will be circulated to surface with 840 sx 35:65 Poz "C" with 5% D44, 6% D20, .2% D46, 2 pps D42, .125 pps D130, .1% D13 mixed at 12.6 ppg (2.07 cf/sk) followed by 200 sx "C" with .2% D13 mixed 14.8 ppg (1.33 cf/sk).
- c. 5-1/2" production casing set at 12,690' in 8 3/4" hole. Cement will be calculated to bring TOC to 3,000'. The well will be cemented in two stages as follows: **Stage 1:** 1,410 sx PVL with 30% D151, 2% D174, .2% D46, .5% D79, .8% D800, .05 gps D177 mixed at 13.0 ppg (1.83 cf/sk). **Stage 2:** 310 sx 35:65 Poz "C" with 5% D44, 6% D20, .2% D13, .2% D46, 2 pps D42, .125 pps D130 mixed at 12.6 ppg (2.07 cf/sk). DV tool at approximately 5000'

9. Pressure Control Equipment

The blowout preventor equipment (BOP) will consist of a 5000 psi double ram type preventor, a 1500 psi 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. After setting the 13-3/8" casing all BOP's and associated equipment will be tested to rated pressure and before drilling out the 13-3/8" casing shoe the casing will be tested to 1000 psi. After setting the 9-5/8" casing all BOP's and associated equipment will be tested to rated pressure and before drilling out the 9-5/8" casing shoe the casing will be tested to 1000 psi.

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. A 2" kill line and 3" choke line will be incorporated in the drilling spool below the ram-type BOP. Other accessory BOP equipment will include a Kelly cock, floor safety valve, choke lines and choke manifold having 5000 psi rating.

10. Mud Program:

0' - 900'	Bentonite/Lime mud. Paper for losses and seepage. 8.4 to 9.0 ppg, PV 3 to 5, YP 5 to 7, WL NC.
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- 900' - 3,300' Brine. As needed LCM for losses and seepage. 10.0 to 10.1 ppg, PV 1 to 3, YP 1 to 3, WL NC.
- 3,300' – 60 deg. Drill out fresh water/cut brine adding KCl increasing MW to 8.5 to 8.6 ppg, PV 1, YP 1, WL NC.
- 60 deg. – 12,690' 8.8 to 9.0 ppg, PV 12 – 14, YP 20 – 22, WL 12 – 15.

11. Testing, Logging and Coring Program:

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. Potential Hazards:

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. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 3221 psi and estimated BHT 135 degrees F.

13. Drill strings:

17 1/2" hole section – 17 1/2" mill tooth or long button bit, shock sub, 8" DC, IBS, 8" DC's, 6 1/4" DC's. Drill pipe – 16.6# S-135.

12 1/4" hole section – 12 1/4" PDC bit, Vertical Scout, motor, IBS, shock sub, 8" DC's, 6 1/4" DC's, jars, 6 1/2" DC's. Drill pipe – 16.6# S-135.

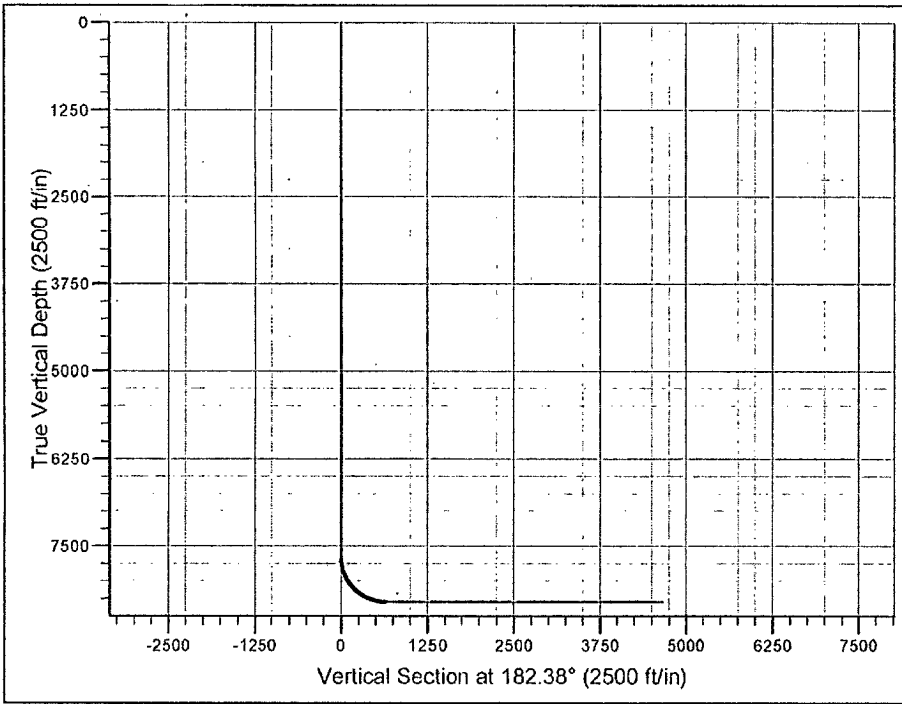
3,300' to KOP (7663')

8 3/4" hole section – 8 3/4" PDC bit, Vertical Scout, motor, IBS, shock sub, 6 1/4" DC's, jars, 6 1/2" DC's. Drill pipe – 16.6# S-135.

