



Project: Eddy County, New Mexico (Nad83)
 Site: Copperhead 30 Fee
 Well: Copperhead 30 Fee 1H
 Wellbore: Wellbore #1
 Plan: Plan #1 102511
 Rig: Silver Oak 11

WELL DETAILS: Copperhead 30 Fee 1H

North	East	Ground Level	2947.90	Latitude	32° 1' 10.370 N	Longitude	104° 1' 0.306 W
370993.92	639453.43						

SECTION DETAILS

MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VSeet
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6523.06	0.00	0.00	6523.06	0.00	0.00	0.00	0.00	0.00
7285.14	91.45	272.19	7000.37	18.74	-489.19	12.00	272.19	489.55
11251.67	91.45	272.19	6900.00	170.56	-4451.54	0.00	0.00	4454.81

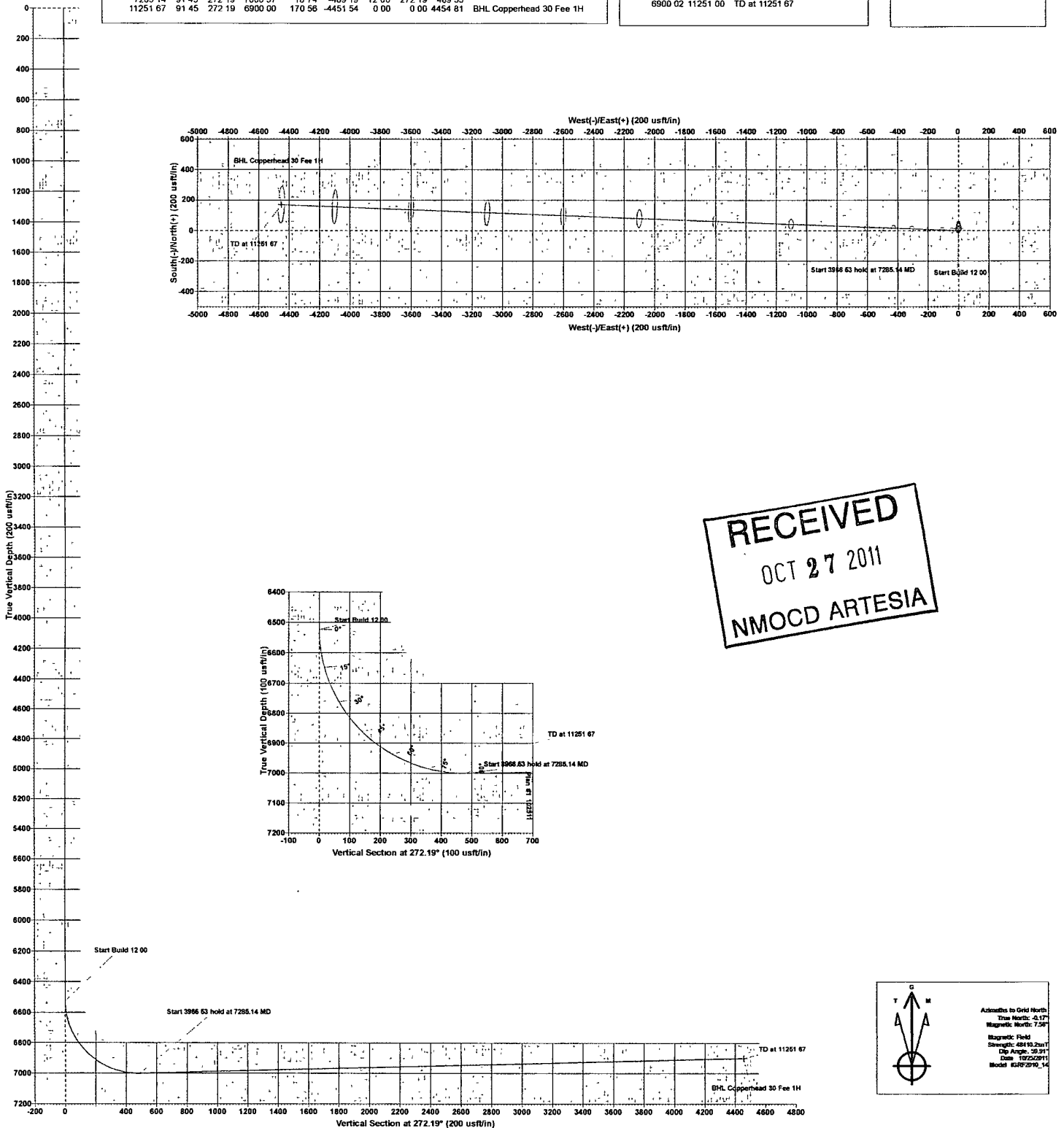
BHL Copperhead 30 Fee 1H

ANNOTATIONS

TVD	MD	Annotation
6523.06	6523.06	Start Build 12.00
7000.37	7285.14	Start 3966.63 hold at 7285.14 MD
6900.02	11251.00	TD at 11251.67

FORMATION TOP DETAILS

No formation data is available



OGX Resources

Eddy County, New Mexico (Nad83)

Copperhead 30 Fee

Copperhead 30 Fee 1H

Wellbore #1

Plan: Plan #1 102511

OGX Resources

25 October, 2011



Phoenix Technology Services

OGX Resources



Company:	OGX Resources	Local Co-ordinate Reference:	Well Copperhead 30 Fee 1H
Project:	Eddy County, New Mexico (Nad83)	TVD Reference:	WELL @ 2965.90usft (Original Well Elev + 18' KB)
Site:	Copperhead 30 Fee	MD Reference:	WELL @ 2965.90usft (Original Well Elev + 18' KB)
Well:	Copperhead 30 Fee 1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1 102511	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 30 Fee		
Site Position:		Northing:	370,993.92 usft
From:	Lat/Long	Easting:	639,453.43 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 1' 10.370 N
		Longitude:	104° 1' 0.306 W
		Grid Convergence:	0.17 °

Well		Copperhead 30 Fee 1H				
Well Position	+N/-S	0.00 usft	Northing:	370,993.92 usft	Latitude:	32° 1' 10.370 N
	+E/-W	0.00 usft	Easting:	639,453.43 usft	Longitude:	104° 1' 0.306 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	2,947.90 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010_14	10/25/2011	7.73	59.91	48,410

Design	Plan #1 102511			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	272.19

Survey Tool Program	Date	10/25/2011		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	11,250.96	Plan #1 102511 (Wellbore #1)	MWD	MWD - Standard

Phoenix Technology Services

OGX Resources



