

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-10:
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 GOC PRODUCTION LLC 2208 WEST MAIN STREET ARTESIA, NEW MEXICO 88210		² OGRID Number 217955
³ Property Code 38348	⁵ Property Name COPPERHEAD FEE "A"	³ API Number 30-15-39787
⁹ Proposed Pool 1 WILDCAT, Bone Spring (9784)		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
F 3	31	26S	29E		480'	SOUTH	1650'	WEST	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
F	30	26S	29E		1650'	NORTH	1650'	WEST	EDDY

Additional Well Information

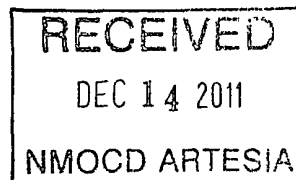
¹¹ Work Type Code N	¹² Well Type Code O	¹³ Cable/Rotary ROTARY	¹⁴ Lease Type Code P	¹⁵ Ground Level Elevation 2918'
¹⁶ Multiple NO	¹⁷ Proposed Depth MD-12,003' TVD-6650'	¹⁸ Formation BONE SPRING	¹⁹ Contractor SILVER OAK	²⁰ Spud Date WHEN APPROVED

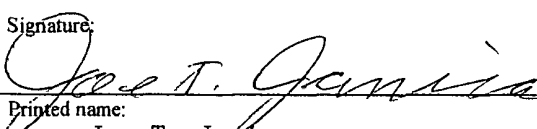
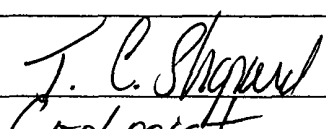
²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
26"	20"	Conductor	40'	Redi-mix	Surface
17 1/2"	13 3/8"	48#	450'	425 Sx.	SURFACE
12 1/2"	9 5/8"	36#	2625'	500 Sx.	SURFACE
7 7/8"	5 1/2"	17#	12,003'	1300 Sx.	Est. 2000' FS

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 ATTACHED SHEET FOR DETAIL



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: Joe T. Janica		Title: Geologist	
Title: Permit Eng.		Approval Date: 12/14/2011	Expiration Date:
E-mail Address: joejanica@valornet.com			
Date: 12/14/11	Phone: 575-391-8503	Conditions of Approval Attached ☐	

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

Form C-102
Revised October 15, 2009
Submit one copy to appropriate
District Office
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ Well Number 30-015-39787	² Pool Code 91876	³ Pool Name WILDCAT; Bone Spring
⁴ Property Code 38348	⁵ Property Name COPPERHEAD FEE A	
⁶ OGRID No. 217955	⁷ Operator Name OGX RESOURCES, LLC	
		⁸ Well Number 2H
		⁹ Elevation 2918.2

