

HOBBS OCD

Form 3160-4
(August 2007)

DEC 04 2019

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

NMOCD
Hobbs

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

RECEIVED

WELL OR RECOMPLETION REPORT AND LOG

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other			6. If Indian, Allottee or Tribe Name		
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr. Other			7. Unit or CA Agreement Name and No.		
2. Name of Operator EOG RESOURCES, INC			8. Lease Name and Well No. COLGROVE 35 FEDERAL COM 702H		
3. Address PO BOX 2267 MIDLAND, TX 79702			9. API Well No. 30-025-42983		
4. Location of Well (Report location clearly and in accordance with Federal requirements)* Sec 35 T26S R33E Mer NMP At surface SWNW 462FSL 309FWL 32.001529 N Lat, 103.550635 W Lon Sec 35 T26S R33E Mer NMP At top prod interval reported below SWNW 332FSL 993FWL 32.001170 N Lat, 103.548431 W Lon Sec 26 T26S R33E Mer NMP At total depth NWNW 109FNL 1001FWL 32.021394 N Lat, 103.548408 W Lon			10. Field and Pool, or Exploratory SANDERS TANK; UPPER WOLFCAMP		
14. Date Spudded 03/14/2019			15. Date T.D. Reached 04/02/2019		
16. Date Completed ☐ D & A ☒ Ready to Prod. 07/15/2019			17. Elevations (DF, KB, RT, GL)* 3319 GL		
18. Total Depth: MD 19922 TVD 12447		19. Plug Back T.D.: MD 19891 TVD 12447		20. Depth Bridge Plug Set: MD TVD	
21. Type Electric & Other Mechanical Logs Run (Submit copy of each)			22. Was well cored? ☒ No ☐ Yes (Submit analysis) Was DST run? ☒ No ☐ Yes (Submit analysis) Directional Survey? ☐ No ☒ Yes (Submit analysis)		

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
12.250	9.625 J55	40.0		1004		660		0	
8.750	7.625 HCP110	29.7		11815		3465		0	
6.750	5.500 ICYP110	20.0		19903		700		4144	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) WOLFCAMP	12545	19891	12545 TO 19891	3.250	1560	OPEN
B)						
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
12545 TO 19891	18,287,410 LBS PROPPANT; 297,100 BBLs LOAD FLUID

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
07/15/2019	07/18/2019	24	→	3183.0	5665.0	10564.0	46.0		FLWS FROM WELL
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
64	SI	2180.0	→				1780	POW	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #475371 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

Reclamation due: 01/15/2020

ACCEPTED FOR RECORD
NOV 15 2019
BUREAU OF LAND MANAGEMENT
ROSWELL FIELD OFFICE

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

29. Disposition of Gas(Sold, used for fuel, vented, etc.)
SOLD

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
RUSTLER	841		BARREN	RUSTLER	841
T/SALT	1168		BARREN	T/SALT	1168
B/SALT	4823		BARREN	B/SALT	4823
BRUSHY CANYON	7743		OIL & GAS	BRUSHY CANYON	7743
1ST BONE SPRING SAND	10248		OIL & GAS	1ST BONE SPRING SAND	10248
2ND BONE SPRING SAND	10791		OIL & GAS	2ND BONE SPRING SAND	10791
3RD BONE SPRING SAND	11873		OIL & GAS	3RD BONE SPRING SAND	11873
WOLFCAMP	12295		OIL & GAS	WOLFCAMP	12295

32. Additional remarks (include plugging procedure):
PLEASE REFERENCE ATTACHMENTS

33. Circle enclosed attachments:

1. Electrical/Mechanical Logs (1 full set req'd.) 2. Geologic Report 3. DST Report 4. Directional Survey
5. Sundry Notice for plugging and cement verification 6. Core Analysis 7 Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #475371 Verified by the BLM Well Information System.

For EOG RESOURCES, INC, sent to the Hobbs

Committed to AFMSS for processing by JENNIFER SANCHEZ on 11/14/2019 ()

Name (please print) KAY MADDOX

Title REGULATORY SPECIALIST

Signature _____ (Electronic Submission)

Date 07/26/2019

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ****

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

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 30-025-42983		² Pool Code 98097	³ Pool Name SANDERS TANK; Upper Wolfcamp
⁴ Property Code 315730	⁵ Property Name COLGROVE 35 FED COM		⁶ Well Number #702H
⁷ GRID No. 7377	⁸ Operator Name EOG RESOURCES, INC.		⁹ Elevation 3319

