



Lea County, NM (NAD 83 NME)

Dogwood 23 Fed Com #707H

Plan #1

PROJECT DETAILS: Lea County, NM (NAD 83 NME)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

WELL DETAILS: #707H

Ground Level: 3304.0
KB = 25' @ 3329.0usf
Northing: 372719.00 Easting: 785950.00 Latitude: 32° 1' 20.23 N Longitude: 103° 32' 38.53 W

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
4900.0	0.00	0.00	4900.0	0.0	0.0	0.00	0.00	0.0	
5205.4	6.11	238.26	5204.8	-8.6	-13.8	2.00	238.26	-8.1	
7507.8	6.11	238.26	7494.2	-137.4	-222.2	0.00	0.00	-130.6	
7813.2	0.00	0.00	7799.0	-146.0	-236.0	2.00	180.00	-138.7	
11991.7	0.00	0.00	11977.5	-146.0	-236.0	0.00	0.00	-138.7	
12741.9	90.02	359.57	12455.0	331.6	-239.6	12.00	359.57	338.8	Brushy Top(Dogwood 23 Fed Com #707H)
15403.8	90.02	359.57	12454.0	2993.4	-259.8	0.00	0.00	3000.0	TGT #1(Dogwood 23 Fed Com #707H)
15407.0	90.09	359.57	12454.0	2996.7	-259.9	2.00	0.00	3003.2	
17404.3	90.09	359.57	12451.0	4993.9	-275.0	0.00	0.00	5000.0	TGT #2(Dogwood 23 Fed Com #707H)
17405.7	90.11	359.57	12451.0	4995.3	-275.0	2.00	0.00	5001.4	
18404.6	90.11	359.57	12449.0	5994.2	-282.6	0.00	0.00	6000.0	TGT #3(Dogwood 23 Fed Com #707H)
18410.4	90.23	359.57	12449.0	5999.9	-282.6	2.00	0.00	6005.8	
19404.9	90.23	359.57	12445.0	6994.4	-290.2	0.00	0.00	7000.0	TGT #4(Dogwood 23 Fed Com #707H)
19407.8	90.17	359.57	12445.0	6997.3	-290.2	2.00	-180.00	7002.9	
20405.1	90.17	359.57	12442.0	7994.6	-297.8	0.00	0.00	8000.0	TGT #5(Dogwood 23 Fed Com #707H)
20412.5	90.03	359.57	12442.0	8001.9	-297.8	2.00	180.00	8007.3	
22673.6	90.03	359.57	12441.0	10263.0	-315.0	0.00	0.00	10267.8	PBHL (Dogwood 23 Fed Com #707H)

