

PO Box 1370
Artesia, NM 88211-1370
(575) 748-1288

15-39623

March 5, 2012

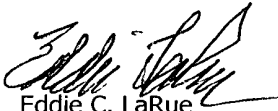
COG, LLC
Fasken Center, Tower II
550 West Texas Ave, Suite 1300
Midland, TX 79701

RE: Paint 32 Fee #1H
2210' FSL & 190' FWL
Sec. 32, T18S, R26E
Eddy County, New Mexico

Dear Sir,

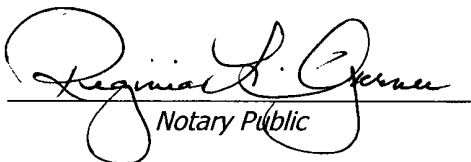
The attached is the Deviation Survey for the above captioned well.

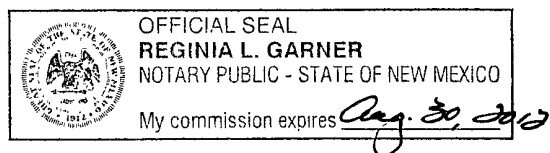
Very truly yours,


Eddie C. LaRue
Operations Manager

State of New Mexico }
County of Eddy }

The foregoing was acknowledged before me this 5th day of March, 2012.


Notary Public



Paint 32 Fee #1H

Date	Depth	Deviation	Direction	TVD
2/16/2012	146	0.70		
2/16/2012	239	0.50		
2/16/2012	327	0.10		
2/16/2012	415	0.30		
2/16/2012	664	1.30		
2/16/2012	757	1.30		
2/18/2012	910	1.40		
2/18/2012	1002	1.50		
2/18/2012	1096	1.50		
2/18/2012	1220	1.10		
2/19/2012	1407	0.80		
2/19/2012	1657	0.70		
2/19/2012	1844	0.80		
2/19/2012	1953	0.70		
2/20/2012	1984	1.10	328.60	
2/20/2012	2015	0.50	357.90	
2/20/2012	2046	2.80	88.60	
2/20/2012	2077	7.00	93.50	
2/20/2012	2108	11.10	94.90	2107.00
2/20/2012	2139	15.00	93.00	2137.00
2/20/2012	2265	28.00	90.20	
2/20/2012	2295	31.00	88.90	
2/20/2012	2326	34.00	88.70	
2/21/2012	2388	40.40	90.70	2356.55
2/21/2012	2420	44.30	90.60	2379.45
2/21/2012	2451	47.60	91.60	2401.00
2/21/2012	2482	50.90	92.30	2421.24
2/21/2012	2513	53.80	93.20	2440.74
2/21/2012	2545	57.10	93.30	
2/21/2012	2638	66.80	92.70	
2/21/2012	2576	60.20	92.70	
2/21/2012	2669	69.90	93.40	2513.00
2/21/2012	2607	63.50	92.50	
2/21/2012	2700	72.70	93.10	
2/21/2012	2763	78.10	93.40	
2/21/2012	2794	80.70	93.10	
2/21/2012	2825	83.30	92.30	
2/22/2012	2949	90.00	89.00	2555.00
2/22/2012	3043	90.00	89.00	2555.00
2/22/2012	3136	87.90	88.80	
2/23/2012	3226	88.50	89.00	
2/23/2012	3320	87.80	88.40	
2/23/2012	3413	88.40	88.00	2566.31

Date	Depth	Deviation	Direction	TVD
2/23/2012	3504	87.20	89.00	2570.37
2/23/2012	3697	88.70	88.50	2577.00
2/23/2012	3792	89.50	88.60	2578.00
2/23/2012	3885	88.80	88.90	
2/23/2012	3979	88.20	88.70	
2/23/2012	4072	86.80	89.40	
2/24/2012	4166	87.10	89.50	2591.00
2/24/2012	4260	87.70	89.40	2596.00
2/24/2012	4354	88.30	89.10	2599.36
2/24/2012	4448	87.30	88.60	
2/24/2012	4541	87.80	88.30	
2/25/2012	4634	88.10	87.80	2610.00
2/25/2012	4728	87.80	88.10	2613.00
2/25/2012	4822	89.10	87.50	2616.00
2/25/2012	4915	88.00	88.60	2618.00
2/25/2012	5009	88.50	88.20	2621.00
2/25/2012	5102	86.40	89.20	2625.00
2/25/2012	5196	86.20	91.00	2631.00
2/25/2012	5289	86.50	90.60	
2/25/2012	5383	87.80	89.90	
2/25/2012	5477	88.20	89.60	
2/25/2012	5570	87.50	88.70	
2/26/2012	5664	88.10	88.80	2652.00
2/26/2012	5757	87.10	88.20	2657
2/26/2012	5851	87.70	87.90	
2/26/2012	5945	88.00	87.60	
2/26/2012	6038	88.60	88.20	2668
2/26/2012	6132	87.10	88.00	
2/26/2012	6225	87.90	88.00	
2/27/2012	6319	87.80	89.30	2681
2/27/2012	6412	89.20	90.50	2684
2/27/2012	6506	90.00	90.60	2683
2/27/2012	6599	91.00	90.40	2684
2/27/2012	6691	91.50	90.30	2681
2/27/2012	6786	92.00	90.40	2678
2/27/2012	6880	92.60	90.30	
2/27/2012	6973	93.60	90.40	