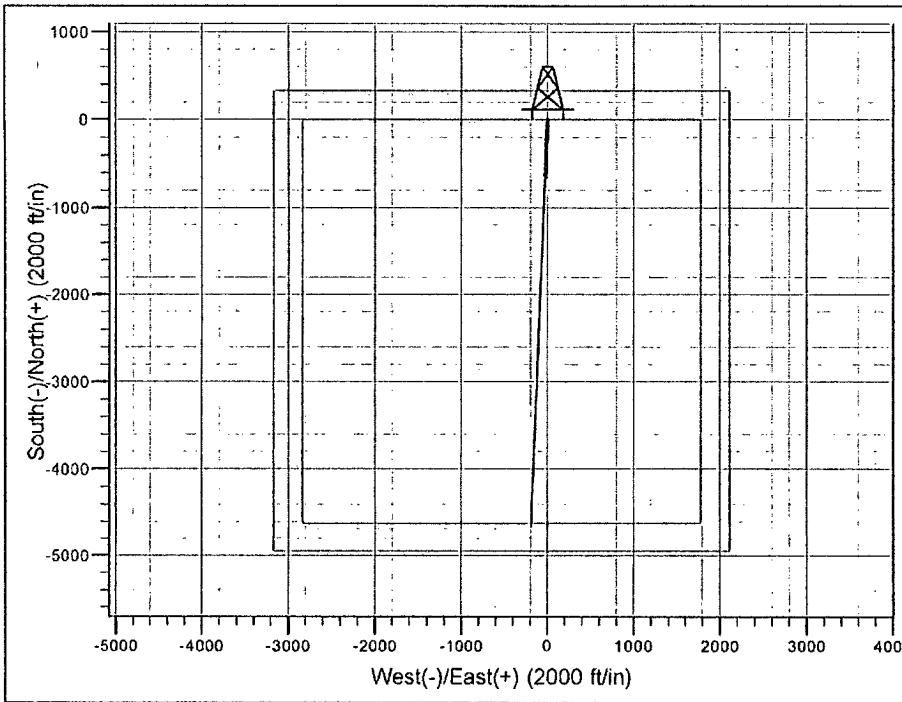
KOP to 90 deg

8 3/4" build section – 8 3/4" button bit, motor, UBHO sub, monel, 4 1/2" DP (approximately 1,000'), HWDP, jars, HWDP. Drill pipe – 16.6# S-135.

8 3/4" Lateral – 8 3/4" PDC bit, motor, UBHO sub, monel, 4 1/2" DP, Agitator, HWDP, shock sub, HWDP. Drill pipe – 16.6# S-135.



RDx 16-1H



Surf: 330' FNL & 2110' FEL

BHL: 330' FSL & 2310' FEL

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	7663	0.00	0.00	7663.4	0.0	0.0	0.00	0.00	0.0	
3	8663	90.00	182.38	8300.0	-636.1	-26.4	9.00	182.38	636.6	
4	12690	90.00	182.38	8300.0	-4659.2	-193.2	0.00	0.00	4663.2	1

RKI Exploration & Production

RDX 16-1H

16-26S-30E

Eddy County, NM

Wellbore #1

Plan: Design #1

Standard Planning Report

10 November, 2010

RKI Exploration & Production

Planning Report

Database: EDM 5000.1 Single User Db
 Company: RKI Exploration & Production
 Project: RDX 16-1H
 Site: 16-26S-30E
 Well: Eddy County, NM
 Wellbore: Wellbore #1
 Design: Design #1

Local Co-ordinate Reference: Site 16-26S-30E
 TVD Reference: WELL @ 0.0ft (Original Well Elev)
 MD Reference: WELL @ 0.0ft (Original Well Elev)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Project	RDX 16-1H		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	16-26S-30E		
Site Position:		Northing:	116,387.88 m
From:	Lat/Long	Easting:	207,386.76 m
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in
		Latitude:	32° 2' 56.360 N
		Longitude:	103° 53' 4.150 W
		Grid Convergence:	0.24 °