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Well:	Copperhead 30 Fee 1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1 102511	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	-2,965.90	0.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
100.00	0.00	0.00	-2,865.90	100.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
200.00	0.00	0.00	-2,765.90	200.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
300.00	0.00	0.00	-2,665.90	300.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
400.00	0.00	0.00	-2,565.90	400.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
500.00	0.00	0.00	-2,465.90	500.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
600.00	0.00	0.00	-2,365.90	600.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
700.00	0.00	0.00	-2,265.90	700.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
800.00	0.00	0.00	-2,165.90	800.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
900.00	0.00	0.00	-2,065.90	900.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
1,000.00	0.00	0.00	-1,965.90	1,000.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
1,100.00	0.00	0.00	-1,865.90	1,100.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
1,200.00	0.00	0.00	-1,765.90	1,200.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
1,300.00	0.00	0.00	-1,665.90	1,300.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
1,400.00	0.00	0.00	-1,565.90	1,400.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
1,500.00	0.00	0.00	-1,465.90	1,500.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
1,600.00	0.00	0.00	-1,365.90	1,600.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
1,700.00	0.00	0.00	-1,265.90	1,700.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
1,800.00	0.00	0.00	-1,165.90	1,800.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
1,900.00	0.00	0.00	-1,065.90	1,900.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
2,000.00	0.00	0.00	-965.90	2,000.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
2,100.00	0.00	0.00	-865.90	2,100.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
2,200.00	0.00	0.00	-765.90	2,200.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
2,300.00	0.00	0.00	-665.90	2,300.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
2,400.00	0.00	0.00	-565.90	2,400.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
2,500.00	0.00	0.00	-465.90	2,500.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
2,600.00	0.00	0.00	-365.90	2,600.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	

