

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
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

Rec'd 8/24/2020 - NMOCD FORM C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-46570		² Pool Code 98180		³ Pool Name WC025 G09 S253309P; UPPER WOLFCAMP	
⁴ Property Code 325949		⁵ Property Name VALIANT 24 FED COM			⁶ Well Number 713H
⁷ GRID No. 7377		⁸ Operator Name EOG RESOURCES, INC.			⁹ Elevation 3447'

¹⁰Surface Location

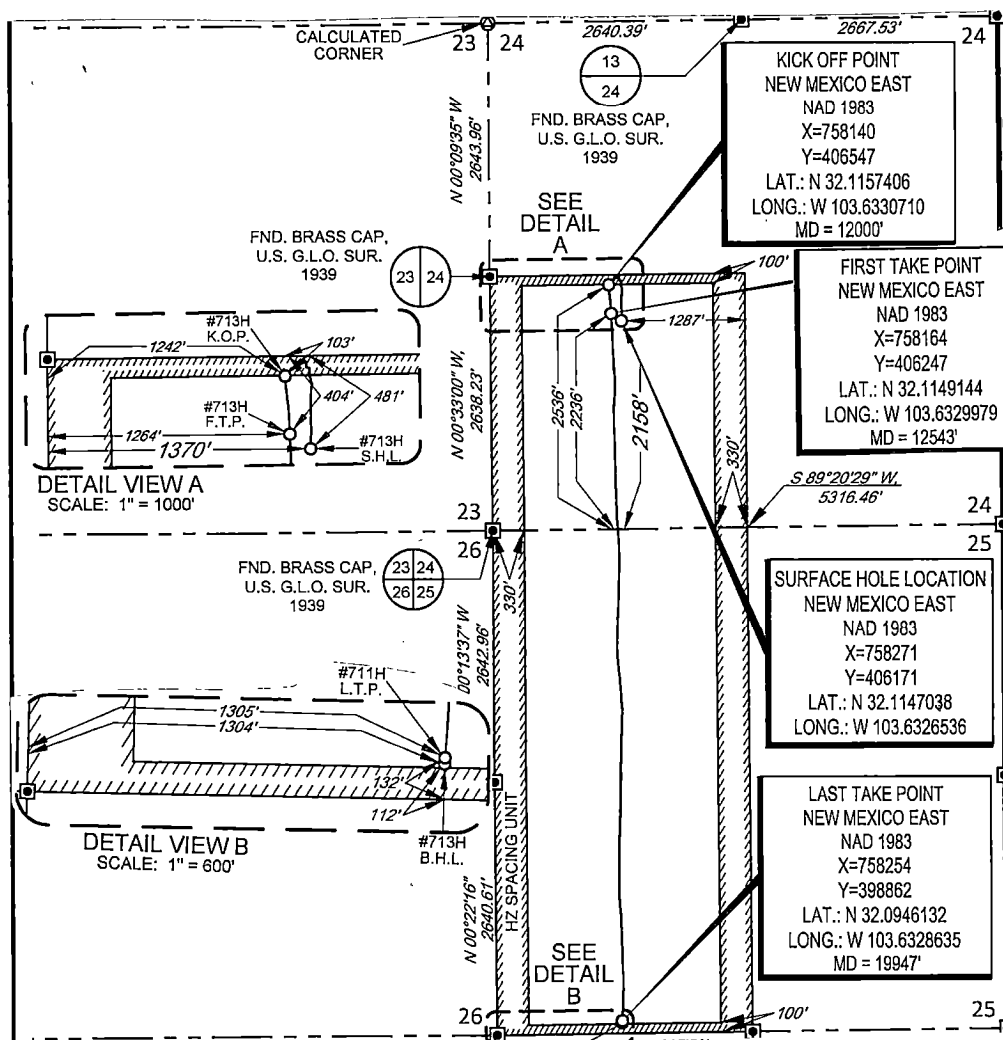
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	24	25-S	32-E	-	2158'	SOUTH	1370'	WEST	LEA

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
N	25	25-S	32-E	-	112'	SOUTH	1304'	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.



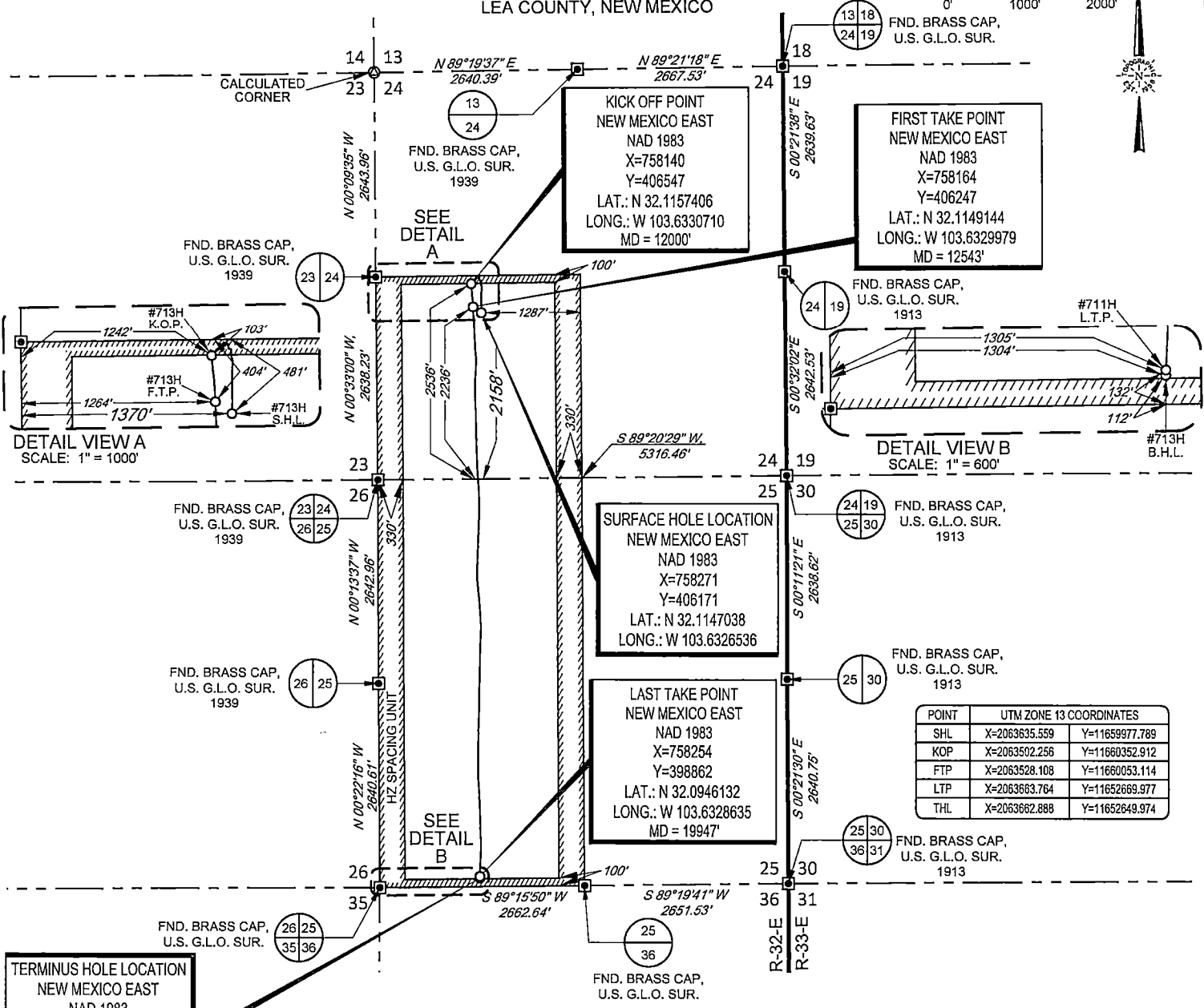
17 OPERATOR CERTIFICATION	
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right 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.	
<i>Kay Maddox</i>	08/14/2020
Signature	Date
KAY MADDOX	
Printed Name	
kay_maddox@eogresources.com	
E-mail Address	
18 SURVEYOR 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	
Certificate Number	

