



Company: EOG Resources
 Well: Dragon 36 State 703H
 API: 30-025-42656
 Rig Name: Precision 612
 State/County: New Mexico/Lea County
 VS-Azi: 0.000 Degrees
 Latitude: 32.16861, Longitude: -103.52913
 Grid Convergence Applied = -0.43 degs (NAD 27)
 Grid North = True North -0.43 degs



FIELD COPY ONLY (NOT DEFINITIVE)

Depth Reference : RKB = 25'

DRILLOG MS GYRO SURVEY CALCULATIONS

Filename: survey-01-de_01.ut

Minimum Curvature Method

Report Date/Time: 7/27/2015 / 03:48

VES Survey International

Henderson, CO

303-853-4976

Kevin McDowell

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	****
121.330	0.535	44.463	121.328	0.404	0.397	0.404	0.566	44.463	0.441
213.320	0.852	24.963	213.312	1.330	0.986	1.330	1.656	36.539	0.425
305.310	0.835	20.675	305.292	2.577	1.511	2.577	2.987	30.382	0.071
397.300	0.858	11.173	397.272	3.880	1.881	3.880	4.312	25.864	0.155
489.290	0.748	4.200	489.253	5.155	2.058	5.155	5.550	21.769	0.160
581.280	0.684	352.076	581.235	6.297	2.027	6.297	6.615	17.840	0.178
673.270	0.680	353.531	673.219	7.383	1.890	7.383	7.621	14.355	0.019
765.260	0.720	349.031	765.202	8.493	1.718	8.493	8.665	11.437	0.074
857.250	0.707	353.741	857.185	9.624	1.546	9.624	9.748	9.127	0.065
949.240	0.579	343.883	949.169	10.636	1.355	10.636	10.722	7.262	0.183
1041.230	0.736	351.459	1041.153	11.667	1.138	11.667	11.722	5.573	0.194
1133.220	0.816	349.114	1133.135	12.894	0.927	12.894	12.927	4.112	0.094
1225.210	0.881	343.298	1225.115	14.215	0.600	14.215	14.227	2.417	0.117
1277.000	0.967	318.688	1276.898	14.925	0.197	14.925	14.926	0.756	0.778