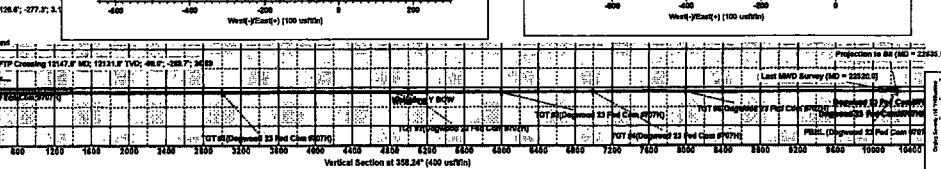
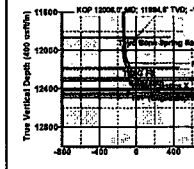
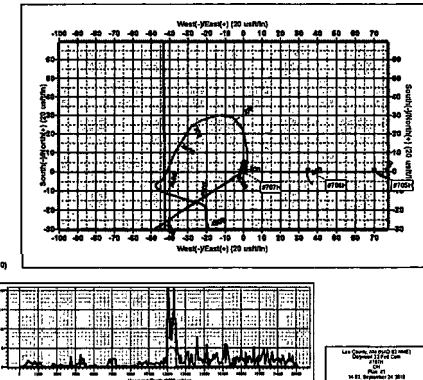
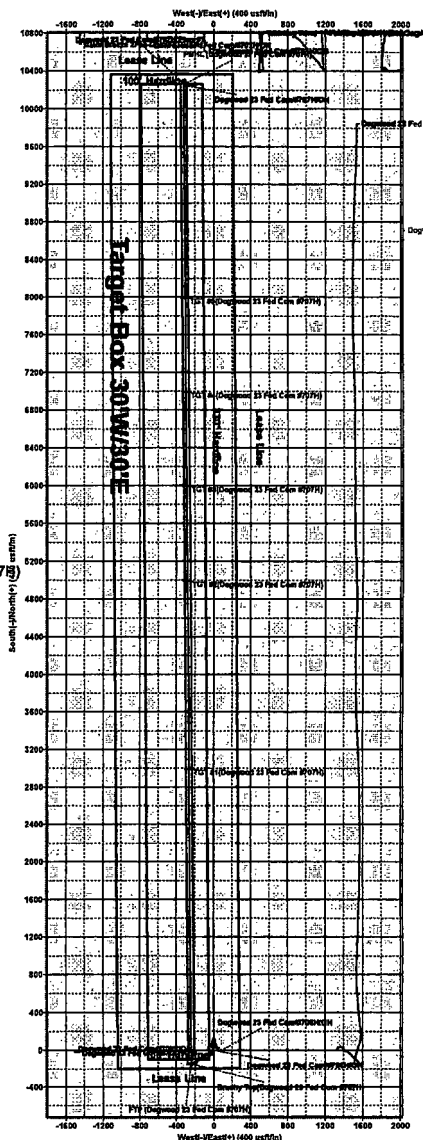
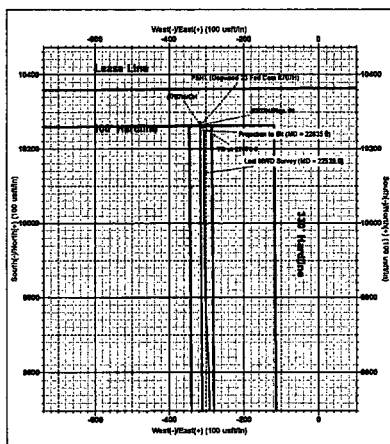
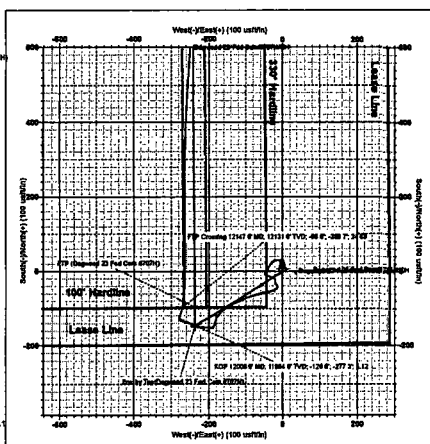
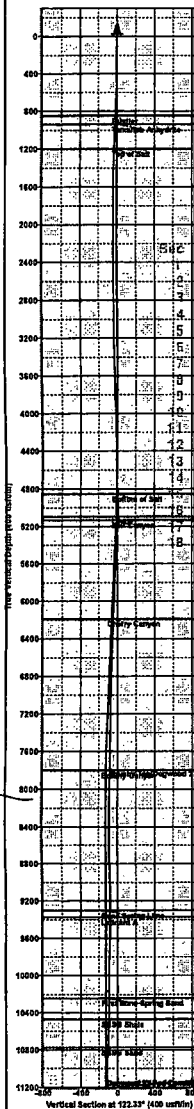
To convert a Magnetic Direction to a Grid Direction, Add 6.54°
To convert a Magnetic Direction to a True Direction, Add 6.58° East
To convert a True Direction to a Grid Direction, Subtract 0.42°

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
Brushy Top(Dogwood 23 Fed Com #707H)	7799.0	-148.0	-286.0	372573.00	785714.00
PBHL (Dogwood 23 Fed Com #707H)	12441.0	10263.0	-315.0	382362.00	785635.00
TGT #5(Dogwood 23 Fed Com #707H)	12442.0	7994.6	-297.8	380713.60	785652.22
TGT #4(Dogwood 23 Fed Com #707H)	12445.0	6994.4	-290.2	378713.40	785659.81
TGT #3(Dogwood 23 Fed Com #707H)	12449.0	5994.2	-282.6	378713.20	785667.40
TGT #2(Dogwood 23 Fed Com #707H)	12451.0	4993.9	-275.0	377712.90	785674.99
TGT #1(Dogwood 23 Fed Com #707H)	12454.0	2993.4	-269.9	375712.40	785690.17
FTP (Dogwood 23 Fed Com #707H)	12456.0	-58.0	-256.0	375225.08	785714.00



HOBBS OCD

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EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Dogwood 23 Fed Com

#707H

OH

Design: OH

Midland PVA

24 September, 2018



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #707H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3329.0usft
Site:	Dogwood 23 Fed Com	MD Reference:	KB = 25' @ 3329.0usft
	#707H	North Reference:	Grid
	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Project	Lea County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Dogwood 23 Fed Com		
Site Position:		Northing:	372,741.00 usft
From:	Map	Easting:	788,311.00 usft
Position Uncertainty:	0.0 usft	Grid Radius:	13-3/16 "
		Latitude:	32° 1' 20.089 N
		Longitude:	103° 32' 11.158 W
		Grid Convergence:	0.42 "