NT_24_FED_COM_713H_C-102.DWG 1/13/2020 11:43:22 AM rdominguez

SECTION 24, TOWNSHIP 25-S, RANGE 32-E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SCALE: 1" = 2000'

0' 1000' 2000'

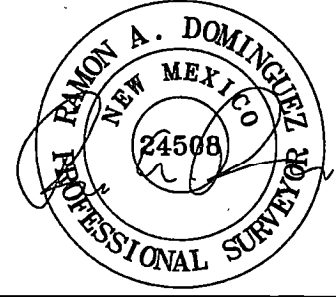


POINT	UTM ZONE 13 COORDINATES	
SHL	X=2063635.559	Y=11659977.789
KOP	X=2063502.256	Y=11660352.912
FTP	X=2063528.108	Y=11660053.114
LTP	X=2063663.764	Y=11652669.977
THL	X=2063662.888	Y=11652649.974

TERMINUS HOLE LOCATION
NEW MEXICO EAST
NAD 1983
X=758253
Y=398842
LAT.: N 32.0945583
LONG.: W 103.6328664
MD = 19967'

LEASE NAME & WELL NO.: VALIANT 24 FED COM #713H
SECTION 24 TWP 25-S RGE 32-E SURVEY N.M.P.M.
COUNTY LEA STATE NM ELEVATION 3447'
DESCRIPTION 2158' FSL & 1370' FWL

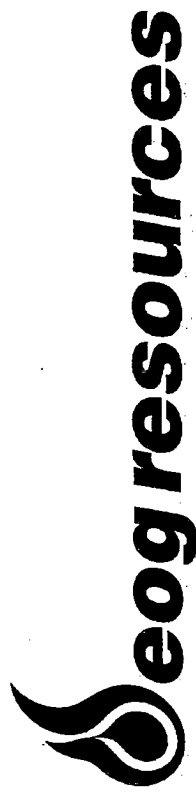
TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
2803 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
WWW.TOPOGRAPHIC.COM



Ramon A. Dominguez, P.S. No. 24508
JUNE 26, 2020

Geog resources, inc.

VALIANT 24 FED COM #713H AS-COMPLETED	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: 06/26/2020		
FILE:AD_VALIANT_24_FED_COM_713H		
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

#713H

OH

Design: OH

Midland PVA

04 April, 2020



EOG Resources
Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #713H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3472.0usft
Site:	Valiant 24 Fed Com	MD Reference:	KB = 25 @ 3472.0usft
Well:	#713H	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	#713H		
Well Position	+N/-S +E/-W	Northing: Easting:	406,171.00 usft 758,271.00 usft
Position Uncertainty	0.0 usft 0.0 usft 0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 6' 52.937 N
		Longitude:	103° 37' 57.557 W
		Ground Level:	3,447.0 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2015	3/25/2020	6.67
			Dip Angle (°)
			59.92
			Field Strength (mT)
			47,582.13710224

Design	OH		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:		Depth From (TVD) (usft)	+N/-S (usft)
		0.0	0.0
		+E/-W (usft)	Direction (°)
		0.0	180.09

