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District II
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Phone: (575) 748-1283 Fax: (575) 748-9720

District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources
Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-46569	² Pool Code 98180	³ Pool Name WC025 G09 S253309P; UPPER WOLFCAMP KZ
⁴ Property Code 325949	⁵ Property Name VALIANT 24 FED COM	⁶ Well Number 712H
⁷ OGRID No. 7377	⁸ Operator Name EOG RESOURCES, INC.	⁹ Elevation 3440'

¹⁰Surface Location

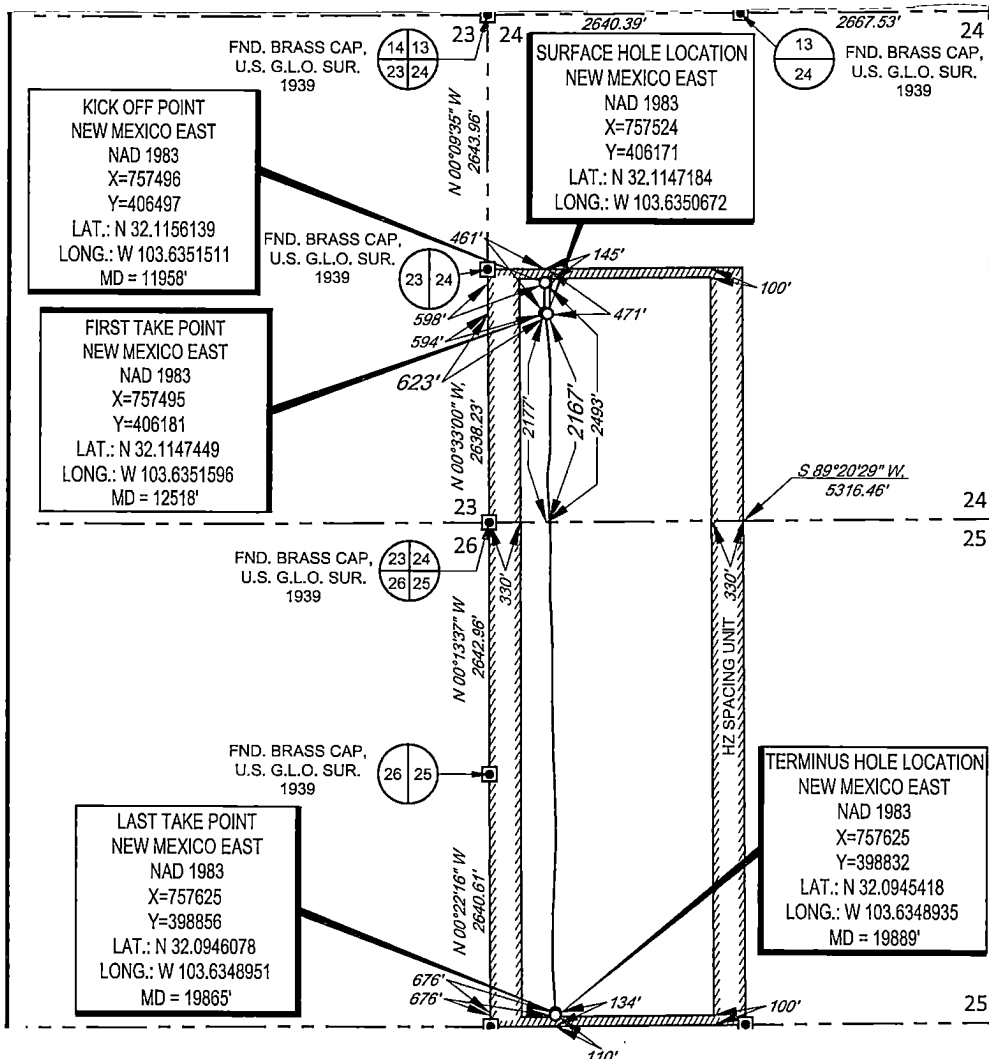
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	24	25-S	32-E	-	2167'	SOUTH	623'	WEST	LEA

¹¹Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	25	25-S	32-E	-	110'	SOUTH	676'	WEST	LEA

¹² Dedicated Acres 480.00	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

¹⁷OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Kay Maddox 8/14/2020
Signature Date

KAY MADDOX
Printed Name

kay_maddox@eogresources.com
E-mail Address

¹⁸SURVEYOR CERTIFICATION

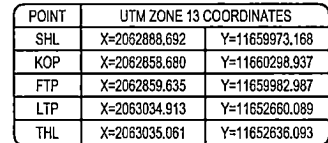
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true to the best of my belief.