¹⁰ Surface Location

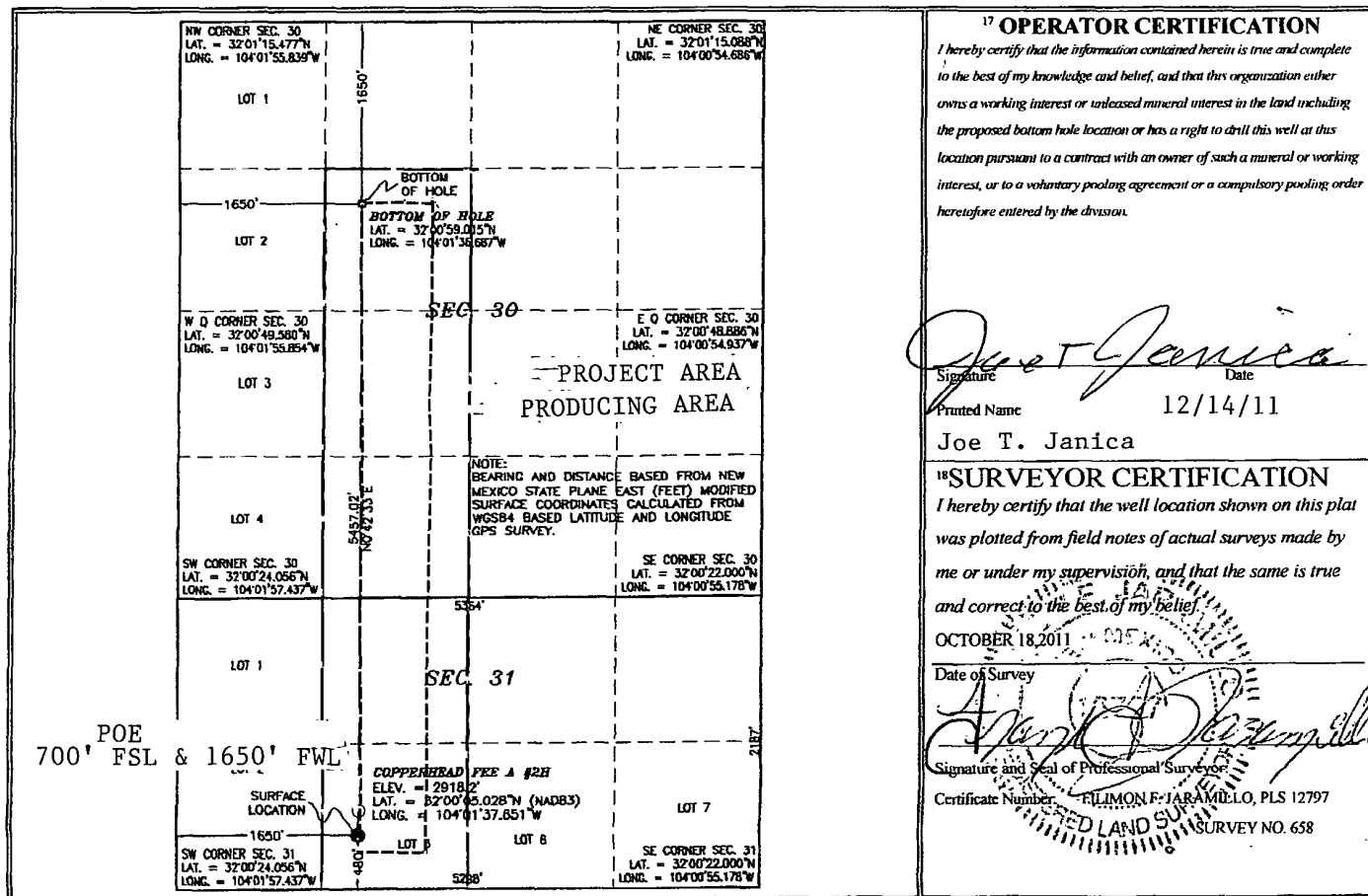
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
#3	31	26 S	29 E		480	SOUTH	1650	WEST	EDDY

¹¹ 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
F	30	26 S	29 E		1650	NORTH	1650	WEST	EDDY

¹² Dedicated Acres 184 183.75	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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.



1. Drill 26" hole to 40'. Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
2. Drill 17½" hole to 450'. Run and set 450' of 13 3/8" 48# H-40 ST&C casing. Cement with 225 Sx. of 35/65/6 Premium Plus Class "C" POZ cement + 6% Bentonite, + 5% Salt, + 5% MPA-5, + 0.7% Sodium Metasilicate, + 5# LCM/Sx. Yield 2.00, tail in with 200Sx. of Premium Plus Class "C" cement + 2% CaCl, Yield 1.34, circulate cement to surface.
3. Drill 12¼" hole to 2625'. Run and set 2625' of 9 5/8" 36# J-55 ST&C casing. Cement with 300 Sx. of 35/65 Premium Plus Class "C" cement + 4% Bentonite, + 5% Salt, + 5%-MPA-5, + 0.7% Sodium Metasilicate, + 5# LCM/Sx. Yield 2.02, tail in with 200 Sx. of Class "C" cement + 2% CaCl, Yield 1.34, circulate cement to surface.
4. Drill 7 7/8" hole to 12,003'. Run and set 12,003' of 5½" casing as follows: 5403' of 5½" 17# P-110 BT&C casing, 6600' of 5½" 17# P-110 LT&C casing. Cement with 400 Sx. of 35/65 Premium Plus Class "C" POZ cement + 4% Bentonite, + 5% Salt, + 5% MPA-5, + 0.7% Sodium Metasilicate, + 5# LCM/Sx Yield 2.02, tail in with 900 Sx. of Class "C" cement + 2% CaCl, Yield 1.34. top of cement no more than 2000' from surface.