Survey Program	Date	4/4/2020	
From (usft)	To (usft)	Survey (Wellbore)	Tool Name
200.0	19,967.0	Driltech 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: #713H Wellbore: OH Design: OH			Local Co-ordinate Reference: TVD Reference: KB = 25 @ 3472.0usft. MD Reference: KB = 25 @ 3472.0usft North Reference: Grid Survey Calculation Method: Minimum Curvature Database: EDM				Well #713H			
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	0.0	0.0	0.0	0.00	0.00	0.00	0.0	0.0
200.0	0.79	56.73	200.0	0.8	1.2	0.39	0.39	0.00	-1.4	0.0
294.0	0.62	58.05	294.0	1.4	2.1	0.18	-0.18	1.40	-2.5	0.0
382.0	0.53	71.84	382.0	1.8	2.9	0.19	-0.10	15.67	-3.3	0.8
468.0	0.53	93.47	468.0	1.9	3.7	0.23	0.00	25.15	-3.6	2.1
653.0	0.18	224.25	653.0	1.6	4.3	0.36	-0.19	70.69	4.2	2.0
749.0	0.26	329.72	749.0	1.7	4.1	0.37	0.08	109.86	0.6	-4.4
823.0	0.35	244.73	823.0	1.7	3.8	0.56	0.12	-114.85	4.2	0.1
947.0	0.18	257.38	947.0	1.5	3.3	0.14	-0.14	10.20	3.6	-0.8
1,042.0	0.79	272.50	1,042.0	1.5	2.5	0.65	0.64	15.92	2.4	-1.6
1,138.0	1.06	253.34	1,138.0	1.3	1.0	0.42	0.28	-19.96	1.3	-1.0
1,234.0	1.49	313.10	1,233.9	1.9	-0.8	1.38	0.45	62.25	-1.7	-0.7
1,330.0	3.08	1.09	1,329.9	5.3	-1.6	2.46	1.66	49.99	-2.4	1.2
1,426.0	5.72	5.66	1,425.6	12.7	-1.1	2.77	2.75	4.76	-3.9	0.2
1,521.0	7.83	3.99	1,519.9	23.8	-0.2	2.23	2.22	-1.76	-6.3	-2.0
1,617.0	8.27	4.87	1,615.0	37.2	0.8	0.48	0.46	0.92	-10.0	-4.1
1,713.0	8.27	3.11	1,710.0	51.0	1.8	0.26	0.00	-1.83	-13.9	-6.6
1,809.0	8.27	2.23	1,805.0	64.8	2.5	0.13	0.00	-0.92	-17.8	-8.7
1,905.0	8.09	1.53	1,900.0	78.5	2.9	0.21	-0.19	-0.73	-21.4	-10.8
2,001.0	8.18	359.07	1,995.0	92.0	3.0	0.37	0.09	-2.56	-24.6	-13.2
2,096.0	8.27	358.19	2,089.0	105.6	2.6	0.16	0.09	-0.93	-28.2	-14.9
2,192.0	8.09	358.90	2,184.1	119.3	2.3	0.22	-0.19	0.74	-32.1	-15.7
2,383.0	8.27	357.23	2,373.1	146.4	1.4	0.16	0.09	-0.87	-39.0	-18.9
2,479.0	8.35	358.46	2,468.1	160.3	0.9	0.20	0.08	1.28	-43.3	-19.1
2,575.0	7.83	359.60	2,563.2	173.8	0.6	0.57	-0.54	1.19	-47.3	-19.5
2,671.0	7.74	358.81	2,658.3	186.8	0.4	0.15	-0.09	-0.82	-50.1	-21.5
2,767.0	8.00	1.09	2,753.4	199.9	0.4	0.42	0.27	2.37	-54.1	-20.9



EOG Resources Midland PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Vallant 24 Fed Com
Well: #713H
Wellbore: OH
Design: OH

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

Well #713H
KB = 25 @ 3472.0usft
KB = 25 @ 3472.0usft
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)
	2,863.0	8.27	4.78	2,848.4	213.5	1.1	0.61	0.28	3.84	-59.2	-19.2
	2,959.0	8.18	0.13	2,943.4	227.2	1.7	0.70	-0.09	-4.84	-61.2	-26.0
	3,054.0	8.09	358.98	3,037.5	240.7	1.6	0.20	-0.09	-1.21	-64.3	-28.6
	3,150.0	8.09	359.42	3,132.5	254.2	1.4	0.06	0.00	0.46	-68.1	-29.4
	3,246.0	8.62	4.26	3,227.5	268.1	1.9	0.92	0.55	5.04	-74.5	-25.2
	3,341.0	8.35	3.38	3,321.5	282.1	2.8	0.32	-0.28	-0.93	-78.5	-28.5
	3,437.0	8.35	4.17	3,416.4	296.0	3.8	0.12	0.00	0.82	-83.0	-29.5
	3,533.0	7.91	9.97	3,511.5	309.5	5.4	0.97	-0.46	6.04	-89.6	-23.4
	3,629.0	6.95	1.53	3,606.7	321.8	6.7	1.51	-1.00	-8.79	-87.7	-38.9
	3,725.0	6.42	1.00	3,702.0	332.9	7.0	0.56	-0.55	-0.55	-88.6	-41.4
	3,821.0	5.98	349.67	3,797.5	343.2	6.2	1.35	-0.46	-11.80	-79.0	-58.6
	3,917.0	6.16	341.49	3,892.9	353.0	3.6	0.92	0.19	-8.52	-70.2	-68.1
	4,013.0	5.54	341.58	3,988.4	362.3	0.5	0.65	-0.65	0.09	-70.2	-66.3
	4,108.0	4.75	346.06	4,083.0	370.5	-1.9	0.93	-0.83	4.72	-73.7	-59.3
	4,204.0	5.36	352.83	4,178.7	378.8	-3.4	0.89	0.64	7.05	-78.6	-50.0
	4,300.0	4.84	351.69	4,274.3	387.2	-4.5	0.55	-0.54	-1.19	-76.1	-51.6
	4,395.0	3.61	357.14	4,369.0	394.2	-5.3	1.36	-1.29	5.74	-77.7	-44.8
	4,491.0	3.69	359.51	4,464.8	400.3	-5.4	0.18	0.08	2.47	-75.6	-42.8
	4,587.0	3.69	13.66	4,560.6	406.4	-4.7	0.95	0.00	14.74	-80.5	-26.1
	4,682.0	3.52	18.32	4,655.4	412.1	-3.1	0.36	-0.18	4.91	-79.4	-23.7
	4,778.0	1.85	333.49	4,751.3	416.3	-2.9	2.67	-1.74	-46.70	-33.8	-71.7
	4,874.0	1.67	294.21	4,847.3	418.3	-4.8	1.24	-0.19	-40.92	22.0	-69.4
	4,970.0	1.49	292.27	4,943.3	419.3	-7.3	0.20	-0.19	-2.02	26.8	-60.0
	5,066.0	1.58	284.01	5,039.2	420.1	-9.7	0.25	0.09	-8.60	36.4	-46.4
	5,162.0	1.58	283.57	5,135.2	420.7	-12.3	0.01	0.00	-0.46	37.8	-36.9
	5,257.0	1.49	282.87	5,230.2	421.3	-14.8	0.10	-0.09	-0.74	39.3	-27.2
	5,353.0	1.67	280.67	5,326.1	421.9	-17.3	0.20	0.19	-2.29	40.9	-16.2