Well	#707H		
Well Position	+N-S	0.0 usft	Northing:
	+E-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	0.0 usft
		Latitude:	32° 1' 20.023 N
		Longitude:	103° 32' 38.583 W
		Ground Level:	3,304.0 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
	IGRF2015	2/17/2017	(°)
			Dip Angle
			(°)
			Field Strength
			(nT)
			6.96
			59.89
			47,855.58223566

Design	OH		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N-S	+E-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
		Direction	(°)
		358.24	

Survey Program	Date - 9/24/2018		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
147.0	22,635.0	Gordon MWD (OH)	MWD
			OWSG MWD - Standard



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Well:	#707H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey												
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)		
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
147.0	0.31	78.52	147.0	0.1	0.4	0.21	0.21	0.00	-0.4	0.0		
326.0	0.26	52.82	326.0	0.4	1.2	0.08	-0.03	-14.36	-1.2	-0.4		
504.0	1.32	8.41	504.0	2.7	1.8	0.65	0.80	-24.95	-2.9	-1.4		
676.0	4.04	0.89	675.8	10.7	2.2	1.59	1.58	-4.37	-10.7	-2.0		
865.0	3.11	332.89	864.4	21.9	0.0	1.03	-0.49	-14.81	-19.5	-10.0		
914.0	2.96	322.73	913.4	24.1	-1.4	1.14	-0.31	-20.73	-20.0	-13.5		
1,053.0	2.37	312.47	1,052.2	28.9	-5.7	0.54	-0.42	-7.38	-23.7	-17.5		
1,240.0	3.00	252.88	1,239.0	30.1	-13.2	1.46	0.34	-31.87	-3.8	-32.7		
1,425.0	2.95	254.35	1,423.8	27.4	-22.4	0.05	-0.03	0.79	-14.2	-32.4		
1,610.0	1.26	208.37	1,608.7	24.3	-28.0	1.22	-0.91	-24.85	8.1	-36.2		
1,797.0	1.55	210.07	1,795.6	20.3	-30.2	0.16	0.16	0.91	2.4	-36.3		
1,983.0	1.75	214.77	1,981.5	15.8	-33.1	0.13	0.11	2.53	-5.9	-36.2		
2,171.0	1.90	210.02	2,169.4	10.7	-36.3	0.11	0.08	-2.53	-8.9	-36.8		
2,358.0	2.06	202.85	2,356.3	5.0	-39.2	0.16	0.09	-3.83	-10.6	-38.0		
2,546.0	2.20	206.62	2,544.2	-1.4	-42.1	0.11	0.07	2.01	-20.1	-37.0		
2,734.0	0.98	247.64	2,732.1	-5.2	-45.2	0.85	-0.65	21.82	-43.8	-12.4		
2,921.0	0.37	222.43	2,919.1	-6.3	-47.1	0.36	-0.33	-13.48	-36.4	-30.5		
3,108.0	0.45	181.51	3,106.1	-7.4	-47.5	0.16	0.04	-21.88	-8.7	-47.3		
3,295.0	1.24	124.24	3,293.1	-9.3	-45.9	0.57	0.42	-30.63	32.7	-33.5		
3,482.0	1.51	105.44	3,480.0	-11.1	-41.8	0.28	0.14	-10.05	37.3	-21.9		
3,669.0	2.03	105.52	3,666.9	-12.7	-36.3	0.28	0.28	0.04	31.5	-21.9		
3,856.0	2.10	112.27	3,853.8	-14.8	-29.9	0.14	0.04	3.61	22.0	-25.1		
4,041.0	2.45	97.70	4,038.7	-16.7	-22.8	0.36	0.19	-7.88	20.4	-19.6		
4,135.0	1.42	167.12	4,132.6	-18.1	-20.6	2.51	-1.10	73.85	-13.0	-24.1		
4,228.0	1.49	181.65	4,225.6	-20.4	-20.4	0.40	0.08	15.62	-21.0	-19.8		
4,416.0	1.56	175.02	4,413.5	-25.4	-20.2	0.10	0.04	-3.53	-23.5	-22.3		