08/30/2018

Date of Survey
Signature and Seal of Professional Surveyor

RAMONA DOMINGUEZ
NEW MEXICO
24508
PROFESSIONAL SURVEYOR

Certificate Number

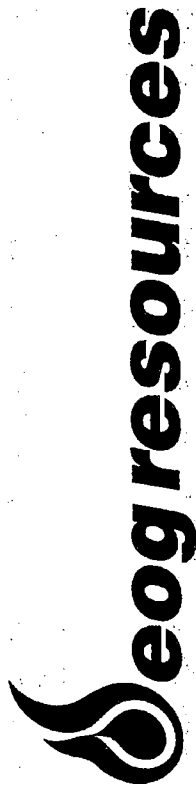


A circular professional seal for a surveyor. The outer ring contains the text "RAMON A. DOMINGUEZ" at the top and "PROFESSIONAL SURVEYOR" at the bottom. The inner ring contains "NEW MEXICO". The center of the seal features the license number "24508" above a stylized signature.



eog resources, inc.

VALIANT 24 FED COM #712H AS-COMplete		REVISION:		NOTES: 1. ORIGINAL DOCUMENT SIZE: 8.5" X 11" 2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET. 3. THIS WELL LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY EOG RESOURCES, INC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY. 4. ADJOINER INFORMATION SHOWN FOR INFORMATIONAL PURPOSES ONLY.
DATE: 06/11/2020				
FILE:AD_VALIANT_24_FED_COM_712H				
DRAWN BY: A.V.F.				
SHEET: 1 OF 1				



Rec'd 8/24/2020 - NMOCD

EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Valiant 24 Fed Com

#712H

OH

Design: OH

Midland PVA

29 March, 2020



EOG Resources
Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #712H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3465.0usft
Site:	Valiant 24 Fed Com	MD Reference:	KB = 25' @ 3465.0usft
Well:	#712H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM

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

Site	Valiant 24 Fed Com		
Site Position:		Northing:	406,151.00 usft
From:	Map	Easting:	760,107.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 6' 52.620 N
		Longitude:	103° 37' 36.212 W
		Grid Convergence:	0.38 °

Well	#712H		
Well Position	+N/-S	Northing:	406,171.00 usft
	+E/-W	Easting:	757,524.00 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 6' 52.985 N
		Longitude:	103° 38' 6.243 W
		Ground Level:	3,440.0 usft

Wellbore	OH		
Magnetics			
		Dip Angle	Field Strength
		(°)	(nT)
		59.92	47,584.46823489

Design	OH		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:			
		Depth From (TVD)	Direction
		(usft)	(°)
		0.0	179.34

Survey Program	Date	3/29/2020	
From (usft)	To (usft)	Survey (Wellbore)	Tool Name
197.0	19,889.0	Drilltech MWD (OH)	EOG MWD+IFR1
			MWD + IFR1



EOG Resources
Midland PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Valiant 24 Fed Com
Well: #712H
Wellbore: OH
Design: OH

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well #712H
KB = 25' @ 3465.0usft
KB = 25' @ 3465.0usft
Grid:
Minimum Curvature
EDM

Survey	MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
	0.0	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0
	197.0	1.14	161.75	197.0	-1.9	0.6	0.58	0.58	0.00	-2.0	0.0
	226.0	1.23	167.20	226.0	-2.4	0.8	0.50	0.31	18.79	-2.5	0.2
	315.0	1.23	159.99	315.0	-4.3	1.3	0.17	0.00	-8.10	-4.5	-0.2
	402.0	1.32	152.87	401.9	-6.0	2.1	0.21	0.10	-8.18	-6.3	-0.9
	490.0	1.14	151.82	489.9	-7.7	3.0	0.21	-0.20	-1.19	-8.2	-1.0
	578.0	1.32	158.15	577.9	-9.4	3.8	0.26	0.20	7.19	-10.1	0.0
	676.0	1.32	155.34	675.9	-11.5	4.6	0.07	0.00	-2.87	-12.4	-0.6
	822.0	1.41	149.36	821.8	-14.6	6.3	0.12	0.06	-4.10	-15.7	-2.0
	953.0	1.58	140.75	952.8	-17.4	8.2	0.21	0.13	-6.57	-18.6	-4.6
	1,049.0	1.49	87.31	1,048.8	-18.3	10.3	1.44	-0.09	-55.67	-9.4	-19.2
	1,145.0	2.73	36.42	1,144.7	-16.4	12.9	2.22	1.29	-53.01	8.7	-22.1
	1,241.0	4.92	10.50	1,240.5	-10.5	15.0	2.85	2.28	-27.00	17.6	-17.7
	1,337.0	6.24	5.75	1,336.0	-1.3	16.3	1.46	1.37	-4.95	18.0	-16.7
	1,433.0	6.33	4.87	1,431.5	9.2	17.3	0.14	0.09	-0.92	16.1	-16.6
	1,529.0	6.33	3.99	1,526.9	19.7	18.1	0.10	0.00	-0.92	14.2	-16.3
	1,625.0	6.51	3.99	1,622.3	30.4	18.8	0.19	0.19	0.00	11.8	-16.2
	1,721.0	6.60	4.34	1,717.6	41.4	19.6	0.10	0.09	0.36	9.1	-16.2
	1,817.0	6.95	1.62	1,813.0	52.7	20.2	0.49	0.36	-2.83	6.8	-15.6
	1,913.0	7.21	1.80	1,908.2	64.5	20.6	0.27	0.27	0.19	3.3	-15.2
	2,009.0	7.39	2.94	2,003.5	76.7	21.1	0.24	0.19	1.19	-0.9	-14.9
	2,105.0	7.83	2.23	2,098.6	89.4	21.6	0.47	0.46	-0.74	-5.0	-14.6
	2,201.0	7.83	0.48	2,193.7	102.5	22.0	0.25	0.00	-1.82	-9.4	-14.4
	2,297.0	8.09	0.13	2,288.8	115.7	22.0	0.28	0.27	-0.36	-14.2	-13.8
	2,393.0	8.35	359.95	2,383.8	129.5	22.0	0.27	0.27	-0.19	-19.6	-13.2
	2,489.0	8.44	359.77	2,478.8	143.5	22.0	0.10	0.09	-0.19	-25.3	-12.6
	2,585.0	8.44	0.39	2,573.7	157.6	22.0	0.09	0.00	0.65	-31.2	-11.6