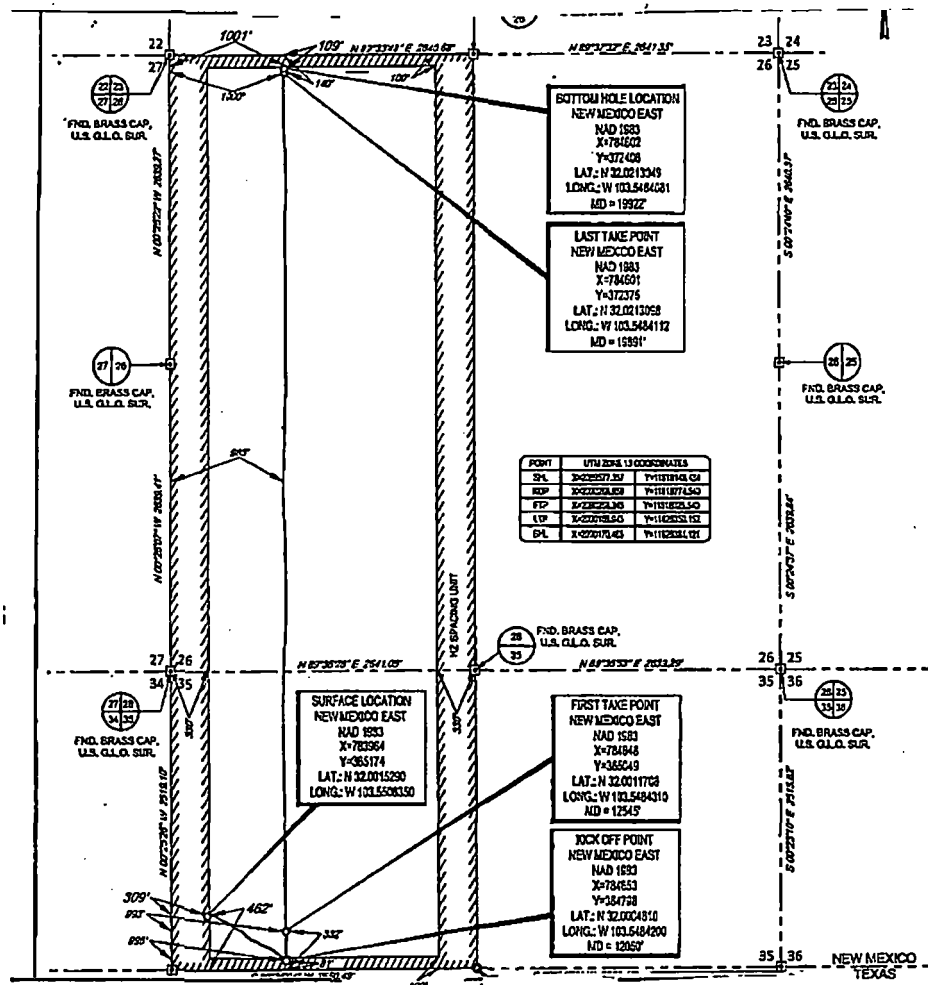
¹⁰Surface Location

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
E	35	26-S	33-E	-	462'	SOUTH	309'	WEST	LEA

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
D	26	26-S	33-E	-	109'	NORTH	100'	WEST	LEA

¹¹ Dedicated Acres 236.78	¹² Joint or Infill	¹³ Consolidation Code	¹⁴ 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.