COG Operating LLC

Eddy County, NM

Paint 32 Fee #1H

Paint 32 Fee #1H

Wellbore #1

Survey: MWD Surveys

Standard Survey Report

28 February, 2012



COG Operating LLC
Paint 32 Fee #1H
Eddy County, NM
Plan #5

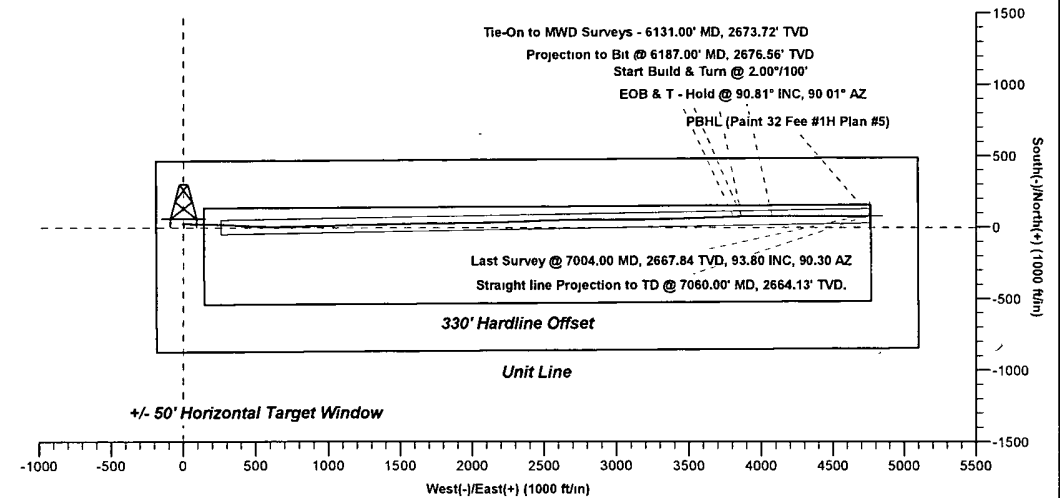
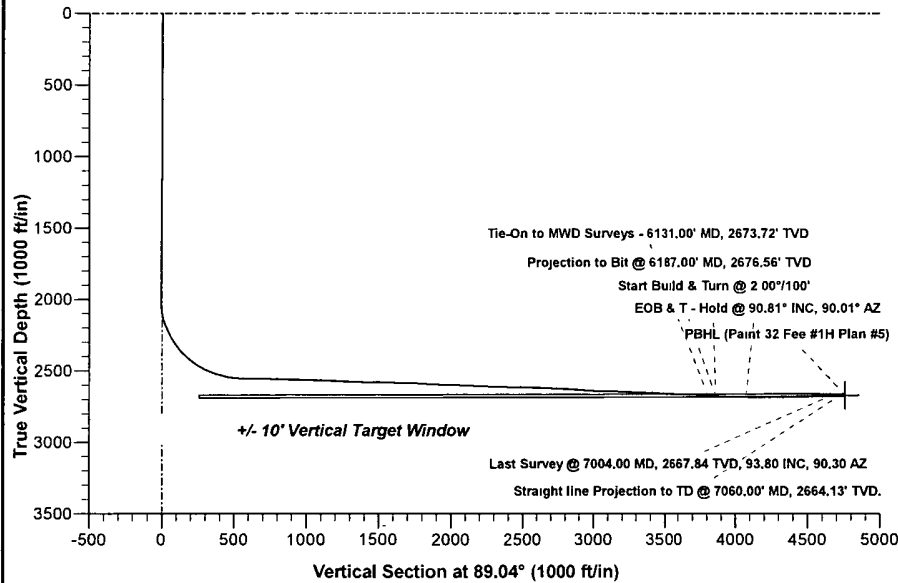