EOG Resources Midland PVA

Company: EOG Resources - Midland				Local Co-ordinate Reference:								Well #712H	
Project: Lea County, NM (NAD 83 NME)				TVD Reference:								KB = 25' @ 3465.0usft	
Site: Vallant 24 Fed Com				MD Reference:								KB = 25' @ 3465.0usft	
Well: #712H				North Reference:								Grid	
Wellbore: OH				Survey Calculation Method:								Minimum Curvature	
Design: OH				Database:								EDM	
Survey													
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)			
2,681.0	8.62	0.13	2,668.7	171.8	22.1	0.19	0.19	-0.27	-37.1	-11.1			
2,777.0	8.97	0.13	2,763.5	186.5	22.1	0.36	0.36	0.00	-43.5	-10.5			
2,873.0	9.32	0.30	2,858.3	201.8	22.2	0.37	0.36	0.18	-50.5	-9.7			
2,969.0	7.65	2.59	2,953.3	215.9	22.5	1.77	-1.74	2.39	-56.7	-7.1			
3,064.0	7.39	3.11	3,047.5	228.3	23.1	0.28	-0.27	0.55	-60.9	-6.3			
3,160.0	5.36	8.56	3,142.9	238.9	24.1	2.20	-2.11	5.68	-63.5	-0.5			
3,256.0	4.57	5.49	3,238.5	247.2	25.2	0.87	-0.82	-3.20	-63.4	-4.2			
3,352.0	4.48	5.84	3,334.2	254.7	25.9	0.10	-0.09	0.36	-62.6	-4.0			
3,449.0	4.57	7.60	3,430.9	262.3	26.8	0.17	0.09	1.81	-61.9	-2.4			
3,545.0	5.01	16.03	3,526.6	270.1	28.5	0.86	0.46	8.78	-61.3	5.5			
3,641.0	4.75	17.00	3,622.2	278.0	30.8	0.28	-0.27	1.01	-61.2	4.8			
3,737.0	5.28	27.99	3,717.8	285.7	34.0	1.14	0.55	11.45	-59.8	13.8			
3,833.0	5.36	11.20	3,813.4	294.0	37.0	1.62	0.08	-17.49	-61.7	-6.2			
3,929.0	5.72	3.73	3,909.0	303.1	38.1	0.84	0.37	-7.78	-61.2	-14.6			
4,025.0	5.19	4.78	4,004.6	312.2	38.8	0.56	-0.55	1.09	-62.3	-13.4			
4,121.0	4.84	12.34	4,100.2	320.5	40.0	0.78	-0.36	7.87	-63.5	-5.7			
4,217.0	4.13	28.43	4,195.9	327.5	42.6	1.50	-0.74	16.76	-62.3	9.8			
4,313.0	4.22	31.59	4,291.6	333.6	46.0	0.26	0.09	3.29	-61.2	9.6			
4,409.0	3.78	53.56	4,387.4	338.4	50.4	1.65	-0.46	22.89	-54.2	26.8			
4,505.0	3.61	75.36	4,483.2	341.1	55.9	1.47	-0.18	22.71	-43.6	38.2			
4,697.0	2.99	52.51	4,674.9	345.7	65.7	0.75	-0.32	-11.90	-54.3	3.6			
4,793.0	2.99	26.49	4,770.8	349.4	68.8	1.40	0.00	-27.10	-47.4	-24.7			
4,888.0	3.69	7.86	4,865.6	354.7	70.4	1.35	0.74	-19.61	-34.2	-39.8			
4,984.0	3.61	6.28	4,961.4	360.7	71.1	0.13	-0.08	-1.65	-30.8	-41.0			
5,080.0	3.69	3.73	5,057.2	366.8	71.6	0.19	0.08	-2.66	-26.7	-42.4			
5,175.0	3.43	1.80	5,152.0	372.7	71.9	0.30	-0.27	-2.03	-22.9	-42.9			
5,271.0	3.43	359.95	5,247.9	378.5	72.0	0.12	0.00	-1.93	-18.9	-43.1			