Project: Eddy County, New Mexico (Nad83)
 Site: Copperhead Fee A
 Well: Copperhead Fee A 2H
 Wellbore: Wellbore #1
 Plan: Plan #1 1102811
 Rig: Silver Oak 11

SECTION DETAILS

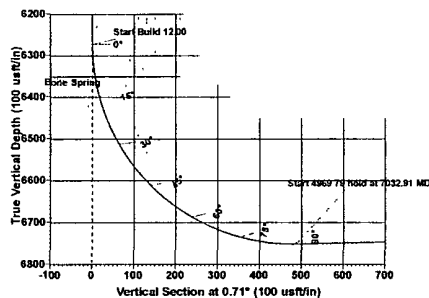
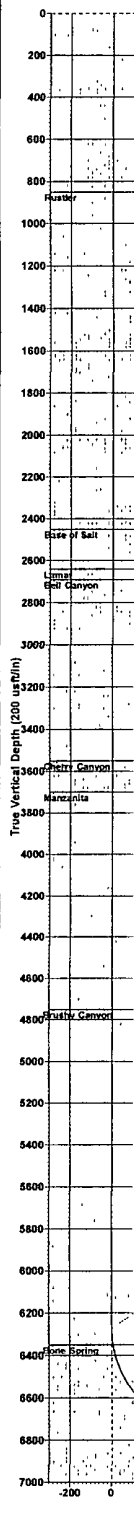
MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VSec	
0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	
6273 24	0 00	0 00	6273 24	0 00	0 00	0 00	0 00	0 00	
7032 91	91 16	0 71	6750 61	487 09	8 03	12 00	0 71	487 13	
12002 70	91 16	0 71	6650 00	5455 48	67 54	0 00	0 00	5455 90	BHL Copperhead Fee A 2H

ANNOTATIONS

TVD	MD	Annotation
6273 24	6273 24	Start Build 12 00
6750 61	7032 91	Start 4969 79 hold at 7032.91 MD
6650 03	12001 00	TD at 12002 70

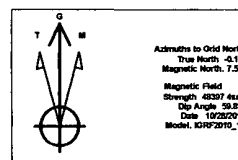
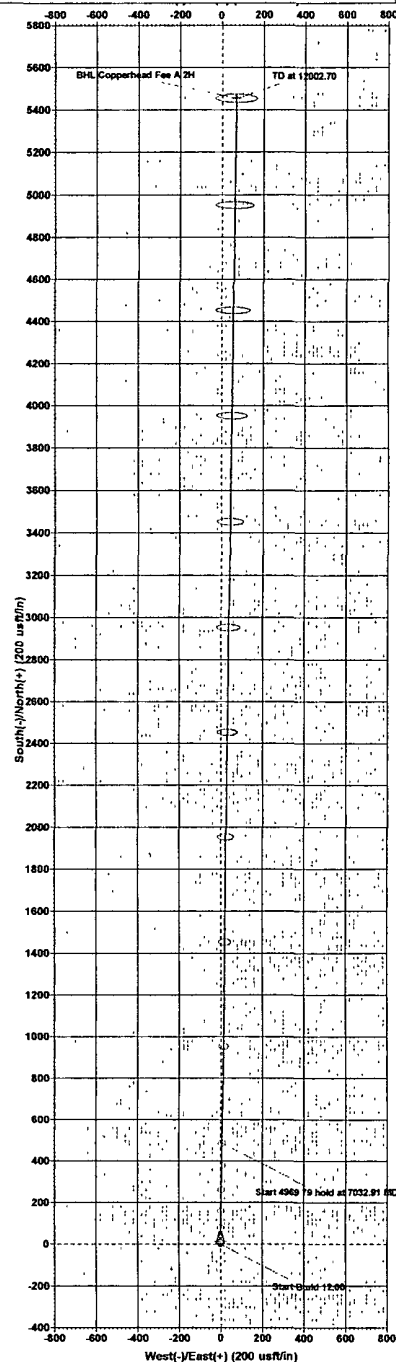
FORMATION TOP DETAILS

TVDPath	MDPath	Formation
650 00	850 00	Rustler
2450 00	2450 00	Base of Salt
2640 00	2640 00	Lamar
2690 00	2690 00	Bell Canyon
3550 00	3550 00	Cherry Canyon
3700 00	3700 00	Manzanita
4750 00	4750 00	Brushy Canyon
6350 00	6350 33	Bone Spring