Azimuths to Grd North
 True North 0.04°
 Magnetic North 7.97°

Magnetic Field
 Strength 48748.7snT
 Dip Angle 60.47°
 Date 1/25/2012
 Model: IGRF2010

Surface Location		Ground Elev: 3409.00 WELL @ 3426.00ft (Silver Oak #8)			
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	619410.60	475871.20	32° 42' 10.19 N	104° 24' 42.40 W

TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude Longitude
PBHL (Paint 32 Fee #1H Plan #5)	2670.69	79.70	4758.70	619490.30	480629.90	32° 42' 11.01 N 104° 23' 46.70 W



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSecl	Annotation
1	6131.00	87.10	88.00	2673.72	74.15	3807.26	0.00	0.00	3807.97	Tie-On to MWD Surveys - 6131.00' MD, 2673.72' TVD
2	6187.00	87.10	88.00	2676.56	76.10	3863.16	0.00	0.00	3863.89	Projection to Bit @ 6187.00' MD, 2676.56' TVD
3	6397.94	90.81	90.01	2680.40	79.76	4073.98	2.00	28.40	4074.75	EOB & T - Hold @ 90.81° INC, 90.01° AZ
4	7082.73	90.81	90.01	2670.69	79.70	4758.70	0.00	0.00	4759.37	TD @ 7082.73' MD, 2670.69' TVD

Crescent Directional Drilling

Survey Report

Company:	COG Operating LLC	Local Co-ordinate Reference:	Site Paint 32 Fee #1H
Project:	Eddy County, NM	TVD Reference:	WELL @ 3426 00ft (Silver Oak #8)
Site:	Paint 32 Fee #1H	MD Reference:	WELL @ 3426 00ft (Silver Oak #8)
Well:	Paint 32 Fee #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	R5000 Houston DB

Project: Eddy County, NM			
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site: Paint 32 Fee #1H					
Site Position:		Northing:	619,410 60 ft	Latitude:	32° 42' 10 19 N
From:	Map	Easting:	475,871 20 ft	Longitude:	104° 24' 42 40 W
Position Uncertainty:	0 00 ft	Slot Radius:	13 200 in	Grid Convergence:	-0 04 °

Well:	Paint 32 Fee #1H					
Well Position	+N/-S	0 00 ft	Northing:	619,410 60 ft	Latitude:	32° 42' 10 19 N
	+E/-W	0 00 ft	Easting:	475,871 20 ft	Longitude:	104° 24' 42 40 W
Position Uncertainty		0 00 ft	Wellhead Elevation:	ft	Ground Level:	3,409 00 ft

Wellbore:		Wellbore #1			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/25/2012	7 93	60 47	48,749

Design		Wellbore #1			
Audit Notes:					
Version:		1 0	Phase:		ACTUAL
			Tie On Depth:		0 00
Vertical Section:		Depth From (TVD)		+N/-S	+E/-W
		(ft)		(ft)	(ft)
		0 00		0 00	0 00
					89 04

Survey Program		Date	2/28/2012	
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
100 00	1,964 00	Gyro Surveys (Wellbore #1)	Good__mag	Good Magnetic
1,984 00	7,060 00	MWD Surveys (Wellbore #1)	Good__mag	Good Magnetic

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)
1,964 00	0.86	326 01	1,963.70	26 44	-5 16	-4 71	0 00	0 00	0 00
1,984 00	1 10	328 60	1,983 69	26 73	-5 34	-4 89	1 22	1 20	12 95
2,015 00	0 50	357 90	2,014 69	27 12	-5 50	-5 05	2 28	-1.94	94 52
2,046 00	2 80	88 60	2,045 68	27 27	-4 75	-4 29	9 19	7 42	292 58
2,077 00	7 00	93 50	2,076 56	27 17	-2 10	-1.65	13 60	13 55	15 81
2,108 00	11 10	94 90	2,107.17	26.80	2 76	3 20	13 24	13 23	4 52
2,139 00	15 00	93 00	2,137 36	26 34	9 74	10 18	12 65	12 58	-6 13
2,171 00	18 60	92 10	2,167 99	25 94	18.98	19.41	11 28	11 25	-2 81
2,202 00	21 80	91 30	2,197 08	25 62	29 67	30 10	10 36	10 32	-2 58
2,233 00	24 90	91 00	2,225 54	25 38	41 96	42 38	10 01	10 00	-0 97