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #707H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3329.0usft
Site:	Dogwood 23 Fed Com	MD Reference:	KB = 25' @ 3329.0usft
Well:	#707H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (°)	Asl (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
4,603.0	2.05	146.32	4,600.4	-30.7	-18.1	0.54	0.26	-15.35	-15.5	-32.1	
4,791.0	3.55	146.27	4,788.2	-38.3	-13.0	0.80	0.80	-0.03	-24.6	-32.2	
4,950.0	3.42	235.85	4,947.0	-45.1	-14.2	3.09	-0.08	56.34	-36.7	29.4	
5,049.0	2.82	229.52	5,045.9	-48.3	-18.5	0.70	-0.61	-6.39	-41.7	25.3	
5,237.0	4.25	268.51	5,233.5	-52.7	-28.9	1.19	0.78	15.42	-20.5	39.1	
5,425.0	4.20	256.96	5,421.0	-55.7	-42.4	0.07	-0.03	-0.82	-16.5	32.0	
5,612.0	4.48	257.17	5,607.5	-58.8	-56.2	0.15	0.15	0.11	-11.6	25.6	
5,799.0	4.03	255.02	5,794.0	-62.2	-69.7	0.26	-0.24	-1.15	-7.4	19.1	
5,987.0	4.03	253.71	5,981.5	-65.7	-82.4	0.05	0.00	-0.70	-1.7	13.5	
6,175.0	3.51	250.22	6,169.1	-69.5	-94.1	0.30	-0.28	-1.86	4.7	8.8	
6,362.0	3.40	249.27	6,355.7	-73.4	-104.7	0.07	-0.06	-0.51	12.9	5.0	
6,550.0	3.29	246.78	6,543.4	-77.5	-114.9	0.10	-0.06	-1.32	21.5	2.3	
6,737.0	3.30	245.26	6,730.1	-81.9	-124.7	0.05	0.01	-0.81	30.4	0.3	
6,925.0	3.19	245.68	6,917.8	-86.3	-134.4	0.06	-0.06	0.22	39.7	-2.4	
7,113.0	3.34	242.47	7,105.5	-91.0	-144.0	0.13	0.08	-1.71	49.0	-2.0	
7,300.0	0.88	172.55	7,292.4	-84.9	-148.7	1.68	-1.32	-37.39	23.7	58.4	
7,393.0	2.08	234.58	7,385.4	-96.6	-149.9	1.98	1.29	66.70	70.5	7.8	
7,486.0	2.26	239.87	7,478.3	-98.5	-152.9	0.30	0.22	5.69	77.3	1.2	
7,673.0	2.27	231.88	7,665.1	-102.7	-159.0	0.17	-0.01	-4.27	84.1	13.1	
7,860.0	2.30	231.37	7,852.0	-107.3	-164.9	0.02	0.02	-0.27	79.7	14.2	
8,047.0	2.25	217.05	8,038.8	-112.6	-170.0	0.30	-0.03	-7.66	66.4	32.5	
8,234.0	2.05	218.09	8,225.7	-118.1	-174.3	0.11	-0.11	0.56	60.0	31.4	
8,422.0	1.83	207.19	8,413.6	-123.5	-177.8	0.23	-0.12	-5.80	46.6	41.5	
8,608.0	1.97	194.49	8,599.5	-129.2	-179.9	0.24	0.08	-6.83	30.3	50.1	
8,796.0	2.01	191.92	8,787.4	-135.6	-181.4	0.05	0.02	-1.37	21.5	51.3	
8,983.0	1.76	199.39	8,974.3	-141.5	-183.0	0.19	-0.13	3.99	21.8	48.5	
9,170.0	1.29	204.44	9,161.2	-146.1	-184.9	0.26	-0.25	2.70	21.1	46.6	