WELL DETAILS: Copperhead Fee A 2H

Ground Level	2918 20	Latitude
North	East	Long
364382 01	636257 10	32° 0' 5.028 N 104° 1' 37.651 W



Adaptive to Grid North
 True North -0.10°
 Magnetic North 7.50°
 Magnetic Field
 Strength 45000 Gauss
 Dip Angle 59.89°
 Date 10/20/2011
 Model: IGRF2010_14

OGX Resources

Eddy County, New Mexico (Nad83)

Copperhead Fee A

Copperhead Fee A 2H

Wellbore #1

Plan: Plan #1 1102811

OGX Resources

28 October, 2011



Phoenix Technology Services

OGX Resources



Company:	OGX Resources	Local Co-ordinate Reference:	Well Copperhead Fee A 2H
Project:	Eddy County, New Mexico (Nad83)	TVD Reference:	WELL @ 2936.20usft (Original Well Elev + 18' KB)
Site:	Copperhead Fee A	MD Reference:	WELL @ 2936.20usft (Original Well Elev + 18' KB)
Well:	Copperhead Fee A 2H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1 1102811	Database:	GCR DB v5000

Project:	Eddy County, New Mexico (Nad83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site:	Copperhead Fee A		
Site Position:		Northing:	364,382.01 usft
From:	Lat/Long	Easting:	636,257.10 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 0' 5.028 N
		Longitude:	104° 1' 37.651 W
		Grid Convergence:	0.16 °

Well: Copperhead Fee A 2H						
Well Position	+N-S	0.00 usft	Northing:	364,382.01 usft	Latitude:	32° 0' 5.028 N
	+E-W	0.00 usft	Easting:	636,257.10 usft	Longitude:	104° 1' 37.651 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	2,918.20 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010_14	10/28/2011	7.73	59.89	48,397

Design: Plan #1 1102811				
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N-S	+E-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	0.71

Survey Tool Program	Date	10/28/2011		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
0.00	12,001.82	Plan #1 1102811 (Wellbore #1)	MWD	MWD - Standard

Phoenix Technology Services
OGX Resources



Company:	OGX Resources	Local Co-ordinate Reference:	Well Copperhead Fee A 2H
Project:	Eddy County, New Mexico (Nad83)	TVD Reference:	WELL @ 2936.20usft (Original Well Elev + 18' KB)
Site:	Copperhead Fee A	MD Reference:	WELL @ 2936.20usft (Original Well Elev + 18' KB)
Well:	Copperhead Fee A 2H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1 1102811	Database:	GCR DB v5000

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	V: Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
0.00	0.00	0.00	-2,936.20	0.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
100.00	0.00	0.00	-2,836.20	100.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
200.00	0.00	0.00	-2,736.20	200.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
300.00	0.00	0.00	-2,636.20	300.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
400.00	0.00	0.00	-2,536.20	400.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
500.00	0.00	0.00	-2,436.20	500.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
600.00	0.00	0.00	-2,336.20	600.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
700.00	0.00	0.00	-2,236.20	700.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
800.00	0.00	0.00	-2,136.20	800.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
850.00	0.00	0.00	-2,086.20	850.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
Rustler											
900.00	0.00	0.00	-2,036.20	900.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
1,000.00	0.00	0.00	-1,936.20	1,000.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
1,100.00	0.00	0.00	-1,836.20	1,100.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
1,200.00	0.00	0.00	-1,736.20	1,200.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
1,300.00	0.00	0.00	-1,636.20	1,300.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
1,400.00	0.00	0.00	-1,536.20	1,400.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
1,500.00	0.00	0.00	-1,436.20	1,500.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
1,600.00	0.00	0.00	-1,336.20	1,600.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
1,700.00	0.00	0.00	-1,236.20	1,700.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
1,800.00	0.00	0.00	-1,136.20	1,800.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
1,900.00	0.00	0.00	-1,036.20	1,900.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
2,000.00	0.00	0.00	-936.20	2,000.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
2,100.00	0.00	0.00	-836.20	2,100.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
2,200.00	0.00	0.00	-736.20	2,200.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
2,300.00	0.00	0.00	-636.20	2,300.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
2,400.00	0.00	0.00	-536.20	2,400.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	