Phoenix Technology Services

OGX Resources



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Site:	Copperhead 30 Fee	MD Reference:	WELL @ 2965.90usft (Original Well Elev + 18' KB)
Well:	Copperhead 30 Fee 1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1 102511	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)	
2,700.00	0.00	0.00	-265.90	2,700.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
2,800.00	0.00	0.00	-165.90	2,800.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
2,900.00	0.00	0.00	-65.90	2,900.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
3,000.00	0.00	0.00	34.10	3,000.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
3,100.00	0.00	0.00	134.10	3,100.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
3,200.00	0.00	0.00	234.10	3,200.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
3,300.00	0.00	0.00	334.10	3,300.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
3,400.00	0.00	0.00	434.10	3,400.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
3,500.00	0.00	0.00	534.10	3,500.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
3,600.00	0.00	0.00	634.10	3,600.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
3,700.00	0.00	0.00	734.10	3,700.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
3,800.00	0.00	0.00	834.10	3,800.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
3,900.00	0.00	0.00	934.10	3,900.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
4,000.00	0.00	0.00	1,034.10	4,000.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
4,100.00	0.00	0.00	1,134.10	4,100.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
4,200.00	0.00	0.00	1,234.10	4,200.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
4,300.00	0.00	0.00	1,334.10	4,300.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
4,400.00	0.00	0.00	1,434.10	4,400.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
4,500.00	0.00	0.00	1,534.10	4,500.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
4,600.00	0.00	0.00	1,634.10	4,600.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
4,700.00	0.00	0.00	1,734.10	4,700.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
4,800.00	0.00	0.00	1,834.10	4,800.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
4,900.00	0.00	0.00	1,934.10	4,900.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
5,000.00	0.00	0.00	2,034.10	5,000.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
5,100.00	0.00	0.00	2,134.10	5,100.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
5,200.00	0.00	0.00	2,234.10	5,200.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
5,300.00	0.00	0.00	2,334.10	5,300.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	

Phoenix Technology Services
OGX Resources



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Project:	Eddy County, New Mexico (Nad83)	TVD Reference:	WELL @ 2965.90usft (Original Well Elev + 18' KB)
Site:	Copperhead 30 Fee	MD Reference:	WELL @ 2965.90usft (Original Well Elev + 18' KB)
Well:	Copperhead 30 Fee 1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1 102511	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)	
5,400.00	0.00	0.00	2,434.10	5,400.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
5,500.00	0.00	0.00	2,534.10	5,500.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
5,600.00	0.00	0.00	2,634.10	5,600.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
5,700.00	0.00	0.00	2,734.10	5,700.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
5,800.00	0.00	0.00	2,834.10	5,800.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
5,900.00	0.00	0.00	2,934.10	5,900.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
6,000.00	0.00	0.00	3,034.10	6,000.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
6,100.00	0.00	0.00	3,134.10	6,100.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
6,200.00	0.00	0.00	3,234.10	6,200.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
6,300.00	0.00	0.00	3,334.10	6,300.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
6,400.00	0.00	0.00	3,434.10	6,400.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
6,500.00	0.00	0.00	3,534.10	6,500.00	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
6,523.06	0.00	0.00	3,557.16	6,523.06	0.00	0.00	0.00	0.00	370,993.92	639,453.43	
Start Build 12.00											
6,600.00	9.23	272.19	3,633.77	6,599.67	0.24	-6.18	6.19	12.00	370,994.16	639,447.25	
6,700.00	21.23	272.19	3,730.08	6,695.98	1.24	-32.39	32.41	12.00	370,995.16	639,421.04	
6,800.00	33.23	272.19	3,818.83	6,784.73	2.99	-78.03	78.09	12.00	370,996.91	639,375.40	
6,900.00	45.23	272.19	3,896.15	6,862.05	5.41	-141.12	141.22	12.00	370,999.33	639,312.32	
7,000.00	57.23	272.19	3,958.65	6,924.55	8.39	-218.89	219.05	12.00	371,002.31	639,234.55	
7,100.00	69.23	272.19	4,003.60	6,969.50	11.80	-307.94	308.17	12.00	371,005.72	639,145.49	
7,200.00	81.23	272.19	4,029.05	6,994.95	15.49	-404.39	404.69	12.00	371,009.41	639,049.04	
7,285.14	91.45	272.19	4,034.47	7,000.37	18.74	-489.19	489.55	12.00	371,012.66	638,964.25	
Start 3966.53 hold at 7285.14 MD											
7,300.00	91.45	272.19	4,034.10	7,000.00	19.31	-504.03	504.40	0.00	371,013.23	638,949.40	
7,400.00	91.45	272.19	4,031.56	6,997.46	23.14	-603.92	604.37	0.00	371,017.06	638,849.51	
7,500.00	91.45	272.19	4,029.03	6,994.93	26.97	-703.82	704.34	0.00	371,020.89	638,749.61	
7,600.00	91.45	272.19	4,026.50	6,992.40	30.79	-803.71	804.30	0.00	371,024.71	638,649.72	

