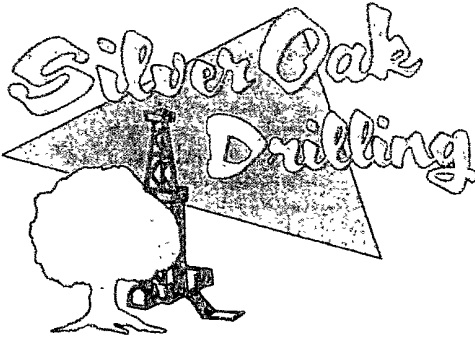




PO Box 1370
Artesia, NM 88211-1370
(575) 748-1288

30-015-39347

December 19, 2011

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

RE: Skelly Unit #665
1183' FNL & 269' 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,

A handwritten signature in cursive script, appearing to read "Eddie C. LaRue".

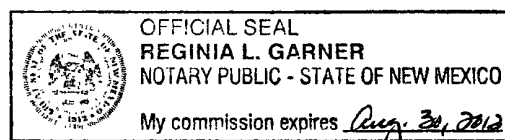
Eddie C. LaRue
Operations Manager

State of New Mexico }
County of Eddy }

The foregoing was acknowledged before me this 19th day of December, 2011.

A handwritten signature in cursive script, appearing to read "Regina L. Garner".

Notary Public



Pason DataHub Deviation Survey
 # Well Dossier 1323299406 - Skelly Unit #665
 #

#	Date	Depth	Deviation	Direction
	12/8/2011	202	0.40	0.00
	12/8/2011	288	0.50	0.00
	12/8/2011	376	0.60	0.00
	12/8/2011	463	0.80	0.00
	12/8/2011	549	0.40	0.00
	12/9/2011	635	0.50	0.00
	12/10/2011	749	0.80	0.00
	12/10/2011	1158	0.90	0.00
	12/10/2011	1627	1.00	0.00
	12/11/2011	1970	1.20	0.00
	12/12/2011	2046	0.70	73.40
	12/12/2011	2140	0.20	243.00
	12/12/2011	2233	1.70	235.70
	12/12/2011	2327	2.40	241.50
	12/12/2011	2422	4.80	240.80
	12/12/2011	2484	5.80	239.00
	12/12/2011	2610	7.40	232.30
	12/13/2011	2703	8.60	233.70
	12/13/2011	2767	9.40	234.20
	12/13/2011	2798	9.80	234.70
	12/13/2011	2892	10.70	234.10
	12/13/2011	2986	10.90	233.90
	12/13/2011	3080	11.40	234.40
	12/13/2011	3175	11.40	234.00
	12/13/2011	3363	11.70	233.80
	12/13/2011	3457	11.60	236.20
	12/13/2011	3557	10.90	237.10
	12/13/2011	3650	11.60	236.80
	12/14/2011	3744	11.10	235.40
	12/14/2011	3838	10.70	234.00
	12/14/2011	3932	11.60	233.50
	12/14/2011	4025	11.10	235.40
	12/14/2011	4119	11.20	236.60
	12/14/2011	4213	11.10	235.90
	12/14/2011	4306	11.60	237.40
	12/14/2011	4682	10.50	235.20
	12/14/2011	4776	10.20	232.70
	12/14/2011	4870	11.00	231.70
	12/14/2011	4963	10.70	233.90
	12/15/2011	5098	11.30	235.90
	12/15/2011	5378	10.50	239.10
	12/15/2011	5432	11.10	238.50

#	Date	Depth	Deviation	Direction
	12/15/2011	5526	11.80	235.10
	12/15/2011	5620	11.80	235.00
	12/16/2011	5714	11.30	235.00
	12/16/2011	5808	11.30	235.10
	12/16/2011	5901	11.30	235.10
	12/16/2011	5995	11.10	234.70
	12/16/2011	6088	10.90	235.10
	12/16/2011	6371	11.80	236.20
	12/16/2011	6464	11.80	237.40
	12/16/2011	6558	11.00	238.20
	12/16/2011	6652	11.10	238.20
	12/16/2011	6746	10.60	236.80
	12/17/2011	6934	10.40	235.70
	12/17/2011	6975	10.30	234.50
#	EOF			



Company: COG Operating (Concho)
Lease/Well: Skelly/665
Location: 9 miles East of Loco Hills, NM
Rig Name: Silver Oak #1
State/County: New Mexico/Eddy
Latitude: 32.84
GRID North is 0.27 Degrees East of True North
VS-Azi: 0.00 Degrees