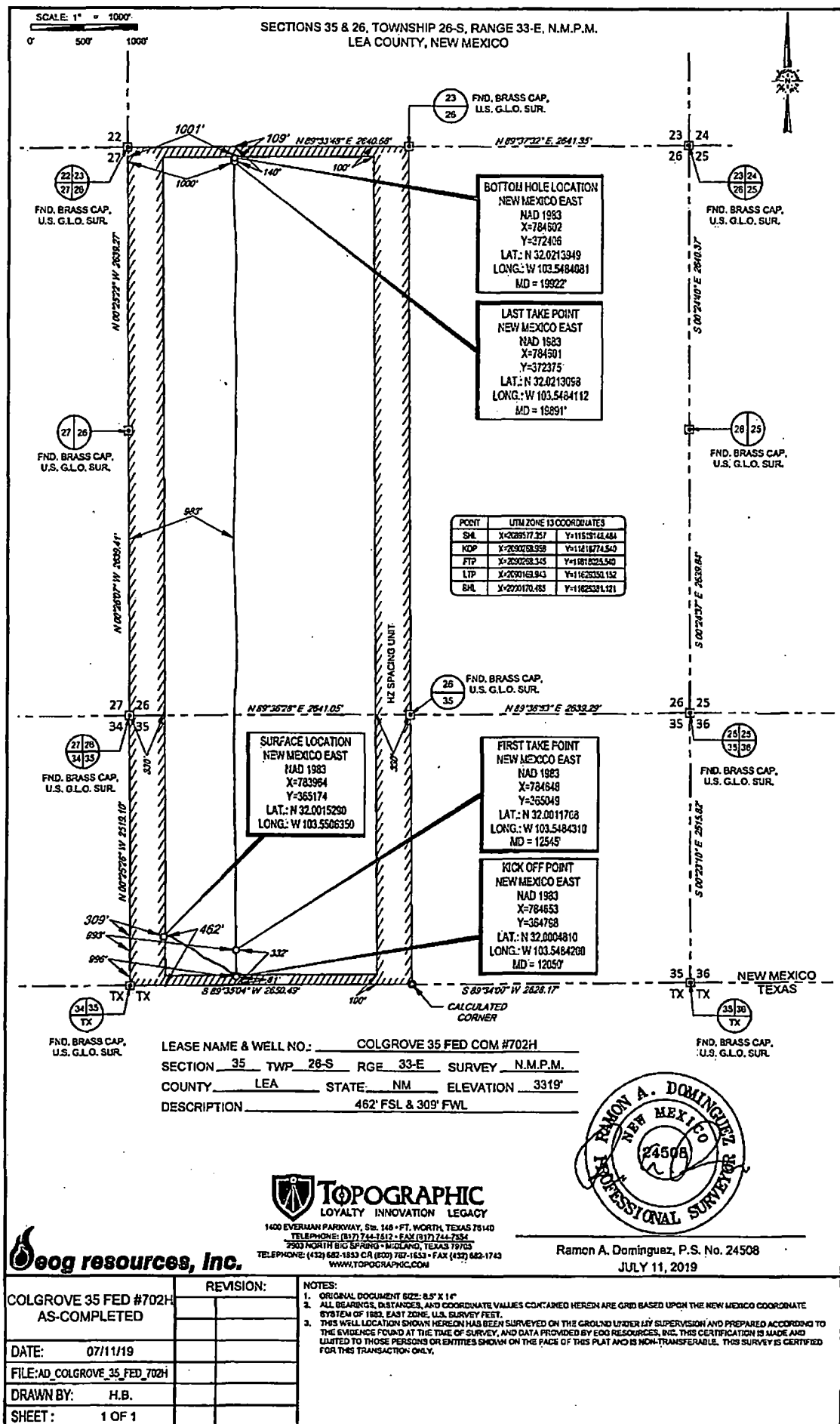


17 OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unless mineral interest in the land including the proposed bottom hole location or has a right to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

Signature: Kay Maddox Date: 7/29/19
Printed Name: KAY MADDUX
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.

Date of Survey: 08/19/2018
Signature: [Signature]
Professional Surveyor Seal: NEW MEXICO
18329
Certificate Number: _____





EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Colgrove 35 Fed Com

#702H

OH

Design: OH

Midland PVA

04 April, 2019



Midland PVA

Company:	EOG Resources - Midland			Local Co-ordinate Reference:	Well #702H
Project:	Lea County, NM (NAD 83 NME)			TVD Reference:	KB = 25 @ 3343.0 ush
Site:	Colgrove 35 Fed Com			MD Reference:	KB = 25 @ 3343.0 ush
Well:	#702H			North Reference:	Grid
Wellbore:	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: Colgrove 35 Fed Com					
Site Position:	Northing:	384,902.00 ush	Latitude:	32° 0' 2.718 N	
From: Map	Easting:	785,291.00 ush	Longitude:	103° 32' 48.899 W	
Position Uncertainty:	0.0 ush	Slot Radius:	13-3/16"	Grid Convergence:	0.42"

Well: #702H						
Well Position	+NAS	0.0 ush	Northing:	385,174.00 ush	Latitude:	32° 0' 5.504 N
	+EAW	0.0 ush	Easting:	783,984.00 ush	Longitude:	103° 33' 2.285 W
Position Uncertainty	0.0 ush		Wellhead Elevation:	ush	Ground Level:	3,318.0 ush

Wellbore: OH					
Magnetics	Model Name:	Sample Date	Declination	Dip Angle	Field Strength
	IGRF2015	1/30/2019	8.75	69.84	47,842.46547881

Design: OH				
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	
		Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD)	+NAS	+EAW	Direction
	(ush)	(ush)	(ush)	(°)
	0.0	0.0	0.0	4.85