HORIZONTAL DISPLACEMENT IS
 14.926 FEET AT 0.756 DEGREES



Directional Survey Report

Company Name: EOG Resources

Well Name: Dragon 36 State #703H

Rig ID: PD 612

API/UWI: 30-025-42656

Start Date: 7/27/2015

End Date: 8/15/2015

Survey Company: Precision Directional Services

Job Number: QWT 150008

Location: Lea Co NM

State/Prov: New Mexico

County: Lea Co

Field: Wolfcamp

Latitude: 32.168489

Longitude: 103.528656

KB: 3508

North Reference: Grid

Proposed Azimuth: 5.81

Declination: 6.71

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS
Tiein	1,277.00	0.97	318.68	1,276.89	14.92	0.20	14.86	0.00
1	1,354.00	0.70	317.80	1,353.88	15.76	-0.55	15.62	0.35
2	1,541.00	2.20	162.30	1,540.84	13.18	-0.22	13.09	1.53
3	1,725.00	3.70	153.00	1,724.60	4.53	3.55	4.87	0.85
4	1,914.00	5.80	144.90	1,912.94	-8.72	11.81	-7.48	1.16
5	2,100.00	6.20	136.60	2,097.92	-23.71	24.11	-21.14	0.51
6	2,288.00	6.70	141.50	2,284.73	-39.67	37.92	-35.62	0.40
7	2,473.00	7.80	129.20	2,468.26	-56.05	54.36	-50.26	1.03
8	2,660.00	7.10	126.60	2,653.68	-70.96	73.48	-63.16	0.42
9	2,847.00	7.50	133.40	2,839.17	-86.23	91.62	-76.52	0.51
10	3,033.00	7.30	136.80	3,023.62	-103.19	108.53	-91.67	0.26
11	3,218.00	6.90	135.60	3,207.20	-119.70	124.35	-106.49	0.23
12	3,403.00	8.20	134.00	3,390.60	-136.80	141.62	-121.76	0.71
13	3,591.00	8.30	140.70	3,576.66	-156.62	159.86	-139.63	0.51
14	3,776.00	7.80	143.50	3,759.83	-177.04	175.78	-158.34	0.34
15	3,962.00	7.90	142.60	3,944.09	-197.34	191.05	-176.99	0.09
16	4,148.00	7.30	137.50	4,128.46	-216.21	206.80	-194.16	0.49
17	4,335.00	7.30	136.10	4,313.94	-233.53	223.07	-209.75	0.10
18	4,521.00	8.40	134.20	4,498.20	-251.52	241.00	-225.83	0.61
19	4,708.00	8.50	134.90	4,683.17	-270.79	260.58	-243.02	0.08
20	4,895.00	9.10	132.00	4,867.96	-290.44	281.36	-260.47	0.40
21	5,081.00	7.60	140.00	5,051.99	-309.71	300.20	-277.73	1.02
22	5,268.00	8.10	141.40	5,237.24	-329.48	316.37	-295.76	0.29
23	5,453.00	7.90	138.20	5,420.44	-349.14	332.97	-313.64	0.26
24	5,640.00	7.60	137.30	5,605.73	-367.81	349.92	-330.50	0.17
25	5,826.00	7.80	138.90	5,790.06	-386.36	366.56	-347.27	0.16
26	6,013.00	7.70	136.40	5,975.35	-405.00	383.54	-364.09	0.19
27	6,198.00	7.80	143.10	6,158.66	-424.01	399.63	-381.38	0.49
28	6,384.00	6.70	140.30	6,343.17	-442.45	414.14	-398.26	0.62
29	6,571.00	7.30	152.60	6,528.79	-461.39	426.57	-415.84	0.86
30	6,757.00	6.00	152.10	6,713.53	-480.48	436.56	-433.82	0.70
31	6,943.00	6.20	157.00	6,898.48	-498.31	445.03	-450.70	0.30
32	7,128.00	6.30	153.00	7,082.38	-516.55	453.55	-467.99	0.24
33	7,315.00	6.20	151.90	7,268.27	-534.60	462.96	-484.99	0.08
34	7,501.00	5.30	153.10	7,453.33	-551.13	471.58	-500.56	0.49
35	7,688.00	4.60	151.60	7,639.64	-565.42	479.05	-514.02	0.38
36	7,875.00	4.00	149.40	7,826.11	-577.63	485.94	-525.48	0.33
37	8,062.00	2.90	144.70	8,012.77	-587.11	491.99	-534.29	0.61
38	8,248.00	3.80	147.50	8,198.45	-596.15	498.02	-542.67	0.49
39	8,434.00	3.10	150.00	8,384.11	-605.70	503.85	-551.59	0.38
40	8,621.00	1.70	171.60	8,570.94	-612.82	506.78	-558.37	0.88
41	8,807.00	1.20	181.60	8,756.88	-617.50	507.13	-562.99	0.30
42	8,992.00	1.40	286.60	8,941.86	-618.79	504.91	-564.50	1.12
43	9,178.00	1.10	287.30	9,127.81	-617.61	501.03	-563.72	0.16
44	9,364.00	0.80	291.30	9,313.79	-616.61	498.12	-563.02	0.17
45	9,551.00	1.00	283.70	9,500.76	-615.75	495.31	-562.44	0.12
46	9,723.00	1.20	262.10	9,672.73	-615.64	492.07	-562.67	0.27
47	9,910.00	1.20	290.60	9,859.69	-615.22	488.30	-562.63	0.32
48	10,096.00	0.80	312.40	10,045.66	-613.66	485.52	-561.36	0.29
49	10,283.00	1.20	333.80	10,232.64	-611.02	483.69	-558.92	0.29