Well	Eddy County, NM		
Well Position	+N/-S	0.0 ft	Northing:
	+E/-W	0.0 ft	Easting:
Position Uncertainty	0.0 ft	Wellhead Elevation:	Ground Level:
			0.0 ft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF200510	11/10/2010	7.78
			Dip Angle
			(°)
			60.00
			Field Strength
			(nT)
			48,595

Design	Design #1		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth:
			0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.0	0.0	0.0
			Direction
			(°)
			182.38

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(ft)	(°)	(°)	(ft)	(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	
7,663.4	0.00	0.00	7,663.4	0.0	0.0	0.00	0.00	0.00	0.00	
8,663.4	90.00	182.38	8,300.0	-636.1	-26.4	9.00	9.00	0.00	182.38	
12,690.0	90.00	182.38	8,300.0	-4,659.2	-193.2	0.00	0.00	0.00	0.00	1

RKI Exploration & Production

Planning Report

Database: EDM 5000.1 Single User Db
 Company: RKI Exploration & Production
 Project: RDX 16-1H
 Site: 16-26S-30E
 Well: Eddy County, NM
 Wellbore: Wellbore #1
 Design: Design #1

Local Co-ordinate Reference: Site 16-26S-30E
 TVD Reference: WELL @ 0.0ft (Original Well Elev)
 MD Reference: WELL @ 0.0ft (Original Well Elev)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

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)
5,000.0	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
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
7,663.4	0.00	0.00	7,663.4	0.0	0.0	0.0	0.00	0.00	0.00
7,700.0	3.30	182.38	7,700.0	-1.1	0.0	1.1	9.00	9.00	0.00
7,750.0	7.80	182.38	7,749.7	-5.9	-0.2	5.9	9.00	9.00	0.00
7,800.0	12.30	182.38	7,799.0	-14.6	-0.6	14.6	9.00	9.00	0.00
7,850.0	16.80	182.38	7,847.3	-27.1	-1.1	27.2	9.00	9.00	0.00
7,900.0	21.30	182.38	7,894.6	-43.4	-1.8	43.5	9.00	9.00	0.00
7,950.0	25.80	182.38	7,940.4	-63.4	-2.6	63.4	9.00	9.00	0.00
8,000.0	30.30	182.38	7,984.5	-86.9	-3.6	86.9	9.00	9.00	0.00
8,050.0	34.80	182.38	8,026.7	-113.7	-4.7	113.8	9.00	9.00	0.00
8,100.0	39.30	182.38	8,066.6	-143.8	-6.0	143.9	9.00	9.00	0.00
8,150.0	43.80	182.38	8,104.0	-176.9	-7.3	177.1	9.00	9.00	0.00
8,200.0	48.30	182.38	8,138.7	-212.9	-8.8	213.1	9.00	9.00	0.00
8,250.0	52.80	182.38	8,170.4	-251.5	-10.4	251.7	9.00	9.00	0.00
8,300.0	57.30	182.38	8,199.1	-292.4	-12.1	292.7	9.00	9.00	0.00
8,350.0	61.80	182.38	8,224.4	-335.5	-13.9	335.7	9.00	9.00	0.00
8,400.0	66.30	182.38	8,246.3	-380.4	-15.8	380.7	9.00	9.00	0.00
8,450.0	70.80	182.38	8,264.6	-426.8	-17.7	427.2	9.00	9.00	0.00
8,500.0	75.30	182.38	8,279.1	-474.6	-19.7	475.0	9.00	9.00	0.00
8,550.0	79.80	182.38	8,289.9	-523.4	-21.7	523.8	9.00	9.00	0.00
8,600.0	84.30	182.38	8,296.8	-572.9	-23.8	573.3	9.00	9.00	0.00
8,650.0	88.80	182.38	8,299.9	-622.7	-25.8	623.2	9.00	9.00	0.00
8,663.4	90.00	182.38	8,300.0	-636.1	-26.4	636.6	9.00	9.00	0.00
8,700.0	90.00	182.38	8,300.0	-672.7	-27.9	673.2	0.00	0.00	0.00
8,800.0	90.00	182.38	8,300.0	-772.6	-32.0	773.2	0.00	0.00	0.00
8,900.0	90.00	182.38	8,300.0	-872.5	-38.2	873.2	0.00	0.00	0.00
9,000.0	90.00	182.38	8,300.0	-972.4	-40.3	973.2	0.00	0.00	0.00
9,100.0	90.00	182.38	8,300.0	-1,072.3	-44.5	1,073.2	0.00	0.00	0.00

RKI Exploration & Production

Planning Report

Database: EDM 5000.1 Single User Db
 Company: RKI Exploration & Production
 Project: RDX 16-1H
 Site: 16-26S-30E
 Well: Eddy County, NM
 Wellbore: Wellbore #1
 Design: Design #1