Phoenix Technology Services
OGX Resources



Company:	OGX Resources	Local Co-ordinate Reference:	Well Copperhead Fee A 2H
Project:	Eddy County, New Mexico (Nad83)	TVD Reference:	WELL @ 2936.20usft (Original Well Elev + 18' KB)
Site:	Copperhead Fee A	MD Reference:	WELL @ 2936.20usft (Original Well Elev + 18' KB)
Well:	Copperhead Fee A 2H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1 1102811	Database:	GCR DB v5000

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
2,450.00	0.00	0.00	-486.20	2,450.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
Base of Salt											
2,500.00	0.00	0.00	-436.20	2,500.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
2,600.00	0.00	0.00	-336.20	2,600.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
2,640.00	0.00	0.00	-296.20	2,640.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
Lamar											
2,690.00	0.00	0.00	-246.20	2,690.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
Bell Canyon											
2,700.00	0.00	0.00	-236.20	2,700.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
2,800.00	0.00	0.00	-136.20	2,800.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
2,900.00	0.00	0.00	-36.20	2,900.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
3,000.00	0.00	0.00	63.80	3,000.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
3,100.00	0.00	0.00	163.80	3,100.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
3,200.00	0.00	0.00	263.80	3,200.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
3,300.00	0.00	0.00	363.80	3,300.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
3,400.00	0.00	0.00	463.80	3,400.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
3,500.00	0.00	0.00	563.80	3,500.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
3,550.00	0.00	0.00	613.80	3,550.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
Cherry Canyon											
3,600.00	0.00	0.00	663.80	3,600.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
3,700.00	0.00	0.00	763.80	3,700.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
Manzanita											
3,800.00	0.00	0.00	863.80	3,800.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
3,900.00	0.00	0.00	963.80	3,900.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
4,000.00	0.00	0.00	1,063.80	4,000.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
4,100.00	0.00	0.00	1,163.80	4,100.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
4,200.00	0.00	0.00	1,263.80	4,200.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	
4,300.00	0.00	0.00	1,363.80	4,300.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10	

Phoenix Technology Services

OGX Resources



Company:	OGX Resources	Local Co-ordinate Reference:	Well Copperhead Fee A 2H
Project:	Eddy County, New Mexico (Nad83)	TVD Reference:	WELL @ 2936 20usft (Original Well Elev + 18' KB)
Site:	Copperhead Fee A	MD Reference:	WELL @ 2936.20usft (Original Well Elev + 18' KB)
Well:	Copperhead Fee A 2H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1 1102811	Database:	GCR DB v5000

Planned Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
4,400.00	0.00	0.00	1,463.80	4,400.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10
4,500.00	0.00	0.00	1,563.80	4,500.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10
4,600.00	0.00	0.00	1,663.80	4,600.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10
4,700.00	0.00	0.00	1,763.80	4,700.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10
4,750.00	0.00	0.00	1,813.80	4,750.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10
Brushy Canyon										
4,800.00	0.00	0.00	1,863.80	4,800.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10
4,900.00	0.00	0.00	1,963.80	4,900.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10
5,000.00	0.00	0.00	2,063.80	5,000.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10
5,100.00	0.00	0.00	2,163.80	5,100.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10
5,200.00	0.00	0.00	2,263.80	5,200.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10
5,300.00	0.00	0.00	2,363.80	5,300.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10
5,400.00	0.00	0.00	2,463.80	5,400.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10
5,500.00	0.00	0.00	2,563.80	5,500.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10
5,600.00	0.00	0.00	2,663.80	5,600.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10
5,700.00	0.00	0.00	2,763.80	5,700.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10
5,800.00	0.00	0.00	2,863.80	5,800.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10
5,900.00	0.00	0.00	2,963.80	5,900.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10
6,000.00	0.00	0.00	3,063.80	6,000.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10
6,100.00	0.00	0.00	3,163.80	6,100.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10
6,200.00	0.00	0.00	3,263.80	6,200.00	0.00	0.00	0.00	0.00	364,382.01	636,257.10
6,273.24	0.00	0.00	3,337.04	6,273.24	0.00	0.00	0.00	0.00	364,382.01	636,257.10
Start Build 12.00										
6,300.00	3.21	0.71	3,363.79	6,299.99	0.75	0.01	0.75	12.00	364,382.76	636,257.11
6,350.33	9.25	0.71	3,413.80	6,350.00	6.21	0.08	6.21	12.00	364,388.22	636,257.18
Bone Spring										
6,400.00	15.21	0.71	3,462.32	6,398.52	16.73	0.21	16.73	12.00	364,398.74	636,257.31

