



PO Box 1370
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(575) 748-1288



30-015-39676

March 19, 2012

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

RE: Foster Eddy #36
2345' FSL & 2008' FEL
Sec. 17, T17S, R31E
Eddy County, New Mexico

Dear Sir,

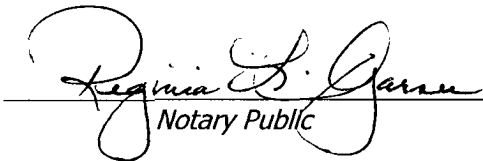
The attached is the Deviation Survey for the above captioned well.

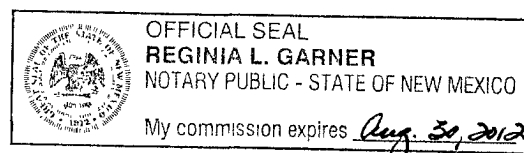
Very truly yours,


Eddie C. LaRue
Operations Manager

State of New Mexico }
County of Eddy }

The foregoing was acknowledged before me this 19th day of March, 2012.


Regina L. Garner
Notary Public



Pason DataHub Deviation Survey
Well Dossier 1331174937 - Foster Eddy #36
#

#	Date	Depth	Deviation	Direction
	3/8/2012	166	0.2	0.0
	3/8/2012	254	0.6	0.0
	3/8/2012	338	0.3	0.0
	3/10/2012	574	0.2	0.0
	3/10/2012	1065	0.6	0.0
	3/10/2012	1471	0.3	0.0
	3/11/2012	1814	0.3	0.0
	3/12/2012	1908	0.6	118.2
	3/12/2012	2002	1.2	239.1
	3/12/2012	2097	2.4	255.8
	3/12/2012	2199	4.0	262.2
	3/12/2012	2284	5.4	262.7
	3/12/2012	2378	5.2	254.6
	3/13/2012	2473	6.4	258.5
	3/13/2012	2567	5.5	258.3
	3/13/2012	2660	6.5	261.1
	3/13/2012	2754	5.8	259.9
	3/13/2012	2849	6.6	261.8
	3/13/2012	2941	6.6	264.3
	3/13/2012	3035	6.2	260.4
	3/13/2012	3129	6.2	261.6
	3/13/2012	3223	5.8	260.9
	3/13/2012	3317	6.3	257.9
	3/13/2012	3411	6.4	256.5
	3/13/2012	3511	6.2	255.1
	3/13/2012	3605	6.3	258.6
	3/14/2012	3679	6.3	253.3
	3/14/2012	3793	6.6	257.4
	3/14/2012	3887	6.5	255.3
	3/14/2012	3980	6.6	258.5
	3/14/2012	4074	6.2	259.2
	3/14/2012	4169	5.9	255.1
	3/14/2012	4264	6.2	257.2
	3/14/2012	4358	6.1	254.8
	3/14/2012	4451	4.9	247.6
	3/14/2012	4596	3.4	235.3
	3/14/2012	4640	2.4	232.7
	3/14/2012	4733	0.7	170.4
	3/14/2012	4828	0.8	186.9
	3/15/2012	5182	0.9	0.0
	3/15/2012	5682	1.4	0.0
	3/15/2012	5777	1.5	0.0
	3/16/2012	6277	1.7	0.0

EOF



Job Number: CD012
Company: COG Operating
Lease/Well: Foster Eddy #36
Location: Loco Hills
Rig Name:
State/County: New Mexico/ Eddy
Country: USA
API Number:

Elevation (To MSL): 3710.00 ft
RKB: 12.00 ft
Projection System: US State Plane 1927 (Exact solution)
Projection Group: New Mexico East 3001
Projection Datum: CLARKE 1866
Magnetic Declination: 7.69
Grid Convergence: 0.24075 E
Date: Thursday, March 15, 2012

Calculated by HawkEye Software
Minimum Curvature Method

Vertical Section Plane 259.88°

Northing: 667261.90 Easting: 636385.80

Latitude: 32°50'0.9653" N Longitude: -103°53'21.5141" W

Well Location: 2345 FSL, 2008 FEL, Section 17, T17S, R31E, Meridian 23, Eddy County, NM