Depth Reference : RKB = 12 Feet Elevation = 3907

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: skelly unit #665_ed.ut

Minimum Curvature Method

Report Date/Time: 12/29/2011 / 10:11

Vaughn Energy Services

Midland, Texas

432-563-5444

Surveyor: Eric McMahon

Skelly 665

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.14	1.15	100.00	0.12	0.00	0.12	1.15	0.14
200.00	0.20	46.96	200.00	0.35	0.13	0.38	20.24	0.14
300.00	0.20	99.25	300.00	0.44	0.43	0.62	44.11	0.18
400.00	0.24	8.89	400.00	0.62	0.64	0.89	45.49	0.32
500.00	0.28	91.81	500.00	0.83	0.91	1.23	47.83	0.35
600.00	0.05	148.58	600.00	0.78	1.18	1.42	56.56	0.26
700.00	0.11	27.70	700.00	0.83	1.25	1.50	56.56	0.14
800.00	0.11	165.51	800.00	0.82	1.32	1.55	58.17	0.20
900.00	0.10	324.18	900.00	0.79	1.29	1.52	58.40	0.20
1000.00	0.31	70.40	1000.00	0.95	1.49	1.77	57.48	0.35
1100.00	0.35	51.09	1100.00	1.23	1.98	2.34	58.11	0.12
1200.00	0.63	55.04	1199.99	1.74	2.68	3.19	56.91	0.29
1300.00	0.59	51.44	1299.99	2.38	3.53	4.26	56.01	0.06
1400.00	0.60	87.30	1399.98	2.73	4.45	5.22	58.54	0.37
1500.00	0.68	60.64	1499.97	3.04	5.49	6.28	61.03	0.30
1600.00	0.54	66.59	1599.97	3.52	6.44	7.34	61.36	0.15
1700.00	1.00	57.42	1699.96	4.18	7.61	8.68	61.25	0.47
1800.00	1.18	76.37	1799.94	4.89	9.35	10.55	62.40	0.40

measured Depth FT	Incl Angle Deg	Dip Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1900.00	1.25	75.08	1899.92	5.41	11.41	12.62	64.62	0.07
1950.00	1.02	81.04	1949.91	5.62	12.37	13.59	65.57	0.50

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
4400.00	11.30	239.10	4365.78	-205.18	-291.09	356.08	356.13	234.82	.48
4494.00	10.90	236.10	4458.02	-214.87	-306.37	374.16	374.20	234.96	.75
4588.00	11.80	235.40	4550.18	-225.28	-321.66	392.66	392.70	234.99	.97
4682.00	10.50	235.20	4642.41	-235.63	-336.60	410.84	410.88	235.01	1.38
4776.00	10.20	232.70	4734.88	-245.56	-350.25	427.72	427.76	234.97	.57
4870.00	11.00	231.70	4827.27	-256.16	-363.91	444.97	445.03	234.86	.87
4964.00	10.70	233.90	4919.59	-266.86	-378.00	462.64	462.71	234.78	.54
5056.00	11.30	235.90	5009.90	-276.95	-392.37	480.19	480.26	234.78	.77
5150.00	10.90	237.00	5102.14	-286.95	-407.45	498.28	498.35	234.84	.48
5244.00	10.80	238.90	5194.46	-296.34	-422.44	515.96	516.02	234.95	.40
5338.00	10.50	239.10	5286.84	-305.29	-437.33	533.31	533.35	235.08	.32
5431.00	11.10	238.50	5378.20	-314.32	-452.24	550.71	550.74	235.20	.66
5525.00	11.80	235.10	5470.33	-324.54	-467.83	569.36	569.38	235.25	1.03
5619.00	11.80	235.00	5562.34	-335.56	-483.59	588.58	588.61	235.24	.02
5713.00	11.30	235.00	5654.44	-346.35	-499.01	607.40	607.43	235.24	.53
5807.00	11.30	235.10	5746.61	-356.90	-514.11	625.82	625.85	235.23	.02
5901.00	11.30	235.10	5838.79	-367.44	-529.21	644.24	644.27	235.23	.00
5995.00	11.10	234.70	5931.00	-377.94	-544.15	662.49	662.52	235.22	.23
6088.00	10.90	235.10	6022.29	-388.14	-558.67	680.23	680.27	235.21	.23
6182.00	11.80	236.40	6114.45	-398.55	-573.96	698.73	698.76	235.22	1.00
6276.00	11.90	236.20	6206.45	-409.26	-590.02	718.03	718.06	235.25	.12
6371.00	11.80	236.20	6299.43	-420.11	-606.23	737.54	737.57	235.28	.11
6464.00	11.80	237.40	6390.46	-430.52	-622.15	756.56	756.58	235.32	.26
6558.00	11.00	236.80	6482.61	-440.61	-637.75	775.13	775.15	235.36	.86
6652.00	11.10	238.20	6574.86	-450.29	-652.94	793.14	793.15	235.41	.30
6746.00	10.60	236.80	6667.18	-459.79	-667.87	810.82	810.84	235.45	.60
6840.00	9.90	236.10	6759.68	-469.03	-681.81	827.55	827.56	235.47	.76
6934.00	10.40	235.70	6852.21	-478.32	-695.52	844.11	844.12	235.48	.54
6975.00	10.30	234.50	6892.54	-482.54	-701.56	851.48	851.49	235.48	.58
PROJECTION TO TD									
7015.00	10.30	234.50	6931.90	-486.69	-707.39	858.63	858.64	235.47	.00