Phoenix Technology Services
OGX Resources



Company:	OGX Resources	Local Co-ordinate Reference:	Well Copperhead Fee A 2H
Project:	Eddy County, New Mexico (Nad83)	TVD Reference:	WELL @ 2936.20usft (Original Well Elev + 18' KB)
Site:	Copperhead Fee A	MD Reference:	WELL @ 2936.20usft (Original Well Elev + 18' KB)
Well:	Copperhead Fee A 2H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1 1102811	Database:	GCR DB v5000

Planned Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
6,500.00	27.21	0.71	3,555.37	6,491.57	52.84	0.65	52.84	12.00	364,434.85	636,257.76
6,600.00	39.21	0.71	3,638.88	6,575.08	107.50	1.33	107.51	12.00	364,489.51	636,258.43
6,700.00	51.21	0.71	3,709.21	6,645.41	178.34	2.21	178.35	12.00	364,560.35	636,259.31
6,800.00	63.21	0.71	3,763.26	6,699.46	262.25	3.25	262.27	12.00	364,644.26	636,260.35
6,900.00	75.21	0.71	3,798.69	6,734.89	355.56	4.40	355.59	12.00	364,737.57	636,261.51
7,000.00	87.21	0.71	3,813.94	6,750.14	454.20	5.62	454.23	12.00	364,836.21	636,262.73
7,032.91	91.16	0.71	3,814.41	6,750.61	487.09	6.03	487.13	12.00	364,869.10	636,263.13
Start 4969.79 hold at 7032.91 MD										
7,100.00	91.16	0.71	3,813.05	6,749.25	554.16	6.86	554.21	0.00	364,936.17	636,263.96
7,200.00	91.16	0.71	3,811.03	6,747.23	654.14	8.10	654.19	0.00	365,036.15	636,265.20
7,300.00	91.16	0.71	3,809.00	6,745.20	754.11	9.34	754.17	0.00	365,136.12	636,266.44
7,400.00	91.16	0.71	3,806.98	6,743.18	854.08	10.57	854.15	0.00	365,236.09	636,267.68
7,500.00	91.16	0.71	3,804.95	6,741.15	954.05	11.81	954.12	0.00	365,336.06	636,268.92
7,600.00	91.16	0.71	3,802.93	6,739.13	1,054.02	13.05	1,054.10	0.00	365,436.03	636,270.15
7,700.00	91.16	0.71	3,800.91	6,737.11	1,154.00	14.29	1,154.08	0.00	365,536.01	636,271.39
7,800.00	91.16	0.71	3,798.88	6,735.08	1,253.97	15.52	1,254.06	0.00	365,635.98	636,272.63
7,900.00	91.16	0.71	3,796.86	6,733.06	1,353.94	16.76	1,354.04	0.00	365,735.95	636,273.87
8,000.00	91.16	0.71	3,794.83	6,731.03	1,453.91	18.00	1,454.02	0.00	365,835.92	636,275.10
8,100.00	91.16	0.71	3,792.81	6,729.01	1,553.88	19.24	1,554.00	0.00	365,935.89	636,276.34
8,200.00	91.16	0.71	3,790.78	6,726.98	1,653.85	20.48	1,653.98	0.00	366,035.86	636,277.58
8,300.00	91.16	0.71	3,788.76	6,724.96	1,753.83	21.71	1,753.96	0.00	366,135.84	636,278.82
8,400.00	91.16	0.71	3,786.73	6,722.93	1,853.80	22.95	1,853.94	0.00	366,235.81	636,280.05
8,500.00	91.16	0.71	3,784.71	6,720.91	1,953.77	24.19	1,953.92	0.00	366,335.78	636,281.29
8,600.00	91.16	0.71	3,782.69	6,718.89	2,053.74	25.43	2,053.90	0.00	366,435.75	636,282.53
8,700.00	91.16	0.71	3,780.66	6,716.86	2,153.71	26.66	2,153.88	0.00	366,535.72	636,283.77
8,800.00	91.16	0.71	3,778.64	6,714.84	2,253.69	27.90	2,253.86	0.00	366,635.70	636,285.00
8,900.00	91.16	0.71	3,776.61	6,712.81	2,353.66	29.14	2,353.84	0.00	366,735.67	636,286.24