Local Co-ordinate Reference: Site 16-26S-30E
 TVD Reference: WELL @ 0.0ft (Original Well Elev)
 MD Reference: WELL @ 0.0ft (Original Well Elev)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

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)
9,200.0	90.00	182.38	8,300.0	-1,172.2	-48.6	1,173.2	0.00	0.00	0.00
9,300.0	90.00	182.38	8,300.0	-1,272.1	-52.8	1,273.2	0.00	0.00	0.00
9,400.0	90.00	182.38	8,300.0	-1,372.1	-56.9	1,373.2	0.00	0.00	0.00
9,500.0	90.00	182.38	8,300.0	-1,472.0	-61.1	1,473.2	0.00	0.00	0.00
9,600.0	90.00	182.38	8,300.0	-1,571.9	-65.2	1,573.2	0.00	0.00	0.00
9,700.0	90.00	182.38	8,300.0	-1,671.8	-69.3	1,673.2	0.00	0.00	0.00
9,800.0	90.00	182.38	8,300.0	-1,771.7	-73.5	1,773.2	0.00	0.00	0.00
9,900.0	90.00	182.38	8,300.0	-1,871.6	-77.6	1,873.2	0.00	0.00	0.00
10,000.0	90.00	182.38	8,300.0	-1,971.5	-81.8	1,973.2	0.00	0.00	0.00
10,100.0	90.00	182.38	8,300.0	-2,071.5	-85.9	2,073.2	0.00	0.00	0.00
10,200.0	90.00	182.38	8,300.0	-2,171.4	-90.1	2,173.2	0.00	0.00	0.00
10,300.0	90.00	182.38	8,300.0	-2,271.3	-94.2	2,273.2	0.00	0.00	0.00
10,400.0	90.00	182.38	8,300.0	-2,371.2	-98.3	2,373.2	0.00	0.00	0.00
10,500.0	90.00	182.38	8,300.0	-2,471.1	-102.5	2,473.2	0.00	0.00	0.00
10,600.0	90.00	182.38	8,300.0	-2,571.0	-106.6	2,573.2	0.00	0.00	0.00
10,700.0	90.00	182.38	8,300.0	-2,670.9	-110.8	2,673.2	0.00	0.00	0.00
10,800.0	90.00	182.38	8,300.0	-2,770.9	-114.9	2,773.2	0.00	0.00	0.00
10,900.0	90.00	182.38	8,300.0	-2,870.8	-119.1	2,873.2	0.00	0.00	0.00
11,000.0	90.00	182.38	8,300.0	-2,970.7	-123.2	2,973.2	0.00	0.00	0.00
11,100.0	90.00	182.38	8,300.0	-3,070.6	-127.4	3,073.2	0.00	0.00	0.00
11,200.0	90.00	182.38	8,300.0	-3,170.5	-131.5	3,173.2	0.00	0.00	0.00
11,300.0	90.00	182.38	8,300.0	-3,270.4	-135.6	3,273.2	0.00	0.00	0.00
11,400.0	90.00	182.38	8,300.0	-3,370.3	-139.8	3,373.2	0.00	0.00	0.00
11,500.0	90.00	182.38	8,300.0	-3,470.3	-143.9	3,473.2	0.00	0.00	0.00
11,600.0	90.00	182.38	8,300.0	-3,570.2	-148.1	3,573.2	0.00	0.00	0.00
11,700.0	90.00	182.38	8,300.0	-3,670.1	-152.2	3,673.2	0.00	0.00	0.00
11,800.0	90.00	182.38	8,300.0	-3,770.0	-156.4	3,773.2	0.00	0.00	0.00
11,900.0	90.00	182.38	8,300.0	-3,869.9	-160.5	3,873.2	0.00	0.00	0.00
12,000.0	90.00	182.38	8,300.0	-3,969.8	-164.7	3,973.2	0.00	0.00	0.00
12,100.0	90.00	182.38	8,300.0	-4,069.7	-168.8	4,073.2	0.00	0.00	0.00
12,200.0	90.00	182.38	8,300.0	-4,169.7	-172.9	4,173.2	0.00	0.00	0.00
12,300.0	90.00	182.38	8,300.0	-4,269.6	-177.1	4,273.2	0.00	0.00	0.00
12,400.0	90.00	182.38	8,300.0	-4,369.5	-181.2	4,373.2	0.00	0.00	0.00
12,500.0	90.00	182.38	8,300.0	-4,469.4	-185.4	4,473.2	0.00	0.00	0.00
12,600.0	90.00	182.38	8,300.0	-4,569.3	-189.5	4,573.2	0.00	0.00	0.00
12,690.0	90.00	182.38	8,300.0	-4,659.2	-193.2	4,663.2	0.00	0.00	0.00

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144 CLEZ
July 21, 2008

For closed-loop systems that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure, submit to the appropriate NMOCD District Office.