Survey Program: Date: 4/4/2019				
From	To	Survey (Wellbore)	Tool Name	Description
(ush)	(ush)			
189.0	19,922.0	Driltech MWD (OH)	MWD	OWSG MWD - Standard



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well 9702H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3343.0ush
Site:	Colgrove 35 Fed Com	MO Reference:	KB = 25 @ 3343.0ush
Well:	#702H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MO (ush)	Inc (°)	Asl (azimuth) (°)	TVD (ush)	N/S (ush)	E/W (ush)	DLeg (°/100ush)	Buil (°/100ush)	Turn (°/100ush)	High to Plan (ush)	Right to Plan (ush)	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
189.0	0.59	1.27	189.0	1.0	0.0	0.31	0.31	0.00	-1.0	0.0	
311.0	0.96	304.41	311.0	2.2	-0.8	0.58	0.30	-48.81	-1.9	-1.3	
398.0	1.28	309.88	398.0	3.2	-2.2	0.39	0.37	8.06	-3.7	-1.1	
483.0	1.37	302.98	482.9	4.4	-3.7	0.21	0.11	-7.81	-5.5	-1.8	
572.0	1.45	305.79	571.9	5.6	-5.5	0.12	0.09	3.18	-7.8	-1.3	
672.0	1.51	305.37	671.9	7.1	-7.8	-0.06	0.08	-0.42	-10.4	-1.4	
787.0	1.68	293.82	786.9	8.4	-8.9	0.37	0.16	-12.18	-12.5	-3.7	
881.0	2.18	302.23	880.8	9.9	-12.7	0.63	0.55	8.85	-18.0	-1.8	
953.0	1.74	303.49	952.7	11.6	-15.3	0.48	-0.48	1.37	-18.2	-1.2	
1,053.0	1.78	298.57	1,052.7	13.2	-17.9	0.15	0.02	-4.92	-22.1	-3.0	
1,147.0	1.67	299.18	1,146.7	14.5	-20.4	0.10	-0.10	0.65	-24.9	-2.7	
1,241.0	0.44	54.84	1,240.8	15.4	-21.3	2.02	-1.31	123.04	8.7	25.1	
1,338.0	2.99	87.74	1,335.8	18.3	-18.8	2.83	2.68	45.18	23.4	13.9	
1,431.0	8.16	91.58	1,430.3	14.8	-11.0	3.37	3.34	-6.48	19.5	18.9	
1,526.0	8.79	95.80	1,524.5	13.6	1.3	2.83	2.77	4.44	16.8	21.8	
1,620.0	9.08	98.88	1,617.3	12.3	15.8	0.32	0.29	0.84	13.2	28.2	
1,715.0	8.97	98.35	1,711.2	10.4	30.6	0.29	-0.09	1.78	10.4	30.6	
1,810.0	8.88	99.85	1,805.0	8.1	45.1	0.26	-0.09	1.58	7.9	34.9	
1,904.0	8.71	100.55	1,897.9	5.8	59.3	0.21	-0.18	0.74	5.3	39.1	
1,999.0	8.23	113.39	1,891.7	1.2	73.3	2.17	0.55	13.51	11.3	40.1	
2,094.0	10.29	120.76	2,085.4	-8.2	87.8	1.72	1.12	7.77	12.4	38.3	
2,188.0	11.26	123.31	2,177.7	-15.6	102.5	1.15	1.03	2.71	8.6	38.5	
2,283.0	11.26	123.58	2,270.9	-25.7	118.0	0.08	0.00	0.26	2.4	37.8	
2,377.0	11.17	122.70	2,363.1	-35.7	133.3	0.21	-0.10	-0.84	-4.5	37.3	
2,472.0	11.08	121.55	2,456.3	-45.5	148.8	0.25	-0.09	-1.21	-11.3	38.8	
2,567.0	11.08	120.06	2,549.5	-54.8	164.5	0.30	0.00	-1.57	-18.4	38.4	



Midland PVA

Company: ECO Resources - Midland		Local Co-ordinate Reference:		Well 8702H	
Project: Lea County, NM (NAD 83 NME)		TVD Reference:		KB = 25 @ 3343.0usft	
Site: Colgrove 35 Fed Cam		MD Reference:		KB = 25 @ 3343.0usft	
Well: 8702H		North Reference:		Grid	
Wellbore: OH		Survey Calculation Method:		Minimum Curvature	
Design: OH		Database:		EDM 5000.14	