Phoenix Technology Services
OGX Resources



Company:	OGX Resources	Local Co-ordinate Reference:	Well Copperhead Fee A 2H
Project:	Eddy County, New Mexico (Nad83)	TVD Reference:	WELL @ 2936.20usft (Original Well Elev + 18' KB)
Site:	Copperhead Fee A	MD Reference:	WELL @ 2936.20usft (Original Well Elev + 18' KB)
Well:	Copperhead Fee A 2H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1 1102811	Database:	GCR DB v5000

Planned Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
9,000.00	91.16	0.71	3,774.59	6,710.79	2,453.63	30.38	2,453.82	0.00	366,835.64	636,287.48
9,100.00	91.16	0.71	3,772.56	6,708.76	2,553.60	31.61	2,553.80	0.00	366,935.61	636,288.72
9,200.00	91.16	0.71	3,770.54	6,706.74	2,653.57	32.85	2,653.78	0.00	367,035.58	636,289.96
9,300.00	91.16	0.71	3,768.51	6,704.71	2,753.54	34.09	2,753.76	0.00	367,135.55	636,291.19
9,400.00	91.16	0.71	3,766.49	6,702.69	2,853.52	35.33	2,853.74	0.00	367,235.53	636,292.43
9,500.00	91.16	0.71	3,764.47	6,700.67	2,953.49	36.56	2,953.71	0.00	367,335.50	636,293.67
9,600.00	91.16	0.71	3,762.44	6,698.64	3,053.46	37.80	3,053.69	0.00	367,435.47	636,294.91
9,700.00	91.16	0.71	3,760.42	6,696.62	3,153.43	39.04	3,153.67	0.00	367,535.44	636,296.14
9,800.00	91.16	0.71	3,758.39	6,694.59	3,253.40	40.28	3,253.65	0.00	367,635.41	636,297.38
9,900.00	91.16	0.71	3,756.37	6,692.57	3,353.38	41.52	3,353.63	0.00	367,735.39	636,298.62
10,000.00	91.16	0.71	3,754.34	6,690.54	3,453.35	42.75	3,453.61	0.00	367,835.36	636,299.86
10,100.00	91.16	0.71	3,752.32	6,688.52	3,553.32	43.99	3,553.59	0.00	367,935.33	636,301.09
10,200.00	91.16	0.71	3,750.29	6,686.49	3,653.29	45.23	3,653.57	0.00	368,035.30	636,302.33
10,300.00	91.16	0.71	3,748.27	6,684.47	3,753.26	46.47	3,753.55	0.00	368,135.27	636,303.57
10,400.00	91.16	0.71	3,746.25	6,682.45	3,853.24	47.70	3,853.53	0.00	368,235.24	636,304.81
10,500.00	91.16	0.71	3,744.22	6,680.42	3,953.21	48.94	3,953.51	0.00	368,335.22	636,306.05
10,600.00	91.16	0.71	3,742.20	6,678.40	4,053.18	50.18	4,053.49	0.00	368,435.19	636,307.28
10,700.00	91.16	0.71	3,740.17	6,676.37	4,153.15	51.42	4,153.47	0.00	368,535.16	636,308.52
10,800.00	91.16	0.71	3,738.15	6,674.35	4,253.12	52.65	4,253.45	0.00	368,635.13	636,309.76
10,900.00	91.16	0.71	3,736.12	6,672.32	4,353.09	53.89	4,353.43	0.00	368,735.10	636,311.00
11,000.00	91.16	0.71	3,734.10	6,670.30	4,453.07	55.13	4,453.41	0.00	368,835.08	636,312.23
11,100.00	91.16	0.71	3,732.07	6,668.27	4,553.04	56.37	4,553.39	0.00	368,935.05	636,313.47
11,200.00	91.16	0.71	3,730.05	6,666.25	4,653.01	57.61	4,653.37	0.00	369,035.02	636,314.71
11,300.00	91.16	0.71	3,728.03	6,664.23	4,752.98	58.84	4,753.35	0.00	369,134.99	636,315.95
11,400.00	91.16	0.71	3,726.00	6,662.20	4,852.95	60.08	4,853.33	0.00	369,234.96	636,317.18
11,500.00	91.16	0.71	3,723.98	6,660.18	4,952.93	61.32	4,953.31	0.00	369,334.94	636,318.42
11,600.00	91.16	0.71	3,721.95	6,658.15	5,052.90	62.56	5,053.28	0.00	369,434.91	636,319.66