Local Co-ordinate Reference: Well #713H -
 TVD Reference: KB = 25 @ 3472.0ust
 IMD Reference: KB = 25 @ 3472.0ust
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 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)
	5,449.0	1.41	279.27	5,422.1	422.3	-19.9	0.27	-0.27	-1.46	41.4	-6.9
	5,545.0	0.79	342.90	5,518.1	423.1	-21.2	1.33	-0.65	66.28	16.5	-38.3
	5,641.0	1.14	17.18	5,614.1	424.7	-21.2	0.69	0.36	35.71	-7.3	-41.5
	5,736.0	1.06	358.19	5,709.0	426.5	-20.9	0.39	-0.08	-19.99	4.9	-42.0
	5,832.0	1.23	346.68	5,805.0	428.4	-21.2	0.30	0.18	-11.99	11.2	-40.3
	5,928.0	1.06	341.23	5,901.0	430.2	-21.7	0.21	-0.18	-5.68	13.1	-39.2
	6,024.0	1.23	343.95	5,997.0	432.0	-22.3	0.19	0.18	2.83	9.3	-39.7
	6,119.0	1.23	344.39	6,092.0	434.0	-22.8	0.01	0.00	0.46	7.0	-39.8
	6,215.0	1.23	347.38	6,187.9	436.0	-23.3	0.07	0.00	3.11	2.8	-40.0
	6,311.0	1.41	349.58	6,283.9	438.2	-23.8	0.19	0.19	2.29	-0.9	-40.1
	6,407.0	1.41	350.81	6,379.9	440.5	-24.2	0.03	0.00	1.28	-4.1	-40.0
	6,502.0	1.32	353.18	6,474.9	442.7	-24.5	0.11	-0.09	2.49	-8.1	-39.8
	6,598.0	1.41	353.18	6,570.8	445.0	-24.8	0.09	0.09	0.00	-10.3	-39.8
	6,694.0	1.23	349.49	6,666.8	447.2	-25.1	0.21	-0.19	-3.84	-10.0	-40.4
	6,790.0	1.14	343.16	6,762.8	449.1	-25.5	0.17	-0.09	-6.59	-7.4	-41.4
	6,886.0	0.88	336.13	6,858.8	450.7	-26.1	0.30	-0.27	-7.32	-4.0	-42.1
	6,982.0	0.88	318.55	6,954.8	451.9	-26.9	0.28	0.00	-18.31	7.5	-41.6
	7,077.0	0.97	335.16	7,049.7	453.2	-27.7	0.30	0.09	17.48	-6.2	-41.8
	7,173.0	1.14	324.71	7,145.7	454.7	-28.6	0.27	0.18	-10.89	-0.3	-42.3
	7,268.0	0.97	283.22	7,240.7	455.7	-30.0	0.80	-0.18	-43.67	26.3	-32.6
	7,364.0	1.06	262.30	7,336.7	455.7	-31.6	0.39	0.09	-21.79	34.5	-21.3
	7,386.0	1.12	263.27	7,358.7	455.7	-32.0	0.28	0.27	4.43	33.8	-21.9
Brushy Top(VAL-24 FC #703H)											
	7,460.0	1.32	265.91	7,432.7	455.5	-33.6	0.28	0.27	3.56	31.1	-23.4
	7,651.0	0.97	271.00	7,623.6	455.4	-37.4	0.19	-0.18	2.66	25.1	-25.9
	7,746.0	1.06	269.42	7,718.6	455.4	-39.1	0.10	0.09	-1.66	24.2	-25.2
	7,938.0	0.97	254.92	7,910.6	455.0	-42.4	0.14	-0.05	-7.55	26.3	-18.8



EOG Resources
Midland PVA

Company: EOG Resources - Midland				Local Co-ordinate Reference:				Well #713H			
Project: Lea County, NM (NAD 83 NME)				TVD Reference:				KB = 25 @ 3472.0usft			
Site: Valiant 24 Fed Com				MD Reference:				KB = 25 @ 3472.0usft			
Well: #713H				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)	
8,034.0	0.79	257.47	8,006.6	454.6	-43.9	0.19	-0.19	2.66	24.0	-19.9	
8,129.0	0.88	260.90	8,101.6	454.4	-45.2	0.11	0.09	3.61	21.4	-21.2	
8,225.0	0.79	269.16	8,197.6	454.2	-46.6	0.16	-0.09	8.60	16.7	-24.0	
8,321.0	0.97	269.42	8,293.6	454.2	-48.1	0.19	0.19	0.27	15.1	-24.1	
8,417.0	1.14	256.33	8,389.5	454.0	-49.8	0.31	0.18	-13.64	18.5	-20.2	
8,512.0	1.14	243.23	8,484.5	453.3	-51.6	0.27	0.00	-13.79	20.7	-15.7	
8,608.0	1.14	235.58	8,580.5	452.4	-53.2	0.16	0.00	-7.97	20.7	-12.9	
8,704.0	1.14	232.16	8,676.5	451.2	-54.8	0.07	0.00	-3.56	19.5	-11.7	
8,799.0	1.23	240.15	8,771.5	450.2	-56.4	0.20	0.09	8.41	15.7	-14.2	
8,895.0	1.23	242.35	8,867.4	449.2	-58.2	0.05	0.00	2.29	13.1	-14.8	
8,991.0	1.14	251.49	8,963.4	448.4	-60.0	0.22	-0.09	9.52	8.6	-16.5	
9,087.0	1.41	254.83	9,059.4	447.8	-62.1	0.29	0.28	3.48	5.5	-16.9	
9,182.0	1.14	265.56	9,154.4	447.4	-64.2	0.38	-0.28	11.29	0.2	-17.4	
9,278.0	1.85	273.38	9,250.3	447.4	-66.7	0.77	0.74	8.15	-4.7	-17.2	
9,374.0	2.02	268.02	9,346.3	447.4	-69.9	0.26	0.18	-5.58	-6.3	-17.7	
9,470.0	1.76	269.07	9,442.2	447.4	-73.1	0.27	-0.27	1.09	-9.8	-17.5	
9,566.0	0.09	223.54	9,538.2	447.3	-74.6	1.77	-1.74	-47.43	4.5	-20.3	
9,660.0	1.32	112.80	9,632.2	446.8	-73.6	1.44	1.31	-117.81	16.3	11.4	
9,756.0	0.79	142.07	9,728.2	445.9	-72.2	0.77	-0.55	30.49	18.2	2.5	
9,851.0	1.67	163.25	9,823.2	444.0	-71.4	1.03	0.93	22.29	15.8	-4.0	
9,947.0	1.93	171.86	9,919.1	441.1	-70.8	0.39	0.27	8.97	12.1	-6.1	
10,043.0	1.67	178.02	10,015.1	438.1	-70.5	0.34	-0.27	6.42	8.3	-7.2	
10,139.0	1.32	193.92	10,111.0	435.6	-70.7	0.56	-0.36	16.56	3.6	-8.8	
10,234.0	1.06	189.71	10,206.0	433.7	-71.1	0.29	-0.27	-4.43	2.3	-8.6	
10,330.0	2.29	238.31	10,302.0	431.8	-72.9	1.85	1.28	50.62	-7.5	-6.7	
10,426.0	3.25	242.70	10,397.9	429.5	-77.0	1.02	1.00	4.57	-12.6	-6.0	
10,522.0	3.17	232.60	10,493.7	426.7	-81.5	0.59	-0.08	-10.52	-16.7	-8.6	