Survey											
ND (usft)	Inc (°)	Adj (azimuth) (°)	TVD (usft)	NS (usft)	EW (usft)	DLeg (°/100usft)	Buld (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
2,682.0	10.29	118.97	2,642.9	-63.6	179.7	0.83	-0.83	-0.09	-23.9	38.5	
2,757.0	9.84	118.13	2,736.4	-71.7	194.3	0.50	-0.37	-1.94	-29.5	38.0	
2,851.0	10.02	114.26	2,828.0	-78.9	208.9	0.72	0.09	-4.12	-38.1	34.7	
2,946.0	10.55	118.13	2,922.5	-86.4	224.1	0.92	0.56	4.07	-38.5	38.2	
3,041.0	11.17	120.08	3,015.8	-95.1	239.8	0.76	0.65	2.03	-42.9	39.8	
3,136.0	11.52	118.98	3,108.9	-104.0	256.2	0.74	0.37	-3.24	-51.5	37.8	
3,230.0	11.78	114.44	3,201.0	-112.3	273.3	0.81	0.28	-2.70	-60.1	36.4	
3,325.0	11.78	120.15	3,284.0	-121.2	290.5	1.23	0.00	8.01	-63.4	43.2	
3,420.0	12.40	131.31	3,368.9	-132.8	308.6	2.84	0.65	11.75	-61.8	54.2	
3,515.0	13.37	133.24	3,478.5	-147.0	322.2	1.12	1.02	2.03	-69.3	53.8	
3,609.0	12.49	130.43	3,571.1	-161.1	337.9	1.15	-0.94	-2.89	-81.0	47.8	
3,704.0	11.43	125.33	3,684.0	-173.2	353.4	1.57	-1.12	-5.37	-92.5	38.6	
3,789.0	10.64	128.04	3,757.3	-183.8	368.1	0.84	-0.83	0.75	-98.1	38.7	
3,893.0	9.76	120.65	3,848.8	-193.0	382.0	1.35	-0.94	-5.52	-105.8	28.9	
3,988.0	8.87	112.15	3,943.4	-200.1	398.3	1.55	-0.09	-9.18	-112.8	13.3	
4,083.0	9.50	104.59	4,037.1	-205.1	411.3	1.34	-0.18	-7.98	-117.5	0.7	
4,177.0	10.48	112.85	4,129.7	-210.4	426.7	1.83	1.02	8.78	-120.5	20.3	
4,272.0	10.64	123.93	4,223.1	-218.6	441.9	2.14	0.19	11.68	-119.5	43.8	
4,367.0	11.17	120.15	4,318.4	-228.1	457.1	0.94	0.58	-3.98	-127.9	35.5	
4,462.0	12.68	115.14	4,409.3	-237.2	474.5	1.81	1.57	-5.27	-137.9	24.7	
4,558.0	13.19	111.10	4,501.0	-245.4	493.8	1.11	0.56	-4.30	-148.5	16.2	
4,651.0	11.34	116.11	4,593.8	-253.4	512.3	2.24	-1.95	5.27	-154.8	30.9	
4,745.0	10.99	115.49	4,686.0	-261.3	528.7	0.39	-0.37	-0.66	-161.1	30.2	
4,840.0	12.57	110.68	4,778.0	-268.9	546.8	1.98	1.66	-5.08	-170.5	18.0	
4,935.0	11.87	125.07	4,871.8	-278.1	564.2	3.28	-0.74	15.17	-168.4	61.2	
5,029.0	10.38	131.40	4,964.1	-289.3	578.5	2.05	-1.59	6.73	-167.0	78.0	
5,124.0	9.41	130.96	5,057.7	-300.0	590.8	1.02	-1.02	-0.46	-172.0	74.4	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #702H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3343.0csh
Sna:	Colgrove 33 Fed Com	ND Reference:	KB = 25 @ 3343.0csh
Well:	#702H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey	ND (ust)	Inc (°)	Asl (elevation) (ft)	TVD (ust)	NIS (ust)	EW (ust)	DLeg (°/100ust)	BuId (°/100ust)	Turn (°/100ust)	High to Plan (ust)	Right to Plan (ust)
	5,218.0	8.44	131.13	5,150.6	-309.6	601.8	1.03	-1.03	0.18	-174.5	72.7
	5,313.0	8.53	129.46	5,244.5	-318.7	612.5	0.28	0.09	-1.76	-178.4	63.6
	5,408.0	8.62	129.82	5,338.5	-327.7	623.4	0.11	0.09	0.38	-180.1	64.7
	5,502.0	8.27	117.69	5,431.4	-335.4	634.8	1.93	-0.37	-12.80	-191.2	24.9
	5,597.0	8.27	97.47	5,525.5	-339.4	647.6	3.05	0.00	-21.28	-160.2	-39.7
	5,692.0	8.09	91.78	5,619.5	-340.5	661.1	0.88	-0.19	-6.01	-188.1	-53.1
	5,786.0	8.09	91.94	5,712.8	-341.0	674.3	0.03	0.00	0.19	-190.8	-48.7
	5,881.0	8.16	98.88	5,806.8	-341.8	686.0	2.13	-2.03	5.18	-194.6	-24.8
	5,976.0	4.40	116.98	5,901.4	-344.1	694.3	2.66	-1.85	21.19	-187.6	45.8
	6,070.0	4.92	126.12	5,995.1	-348.1	700.8	0.96	0.55	8.72	-173.5	74.2
	6,165.0	2.98	138.87	6,089.8	-352.3	705.7	2.22	-2.03	13.42	-147.7	107.7
	6,259.0	1.14	273.34	6,183.9	-354.1	708.4	4.12	-1.97	143.05	170.4	25.7
	6,354.0	1.78	280.64	6,278.9	-353.8	704.0	0.88	0.65	7.88	158.4	-0.3
	6,449.0	1.49	291.10	6,373.8	-353.1	701.4	0.42	-0.28	11.01	141.0	-30.8
	6,543.0	1.49	281.80	6,467.8	-352.4	699.1	0.26	0.00	-10.11	130.2	-11.2
	6,638.0	1.41	285.38	6,562.7	-351.8	698.8	0.13	-0.08	3.98	115.0	-22.9
	6,733.0	1.41	288.88	6,657.7	-351.2	694.5	0.04	0.00	1.58	100.1	-28.8
	6,828.0	1.58	289.34	6,752.7	-350.4	692.2	0.19	0.18	2.59	84.3	-35.4
	6,922.0	0.79	330.56	6,846.7	-349.4	690.6	1.18	-0.84	43.85	28.0	-75.2
	7,017.0	1.41	62.93	6,941.8	-348.3	691.4	1.73	0.65	97.23	-70.9	-13.9
	7,111.0	1.08	61.35	7,035.6	-347.4	693.1	0.37	-0.37	-1.68	-68.2	-5.8
	7,206.0	1.32	59.24	7,130.8	-348.4	694.9	0.28	0.27	-2.22	-62.0	2.7
	7,358.0	1.49	72.93	7,282.8	-344.9	698.2	0.25	0.11	9.02	-50.1	32.1
	7,396.0	1.41	69.08	7,320.5	-344.8	699.2	0.33	-0.21	-10.18	-50.1	32.4
	7,490.0	1.23	63.50	7,414.5	-344.1	701.2	0.40	-0.19	15.34	-33.5	51.0
	7,585.0	0.97	83.94	7,509.5	-343.9	703.1	0.27	-0.27	0.48	-28.0	56.4
	7,680.0	1.08	87.91	7,604.5	-343.9	704.7	0.28	0.09	14.71	-10.1	63.8