EOG Resources Midland PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Valiant 24 Fed Com
Well: #712H
Wellbore: OH
Design: OH

Local Co-ordinate Reference:
TVD Reference: KB = 25' @ 3465.0usft
MD Reference: KB = 25' @ 3465.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	D/Leg (°/100usft)	Bulid (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
5,367.0	3.34	359.07	5,343.7	384.1	72.0	0.11	-0.09	-0.92	-15.5	-42.6
5,464.0	3.25	358.63	5,440.5	389.7	71.9	0.10	-0.09	-0.45	-12.4	-41.9
5,559.0	3.17	358.02	5,535.4	395.0	71.7	0.09	-0.08	-0.64	-9.0	-41.1
5,655.0	2.90	354.06	5,631.3	400.1	71.4	0.36	-0.28	-4.12	-3.0	-40.2
5,751.0	2.81	349.75	5,727.1	404.8	70.7	0.24	-0.09	-4.49	3.3	-38.4
5,847.0	2.46	350.11	5,823.0	409.2	69.9	0.36	-0.36	0.37	6.8	-36.3
5,943.0	2.46	348.61	5,919.0	413.2	69.2	0.07	0.00	-1.56	10.6	-34.1
6,039.0	2.29	345.89	6,014.9	417.1	68.3	0.21	-0.18	-2.83	12.2	-32.4
6,135.0	0.70	325.58	6,110.8	419.4	67.5	1.72	-1.66	-21.16	21.0	-26.2
6,230.0	0.97	327.61	6,205.8	420.6	66.7	0.29	0.28	2.14	18.7	-26.9
6,422.0	0.79	315.39	6,397.8	422.9	64.9	0.13	-0.09	-6.36	21.1	-22.7
6,518.0	0.70	322.24	6,493.8	423.8	64.1	0.13	-0.09	7.14	17.0	-24.9
6,614.0	0.79	328.66	6,589.8	424.9	63.4	0.13	0.09	6.69	12.8	-26.6
6,710.0	0.70	333.23	6,685.8	426.0	62.8	0.11	-0.09	4.76	9.4	-27.5
6,807.0	0.53	341.84	6,782.8	426.9	62.4	0.20	-0.18	8.88	4.2	-28.5
6,903.0	0.35	206.76	6,878.8	427.1	62.1	0.85	-0.19	-140.71	17.2	22.8
6,999.0	0.44	216.25	6,974.8	426.5	61.8	0.12	0.09	9.89	20.1	19.7
7,191.0	0.35	235.50	7,166.8	425.6	60.8	0.08	-0.05	10.03	24.2	12.2
7,288.0	0.35	252.11	7,263.8	425.3	60.3	0.10	0.00	17.12	26.1	4.9
7,336.4	0.34	238.95	7,312.1	425.2	60.1	0.16	-0.02	-27.20	24.0	10.7
Brushy Top/Valiant 24 Fed Com#712H										
7,384.0	0.35	226.00	7,359.8	425.0	59.8	0.16	0.02	-27.19	20.7	15.8
7,480.0	0.26	216.60	7,455.8	424.7	59.5	0.11	-0.09	-9.79	17.3	18.9
7,672.0	0.44	235.23	7,647.8	423.9	58.6	0.11	0.09	9.70	21.3	12.5
7,768.0	0.62	215.19	7,743.8	423.3	58.0	0.27	0.19	-20.87	14.9	18.9
7,864.0	0.70	205.09	7,839.7	422.3	57.5	0.15	0.08	-10.52	10.2	21.1
7,961.0	0.79	208.87	7,936.7	421.2	56.9	0.11	0.09	3.90	10.3	20.5