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7,700.00	91.45	272.19	4,023.97	6,989.87	34.62	-903.61	904.27	0.00	371,028.54	638,549.82	
7,800.00	91.45	272.19	4,021.44	6,987.34	38.45	-1,003.50	1,004.24	0.00	371,032.37	638,449.93	
7,900.00	91.45	272.19	4,018.91	6,984.81	42.28	-1,103.40	1,104.21	0.00	371,036.19	638,350.04	
8,000.00	91.45	272.19	4,016.38	6,982.28	46.10	-1,203.29	1,204.18	0.00	371,040.02	638,250.14	
8,100.00	91.45	272.19	4,013.85	6,979.75	49.93	-1,303.19	1,304.14	0.00	371,043.85	638,150.25	
8,200.00	91.45	272.19	4,011.32	6,977.22	53.76	-1,403.08	1,404.11	0.00	371,047.68	638,050.35	
8,300.00	91.45	272.19	4,008.79	6,974.69	57.58	-1,502.98	1,504.08	0.00	371,051.50	637,950.46	
8,400.00	91.45	272.19	4,006.26	6,972.16	61.41	-1,602.87	1,604.05	0.00	371,055.33	637,850.56	
8,500.00	91.45	272.19	4,003.73	6,969.63	65.24	-1,702.77	1,704.02	0.00	371,059.16	637,750.67	
8,600.00	91.45	272.19	4,001.20	6,967.10	69.07	-1,802.66	1,803.98	0.00	371,062.99	637,650.77	
8,700.00	91.45	272.19	3,998.67	6,964.57	72.89	-1,902.56	1,903.95	0.00	371,066.81	637,550.88	
8,800.00	91.45	272.19	3,996.14	6,962.04	76.72	-2,002.45	2,003.92	0.00	371,070.64	637,450.98	
8,900.00	91.45	272.19	3,993.61	6,959.51	80.55	-2,102.34	2,103.89	0.00	371,074.47	637,351.09	
9,000.00	91.45	272.19	3,991.08	6,956.98	84.38	-2,202.24	2,203.85	0.00	371,078.30	637,251.19	
9,100.00	91.45	272.19	3,988.55	6,954.45	88.20	-2,302.13	2,303.82	0.00	371,082.12	637,151.30	
9,200.00	91.45	272.19	3,986.02	6,951.92	92.03	-2,402.03	2,403.79	0.00	371,085.95	637,051.40	
9,300.00	91.45	272.19	3,983.49	6,949.39	95.86	-2,501.92	2,503.76	0.00	371,089.78	636,951.51	
9,400.00	91.45	272.19	3,980.96	6,946.86	99.69	-2,601.82	2,603.73	0.00	371,093.61	636,851.62	
9,500.00	91.45	272.19	3,978.43	6,944.33	103.51	-2,701.71	2,703.69	0.00	371,097.43	636,751.72	
9,600.00	91.45	272.19	3,975.89	6,941.79	107.34	-2,801.61	2,803.66	0.00	371,101.26	636,651.83	
9,700.00	91.45	272.19	3,973.36	6,939.26	111.17	-2,901.50	2,903.63	0.00	371,105.09	636,551.93	
9,800.00	91.45	272.19	3,970.83	6,936.73	115.00	-3,001.40	3,003.60	0.00	371,108.91	636,452.04	
9,900.00	91.45	272.19	3,968.30	6,934.20	118.82	-3,101.29	3,103.57	0.00	371,112.74	636,352.14	
10,000.00	91.45	272.19	3,965.77	6,931.67	122.65	-3,201.19	3,203.53	0.00	371,116.57	636,252.25	
10,100.00	91.45	272.19	3,963.24	6,929.14	126.48	-3,301.08	3,303.50	0.00	371,120.40	636,152.35	
10,200.00	91.45	272.19	3,960.71	6,926.61	130.30	-3,400.98	3,403.47	0.00	371,124.22	636,052.46	
10,300.00	91.45	272.19	3,958.18	6,924.08	134.13	-3,500.87	3,503.44	0.00	371,128.05	635,952.56	