Direction Reference: Grid North

Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	NS (Ft)	EW (Ft)	VS (Ft)	Closure (Ft)	Dir Deg	DLS °/100Ft	Tool Face Deg	Northing (Ft)	Easting (Ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.00	667261.90	636385.80
100.00	0.41	137.27	100.00	-0.26	0.24	-0.19	0.36	137.27	0.41	81.31	667261.64	636386.04
200.00	0.66	180.70	200.00	-1.10	0.48	-0.28	1.20	156.52	0.46	140.60	667260.80	636386.28
300.00	0.46	206.90	299.99	-2.04	0.29	0.07	2.06	171.90	0.32	-139.08	667259.86	636386.09
400.00	0.31	171.43	399.99	-2.66	0.15	0.32	2.67	176.80	0.27	-92.80	667259.24	636385.95
500.00	0.39	131.18	499.99	-3.15	0.45	0.12	3.18	171.96	0.25	-173.05	667258.75	636386.25
600.00	0.16	120.98	599.99	-3.45	0.82	-0.20	3.54	166.61	0.23	-22.76	667258.45	636386.62
700.00	0.22	114.56	699.98	-3.60	1.12	-0.46	3.77	162.79	0.06	-168.04	667258.30	636386.92
800.00	0.07	85.89	799.98	-3.68	1.35	-0.68	3.92	159.82	0.16	-17.09	667258.22	636387.15
900.00	0.34	72.27	899.98	-3.58	1.69	-1.04	3.96	154.68	0.27	-97.43	667258.32	636387.49
1000.00	0.39	34.66	999.98	-3.21	2.17	-1.57	3.88	145.94	0.24	-2.11	667258.69	636387.97
1100.00	0.60	33.92	1099.98	-2.50	2.66	-2.18	3.64	133.22	0.21	-1.61	667259.40	636388.46
1200.00	0.91	33.37	1199.97	-1.40	3.39	-3.09	3.66	112.45	0.31	15.00	667260.50	636389.19
1300.00	1.12	36.23	1299.95	0.05	4.40	-4.34	4.40	89.31	0.22	143.06	667261.95	636390.20
1400.00	0.97	43.23	1399.94	1.46	5.56	-5.73	5.75	75.30	0.20	169.86	667263.36	636391.36
1500.00	0.85	44.68	1499.92	2.60	6.66	-7.01	7.15	68.65	0.12	156.60	667264.50	636392.46
1600.00	0.69	50.57	1599.92	3.51	7.64	-8.14	8.41	65.33	0.18	167.46	667265.41	636393.44
1700.00	0.47	56.62	1699.91	4.12	8.45	-9.05	9.40	64.01	0.23	176.83	667266.02	636394.25
1798.00	0.35	57.71	1797.91	4.50	9.04	-9.69	10.10	63.53	0.12	95.95	667266.40	636394.84
1908.00	0.60	118.20	1907.90	4.41	9.83	-10.45	10.78	65.85	0.48	139.75	667266.31	636395.63
2002.00	1.20	239.10	2001.90	3.67	9.42	-9.92	10.11	68.72	1.70	32.11	667265.57	636395.22
2097.00	2.40	255.80	2096.85	2.67	6.64	-7.01	7.16	68.08	1.37	15.80	667264.57	636392.44
2190.00	4.00	262.20	2189.70	1.75	1.54	-1.82	2.33	41.25	1.76	1.93	667263.65	636387.34
2284.00	5.40	262.70	2283.38	0.75	-6.10	5.87	6.14	276.98	1.49	-109.37	667262.65	636379.70
2378.00	5.20	254.90	2376.98	-0.93	-14.60	14.53	14.63	266.37	0.79	18.66	667260.97	636371.20
2473.00	6.40	258.50	2471.49	-3.10	-23.94	24.12	24.14	262.62	1.32	-178.78	667258.80	636361.86
2567.00	5.50	258.30	2564.99	-5.06	-33.49	33.86	33.87	261.41	0.96	17.71	667256.84	636352.31
2660.00	6.50	261.10	2657.48	-6.78	-43.05	43.57	43.58	261.05	1.12	-170.19	667255.12	636342.75
2754.00	5.80	259.90	2750.94	-8.43	-52.99	53.64	53.65	260.96	0.76	15.33	667253.47	636332.81
2848.00	6.60	261.80	2844.38	-10.04	-63.01	63.79	63.80	260.95	0.88	91.24	667251.86	636322.79
2941.00	6.60	264.30	2936.77	-11.33	-73.62	74.46	74.48	261.25	0.31	-134.54	667250.57	636312.18
3035.00	6.20	260.40	3030.18	-12.71	-84.00	84.92	84.95	261.39	0.63	90.60	667249.19	636301.80
3129.00	6.20	261.60	3123.63	-14.30	-94.02	95.07	95.11	261.35	0.14	-169.98	667247.60	636291.78
3223.00	5.80	260.90	3217.12	-15.79	-103.74	104.90	104.93	261.34	0.43	-33.81	667246.11	636282.06
3317.00	6.30	257.90	3310.59	-17.63	-113.47	114.80	114.83	261.17	0.63	-57.84	667244.27	636272.33
3411.00	6.40	256.50	3404.02	-19.93	-123.61	125.18	125.20	260.84	0.20	-143.17	667241.97	636262.19
3512.00	6.20	255.10	3504.41	-22.65	-134.35	136.24	136.25	260.43	0.25	77.04	667239.25	636251.45
3605.00	6.30	258.60	3596.86	-24.95	-144.20	146.34	146.35	260.18	0.42	-91.64	667236.95	636241.60
3699.00	6.30	255.30	3690.29	-27.28	-154.25	156.64	156.64	259.97	0.39	39.23	667234.62	636231.55
3793.00	6.60	257.40	3783.69	-29.76	-164.51	167.18	167.18	259.74	0.41	-113.70	667232.14	636221.29
3887.00	6.50	255.30	3877.08	-32.29	-174.93	177.88	177.88	259.54	0.28	76.27	667229.61	636210.87
3981.00	6.60	258.50	3970.47	-34.72	-185.37	188.58	188.59	259.39	0.40	169.31	667227.18	636200.43

Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	NS (Ft)	EW (Ft)	VS (Ft)	Closure (Ft)	Dir Deg	DLS °/100Ft	Tool Face Deg	Northing (Ft)	Easting (Ft)
4074.00	6.20	259.20	4062.89	-36.73	-195.54	198.95	198.96	259.36	0.44	-126.80	667225.17	636190.26
4169.00	5.90	255.10	4157.36	-38.94	-205.30	208.94	208.96	259.26	0.55	37.47	667222.96	636180.50
4264.00	6.20	257.20	4251.83	-41.33	-215.02	218.94	218.95	259.12	0.39	-112.44	667220.57	636170.78
MD 4358.00 Inc 6.10 AZM 254.80												
4358.00	6.10	254.80	4345.29	-43.77	-224.79	228.98	229.01	258.98	0.29	-153.65	667218.13	636161.01
4451.00	4.90	247.60	4437.86	-46.58	-233.23	237.78	237.83	258.71	1.49	-155.35	667215.32	636152.57
MD 4546.00 Inc 3.40 AZM 235.30												
4546.00	3.40	235.30	4532.61	-49.73	-239.30	244.31	244.41	258.26	1.83	-172.40	667212.17	636146.50
4640.00	2.40	232.10	4626.49	-52.52	-243.14	248.59	248.75	257.81	1.08	-168.15	667209.38	636142.66
MD 4734.00 Inc .70 AZM 199.20												
4734.00	0.70	199.20	4720.45	-54.27	-244.88	250.61	250.82	257.50	1.97	-64.40	667207.63	636140.92
4828.00	0.80	186.90	4814.44	-55.47	-245.15	251.08	251.35	257.25	0.20	0.00	667206.43	636140.65
MD 4877.00 Inc .80 AZM 186.90												
4877.00	0.80	186.90	4863.44	-56.15	-245.23	251.28	251.58	257.10	0.00	0.00	667205.75	636140.57