Midland PVA

Company:	ECC Resources - Midland	Local Co-ordinate Reference:	Well #702H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3343.0usft
Site:	Colgrove 35 Fed Com	ND Reference:	KB = 25 @ 3343.0usft
Well:	#702H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	NS (usft)	EW (usft)	DLog (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
7,774.0	0.65	105.04	7,699.5	-344.2	708.1	0.45	-0.44	7.59	-1.3	65.3
7,869.0	0.79	95.19	7,793.5	-344.4	707.3	0.20	0.15	-10.37	-13.5	64.1
7,964.0	0.88	119.36	7,888.5	-344.9	708.6	0.38	0.09	25.44	12.6	64.3
8,058.0	1.06	100.72	7,982.4	-345.3	710.0	0.38	0.18	-19.83	-10.2	64.7
8,153.0	1.32	91.78	8,077.4	-345.5	712.0	0.34	0.27	-9.43	-22.1	62.2
8,248.0	1.32	98.24	8,172.4	-345.7	714.2	0.11	0.00	4.72	-19.4	63.8
8,342.0	1.58	84.22	8,268.4	-345.9	716.6	0.28	0.28	-2.15	-24.0	63.1
8,437.0	1.58	82.20	8,361.3	-346.0	719.2	0.08	0.00	-2.13	-28.8	62.1
8,531.0	1.76	100.55	8,455.3	-346.3	721.9	0.32	0.19	8.88	-22.2	65.8
8,626.0	0.88	162.60	8,550.3	-347.3	723.3	1.84	-0.93	65.32	48.3	51.8
8,721.0	1.23	165.59	8,645.3	-349.0	724.0	0.37	0.37	3.15	47.2	49.3
8,816.0	1.41	168.68	8,740.2	-351.1	724.3	0.20	0.19	3.23	47.6	48.8
8,911.0	1.49	164.53	8,835.2	-353.5	725.0	0.14	0.08	-4.35	41.7	50.0
9,006.0	1.58	171.74	8,930.2	-355.9	725.8	0.22	0.09	7.59	45.1	44.5
9,101.0	1.58	177.28	9,025.1	-358.6	725.8	0.16	0.00	5.83	46.6	40.1
9,195.0	1.49	179.91	9,119.1	-361.1	725.9	0.12	-0.10	2.80	43.9	38.0
9,290.0	1.67	183.69	9,214.1	-363.7	725.8	0.22	0.18	3.88	43.7	34.8
9,385.0	1.49	190.90	9,309.0	-366.3	725.5	0.28	-0.19	7.59	47.1	29.1
9,480.0	1.49	189.78	9,404.0	-368.7	725.0	0.03	0.00	-1.20	44.0	30.0
9,574.0	1.23	189.49	9,499.0	-370.9	724.7	0.28	-0.28	-0.29	41.6	30.2
9,669.0	1.49	209.53	9,592.9	-373.0	723.9	0.57	0.27	21.09	47.3	14.5
9,764.0	1.58	224.12	9,687.9	-375.0	722.4	0.42	0.09	15.38	46.9	2.4
9,858.0	2.02	189.34	9,781.9	-377.5	720.9	0.94	0.47	-28.36	38.7	21.3
9,953.0	2.65	194.50	9,876.8	-381.1	719.8	0.59	0.56	-5.09	33.0	24.3
10,048.0	2.29	204.00	9,971.7	-384.9	718.5	0.50	-0.27	10.00	32.6	18.9
10,142.0	2.64	218.67	10,065.8	-388.3	716.4	0.76	0.37	15.61	32.3	10.5
10,237.0	2.29	225.18	10,160.5	-391.4	713.7	0.47	-0.37	8.85	29.2	7.0



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #702H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3343.0ush
Site:	Colgrove 35 Fed Com	MD Reference:	KB = 25 @ 3343.0ush