Phoenix Technology Services
OGX Resources



Company:	OGX Resources	Local Co-ordinate Reference:	Well Copperhead 30 Fee 1H
Project:	Eddy County, New Mexico (Nad83)	TVD Reference:	WELL @ 2965.90usft (Original Well Elev + 18' KB)
Site:	Copperhead 30 Fee	MD Reference:	WELL @ 2965.90usft (Original Well Elev + 18' KB)
Well:	Copperhead 30 Fee 1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1 102511	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)	
10,400.00	91.45	272.19	3,955.65	6,921.55	137.96	-3,600.76	3,603.41	0.00	371,131.88	635,852.67	
10,500.00	91.45	272.19	3,953.12	6,919.02	141.79	-3,700.66	3,703.37	0.00	371,135.71	635,752.77	
10,600.00	91.45	272.19	3,950.59	6,916.49	145.61	-3,800.55	3,803.34	0.00	371,139.53	635,652.88	
10,700.00	91.45	272.19	3,948.06	6,913.96	149.44	-3,900.45	3,903.31	0.00	371,143.36	635,552.98	
10,800.00	91.45	272.19	3,945.53	6,911.43	153.27	-4,000.34	4,003.28	0.00	371,147.19	635,453.09	
10,900.00	91.45	272.19	3,943.00	6,908.90	157.10	-4,100.24	4,103.25	0.00	371,151.02	635,353.19	
11,000.00	91.45	272.19	3,940.47	6,906.37	160.92	-4,200.13	4,203.21	0.00	371,154.84	635,253.30	
11,100.00	91.45	272.19	3,937.94	6,903.84	164.75	-4,300.03	4,303.18	0.00	371,158.67	635,153.41	
11,200.00	91.45	272.19	3,935.41	6,901.31	168.58	-4,399.92	4,403.15	0.00	371,162.50	635,053.51	
11,251.67	91.45	272.19	3,934.10	6,900.00	170.56	-4,451.54	4,454.81	0.00	371,164.48	635,001.89	
TD at 11251.67											

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
6,523.06	6,523.06	0.00	0.00	Start Build 12.00	
7,285.14	7,000.37	18.74	-489.19	Start 3966.53 hold at 7285.14 MD	
11,251.67	6,900.00	170.56	-4,451.54	TD at 11251.67	

Checked By: _____	Approved By: _____	Date: _____
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