EOG Resources
Midland PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Vallant 24 Fed Com
Well: #713H
Wellbore: OH
Design: OH

Local Co-ordinate Reference:
TVD Reference: KB = 25 @ 3472.0usft
MD Reference: KB = 25 @ 3472.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM

Survey	MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Dleg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
	10,618.0	2.81	235.50	10,589.6	423.7	-85.5	0.41	-0.37	3.02	-22.1	-7.6
	10,714.0	2.46	234.62	10,685.5	421.2	-89.2	0.37	-0.36	-0.92	-26.4	-8.0
	10,809.0	1.06	220.56	10,780.4	419.4	-91.4	1.53	-1.47	-14.80	-26.5	-14.6
	10,905.0	1.41	254.48	10,876.4	418.4	-93.1	0.83	0.36	35.33	-32.1	3.2
	11,001.0	2.37	236.73	10,972.4	417.0	-95.9	1.16	1.00	-18.49	-34.7	-7.2
	11,097.0	2.02	208.87	11,068.3	414.4	-98.4	1.16	-0.36	-29.02	-30.7	-23.5
	11,193.0	3.43	219.94	11,164.2	410.7	-101.0	1.56	1.47	11.53	-39.2	-16.8
	11,289.0	3.52	227.50	11,260.0	406.5	-105.1	0.49	0.09	7.87	-46.9	-11.1
	11,385.0	2.99	235.94	11,355.9	403.1	-109.3	0.74	-0.55	8.79	-53.4	-3.7
	11,481.0	2.81	236.90	11,451.7	400.4	-113.3	0.19	-0.19	1.00	-58.3	-2.7
	11,586.0	2.37	225.48	11,556.6	397.5	-117.0	0.64	-0.42	-10.88	-61.3	-14.7
	11,682.0	2.29	226.80	11,652.5	394.8	-119.9	0.10	-0.08	1.37	-65.5	-13.3
	11,778.0	3.61	216.34	11,748.4	391.1	-123.1	1.48	1.37	-10.90	-66.9	-25.3
	11,873.0	4.40	214.67	11,843.2	385.6	-126.9	0.84	0.83	-1.76	-72.8	-27.4
	11,962.5	4.23	211.24	11,932.4	380.0	-130.6	0.34	-0.19	-3.83	-77.8	-31.9
FTP Crossing, MD:11962.5, TVD:11932.4, N/S:380.0, E/W:-130.6, INC:4.23											
	11,969.0	4.22	210.98	11,938.9	379.6	-130.8	0.34	-0.18	-3.99	-78.1	-32.3
	12,000.0	8.44	187.11	11,969.7	376.4	-131.7	15.75	13.60	-77.02	-61.4	-61.9
KOP, MD:12000.0, TVD:11969.7, N/S:376.4, E/W:-131.7, INC:8.44											
	12,065.0	18.38	175.73	12,032.9	361.4	-131.5	15.75	15.30	-17.50	-60.0	-73.8
	12,161.0	26.12	173.01	12,121.7	325.2	-127.8	8.13	8.06	-2.83	-73.0	-73.9
	12,257.0	32.62	172.48	12,205.3	278.6	-121.8	6.78	6.77	-0.55	-77.9	-68.2
	12,352.0	40.80	175.03	12,281.4	222.2	-115.8	8.76	8.61	2.68	-74.3	-58.7
	12,412.8	46.03	175.60	12,325.5	180.5	-112.4	8.64	8.61	0.93	-66.1	-54.4
FTP (VAL 24 FC #703H)											
	12,448.0	49.07	175.88	12,349.3	154.6	-110.5	8.64	8.62	0.81	-59.7	-52.1
	12,543.0	62.08	178.96	12,402.9	76.5	-107.1	13.95	13.69	3.24	-42.3	-47.0



EOG Resources
Midland PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Valiant 24 Fed Com
Well: #713H
Wellbore: OH
Design: OH

Local Co-ordinate Reference:
TVD Reference: KB = 25 @ 3472.0ust
MD Reference: KB = 25 @ 3472.0ust
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM

Survey

MD (ustf)	Inc (°)	Azi (azimuth) (°)	TVD (ustf)	N/S (ustf)	E/W (ustf)	DLeg (°/100ustf)	Build (°/100ustf)	Turn (°/100ustf)	High to Plan (ustf)	Right to Plan (ustf)
12,639.0	77.03	176.76	12,436.3	-13.1	-103.7	15.72	15.57	-2.29	-25.7	-43.9
12,735.0	82.57	176.32	12,453.3	-107.4	-98.0	5.79	5.77	-0.46	-10.1	-38.6
12,831.0	90.66	177.37	12,459.0	-203.0	-92.7	8.50	8.43	1.09	-4.6	-33.9
12,927.0	86.79	177.46	12,461.1	-298.8	-88.4	4.03	-4.03	0.09	-2.1	-30.2
13,023.0	87.49	177.99	12,465.9	-394.7	-84.6	0.91	0.73	0.55	2.9	-27.0
13,118.0	88.64	174.83	12,469.1	-489.4	-78.6	3.54	1.21	-3.33	6.4	-21.6
13,214.0	89.16	175.97	12,471.0	-585.1	-70.9	1.31	0.54	1.19	8.5	-14.6
13,310.0	94.26	182.38	12,468.1	-680.9	-69.5	8.53	5.31	6.68	5.9	-13.8
13,405.0	91.19	182.65	12,463.6	-775.7	-73.7	3.24	-3.23	0.28	1.6	-18.6
13,501.0	89.60	183.00	12,462.9	-871.6	-78.4	1.70	-1.66	0.36	1.2	-24.0
13,596.0	90.04	181.59	12,463.2	-966.5	-82.2	1.55	0.46	-1.48	1.8	-28.4
13,693.0	90.57	177.64	12,462.7	-1,063.5	-81.6	4.11	0.55	-4.07	1.5	-28.4
13,789.0	89.52	176.76	12,462.6	-1,159.4	-76.9	1.43	-1.09	-0.92	1.7	-24.3
13,885.0	91.80	179.13	12,461.5	-1,255.3	-73.4	3.43	2.37	2.47	0.8	-21.5
13,981.0	92.86	179.40	12,457.6	-1,351.2	-72.2	1.14	1.10	0.28	-2.8	-20.9
14,077.0	90.75	178.25	12,454.6	-1,447.1	-70.2	2.50	-2.20	-1.20	-5.6	-19.6
14,130.0	91.52	178.98	12,453.5	-1,500.1	-69.0	2.00	1.46	1.37	-6.5	-18.7
TGT#1(VAL 24 FC #703H)										
14,173.0	92.15	179.57	12,452.2	-1,543.1	-68.4	2.00	1.46	1.38	-7.9	-18.4
14,269.0	87.05	178.52	12,452.8	-1,639.0	-66.8	5.42	-5.31	-1.09	-7.3	-17.4
14,365.0	85.21	178.08	12,459.3	-1,734.8	-64.0	1.97	-1.92	-0.46	-0.9	-15.2
14,461.0	88.84	177.20	12,464.5	-1,830.5	-60.0	3.69	3.57	-0.92	4.1	-11.9
14,557.0	89.52	177.90	12,466.0	-1,926.4	-55.9	1.17	0.92	0.73	5.5	-8.4
14,653.0	89.25	177.55	12,467.0	-2,022.4	-52.1	0.46	-0.28	-0.36	6.4	-5.2
14,749.0	90.48	176.58	12,467.3	-2,118.2	-47.2	1.63	1.28	-1.01	6.4	-1.0
14,845.0	92.33	173.59	12,464.9	-2,213.8	-39.0	3.66	1.93	-3.11	4.0	6.6
14,940.0	90.92	177.99	12,462.2	-2,308.5	-32.0	4.86	-1.48	4.63	1.1	13.0



EOG Resources Midland PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Valiant 24 Fed Com
Well: #713H
Wellbore: OH
Design: OH

Local Co-ordinate Reference:
TVD Reference: KB = 25 @ 3472.0usft
MID Reference: KB = 25 @ 3472.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM

Survey	MID (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)
	15,036.0	92.15	178.96	12,459.6	-2,404.4	-29.5	1.63	1.28	1.01	-1.6	14.9
	15,132.0	89.16	179.92	12,458.5	-2,500.4	-28.5	3.27	-3.11	1.00	-2.8	15.2
	15,228.0	91.54	182.12	12,458.0	-2,596.4	-30.2	3.38	2.48	2.29	-3.5	12.9
	15,324.0	90.75	181.59	12,456.0	-2,692.3	-33.3	0.99	-0.82	-0.55	-5.6	9.1
	15,420.0	89.96	182.65	12,455.4	-2,788.2	-36.9	1.38	-0.82	1.10	-6.3	5.0
	15,516.0	89.78	182.03	12,455.7	-2,884.2	-40.8	0.67	-0.19	-0.65	-6.2	0.4
	15,612.0	91.63	182.12	12,454.5	-2,980.1	-44.3	1.93	1.93	0.09	-7.5	-3.7
	15,631.3	91.88	182.19	12,453.9	-2,999.4	-45.0	1.35	1.29	0.37	-8.1	-4.6
TGT#2(VAL 24 FC #703H)											
	15,707.0	92.86	182.47	12,450.8	-3,074.9	-48.1	1.35	1.29	0.37	-11.6	-8.1
	15,803.0	88.81	180.27	12,449.4	-3,170.9	-50.4	4.80	-4.22	-2.29	-13.5	-11.0
	15,899.0	89.25	181.77	12,451.0	-3,266.8	-52.1	1.63	0.46	1.56	-12.3	-13.4
	15,995.0	90.31	184.41	12,451.4	-3,362.7	-57.3	2.96	1.10	2.75	-12.5	-19.2
	16,090.0	90.13	175.97	12,451.0	-3,457.6	-57.6	8.89	-0.19	-8.88	-13.3	-20.1
	16,186.0	88.99	172.63	12,451.7	-3,553.1	-48.0	3.68	-1.19	-3.48	-13.1	-11.2
	16,282.0	91.01	172.90	12,451.7	-3,648.3	-36.0	2.12	2.10	0.28	-13.5	0.2
	16,378.0	89.08	177.38	12,451.6	-3,744.0	-27.8	5.08	-2.01	4.67	-14.1	7.7
	16,474.0	89.69	173.78	12,452.7	-3,839.7	-20.4	3.80	0.64	-3.75	-13.6	14.5
	16,570.0	90.66	176.41	12,452.4	-3,935.3	-12.2	2.92	1.01	2.74	-14.3	22.1
	16,666.0	92.33	176.94	12,449.9	-4,031.1	-6.7	1.83	1.74	0.55	-17.2	27.0
	16,762.0	90.04	181.60	12,447.9	-4,127.0	-5.4	5.41	-2.39	4.85	-19.7	27.6
	16,862.0	90.57	181.86	12,447.4	-4,227.0	-8.5	0.59	0.53	0.26	-20.8	23.9
	16,958.0	92.15	182.48	12,445.1	-4,322.9	-12.1	1.77	1.65	0.65	-23.5	19.7
	17,054.0	92.77	181.51	12,441.0	-4,418.7	-15.4	1.20	0.65	-1.01	-28.1	15.7
	17,150.0	87.67	182.04	12,440.6	-4,514.7	-18.4	5.34	-5.31	0.55	-29.0	12.1
	17,245.0	88.90	181.51	12,443.4	-4,609.6	-21.3	1.41	1.29	-0.56	-26.6	8.5
	17,341.0	88.02	180.63	12,446.0	-4,705.5	-23.1	1.30	-0.92	-0.92	-24.5	6.1



EOG Resources Midland PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Valiant 24 Fed Com
Well: #713H
Design: OH
OH