Job Number: MD1211DM513
Company: COG Operating
Lease/Well: Skelly # 665
Location: Eddy Co., NM
Rig Name: Silver Oak #1
RKB: 11
G.L. or M.S.L.: GL

State/Country: New Mexico, USA
Declination: 7.7
Grid: -.3
File name: C:\WINSERVE\SKELY665.SVY
Date/Time: 17-Dec-11 / 02:55
Curve Name: Surveys

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 235.78
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
Distance FT	Direction Deg								
1950.00	1.02	81.04	1949.91	5.62	12.37	-13.39	13.59	65.57	.00
2046.00	.70	73.40	2045.90	5.92	13.78	-14.72	14.99	66.74	.35
2140.00	.20	243.00	2139.90	6.01	14.18	-15.11	15.40	67.03	.95
2233.00	1.70	235.70	2232.88	5.16	12.90	-13.56	13.89	68.20	1.61
2327.00	3.00	241.50	2326.80	3.20	9.58	-9.72	10.10	71.54	1.40
2422.00	4.80	240.80	2421.58	.07	3.93	-3.29	3.93	88.92	1.90
2515.00	6.10	236.10	2514.16	-4.58	-3.57	5.53	5.81	217.94	1.48
2610.00	7.40	232.30	2608.49	-11.14	-12.60	16.68	16.82	228.53	1.45
2703.00	8.60	233.70	2700.59	-18.92	-22.94	29.61	29.74	230.50	1.31
2798.00	9.80	234.70	2794.36	-27.79	-35.27	44.79	44.90	231.76	1.27
2892.00	10.70	234.10	2886.86	-37.53	-48.87	61.51	61.62	232.47	.96
2986.00	10.90	233.90	2979.20	-47.89	-63.12	79.12	79.23	232.81	.22
3080.00	11.40	234.40	3071.42	-58.53	-77.85	97.29	97.40	233.06	.54
3175.00	11.40	234.00	3164.55	-69.52	-93.08	116.06	116.17	233.25	.08
3269.00	11.40	233.90	3256.70	-80.45	-108.10	134.63	134.75	233.34	.02
3363.00	11.70	233.80	3348.79	-91.55	-123.30	153.44	153.57	233.41	.32
3457.00	11.60	236.20	3440.86	-102.44	-138.84	172.42	172.54	233.58	.53
3557.00	10.90	237.10	3538.93	-113.17	-155.14	191.92	192.03	233.89	.72
3650.00	11.60	236.80	3630.15	-123.06	-170.34	210.06	210.15	234.15	.76
3744.00	11.10	235.40	3722.31	-133.38	-185.70	228.56	228.63	234.31	.61
3838.00	10.70	234.00	3814.61	-143.64	-200.21	246.33	246.41	234.34	.51
3932.00	11.60	233.50	3906.84	-154.39	-214.86	264.50	264.58	234.30	.96
4025.00	11.10	235.40	3998.02	-165.04	-229.75	282.79	282.88	234.31	.67
4119.00	11.20	236.60	4090.24	-175.20	-244.82	300.97	301.05	234.41	.27
4213.00	11.10	235.90	4182.47	-185.30	-259.93	319.14	319.22	234.52	.18
4306.00	11.60	237.40	4273.65	-195.36	-275.22	337.44	337.51	234.63	.62