EOG Resources Midland PVA

Company: EOG Resources - Midland			Local Co-ordinate Reference:			Well #712H				
Project: Lea County, NM (NAD 83 NIME)			TVD Reference:			KB = 25' @ 3465.0usft				
Site: Valiant 24 Fed Com			MD Reference:			KB = 25' @ 3465.0usft				
Well: #712H			North Reference:			Grid				
Wellbore: OH			Survey Calculation Method:			Minimum Curvature				
Design: OH			Database:			EDM				
Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
8,057.0	0.88	213.52	8,032.7	420.0	56.2	0.12	0.09	4.84	10.6	19.6
8,153.0	0.97	212.73	8,128.7	418.7	55.3	0.09	0.09	-0.82	8.7	19.7
8,249.0	1.14	211.41	8,224.7	417.2	54.4	0.18	0.18	-1.37	6.5	19.9
8,345.0	1.32	212.03	8,320.7	415.4	53.3	0.19	0.19	0.65	4.7	19.9
8,441.0	1.49	210.36	8,416.7	413.4	52.1	0.18	0.18	-1.74	1.7	19.9
8,537.0	1.76	209.92	8,512.6	411.1	50.7	0.28	0.28	-0.46	-1.1	19.9
8,634.0	1.85	212.21	8,609.6	408.5	49.1	0.12	0.09	2.36	-3.4	20.0
8,730.0	1.85	213.35	8,705.5	405.8	47.5	0.04	0.00	1.19	-6.1	20.1
8,826.0	2.02	216.69	8,801.5	403.2	45.6	0.21	0.18	3.48	-8.1	20.5
8,922.0	1.93	221.17	8,897.4	400.6	43.5	0.19	-0.09	4.67	-9.8	21.3
9,018.0	1.76	227.59	8,993.4	398.4	41.4	0.28	-0.18	6.69	-10.5	22.4
9,114.0	1.76	240.42	9,089.3	396.7	39.0	0.41	0.00	13.36	-8.1	24.5
9,210.0	1.58	255.18	9,185.3	395.6	36.4	0.48	-0.19	15.37	-4.4	26.1
9,306.0	1.32	258.70	9,281.2	395.1	34.1	0.29	-0.27	3.67	-5.2	26.4
9,402.0	2.02	261.86	9,377.2	394.6	31.3	0.74	0.73	3.29	-6.5	26.7
9,498.0	2.20	236.29	9,473.1	393.3	28.1	0.99	0.19	-26.64	-20.8	20.6
9,594.0	2.73	223.72	9,569.0	390.7	25.0	0.79	0.55	-13.09	-28.9	15.2
9,690.0	2.29	225.83	9,665.0	387.7	22.0	0.47	-0.46	2.20	-32.5	16.3
9,786.0	1.93	229.08	9,760.9	385.3	19.5	0.40	-0.37	3.39	-35.0	18.2
9,882.0	1.67	209.57	9,856.8	383.0	17.5	0.69	-0.27	-20.32	-42.0	4.9
9,978.0	1.41	190.94	9,952.8	380.6	16.6	0.58	-0.27	-19.41	-43.9	-9.2
10,074.0	1.49	230.31	10,048.8	378.7	15.4	1.02	0.08	41.01	-41.9	21.5
10,170.0	2.29	240.59	10,144.7	376.9	12.8	0.90	0.83	10.71	-40.6	28.9
10,266.0	2.73	261.34	10,240.6	375.7	8.9	1.04	0.46	21.61	-31.8	42.1
10,362.0	0.62	267.05	10,336.6	375.3	6.1	2.20	-2.20	5.95	-30.3	45.2
10,458.0	0.70	206.23	10,432.6	374.7	5.3	0.70	0.08	-63.35	-55.1	-4.8
10,555.0	1.06	213.35	10,529.6	373.5	4.6	0.39	0.37	7.34	-56.7	2.1



EOG Resources
Midland PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Vallant 24 Fed Com
Well: #712H
Wellbore: OH
Design: OH

Local Co-ordinate Reference:
TVD Reference: KB = 25' @ 3465.0usft
MD Reference: KB = 25' @ 3465.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM

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)
	10,651.0	1.06	225.74	10,625.6	372.1	3.4	0.24	0.00	12.91	-56.7	14.4
	10,657.9	1.07	225.31	10,632.5	372.0	3.3	0.14	0.08	-6.17	-57.0	14.0
FTP Crossing, MD:10657.9, TVD:10632.5, N/S:372.0, EW:3.3, INC:1.07											
	10,747.0	1.14	220.20	10,721.5	370.7	2.2	0.14	0.08	-5.74	-59.7	8.8
	10,843.0	2.29	205.88	10,817.5	368.3	0.7	1.27	1.20	-14.92	-62.8	-6.5
	10,939.0	2.90	218.36	10,913.4	364.7	-1.6	0.86	0.64	13.00	-67.1	7.7
	11,035.0	3.08	214.93	11,009.3	360.6	-4.6	0.26	0.19	-3.57	-72.4	3.5
	11,131.0	2.55	206.84	11,105.1	356.6	-7.0	0.69	-0.55	-8.43	-76.9	-7.1
	11,227.0	2.90	211.15	11,201.0	352.6	-9.3	0.42	0.36	4.49	-81.7	-1.1
	11,323.0	2.37	197.70	11,296.9	348.7	-11.1	0.84	-0.55	-14.01	-83.6	-20.7
	11,419.0	2.37	203.77	11,392.9	345.0	-12.5	0.26	0.00	6.32	-89.3	-11.5
	11,567.0	2.02	213.26	11,540.7	340.0	-15.2	0.34	-0.24	6.41	-95.6	3.9
	11,663.0	2.20	216.69	11,636.7	337.1	-17.2	0.23	0.19	3.57	-98.7	9.7
	11,759.0	3.08	221.52	11,732.6	333.7	-20.0	0.94	0.92	5.03	-101.9	18.1
	11,855.0	3.25	225.13	11,828.4	329.8	-23.7	0.27	0.18	3.76	-105.9	24.7
	11,944.0	3.43	230.14	11,917.3	326.3	-27.5	0.39	0.20	5.63	-108.5	34.1
	11,958.0	4.20	213.38	11,931.3	325.6	-28.1	9.62	5.50	-119.68	-114.6	1.2
KOP, MD:11958.0, TVD:11931.3, N/S:325.6, EW:-28.1, INC:4.20											
	12,040.0	11.17	182.06	12,012.5	315.2	-30.0	9.62	8.50	-38.20	-105.4	-60.4
	12,135.0	27.08	181.44	12,102.0	284.2	-30.9	16.75	16.75	-0.65	-110.9	-62.8
	12,231.0	42.38	184.52	12,180.6	229.7	-34.0	16.04	15.94	3.21	-121.1	-61.4
	12,305.7	48.25	179.81	12,233.2	176.7	-35.9	9.04	7.85	-6.30	-119.2	-71.3
FTP(Vallant 24 Fed Com#712H)											
	12,327.0	49.95	178.63	12,247.1	160.6	-35.7	9.04	8.00	-5.55	-117.4	-72.7
	12,422.0	48.80	179.65	12,309.0	88.5	-34.6	1.46	-1.21	1.07	-98.4	-73.3
	12,518.0	61.11	172.36	12,364.0	10.4	-28.8	14.24	12.82	-7.59	-63.9	-70.0
	12,614.0	69.29	171.65	12,404.3	-75.8	-16.7	8.55	8.52	-0.74	-30.3	-55.9