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

Well #713H
KB = 25 @ 3472.0ust
KB = 25 @ 3472.0ust
Grid
Minimum Curvature
EDM

Survey	MD (ust)	Inc (°)	Azi (azimuth) (°)	TVD (ust)	N/S (ust)	EW (ust)	DLeg (°/100ust)	Buid (°/100ust)	Turn (°/100ust)	High to Plan (ust)	Right to Plan (ust)
	17,437.0	86.53	181.34	12,450.6	-4,801.4	-24.8	1.72	-1.55	0.74	-20.4	3.8
	17,533.0	86.26	181.25	12,456.6	-4,897.2	-26.9	0.30	-0.28	-0.09	-14.9	1.1
	17,629.0	88.11	180.46	12,461.3	-4,993.1	-28.4	2.10	1.93	-0.82	-10.6	-1.0
	17,636.2	88.14	180.47	12,461.6	-5,000.3	-28.4	0.49	0.46	0.18	-10.4	-1.1
TGT#3 (VAL 24 FC #703H)											
	17,725.0	88.55	180.63	12,464.1	-5,089.0	-29.3	0.49	0.46	0.18	-9.2	-2.6
	17,820.0	90.04	181.34	12,465.3	-5,184.0	-30.9	1.74	1.57	0.75	-9.7	-4.8
	17,916.0	92.77	182.57	12,462.9	-5,279.9	-34.2	3.12	2.84	1.28	-13.8	-8.7
	18,012.0	90.66	181.69	12,460.1	-5,375.8	-37.8	2.38	-2.20	-0.92	-18.3	-12.9
	18,106.0	89.96	180.90	12,459.6	-5,469.7	-39.9	1.12	-0.74	-0.84	-20.5	-15.6
	18,202.0	89.25	180.37	12,460.2	-5,565.7	-40.9	0.92	-0.74	-0.55	-21.6	-17.3
	18,298.0	88.72	180.63	12,461.9	-5,661.7	-41.8	0.61	-0.55	0.27	-21.6	-18.8
	18,393.0	88.81	179.49	12,464.0	-5,756.7	-41.9	1.20	0.09	-1.20	-21.2	-19.5
	18,489.0	89.60	180.98	12,465.3	-5,852.7	-42.3	1.76	0.82	1.55	-21.5	-20.6
	18,585.0	89.96	179.58	12,465.7	-5,948.7	-42.7	1.51	0.37	-1.46	-22.9	-21.7
	18,681.0	89.78	178.17	12,465.9	-6,044.7	-40.9	1.48	-0.19	-1.47	-24.3	-20.4
	18,777.0	87.58	174.48	12,468.1	-6,140.4	-34.7	4.47	-2.29	-3.84	-23.8	-14.9
	18,872.0	87.76	175.54	12,472.0	-6,235.0	-26.5	1.13	0.19	1.12	-21.6	-7.3
	18,968.0	87.23	178.70	12,476.2	-6,330.7	-21.6	3.33	-0.55	3.29	-19.1	-3.1
	19,064.0	87.67	178.00	12,480.4	-6,426.6	-18.9	0.86	0.46	-0.73	-16.6	-0.9
	19,160.0	88.64	178.08	12,483.5	-6,522.5	-15.6	1.01	1.01	0.08	-15.2	1.7
	19,256.0	88.56	178.88	12,488.4	-6,618.3	-13.1	3.31	-3.21	0.83	-12.0	3.6
	19,352.0	84.94	178.70	12,496.3	-6,714.0	-11.0	0.67	-0.65	-0.19	-5.8	5.0
	19,448.0	84.33	177.91	12,505.3	-6,809.5	-8.2	1.04	-0.64	-0.82	1.5	7.2
	19,543.0	85.91	180.11	12,513.4	-6,904.1	-6.6	2.84	1.66	2.32	7.9	8.2
	19,639.0	86.79	180.37	12,519.5	-7,000.0	-7.0	0.96	0.92	0.27	12.4	7.2
	19,735.0	86.61	182.13	12,525.0	-7,095.8	-9.1	1.84	-0.19	1.83	16.2	4.5



EOG Resources
Midland PVA

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Local Co-ordinate Reference:
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Survey Calculation Method:
Database:

Well #713H
KB = 25 @ 3472.0usft
KB = 25 @ 3472.0usft
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)
	19,831.0	87.49	182.39	12,530.0	-7,191.6	-12.8	0.96	0.92	0.27	19.4	0.1
	19,904.0	87.85	182.21	12,532.9	-7,264.4	-15.8	0.55	0.49	-0.25	21.1	-3.4
Last MWD Survey (MD=19904.0')											
	19,967.0	87.85	182.21	12,535.3	-7,327.4	-18.2	0.00	0.00	0.00	22.4	-6.2
Projection to Bit (MD=19967.0') - PBHL (VAL 24 FC #703H)											

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
11,962.5	11,932.4	380.0	-130.6	FTP Crossing, MD:11962.5', TVD:11932.4', N/S:380.0', E/W:-130.6', INC:4.23
12,000.0	11,969.7	376.4	-131.7	KOP, MD:12000.0', TVD:11969.7', N/S:376.4', E/W:-131.7', INC:8.44
19,904.0	12,532.9	-7,264.4	-15.8	Last MWD Survey (MD=19904.0')
19,967.0	12,535.3	-7,327.4	-18.2	Projection to Bit (MD=19967.0')

Checked By: _____ Approved By: _____ Date: _____



Lea County, NM (NAD 83 NME)

Valiant 24 Fed Com

#713H

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



Azimuths to Grid North
True North: -0.37°
Magnetic North: 6.30°

Magnetic Field
Strength: 47582.1nT
Dip Angle: 69.82°
Date: 3/25/2020
Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 6.30°
To convert a Magnetic Direction to a True Direction, Add 0.67° East
To convert a True Direction to a Grid Direction, Subtract 0.37°