Midland PVA

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Well:	#707H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	DLeg (°/100usft)	Bulld (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
9,357.0	1.19	225.54	9,348.2	-149.4	-187.1	0.25	-0.05	11.28	32.5	36.7	
9,545.0	1.12	201.08	9,536.1	-152.5	-189.2	0.26	-0.04	-13.01	10.8	46.0	
9,731.0	2.34	284.79	9,722.1	-152.6	-193.3	1.43	0.66	50.38	41.5	-12.0	
9,919.0	1.85	287.76	9,910.0	-150.0	-199.6	0.29	-0.26	-3.74	35.9	-7.3	
10,012.0	1.14	271.65	10,002.9	-149.5	-202.0	0.88	-0.78	-17.32	34.1	2.6	
10,200.0	1.09	133.27	10,190.9	-150.7	-202.6	1.11	-0.03	-73.61	-27.6	19.5	
10,293.0	0.34	282.97	10,283.9	-151.2	-202.2	1.52	-0.81	171.72	33.2	-8.4	
10,387.0	0.70	318.74	10,377.9	-150.7	-202.8	0.45	0.38	27.41	25.4	-21.9	
10,574.0	2.02	252.41	10,564.9	-150.8	-206.7	0.99	0.71	-35.47	26.5	13.4	
10,762.0	2.40	285.40	10,752.7	-150.8	-213.7	0.69	0.20	17.55	22.8	-1.3	
10,950.0	2.60	260.49	10,940.5	-150.4	-221.7	0.58	0.11	-13.25	13.4	6.7	
11,043.0	2.34	278.83	11,033.5	-150.5	-225.6	0.89	-0.28	19.72	10.9	2.8	
11,231.0	3.75	300.71	11,221.2	-146.8	-234.7	0.96	0.75	11.64	1.5	0.0	
11,419.0	4.50	297.54	11,408.7	-140.2	-246.5	0.42	0.40	-1.69	-12.0	-0.3	
11,513.0	3.63	281.86	11,502.5	-137.9	-252.7	1.49	-0.93	-16.68	-18.0	-4.5	
11,701.0	3.91	286.15	11,690.1	-134.9	-264.7	0.21	0.15	2.28	-30.6	-2.7	
11,745.0	3.03	293.43	11,734.0	-134.0	-267.2	2.23	-2.00	16.55	-33.4	1.4	
11,832.0	3.39	278.62	11,820.9	-132.7	-271.8	1.04	0.41	-17.02	-37.4	-7.8	
11,926.0	2.89	322.11	11,914.7	-130.4	-276.1	2.52	-0.53	46.27	-36.9	22.1	
12,006.0	3.12	0.96	11,994.6	-126.6	-277.3	2.51	0.29	48.56	-18.3	41.6	
KOP 12006.0' MD; 11994.6' TVD; -126.6'; -277.3'; 3.12											
12,019.0	3.28	6.11	12,007.6	-125.9	-277.2	2.51	1.19	39.65	-14.6	43.0	
12,066.0	10.55	20.29	12,054.2	-120.5	-275.6	15.77	15.47	30.17	-4.4	43.6	
12,112.0	19.45	13.57	12,098.6	-109.1	-272.3	19.68	19.35	-14.61	-12.0	39.8	
12,147.6	24.69	9.40	12,131.6	-96.0	-269.7	15.36	14.73	-11.71	-17.8	36.6	
FTP Crossing 12147.6' MD; 12131.6' TVD; -96.0'; -269.7'; 24.69											
12,159.0	26.39	8.40	12,141.9	-91.2	-268.9	15.36	14.89	-8.78	-19.4	35.6	