Well:	#702H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (ush)	Inc (°)	Azi (azimuth) (°)	TVD (ush)	N/S (ush)	EW (ush)	D Leg (°/100ush)	Bull'd (°/100ush)	Turn (°/100ush)	High to Plan (ush)	Right to Plan (ush)	
10,332.0	2.29	226.94	10,255.5	-394.0	711.0	0.07	0.00	1.85	25.7	0.2	
10,428.0	2.37	241.61	10,348.4	-396.2	707.9	0.64	0.09	15.61	22.6	-0.1	
10,521.0	3.81	250.14	10,444.2	-398.1	703.3	1.38	1.31	8.98	17.4	-3.1	
10,618.0	2.48	264.64	10,539.1	-399.4	688.5	1.45	-1.21	15.28	11.2	-6.6	
10,712.0	1.58	281.38	10,635.1	-399.1	695.2	-1.32	-0.92	27.83	3.8	-10.0	
10,806.0	1.41	320.28	10,729.0	-397.7	693.3	0.81	-0.18	30.77	-3.8	-10.0	
10,801.0	1.49	335.74	10,824.0	-395.7	692.0	0.42	0.08	18.27	-8.7	-8.3	
11,188.0	1.23	347.35	11,108.9	-389.3	689.8	0.13	-0.09	4.07	-18.9	-5.6	
11,280.0	1.08	327.83	11,202.8	-387.8	689.1	0.45	-0.18	-20.77	-15.8	-11.3	
11,375.0	1.23	304.37	11,297.9	-386.3	687.8	0.52	0.18	-24.69	-11.8	-17.0	
11,489.0	1.88	298.39	11,391.8	-385.1	685.8	0.40	0.37	-8.38	-12.3	-18.3	
11,564.0	1.23	304.19	11,486.8	-383.8	683.9	0.40	-0.37	6.11	-18.4	-16.8	
11,658.0	0.87	342.07	11,581.8	-382.6	682.8	0.79	-0.27	39.87	-24.9	-2.5	
11,775.0	1.06	28.01	11,697.8	-380.7	683.0	0.70	0.08	40.47	-20.6	17.2	
11,886.0	1.49	68.73	11,808.8	-378.3	684.8	0.86	0.39	35.78	-7.1	27.0	
11,981.0	1.93	78.03	11,903.7	-378.4	687.6	0.52	0.48	7.68	-8.4	27.8	
12,076.0	4.22	13.54	11,998.8	-374.5	688.9	3.94	2.41	-63.78	-31.4	8.8	
12,123.0	13.01	1.41	12,045.0	-387.7	690.4	18.89	18.70	-25.81	-34.3	-1.6	
12,170.0	18.82	359.39	12,090.2	-354.8	690.5	12.42	12.38	-4.30	-37.6	-3.0	
12,217.0	22.25	358.16	12,134.2	-338.3	690.1	7.35	7.30	-2.62	-39.8	-3.6	
12,266.0	28.91	357.19	12,178.8	-317.9	689.3	9.55	9.51	-1.68	-40.1	-3.4	
12,313.0	33.24	358.42	12,219.4	-284.4	688.4	13.53	13.47	2.62	-39.9	-1.9	
12,360.0	40.54	0.62	12,257.0	-266.2	688.2	15.78	15.53	4.68	-40.2	-0.7	
12,407.0	45.99	358.85	12,291.2	-234.0	688.3	11.88	11.60	-2.06	-40.7	-1.8	
12,455.0	48.98	357.72	12,323.6	-188.7	687.4	0.90	6.23	-4.02	-39.4	-1.9	
12,502.0	54.28	358.84	12,352.8	-181.9	685.7	11.33	11.23	-1.87	-36.5	-0.5	
12,550.0	60.59	358.33	12,378.6	-121.5	684.0	13.44	13.19	3.10	-33.3	1.4	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well 0702H
Project:	Lee County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3343.0ush
Site:	Calgrove 35 Fed Com	MD Reference:	KB = 25 @ 3343.0ush
Well:	0702H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