WELL DETAILS: #713H

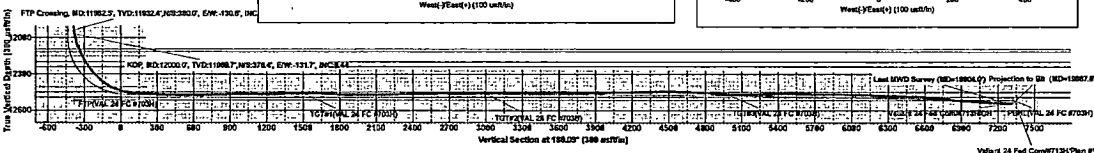
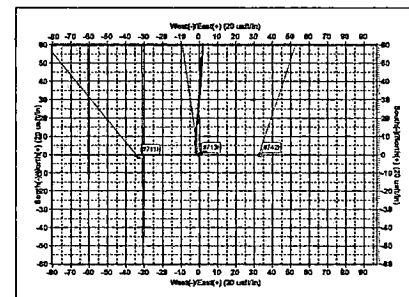
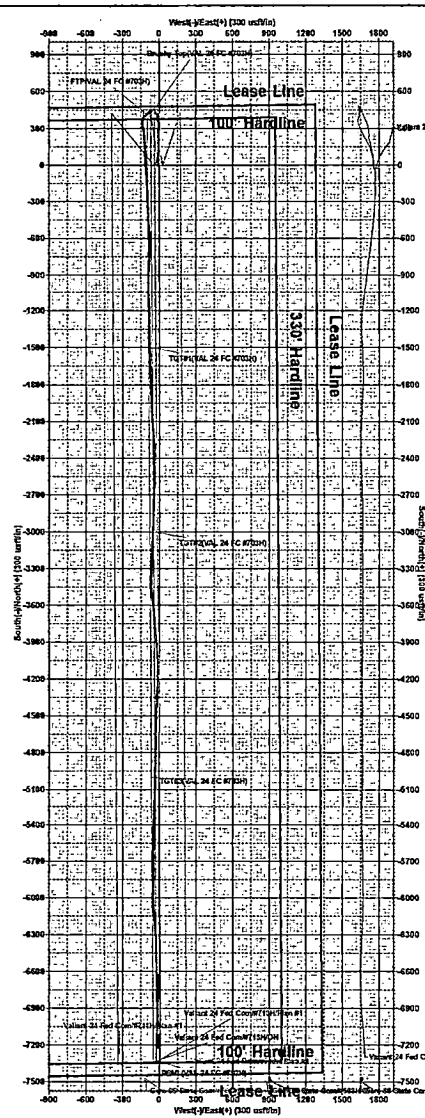
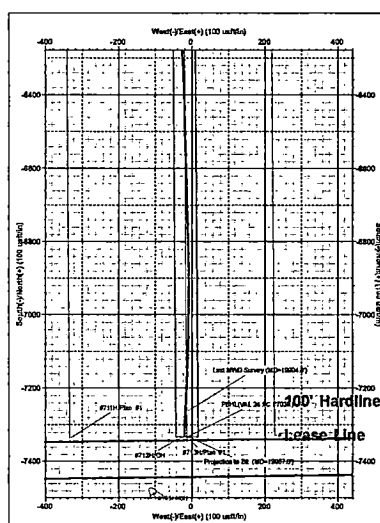
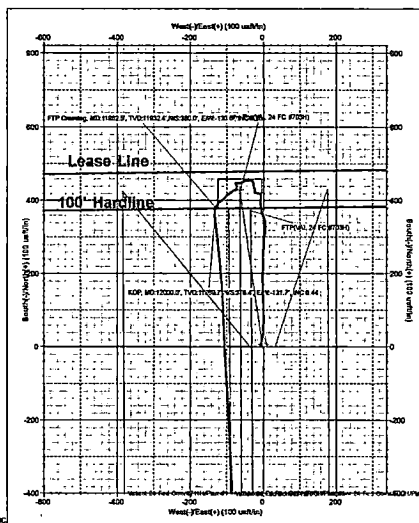
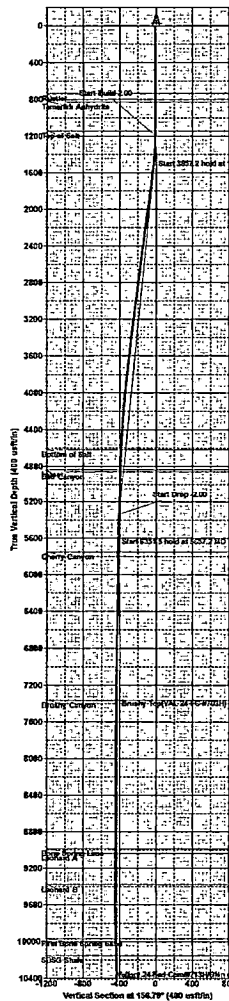
KB = 25 @ 3472.0m
+N-S +E-W Northing Easting
0.0 0.0 406171.00 758271.00 32° 6' 52.937" N 103° 37' 57.557" W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VSeet	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1200.0	0.00	0.00	1200.0	0.0	0.0	0.00	0.00	0.0	
3	1500.0	0.00	351.68	1499.5	15.5	-2.3	2.00	351.68	-15.5	
4	5357.2	0.00	351.68	5335.5	414.5	-60.7	0.00	0.00	-414.4	
5	5857.2	0.00	0.00	5835.0	430.0	-63.0	2.00	180.00	-429.9	
6	12008.7	0.00	0.00	11888.5	430.0	-63.0	0.00	0.00	-429.9	
7	12760.0	90.16	179.62	12464.0	-48.8	-59.9	12.00	179.62	48.9	
8	14211.2	90.16	179.62	12460.0	-1499.9	-50.3	0.00	0.00	1500.0	TGT#1(VAL 24 FC #703H)
9	14222.9	89.92	179.62	12480.0	-1511.6	-50.2	2.00	-180.00	1511.7	TGT#2(VAL 24 FC #703H)
10	15711.2	89.92	179.62	12482.0	-2999.9	-40.5	0.00	0.00	3000.0	TGT#3(VAL 24 FC #703H)
11	15721.7	89.71	179.62	12482.0	-3010.4	-40.4	2.00	-180.00	3010.4	
12	17711.4	89.71	179.62	12472.0	-5000.0	-27.3	0.00	0.00	5000.0	
13	17747.7	88.99	179.62	12472.4	-5036.3	-27.1	2.00	180.00	5036.3	
14	20042.8	88.99	179.62	12513.0	-7331.0	-12.0	0.00	0.00	7331.0	PBHL(VAL 24 FC #703H)

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N-S	+E-W	Northing	Eastng	Shape
Brushy Top(VAL 24 FC #703H)	7358.0	430.0	-63.0	405801.00	758208.00	Polygon
TGT#1(VAL 24 FC #703H)	14889.9	-58.5	404671.10	758220.82	Point	
TGT#2(VAL 24 FC #703H)	12482.0	-2999.9	-40.5	403171.10	758203.54	Point
TGT#3(VAL 24 FC #703H)	12472.0	-5000.0	-27.3	401171.00	758243.68	Point
PBHL(VAL 24 FC #703H)	12513.0	-7331.0	-12.0	398540.00	758259.00	Rectangle (Sides: L0.0 W60.0)
FTP(VAL 24 FC #703H)	12520.0	380.0	-63.0	405551.00	758228.00	Point



Lea County, NM (NAD 83 NME)
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