EOG Resources Midland PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Valiant 24 Fed Com
Well: #712H
Wellbore: OH
Design: OH

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well #712H
KB = 25' @ 3465.0usft
KB = 25' @ 3465.0usft
Grid
Minimum Curvature
EDM

Survey

MD (usft)	Inc. (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	D/leg (°/100usft)	Bulld (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
12,710.0	86.00	172.53	12,424.7	-168.4	-3.8	17.43	17.41	0.92	-13.0	-41.8
12,806.0	88.99	172.09	12,428.9	-263.4	9.0	3.15	3.11	-0.46	-9.1	-29.5
12,908.0	91.98	177.20	12,428.1	-364.9	18.5	5.80	2.93	5.01	-9.9	-20.6
13,004.0	90.31	176.84	12,426.1	-460.8	23.5	1.78	-1.74	-0.37	-11.8	-16.3
13,100.0	90.66	177.37	12,425.3	-556.7	28.4	0.66	0.36	0.55	-12.7	-12.1
13,197.0	92.33	178.25	12,422.8	-653.5	32.1	1.95	1.72	0.91	-15.2	-9.0
13,293.0	90.84	180.18	12,420.1	-749.5	33.4	2.54	-1.55	2.01	-17.8	-8.3
13,389.0	88.81	180.71	12,420.4	-845.5	32.6	2.19	-2.11	0.55	-17.6	-9.7
13,485.0	87.05	179.57	12,423.9	-941.4	32.4	2.18	-1.83	-1.19	-14.1	-10.6
13,581.0	87.41	180.45	12,428.5	-1,037.3	32.4	0.99	0.37	0.92	-9.5	-11.2
13,677.0	87.85	180.80	12,432.5	-1,133.2	31.3	0.59	0.46	0.36	-5.5	-12.9
13,743.4	87.24	180.43	12,435.4	-1,199.6	30.6	1.07	-0.92	-0.55	-2.6	-14.0
TGT#1 (Valiant 24 Fed Com#712H)										
13,773.0	86.97	180.27	12,436.9	-1,229.1	30.4	1.07	-0.92	-0.55	-1.0	-14.4
13,869.0	88.02	180.10	12,441.0	-1,325.0	30.1	1.11	1.09	-0.18	3.8	-15.3
13,965.0	89.34	178.25	12,443.3	-1,421.0	31.5	2.37	1.37	-1.93	6.6	-14.6
14,062.0	92.15	191.26	12,442.0	-1,517.4	23.5	13.72	2.90	13.41	6.2	-23.2
14,157.0	89.43	185.28	12,440.7	-1,611.4	9.8	6.91	-2.86	-6.29	5.1	-37.5
14,253.0	91.36	180.01	12,440.0	-1,707.2	5.4	5.85	2.01	-5.49	5.1	-42.6
14,349.0	91.01	177.46	12,438.0	-1,803.2	7.5	2.68	-0.36	-2.66	3.7	-41.1
14,408.0	89.98	176.00	12,437.5	-1,862.1	10.9	3.02	-1.74	-2.47	3.5	-38.1
TGT#2 (Valiant 24 Fed Com#712H)										
14,445.0	89.34	175.09	12,437.7	-1,899.0	13.8	3.02	-1.74	-2.47	3.8	-35.5
14,541.0	93.03	176.93	12,435.8	-1,994.7	20.5	4.29	3.84	1.92	1.7	-29.4
14,637.0	90.75	176.14	12,432.6	-2,090.4	26.3	2.51	-2.37	-0.82	-1.4	-24.3
14,733.0	90.48	176.40	12,431.6	-2,186.2	32.5	0.39	-0.28	0.27	-2.4	-18.6
14,830.0	92.07	178.16	12,429.4	-2,283.1	37.1	2.44	1.64	1.81	-4.6	-14.7