Crescent Directional Drilling

Survey Report

Company:	COG Operating LLC	Local Co-ordinate Reference:	Site Paint 32 Fee #1H
Project:	Eddy County, NM	TVD Reference:	WELL @ 3426 00ft (Silver Oak #8)
Site:	Paint 32 Fee #1H	MD Reference:	WELL @ 3426 00ft (Silver Oak #8)
Well:	Paint 32 Fee #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	R5000 Houston DB

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)
2,264 00	28 00	90 20	2,253 29	25 24	55 76	56 18	10 07	10 00	-2 58
2,295 00	31 00	88 90	2,280.27	25 37	71 02	71 44	9 89	9 68	-4 19
2,326 00	34 00	88 70	2,306 41	25 72	87 68	88 09	9.68	9 68	-0 65
2,357 00	37 20	90 00	2,331 61	25.91	105 72	106 14	10.61	10 32	4 19
2,389 00	40 40	90 70	2,356 55	25 79	125 76	126.18	10 09	10 00	2 19
2,420 00	44 30	90 60	2,379 45	25 55	146 64	147 05	12 58	12 58	-0 32
2,451 00	47 60	91 60	2,401 00	25 12	168 92	169 31	10 89	10 65	3 23
2,482 00	50 90	92 30	2,421.24	24 32	192 38	192.76	10 78	10 65	2 26
2,514 00	53 80	93 20	2,440 78	23 10	217 69	218 04	9 33	9 06	2 81
2,545 00	57.10	93 30	2,458.36	21 65	243 17	243.50	10 65	10 65	0 32
2,576 00	60 20	92 70	2,474 49	20 27	269 61	269 91	10 14	10 00	-1 94
2,607 00	63 50	92 50	2,489 11	19 03	296 91	297 19	10 66	10 65	-0.65
2,638 00	66 80	92 70	2,502 14	17 75	325 01	325 26	10 66	10 65	0.65
2,670 00	69 90	93 40	2,513 94	16 17	354 70	354 93	9 90	9 69	2 19
2,701 00	72 70	93 10	2,523 88	14 50	384 02	384 21	9 08	9 03	-0 97
2,732 00	75 40	93 40	2,532 40	12 81	413.77	413 93	8 76	8 71	0 97
2,763.00	78 10	93 40	2,539 50	11.02	443 89	444 01	8 71	8 71	0 00
2,794 00	80 70	93 10	2,545 20	9 30	474 31	474 40	8 44	8.39	-0 97
2,825 00	83 30	92 30	2,549 52	7 85	504 97	505 03	8 77	8 39	-2 58
2,857 00	85 80	91 30	2,552 56	6 85	536 81	536 85	8 41	7 81	-3 13
2,950 00	90 00	89 00	2,555 96	6 61	629 72	629 74	5 15	4 52	-2 47
3,043 00	90 00	89 00	2,555.96	8 23	722 71	722 74	0 00	0 00	0 00
3,137 00	87 90	88 80	2,557 69	10 04	816 67	816 72	2 24	-2 23	-0 21
3,230 00	88 50	89 00	2,560 61	11 82	909 60	909 67	0 68	0 65	0 22
3,324 00	87 80	88 40	2,563 64	13 95	1,003 53	1,003 62	0 98	-0 74	-0 64
3,418 00	88 40	88 00	2,566 76	16 90	1,097.43	1,097 56	0 77	0 64	-0 43
3,512 00	87 20	89 00	2,570 37	19 36	1,191 33	1,191 48	1 66	-1 28	1.06
3,605 00	87 70	89 00	2,574 51	20 98	1,284 22	1,284 39	0 54	0 54	0 00
3,699 00	88 70	88 50	2,577 46	23 03	1,378 15	1,378 34	1 19	1 06	-0 53
3,793 00	89 50	88 60	2,578 93	25 41	1,472 11	1,472 33	0 86	0 85	0 11
3,887 00	88 80	88 90	2,580 33	27 46	1,566 07	1,566 31	0 81	-0 74	0 32
3,980 00	88 20	88 70	2,582 76	29 41	1,659 02	1,659 28	0 68	-0 65	-0 22
4,074 00	86.80	89 40	2,586 86	30 97	1,752 92	1,753 19	1 66	-1 49	0 74
4,168 00	87 10	89 50	2,591 86	31 87	1,846 78	1,847 05	0 34	0 32	0 11
4,261 00	87 70	89 40	2,596 08	32 76	1,939 68	1,939 95	0 65	0 65	-0 11
4,355.00	88 30	89 10	2,599 36	33.99	2,033 61	2,033 90	0.71	0 64	-0 32
4,449 00	87 30	88 60	2,602 97	35 87	2,127.52	2,127 82	1 19	-1 06	-0 53
4,542 00	87 80	88 30	2,606 95	38.39	2,220.40	2,220 73	0 63	0 54	-0 32
4,634 00	88 10	87 80	2,610 24	41.52	2,312 29	2,312 66	0 63	0 33	-0 54
4,727 00	87 80	88 10	2,613 57	44 84	2,405.17	2,405 58	0 46	-0 32	0 32
4,821 00	89 10	87 50	2,616 11	48 45	2,499 06	2,499 53	1.52	1 38	-0 64
4,915 00	88 00	88 60	2,618 49	51 65	2,592 98	2,593 48	1 65	-1.17	1 17
5,008 00	88 50	88 20	2,621 33	54 24	2,685 90	2,686 43	0 69	0 54	-0 43