Closed-Loop System Permit or Closure Plan Application

(that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)

Type of action: ☒ Permit ☐ Closure

Instructions: Please submit one application (Form C-144 CLEZ) per individual closed-loop system request. For any application request other than for a closed-loop system that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure, please submit a Form C-144.

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

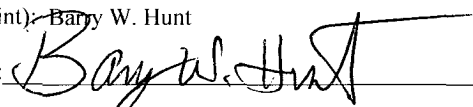
1.
Operator: RKI Exploration and Production, LLC OGRID #: 246289
Address: 3817 NW Expressway, Suite 950, Oklahoma City, OK 73112
Facility or well name: RDX 16-1H
API Number: _____ OCD Permit Number: _____
U/L or Qtr/Qtr: B Section: 16 Township: 26S Range: 30E County: Eddy
Center of Proposed Design: Latitude 32°02'56.36"N Longitude 103°53'04.15"W NAD: ☐ 1927 ☒ 1983
Surface Owner: ☐ Federal ☒ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.
☒ **Closed-loop System:** Subsection H of 19.15.17.11 NMAC
Operation: ☒ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent) ☐ P&A
☐ Above Ground Steel Tanks or ☒ Haul-off Bins

3.
Signs: Subsection C of 19.15.17.11 NMAC
☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers
☒ Signed in compliance with 19.15.3.103 NMAC

4.
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.
☒ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☒ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☒ Closure Plan (Please complete Box 5) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
☐ Previously Approved Design (attach copy of design) API Number: _____
☐ Previously Approved Operating and Maintenance Plan API Number: _____

5.
Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC)
Instructions: Please identify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.
Disposal Facility Name: Controlled Recovery Incorporated (CRI) Disposal Facility Permit Number: R-9166
Disposal Facility Name: _____ Disposal Facility Permit Number: _____
Will any of the proposed closed-loop system operations and associated activities occur on or in areas that will not be used for future service and operations?
☐ Yes (If yes, please provide the information below) ☒ No
Required for impacted areas which will not be used for future service and operations:
☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

6.
Operator Application Certification:
I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.
Name (Print): Barry W. Hunt Title: Permitting Agent for RKI Exploration & Production, LLC.
Signature:  Date: 11/12/10
e-mail address: specialtpermitting@gmail.com Telephone: 575-361-4078

7. **OCD Approval:** ☐ Permit Application (including closure plan) ☐ Closure Plan (only)

OCD Representative Signature: _____ Approval Date: _____

Title: _____ OCD Permit Number: _____

8. **Closure Report (required within 60 days of closure completion):** Subsection K of 19.15.17.13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☐ Closure Completion Date: _____

9. **Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:**

Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No

Required for impacted areas which will not be used for future service and operations:

☐ Site Reclamation (Photo Documentation)