Midland PVA

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Site:	Dogwood 23 Fed Com	MD Reference:	KB = 25' @ 3329.0usft
Well:	#707H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
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Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
12,205.0	29.60	7.20	12,182.5	-69.8	-266.0	7.08	6.98	-2.61	-23.5	32.4	
12,252.0	34.05	3.01	12,222.4	-45.1	-263.9	10.57	9.47	-8.91	-27.0	28.5	
12,299.0	38.33	0.07	12,260.1	-17.0	-263.2	11.84	11.23	-6.26	-28.8	26.4	
12,346.0	42.41	359.08	12,295.6	13.7	-263.4	6.70	6.55	-2.11	-28.1	26.0	
12,393.0	47.54	0.34	12,328.9	46.9	-263.6	11.08	10.91	2.68	-25.2	26.3	
12,440.0	51.28	359.68	12,359.5	82.6	-263.6	8.03	7.96	-1.40	-21.6	25.9	
12,486.0	57.44	0.00	12,386.3	120.0	-263.7	13.40	13.39	0.70	-17.2	25.7	
12,533.0	62.35	359.81	12,409.8	160.8	-263.7	10.45	10.45	-0.40	-12.8	25.4	
12,580.0	71.44	0.30	12,428.2	203.8	-263.7	19.36	19.34	1.04	-8.9	25.1	
12,627.0	77.20	359.75	12,440.9	249.0	-263.7	12.31	12.26	-1.17	-6.8	24.7	
12,673.0	82.64	0.78	12,449.0	294.3	-263.4	12.03	11.83	2.24	-4.5	24.1	
12,766.0	89.86	2.06	12,455.2	387.0	-261.1	7.67	7.55	1.38	0.3	21.1	
12,859.0	92.30	4.36	12,453.6	479.8	-255.9	3.76	2.84	2.47	-1.3	15.2	
12,953.0	89.38	3.19	12,452.3	573.6	-249.8	3.35	-3.11	-1.24	-2.6	8.3	
13,051.0	89.66	2.37	12,453.1	671.5	-245.0	0.88	0.29	-0.84	-1.8	2.8	
13,144.0	86.46	359.90	12,454.6	764.4	-243.2	2.95	-1.29	-2.66	-0.2	0.2	
13,237.0	88.21	359.13	12,457.3	857.4	-243.9	0.87	-0.27	-0.83	2.5	0.3	
13,331.0	88.85	358.63	12,459.7	951.4	-245.8	0.88	0.68	-0.53	5.0	1.5	
13,424.0	89.58	357.92	12,461.0	1,044.3	-248.6	1.09	0.78	-0.76	6.3	3.5	
13,517.0	89.78	356.29	12,461.5	1,137.2	-253.3	1.77	0.22	-1.75	6.8	7.5	
13,611.0	92.19	357.86	12,459.9	1,231.0	-258.1	3.06	2.56	1.67	5.3	11.6	
13,704.0	93.22	1.37	12,455.5	1,323.9	-258.7	3.93	1.11	3.77	0.9	11.5	
13,797.0	93.31	1.68	12,450.2	1,416.7	-256.2	0.35	0.10	0.33	-4.4	8.4	
13,890.0	91.88	1.30	12,446.0	1,509.6	-253.8	1.59	-1.54	-0.41	-8.5	5.2	
13,983.0	89.19	0.04	12,445.1	1,602.6	-252.7	3.19	-2.89	-1.35	-9.4	3.5	
14,077.0	90.00	0.25	12,445.8	1,696.6	-252.5	0.89	0.86	0.22	-8.7	2.5	
14,170.0	89.78	0.41	12,446.0	1,789.6	-251.9	0.29	-0.24	0.17	-8.5	1.3	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #707H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3329.0usft
Site:	Dogwood 23 Fed Com	MD Reference:	KB = 25' @ 3329.0usft
Well:	#707H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
14,264.0	89.22	0.15	12,446.8	1,883.6	-251.5	0.66	-0.60	-0.28	-7.6	0.1	
14,357.0	92.91	1.02	12,445.1	1,976.5	-250.5	4.08	3.97	0.94	-9.3	-1.6	
14,450.0	86.30	359.14	12,445.7	2,069.5	-250.4	7.39	-7.11	-2.02	-8.6	-2.4	
14,544.0	87.76	359.14	12,450.6	2,163.3	-251.8	1.55	1.55	0.00	-3.7	-1.7	
14,637.0	88.60	357.45	12,453.5	2,256.2	-254.6	2.03	0.90	-1.82	-0.7	0.4	
14,730.0	90.34	358.36	12,454.4	2,349.2	-258.0	2.11	1.87	0.98	0.2	3.0	
14,824.0	91.85	358.59	12,452.6	2,443.1	-260.5	1.82	1.61	0.24	-1.6	4.8	
14,917.0	92.75	358.52	12,448.9	2,536.0	-262.8	0.97	0.97	-0.08	-5.3	6.5	
15,010.0	91.04	0.20	12,445.8	2,628.9	-263.9	2.58	-1.84	1.81	-8.3	6.8	
15,103.0	91.93	0.36	12,443.4	2,721.9	-263.4	0.97	0.96	0.17	-10.7	5.6	
15,197.0	86.83	0.07	12,444.4	2,815.9	-263.1	5.43	-5.43	-0.31	-9.7	4.6	
15,290.0	87.39	0.14	12,449.1	2,908.8	-262.9	0.61	0.60	0.08	-4.9	3.7	
15,384.0	88.37	0.39	12,452.6	3,002.7	-262.5	1.08	1.04	0.27	-1.4	2.6	
15,478.0	89.05	0.51	12,454.7	3,096.7	-261.7	0.73	0.72	0.13	0.8	1.1	