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS
50	10,471.00	1.90	322.90	10,420.57	-606.77	480.94	-554.97	0.40
51	10,664.00	2.10	276.50	10,613.46	-603.82	475.50	-552.58	0.82
52	10,853.00	1.40	259.30	10,802.37	-603.85	469.79	-553.20	0.46
53	11,040.00	0.30	241.40	10,989.35	-604.51	467.11	-554.12	0.60
54	11,226.00	3.50	276.70	11,175.23	-604.08	461.04	-554.31	1.75
55	11,414.00	2.10	312.60	11,363.01	-601.08	452.81	-552.16	1.16
56	11,601.00	1.00	18.50	11,549.95	-597.22	450.80	-548.51	1.03
57	11,787.00	0.40	48.90	11,735.94	-595.25	451.81	-546.46	0.37
58	11,973.00	0.70	68.60	11,921.93	-594.41	453.36	-545.46	0.19
59	12,066.00	1.10	110.80	12,014.92	-594.52	454.72	-545.43	0.80
60	12,113.00	5.10	38.20	12,061.85	-593.04	456.43	-543.78	10.39
61	12,160.00	12.50	26.40	12,108.27	-586.83	459.99	-537.25	16.12
62	12,207.00	21.30	20.80	12,153.19	-574.27	465.30	-524.22	19.02
63	12,253.00	26.50	20.40	12,195.24	-556.83	471.84	-506.20	11.31
64	12,300.00	29.40	20.40	12,236.75	-536.18	479.52	-484.88	6.17
65	12,347.00	33.80	15.70	12,276.78	-512.77	487.09	-460.83	10.72
66	12,394.00	40.80	11.60	12,314.15	-485.10	493.72	-432.63	15.80
67	12,440.00	45.80	10.00	12,347.61	-454.12	499.61	-401.21	11.13
68	12,487.00	49.40	7.90	12,379.30	-419.84	504.99	-366.57	8.34
69	12,533.00	50.90	7.40	12,408.78	-384.84	509.69	-331.27	3.37
70	12,580.00	51.90	6.00	12,438.10	-348.36	513.97	-294.55	3.15
71	12,628.00	55.30	4.60	12,466.58	-309.90	517.53	-255.92	7.46
72	12,675.00	63.70	2.70	12,490.42	-269.52	520.08	-215.49	18.21
73	12,721.00	70.00	3.20	12,508.49	-227.31	522.26	-173.27	13.73
74	12,751.00	76.60	1.80	12,517.11	-198.61	523.50	-144.60	22.45
75	12,782.00	82.40	0.20	12,522.76	-168.15	524.03	-114.24	19.39
76	12,814.00	86.20	0.00	12,525.93	-136.32	524.08	-82.56	11.89
77	12,907.00	89.50	356.20	12,529.42	-43.46	521.00	9.50	5.41
78	13,000.00	90.30	354.80	12,529.59	49.25	513.70	101.00	1.73
79	13,094.00	90.80	356.30	12,528.68	142.96	506.41	193.49	1.68
80	13,186.00	91.30	353.20	12,527.00	234.54	498.00	283.75	3.41
81	13,279.00	90.70	355.50	12,525.37	327.07	488.84	374.88	2.56
82	13,371.00	93.30	356.20	12,522.16	418.77	482.19	465.43	2.93
83	13,465.00	93.40	359.50	12,516.67	512.53	478.67	558.35	3.51
84	13,558.00	91.10	359.20	12,513.02	605.44	477.61	650.68	2.49
85	13,651.00	89.80	358.80	12,512.29	698.42	475.99	743.02	1.46
86	13,743.00	86.60	358.80	12,515.18	790.34	474.07	834.27	3.48
87	13,836.00	89.60	0.60	12,518.26	883.28	473.58	926.68	3.76
88	13,930.00	88.20	0.20	12,520.06	977.26	474.24	1,020.24	1.55
89	14,024.00	86.20	0.20	12,524.66	1,071.14	474.56	1,113.68	2.13
90	14,117.00	93.10	1.60	12,525.22	1,164.07	476.03	1,206.27	7.57
91	14,209.00	87.60	357.00	12,524.66	1,256.00	474.90	1,297.62	7.79
92	14,303.00	90.20	355.60	12,526.47	1,349.77	468.84	1,390.30	3.14
93	14,396.00	96.10	358.80	12,521.36	1,442.47	464.30	1,482.06	7.21
94	14,490.00	94.30	2.10	12,512.84	1,536.06	465.03	1,575.25	3.99
95	14,583.00	91.30	3.00	12,508.29	1,628.85	469.17	1,667.97	3.37
96	14,676.00	84.70	2.70	12,511.54	1,721.63	473.79	1,760.74	7.10
97	14,770.00	86.40	1.10	12,518.83	1,815.28	476.89	1,854.23	2.48
98	14,863.00	92.40	358.80	12,519.80	1,908.23	476.81	1,946.69	6.91
99	14,956.00	94.10	357.40	12,514.53	2,001.02	473.73	2,038.70	2.37
100	15,049.00	89.30	358.40	12,511.77	2,093.89	470.33	2,130.75	5.27
101	15,142.00	90.70	358.40	12,511.77	2,186.85	467.73	2,222.97	1.51
102	15,235.00	92.60	357.70	12,509.09	2,279.76	464.57	2,315.07	2.18
103	15,328.00	90.50	358.40	12,506.58	2,372.66	461.41	2,407.18	2.38
104	15,421.00	90.40	358.30	12,505.85	2,465.62	458.73	2,499.39	0.15
105	15,514.00	90.00	355.80	12,505.52	2,558.49	453.94	2,591.30	2.72
106	15,607.00	92.70	357.60	12,503.33	2,651.30	448.59	2,683.09	3.49
107	15,700.00	90.70	354.90	12,500.57	2,744.04	442.51	2,774.74	3.61
108	15,793.00	90.80	358.60	12,499.36	2,836.87	437.24	2,866.56	3.98
109	15,886.00	95.10	0.70	12,494.57	2,929.72	436.67	2,958.87	5.14