Phoenix Technology Services

OGX Resources



Company:	OGX Resources	Local Co-ordinate Reference:	Well Copperhead Fee A 2H
Project:	Eddy County, New Mexico (Nad83)	TVD Reference:	WELL @ 2936.20usft (Original Well Elev + 18' KB)
Site:	Copperhead Fee A	MD Reference:	WELL @ 2936.20usft (Original Well Elev + 18' KB)
Well:	Copperhead Fee A 2H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1 1102811	Database:	GCR DB v5000

Planned Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
11,700.00	91.16	0.71	3,719.93	6,656.13	5,152.87	63.79	5,153.26	0.00	369,534.88	636,320.90
11,800.00	91.16	0.71	3,717.90	6,654.10	5,252.84	65.03	5,253.24	0.00	369,634.85	636,322.13
11,900.00	91.16	0.71	3,715.88	6,652.08	5,352.81	66.27	5,353.22	0.00	369,734.82	636,323.37
12,000.00	91.16	0.71	3,713.85	6,650.05	5,452.78	67.51	5,453.20	0.00	369,834.79	636,324.61
12,002.70	91.16	0.71	3,713.80	6,650.00	5,455.48	67.54	5,455.90	0.00	369,837.49	636,324.64
TD at 12002.70										

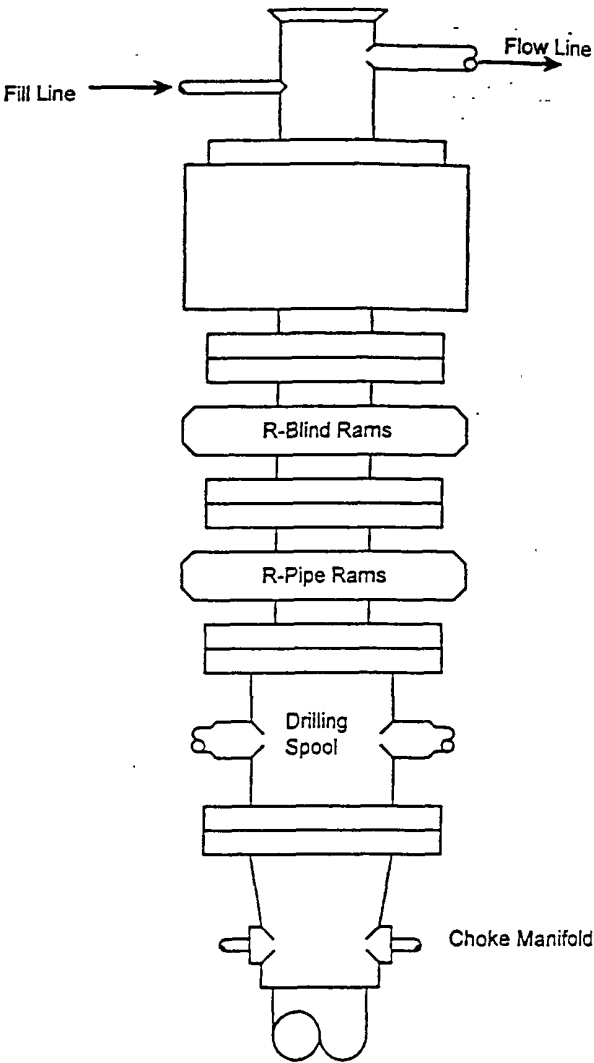
Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,450.00	2,450.00	Base of Salt		0.00	
850.00	850.00	Rustler		0.00	
6,350.33	6,350.00	Bone Spring		0.00	
2,690.00	2,690.00	Bell Canyon		0.00	
4,750.00	4,750.00	Brushy Canyon		0.00	
2,640.00	2,640.00	Lamar		0.00	
3,550.00	3,550.00	Cherry Canyon		0.00	
3,700.00	3,700.00	Manzanita		0.00	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
6,273.24	6,273.24	0.00	0.00	Start Build 12.00	
7,032.91	6,750.61	487.09	6.03	Start 4969.79 hold at 7032.91 MD	
12,002.70	6,650.00	5,455.48	67.54	TD at 12002.70	

Checked By: _____	Approved By: _____	Date: _____
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BLOWOUT PREVENTER SYSTEM

3000 PSI



Type 900 SERIES
3000 PSI WP

Choke Manifold Assembly for 5M WP System