Crescent Directional Drilling

Survey Report

Company:	COG Operating LLC	Local Co-ordinate Reference:	Site Paint, 32 Fee #1H
Project:	Eddy County, NM	TVD Reference:	WELL @ 3426 00ft (Silver Oak #8)
Site:	Paint 32 Fee #1H	MD Reference:	WELL @ 3426 00ft (Silver Oak #8)
Well:	Paint 32 Fee #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	R5000 Houston DB

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)
5,102 00	86 40	89 20	2,625 51	56 37	2,779 77	2,780 33	2 47	-2 23	1 06
5,195 00	86 20	91 00	2,631 51	56 21	2,872 58	2,873 11	1 94	-0 22	1 94
5,289 00	86 50	90 60	2,637 50	54 90	2,966 38	2,966 88	0 53	0 32	-0 43
5,382 00	87 80	89 90	2,642 12	54 50	3,059 26	3,059 74	1 59	1 40	-0 75
5,476 00	88 20	89 60	2,645 40	54 91	3,153 20	3,153 68	0 53	0 43	-0 32
5,570 00	87 50	88 70	2,648 93	56 30	3,247 12	3,247 61	1 21	-0 74	-0 96
5,663 00	88 10	88 80	2,652 50	58 33	3,340 03	3,340 54	0 65	0 65	0 11
5,757 00	87 10	88 20	2,656 43	60 78	3,433 91	3,434 45	1 24	-1 06	-0 64
5,852 00	87 70	87 90	2,660 74	64 01	3,528 76	3,529 34	0 71	0 63	-0 32
5,945 00	88 00	87 60	2,664 23	67 66	3,621 62	3,622 25	0 46	0 32	-0 32
6,038 00	86 60	88 20	2,668 61	71 07	3,714 45	3,715 12	1 64	-1 51	0 65
6,131 00	87 10	88 00	2,673 72	74 15	3,807 26	3,807 97	0 58	0 54	-0 22
6,225 00	87 90	88 00	2,677 82	77 42	3,901 11	3,901 86	0 85	0 85	0 00
6,318 00	87 80	89 30	2,681 31	79 61	3,994 02	3,994 79	1 40	-0 11	1 40
6,411 00	89 20	90 50	2,683 75	79 77	4,086 99	4,087 75	1 98	1 51	1 29
6,505 00	90 00	90 60	2,684 40	78 87	4,180 98	4,181 71	0 86	0 85	0 11
6,598 00	91 00	90 40	2,683 59	78 06	4,273 97	4,274 68	1 10	1 08	-0 22
6,692 00	91 50	90 30	2,681 54	77 49	4,367 95	4,368 63	0 54	0 53	-0 11
6,785 00	92 00	90 40	2,678 70	76 92	4,460 90	4,461 56	0 55	0 54	0 11
6,879 00	92 60	90 30	2,674 93	76 34	4,554 82	4,555 46	0 65	0 64	-0 11
6,973 00	93 60	90 40	2,669 84	75 77	4,648 68	4,649 30	1 07	1 06	0 11
7,004 00	93 80	90 30	2,667 84	75 58	4,679 62	4,680 23	0 72	0 65	-0 32
Last Survey @ 7004.00 MD, 2667.84 TVD, 93.80 INC, 90.30 AZ									
7,060 00	93 80	90 30	2,664 13	75 29	4,735 49	4,736 09	0 00	0 00	0 00
Straight line Projection to TD @ 7060.00' MD, 2664.13' TVD.									

Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
7,004 00	2,667 84	75 58	4,679 62	Last Survey @ 7004 00 MD, 2667 84 TVD, 93 80 INC, 90 30 AZ
7,060 00	2,664 13	75 29	4,735 49	Straight line Projection to TD @ 7060 00' MD, 2664 13' TVD

Checked By _____ Approved By _____ Date: _____