☐ Soil Backfilling and Cover Installation

☐ Re-vegetation Application Rates and Seeding Technique

10. **Operator Closure Certification:**

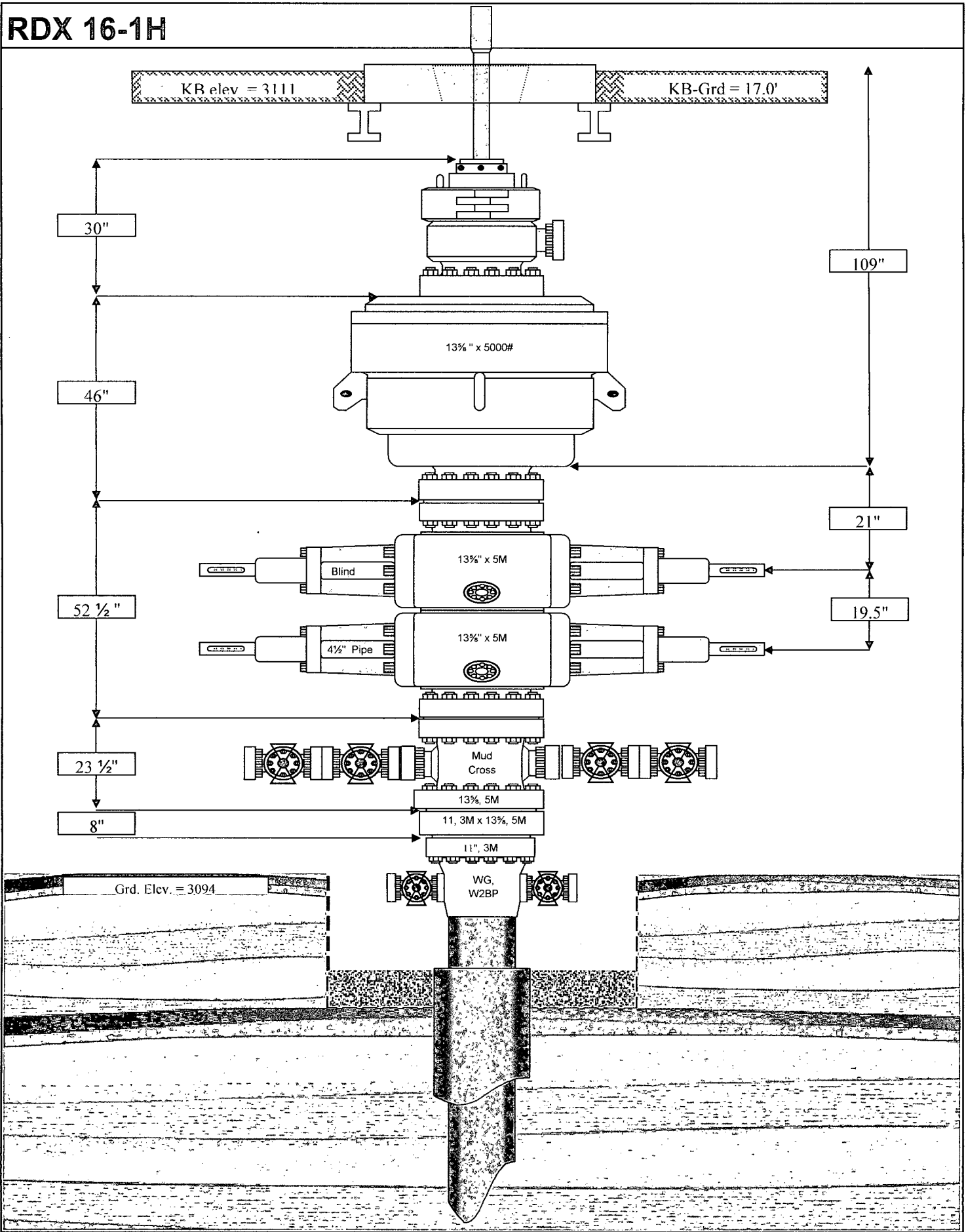
I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): _____ Title: _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

RDX 16-1H



Choke Manifold

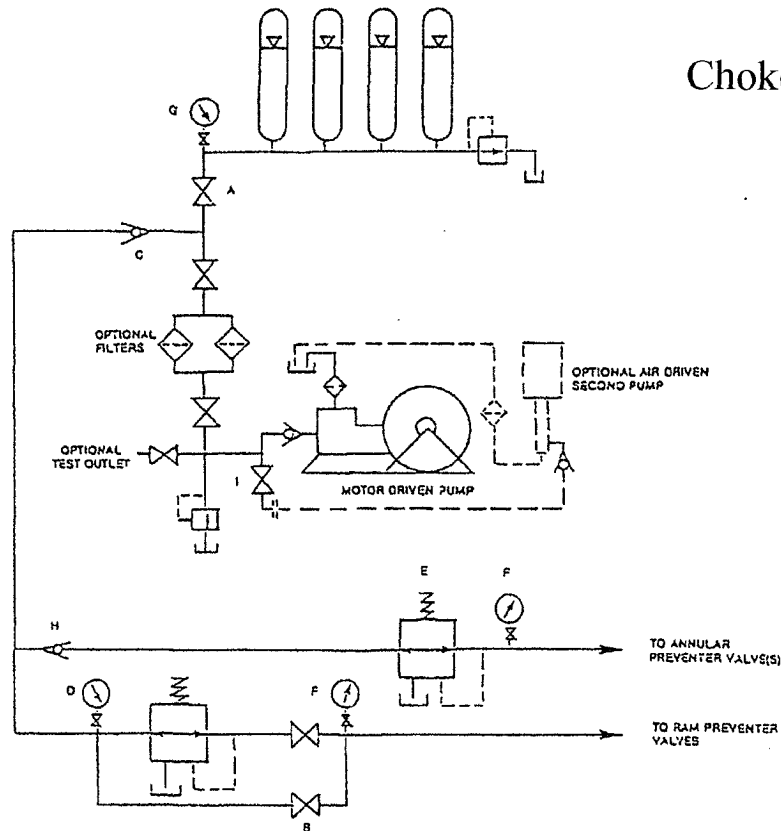


FIGURE K6-1. The schematic sketch of an accumulator system shows required and optional components.