15,572.0	87.45	0.98	12,457.5	3,190.6	-260.5	1.77	-1.70	0.50	3.8	-0.8	
15,665.0	88.88	0.91	12,460.5	3,283.5	-259.0	1.54	1.54	-0.08	7.0	-3.1	
15,759.0	91.68	1.68	12,460.1	3,377.5	-256.8	3.09	2.98	0.82	6.6	-5.9	
15,853.0	93.56	1.96	12,455.8	3,471.4	-253.9	2.02	2.00	0.30	2.5	-9.6	
15,947.0	90.73	1.81	12,452.3	3,565.2	-250.9	3.03	-3.01	-0.37	-0.9	-13.2	
16,040.0	89.36	358.68	12,452.2	3,658.2	-250.7	3.48	-1.47	-3.15	-0.8	-14.2	
16,134.0	90.36	357.86	12,452.4	3,752.2	-253.5	1.38	1.06	-0.87	-0.5	-12.1	
16,228.0	90.56	357.25	12,451.7	3,846.1	-257.5	0.68	0.21	-0.65	-1.1	-8.8	
16,321.0	89.72	357.86	12,451.4	3,939.0	-261.5	1.12	-0.90	0.66	-1.2	-5.5	
16,415.0	90.28	357.42	12,451.4	4,032.9	-265.4	0.76	0.60	-0.47	-1.0	-2.3	
16,509.0	91.09	359.55	12,450.3	4,126.9	-267.9	2.42	0.86	2.27	-2.0	-0.6	
16,603.0	90.62	1.47	12,448.9	4,220.9	-267.0	2.10	-0.50	2.04	-3.3	-2.1	
16,696.0	86.19	358.83	12,451.5	4,313.8	-266.8	5.54	-4.76	-2.84	-0.5	-3.1	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #707H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3329.0usft
Site:	Dogwood 23 Fed Com	MD Reference:	KB = 25' @ 3329.0usft
Well:	#707H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (°)	Asl (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
18,790.0	87.34	358.71	12,456.8	4,407.6	-268.8	1.23	1.22	-0.13	4.9	-1.8	
18,884.0	91.88	0.85	12,457.4	4,501.6	-269.2	5.34	4.83	2.28	5.7	-2.1	
16,977.0	90.95	358.32	12,455.1	4,594.5	-269.8	2.90	-1.00	-2.72	3.5	-2.1	
17,070.0	89.97	357.30	12,454.4	4,687.5	-273.4	1.52	-1.05	-1.10	2.9	0.7	
17,163.0	90.25	357.05	12,454.2	4,780.4	-278.0	0.40	0.30	-0.27	2.9	4.6	
17,257.0	90.76	357.04	12,453.4	4,874.2	-282.8	0.54	0.54	-0.01	2.2	8.7	
17,351.0	91.34	357.02	12,451.7	4,968.1	-287.7	0.82	0.82	-0.02	0.6	12.9	
17,443.0	92.55	358.51	12,448.5	5,060.0	-291.3	2.09	1.32	1.82	-2.3	15.8	
17,537.0	92.27	358.52	12,444.6	5,153.8	-293.7	0.30	-0.30	0.01	-6.1	17.5	
17,630.0	90.95	0.40	12,442.0	5,246.8	-294.6	2.47	-1.42	2.02	-8.5	17.6	
17,772.0	88.96	2.87	12,442.1	5,388.7	-290.5	2.23	-1.40	1.74	-8.1	12.5	
17,838.0	89.33	2.15	12,443.1	5,454.7	-287.6	1.23	0.56	-1.09	-7.0	9.1	
17,932.0	90.62	0.98	12,443.1	5,548.6	-285.1	1.85	1.37	-1.24	-6.8	5.9	
18,025.0	87.76	358.50	12,444.4	5,641.6	-285.5	4.07	-3.08	-2.67	-5.3	5.6	
18,120.0	89.78	358.60	12,446.5	5,736.5	-287.9	2.13	2.13	0.11	-3.1	7.3	
18,213.0	90.56	357.68	12,446.2	5,829.5	-290.9	1.30	0.84	-0.89	-3.1	9.6	
18,307.0	91.68	357.14	12,444.3	5,923.4	-295.2	1.32	1.19	-0.57	-4.8	13.1	
18,401.0	90.22	0.07	12,442.8	6,017.3	-297.4	3.48	-1.55	3.12	-6.1	14.7	
18,494.0	89.33	358.44	12,443.2	6,110.3	-298.7	2.00	-0.96	-1.75	-5.4	15.2	
18,588.0	90.17	357.93	12,443.6	6,204.2	-301.6	1.05	0.89	-0.54	-4.6	17.4	
18,682.0	91.01	0.27	12,442.6	6,298.2	-303.1	2.64	0.89	2.49	-5.2	18.2	
18,776.0	89.05	359.15	12,442.5	6,392.2	-303.6	2.40	-2.09	-1.19	-4.9	18.0	
18,869.0	89.97	359.03	12,443.3	6,485.2	-305.1	1.00	0.99	-0.13	-3.7	18.7	
18,963.0	91.12	358.08	12,442.5	6,578.2	-307.4	1.59	1.22	-1.01	-4.2	20.4	
19,057.0	88.29	1.65	12,442.9	6,673.1	-307.7	4.85	-3.01	3.80	-3.3	19.9	
19,150.0	88.65	1.82	12,445.4	6,766.1	-304.8	0.43	0.39	0.18	-0.5	16.4	
19,244.0	90.20	2.05	12,446.4	6,860.0	-301.7	1.67	1.65	0.24	0.8	12.5	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #707H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3329.0usft
Site:	Dogwood 23 Fed Com	MD Reference:	KB = 25' @ 3329.0usft
	#707H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Datbase:	EDM 5000.14