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS
110	15,979.00	90.40	0.20	12,490.11	3,022.58	437.40	3,051.33	5.08
111	16,072.00	88.70	357.60	12,490.84	3,115.55	435.61	3,143.64	3.34
112	16,166.00	92.00	1.10	12,490.27	3,209.52	434.55	3,237.02	5.12
113	16,260.00	92.20	359.30	12,486.82	3,303.45	434.87	3,330.50	1.93
114	16,353.00	93.40	0.20	12,482.28	3,396.33	434.47	3,422.87	1.61
115	16,446.00	91.10	1.30	12,478.63	3,489.25	435.68	3,515.43	2.74
116	16,539.00	89.50	0.00	12,478.14	3,582.23	436.74	3,608.04	2.22
117	16,633.00	89.10	358.80	12,479.29	3,676.22	435.76	3,701.45	1.35
118	16,725.00	91.50	356.70	12,478.81	3,768.14	432.14	3,792.52	3.47
119	16,819.00	91.50	351.90	12,476.34	3,861.61	422.81	3,884.58	5.10
120	16,911.00	92.20	357.20	12,473.37	3,953.11	414.08	3,974.72	5.81
121	17,004.00	91.20	352.50	12,470.61	4,045.67	405.74	4,065.96	5.16
122	17,097.00	87.60	350.50	12,471.59	4,137.62	392.00	4,156.05	4.43
123	17,190.00	88.70	350.00	12,474.59	4,229.23	376.26	4,245.59	1.30
124	17,267.00	90.40	344.70	12,475.19	4,304.33	359.40	4,318.60	7.23
PTB	17,328.00	90.40	344.70	12,474.77	4,363.17	343.31	4,375.51	0.00