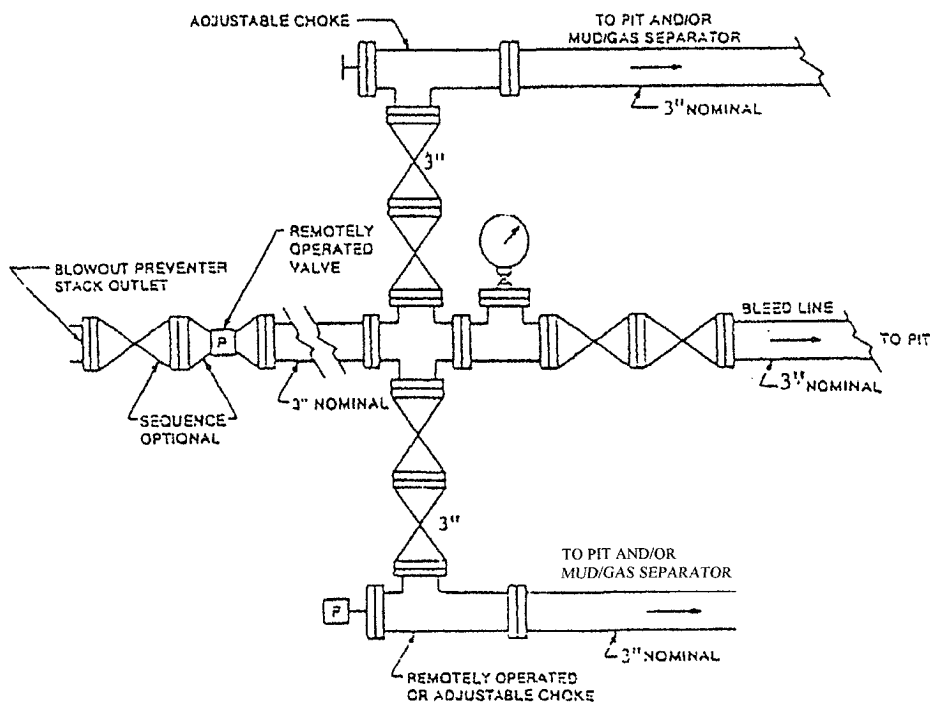
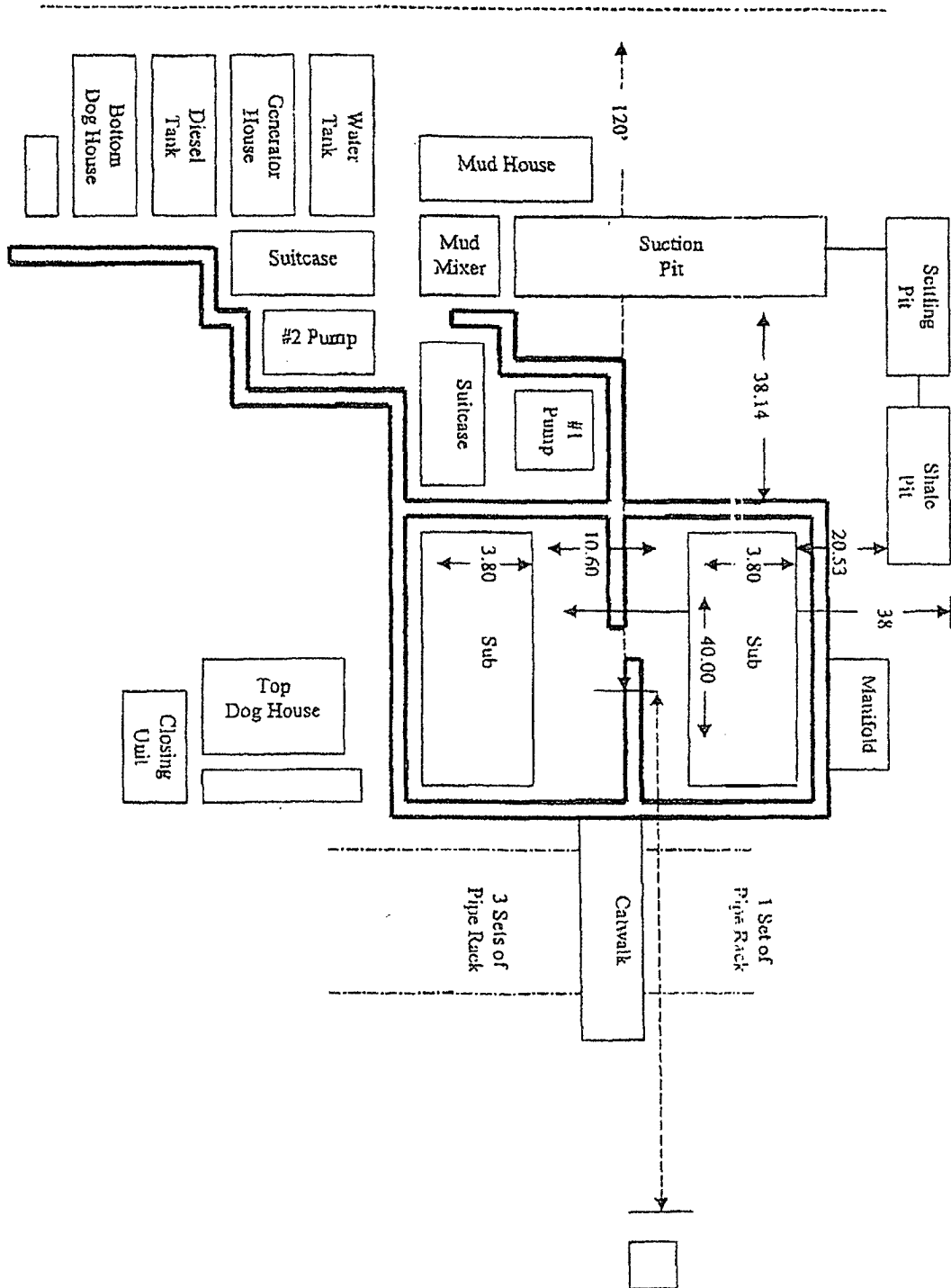
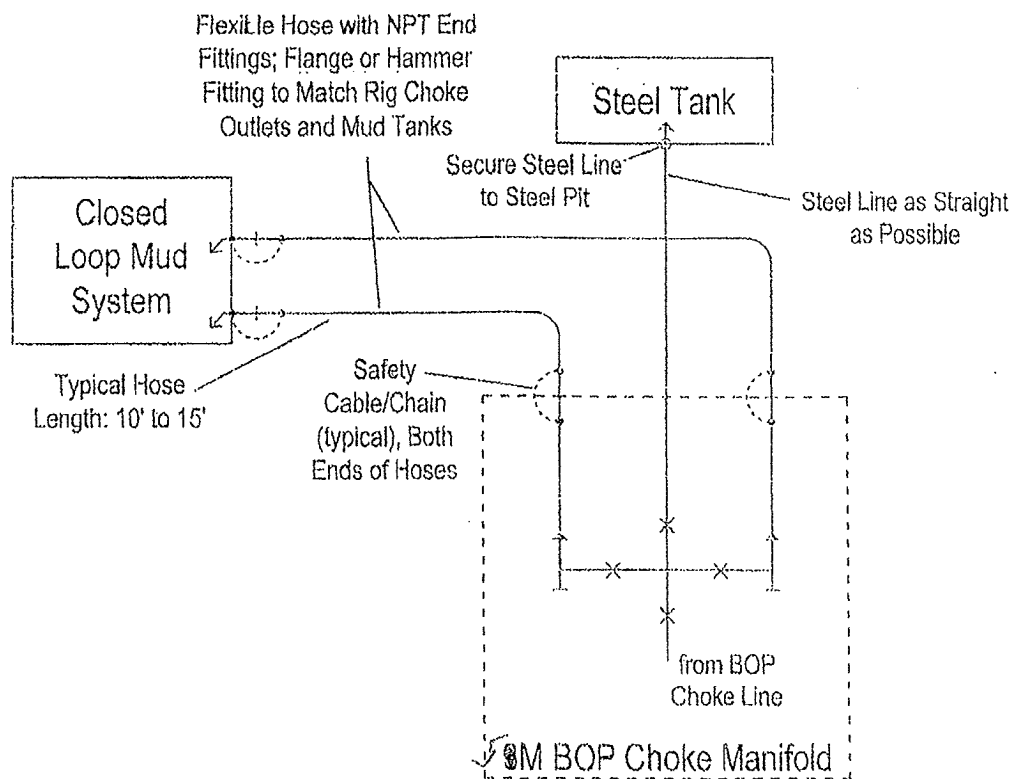


FIGURE K4-2. Typical choke manifold assembly for 5M rated working pressure service – surface installation.

Plat for Closed Loop System





RKI Exploration & Production LLC

P.O. Box 370, Carlsbad, NM 88221
Office 505-885-1313 Fax 505-885-3509

July 17, 2009

To Whom It May Concern:

Mr. Barry Hunt is employed by RKI Exploration & Production to sign as their agent for APD's and Right of Ways in the states of New Mexico and Texas.

If you have any questions, please contact me at my office at 575-885-1313.

Sincerely,

RKI Exploration & Production, LLC

A handwritten signature in cursive script, appearing to read "Gene Simer".

Gene Simer
Production Superintendent