Survey											
MD (usft)	Incl (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
19,338.0	91.93	2.63	12,444.6	6,953.9	-297.8	1.94	1.84	0.62	-0.6	7.9	
19,431.0	91.57	0.23	12,441.8	7,046.8	-295.5	2.61	-0.39	-2.58	-3.1	4.9	
19,525.0	92.75	0.14	12,438.2	7,140.8	-295.2	1.26	1.26	-0.10	-6.3	3.9	
19,619.0	91.01	359.67	12,435.1	7,234.7	-295.4	1.92	-1.85	-0.50	-9.1	3.3	
19,713.0	88.63	0.68	12,435.4	7,328.7	-295.1	2.75	-2.53	1.07	-8.6	2.3	
19,807.0	91.96	1.74	12,435.0	7,422.7	-293.1	3.72	3.54	1.13	-8.8	-0.4	
19,901.0	88.82	358.93	12,434.3	7,516.6	-292.5	4.48	-3.34	-2.99	-9.1	-1.6	
19,994.0	88.99	359.53	12,436.1	7,609.6	-293.8	0.67	0.18	0.65	-7.1	-1.1	
20,087.0	91.40	1.11	12,435.8	7,702.6	-293.3	3.10	2.59	1.70	-7.1	-2.3	
20,181.0	87.56	359.91	12,436.6	7,796.6	-292.4	4.28	-4.09	-1.28	-6.0	-3.8	
20,275.0	87.59	358.82	12,440.6	7,890.5	-293.5	1.16	0.03	-1.16	-1.7	-3.5	
20,368.0	88.96	359.87	12,443.4	7,983.4	-294.5	1.86	1.47	1.13	1.4	-3.2	
20,462.0	90.48	0.16	12,443.9	8,077.4	-294.5	1.65	1.62	0.31	1.9	-3.9	
20,555.0	86.97	0.40	12,445.9	8,170.4	-294.1	3.78	-3.77	0.26	4.0	-5.1	
20,648.0	87.95	0.92	12,450.1	8,263.3	-293.0	1.19	1.05	0.56	8.2	-6.8	
20,742.0	89.13	0.67	12,452.5	8,357.2	-291.7	1.28	1.26	-0.27	10.6	-8.8	
20,836.0	90.90	0.46	12,452.4	8,451.2	-290.8	1.90	1.88	-0.22	10.6	-10.5	
20,929.0	92.35	359.82	12,449.8	8,544.2	-290.5	1.70	1.56	-0.69	8.0	-11.4	
21,022.0	90.25	359.73	12,447.7	8,637.2	-290.9	2.26	-2.26	-0.10	6.0	-11.8	
21,116.0	91.18	0.54	12,446.5	8,731.1	-290.7	1.31	0.99	0.86	4.8	-12.7	
21,210.0	92.89	1.47	12,443.2	8,825.1	-289.0	2.07	1.82	0.99	1.6	-15.1	
21,303.0	93.28	1.03	12,438.2	8,917.9	-287.0	0.63	0.42	-0.47	-3.4	-17.8	
21,397.0	91.74	358.93	12,434.0	9,011.8	-287.0	2.77	-1.64	-2.23	-7.5	-18.5	
21,490.0	89.50	358.38	12,433.0	9,104.8	-289.2	2.48	-2.41	-0.59	-8.5	-17.0	
21,584.0	89.58	359.12	12,433.8	9,198.8	-291.3	0.79	0.09	0.79	-7.7	-15.7	
21,678.0	89.33	359.57	12,434.7	9,292.7	-292.3	0.55	-0.27	0.48	-6.7	-15.3	
21,771.0	90.14	0.62	12,435.1	9,385.7	-292.2	1.43	0.87	1.13	-6.3	-16.1	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #707H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3329.0usft
Site:	Dogwood 23 Fed Com	MD Reference:	KB = 25' @ 3329.0usft
	#707H	North Reference:	Grd
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
21,865.0	91.34	0.22	12,433.9	9,479.7	-291.5	1.35	1.28	-0.43	-7.4	-17.6	
21,959.0	88.65	358.83	12,433.9	9,573.7	-292.4	3.32	-2.86	-1.69	-7.4	-17.3	
22,052.0	88.54	357.16	12,436.2	9,666.6	-295.9	1.58	-0.12	-1.58	-5.1	-14.6	
22,146.0	89.50	357.87	12,437.8	9,760.5	-299.9	1.27	1.02	0.76	-3.4	-11.3	
22,239.0	91.76	358.94	12,436.8	9,853.5	-302.5	2.69	2.43	1.15	-4.4	-9.4	
22,333.0	92.04	359.16	12,433.7	9,947.4	-304.1	0.38	0.30	0.23	-7.5	-8.5	
22,426.0	92.75	359.49	12,429.8	10,040.3	-305.2	0.84	0.76	0.35	-11.3	-8.1	
22,520.0	93.31	0.13	12,424.8	10,134.2	-305.5	0.90	0.60	0.68	-16.2	-8.5	
Last MWD Survey (MD = 22520.0)											
22,635.0	93.31	0.13	12,418.2	10,249.0	-305.2	0.00	0.00	0.00	-22.8	-9.7	
Projection to Bit (MD = 22635.0)											

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/S (usft)	+E/W (usft)	
12,006.0	11,994.6	-126.6	-277.3	KOP 12006.0' MD; 11994.6' TVD; -126.6'; -277.3'; 3.12
12,147.6	12,131.6	-96.0	-269.7	FTP Crossing 12147.6' MD; 12131.6' TVD; -96.0'; -269.7'; 24.69
22,520.0	12,424.8	10,134.2	-305.5	Last MWD Survey (MD = 22520.0)
22,635.0	12,418.2	10,249.0	-305.2	Projection to Bit (MD = 22635.0)

Checked By: _____	Approved By: _____	Date: _____
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