EOG Resources
Midland PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Valiant 24 Fed Com
Well: #712H
Wellbore: OH
Design: OH

Local Co-ordinate Reference:
TVD Reference: KB = 25' @ 3465.0usft
MID Reference: KB = 25' @ 3465.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	EMW (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
14,926.0	91.10	179.22	12,426.7	-2,379.0	39.3	1.50	-1.01	1.10	-7.2	-13.1
15,021.0	88.99	180.45	12,426.7	-2,474.0	39.6	2.57	-2.22	1.29	-7.3	-13.5
15,117.0	89.08	180.80	12,428.3	-2,570.0	38.5	0.38	0.09	0.36	-5.7	-15.1
15,186.3	89.46	181.25	12,429.2	-2,639.3	37.3	0.84	0.55	0.64	-4.8	-16.8
TGT#3\Valiant 24 Fed Com#712H										
15,212.0	89.60	181.41	12,429.4	-2,665.0	36.7	0.84	0.55	0.64	-4.7	-17.6
15,308.0	89.16	179.39	12,430.4	-2,761.0	36.0	2.15	-0.46	-2.10	-5.0	-18.9
15,404.0	89.16	179.75	12,431.8	-2,857.0	36.7	0.37	0.00	0.37	-5.0	-18.8
15,500.0	88.72	178.25	12,433.6	-2,952.9	38.4	1.63	-0.46	-1.56	-4.5	-17.8
15,596.0	88.20	175.70	12,436.2	-3,048.7	43.5	2.71	-0.54	-2.66	-3.3	-13.3
15,692.0	90.13	176.85	12,437.6	-3,144.5	49.7	2.34	2.01	1.20	-3.3	-7.7
15,788.0	89.52	176.85	12,437.9	-3,240.4	55.0	0.64	-0.64	0.00	-4.3	-3.1
15,884.0	89.78	178.60	12,438.5	-3,336.3	58.8	1.84	0.27	1.82	-5.1	0.1
15,980.0	89.96	178.95	12,438.7	-3,432.3	60.8	0.41	0.19	0.36	-6.2	1.5
16,076.0	89.52	179.75	12,439.1	-3,528.3	61.9	0.95	-0.46	0.83	-7.1	2.0
16,172.0	90.48	181.06	12,439.1	-3,624.3	61.3	1.69	1.00	1.36	-8.5	0.7
16,268.0	88.99	179.57	12,439.6	-3,720.3	60.7	2.19	-1.55	-1.55	-9.4	-0.5
16,364.0	88.64	179.66	12,441.5	-3,816.2	61.4	0.38	-0.36	0.09	-8.8	-0.5
16,460.0	90.40	179.92	12,442.3	-3,912.2	61.7	1.85	1.83	0.27	-9.3	-0.8
16,556.0	91.36	179.39	12,440.9	-4,008.2	62.3	1.14	1.00	-0.55	-12.1	-0.8
16,652.0	92.33	179.57	12,437.8	-4,104.2	63.2	1.03	1.01	0.19	-16.6	-0.6
16,748.0	89.78	178.69	12,436.0	-4,200.1	64.6	2.81	-2.66	-0.92	-19.7	0.3
16,844.0	90.48	178.43	12,435.8	-4,296.1	67.0	0.78	0.73	-0.27	-21.3	2.0
16,940.0	92.07	179.04	12,433.7	-4,392.0	69.2	1.77	1.66	0.64	-24.8	3.5
17,036.0	91.80	178.60	12,430.4	-4,488.0	71.1	0.54	-0.28	-0.46	-29.4	4.9
17,132.0	91.63	177.64	12,427.5	-4,583.9	74.3	1.02	-0.18	-1.00	-33.6	7.4
17,228.0	88.64	176.67	12,427.3	-4,679.7	79.1	3.27	-3.11	-1.01	-35.2	11.5



EOG Resources
Midland PVA

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Project: Lea County, NM (NAD 83 NME)
Site: Vallant 24 Fed Com
Well: #712H
Wellbore: OH
Design: OH

Local Co-ordinate Reference:
TVD Reference: KB = 25' @ 3465.0usft
MD Reference: KB = 25' @ 3465.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM

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)
17,324.0	88.81	177.11	12,429.5	-4,775.6	84.3	0.49	0.18	0.46	-34.4	16.1
17,420.0	87.67	177.20	12,432.4	-4,871.4	89.0	1.19	-1.19	0.09	-32.8	20.2
17,516.0	90.57	180.01	12,433.9	-4,967.3	91.4	4.21	3.02	2.93	-32.7	21.9
17,612.0	88.81	177.55	12,434.4	-5,063.3	93.4	3.15	-1.83	-2.56	-33.5	23.3
17,708.0	88.72	177.72	12,436.5	-5,159.2	97.4	0.20	-0.09	0.18	-32.8	26.7
17,804.0	90.04	179.31	12,437.5	-5,255.2	99.9	2.15	1.37	1.66	-33.1	28.5
17,901.0	88.20	179.92	12,439.0	-5,352.1	100.5	2.00	-1.90	0.63	-33.0	28.6
17,997.0	86.44	179.92	12,443.5	-5,448.0	100.6	1.83	-1.83	0.00	-29.8	28.1
18,093.0	86.70	180.45	12,449.2	-5,543.9	100.3	0.61	0.27	0.55	-25.4	27.1
18,188.0	87.23	180.89	12,454.3	-5,638.7	99.2	0.72	0.56	0.46	-21.7	25.4
18,284.0	87.76	181.33	12,458.5	-5,734.6	97.4	0.72	0.55	0.46	-18.9	22.9
18,380.0	89.78	181.86	12,460.5	-5,830.5	94.7	2.18	2.10	0.55	-18.2	19.6
18,476.0	90.75	182.65	12,460.1	-5,926.5	90.9	1.30	1.01	0.82	-20.0	15.2
18,572.0	90.04	182.56	12,459.4	-6,022.4	86.5	0.75	-0.74	-0.09	-22.0	10.2
18,668.0	89.34	182.03	12,459.9	-6,118.3	82.7	0.91	-0.73	-0.55	-22.8	5.7
18,764.0	91.28	183.00	12,459.4	-6,214.2	78.5	2.26	2.02	1.01	-24.7	0.9
18,861.0	91.28	181.24	12,457.2	-6,311.1	74.9	1.81	0.00	-1.81	-28.3	-3.3
18,957.0	88.90	180.27	12,457.1	-6,407.1	73.6	2.68	-2.48	-1.01	-29.8	-5.2
19,053.0	90.13	180.45	12,457.9	-6,503.1	73.0	1.29	1.28	0.19	-30.3	-6.5
19,149.0	89.25	180.80	12,458.4	-6,599.1	72.0	0.99	-0.92	0.36	-31.1	-8.1
19,245.0	87.41	179.92	12,461.2	-6,695.0	71.4	2.12	-1.92	-0.92	-29.7	-9.4
19,341.0	86.35	177.64	12,466.4	-6,790.8	73.4	2.62	-1.10	-2.37	-25.8	-8.0
19,437.0	85.38	176.67	12,473.4	-6,886.5	78.2	1.43	-1.01	-1.01	-20.2	-3.9
19,533.0	87.76	176.32	12,479.1	-6,982.1	84.0	2.51	2.48	-0.36	-15.9	1.4
19,629.0	87.67	175.97	12,482.9	-7,077.8	90.5	0.38	-0.09	-0.36	-13.4	7.2
19,725.0	89.16	177.46	12,485.6	-7,173.6	96.0	2.19	1.55	1.55	-12.1	12.1



EOG Resources
Midland PVA

Company: EOG Resources - Midland

Project: Lea County, NM (NAD 83 NME)

Site: Vallant 24 Fed Com

Well: #712H

Wellbore: OH

Design: OH

Local Co-ordinate Reference:

TVD Reference: KB = 25' @ 3465.0usft

MD Reference: KB = 25' @ 3465.0usft

North Reference: Grid

Survey Calculation Method: Minimum Curvature

Database: EDM

Well #712H

KB = 25' @ 3465.0usft

KB = 25' @ 3465.0usft

Grid

Minimum Curvature

EDM

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	D/Leg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
19,822.0	89.52	178.43	12,486.7	-7,270.6	99.5	1.07	0.37	1.00	-12.3	14.9
Last MWD Survey (MD=19822.0')										
19,889.0	89.52	178.43	12,487.3	-7,337.5	101.3	0.00	0.00	0.00	-12.7	16.3
Projection to Bit (MD=19889.0') - PBHL (Vallant 24 Fed Com #712H)										

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Comment
10,657.9	10,632.5	372.0	3.3	FTP Crossing, MD:10657.9', TVD:10632.5', N/S:372.0', E/W:3.3', INC:1.07
11,958.0	11,931.3	325.6	-28.1	KOP, MD:11958.0', TVD:11931.3', N/S:325.6', E/W:-28.1', INC:4.20
19,822.0	12,486.7	-7,270.6	99.5	Last MWD Survey (MD=19822.0')
19,889.0	12,487.3	-7,337.5	101.3	Projection to Bit (MD=19889.0')

Checked By: _____

Approved By: _____

Date: _____