MD (ush)	Inc (°)	Azi (azimuth) (°)	TVD (ush)	N/S (ush)	E/W (ush)	D Lag (°/100ush)	BuId (°/100ush)	Turn (°/100ush)	High to Plan (ush)	Right to Plan (ush)
12,597.0	62.08	359.83	12,401.2	-80.2	683.3	4.23	3.17	3.18	-28.3	2.1
12,645.0	69.21	1.06	12,422.1	-37.1	683.7	8.91	8.60	2.56	-20.5	1.5
12,692.0	74.82	0.79	12,437.7	7.2	684.4	18.54	18.53	-0.57	-13.4	0.3
12,739.0	83.27	358.68	12,448.6	53.3	684.2	18.30	17.77	-4.49	-8.5	0.2
12,834.0	86.70	358.33	12,454.8	147.9	681.7	3.83	3.81	-0.37	-0.5	1.9
12,928.0	88.37	359.47	12,459.0	241.8	679.9	2.15	1.78	1.21	3.6	2.9
13,022.0	91.28	359.47	12,459.2	335.8	679.0	3.10	3.10	0.00	3.9	3.0
13,117.0	90.22	359.04	12,458.0	430.8	677.8	1.20	-1.12	-0.45	2.7	3.5
13,211.0	90.57	0.19	12,457.3	524.8	677.2	1.27	0.37	1.21	2.1	3.4
13,306.0	91.38	0.00	12,455.7	619.7	677.3	0.85	0.83	-0.19	0.5	2.5
13,401.0	90.22	359.58	12,454.4	714.7	678.9	1.28	-1.20	-0.48	-0.8	2.1
13,496.0	90.04	358.86	12,454.2	809.7	675.8	0.78	-0.18	-0.74	-1.0	2.7
13,590.0	89.80	358.51	12,455.1	803.7	673.5	1.27	-1.21	-0.37	-0.1	4.1
13,685.0	87.67	358.68	12,457.9	898.8	669.5	2.34	-1.29	-1.95	2.8	7.3
13,780.0	90.04	358.86	12,459.8	1,093.5	665.8	3.40	2.48	2.32	4.8	10.3
13,874.0	91.38	359.30	12,458.7	1,187.4	664.3	1.48	1.40	0.47	3.6	11.0
13,969.0	92.33	359.21	12,455.6	1,282.4	663.0	1.03	1.02	-0.09	0.6	11.5
14,063.0	89.18	359.83	12,454.4	1,376.4	662.2	3.44	-3.37	0.66	-0.6	11.5
14,158.0	88.46	358.95	12,456.4	1,471.3	661.2	1.18	-0.74	-0.93	1.4	11.8
14,252.0	89.64	359.91	12,458.8	1,565.3	660.3	1.04	0.19	1.02	3.9	12.0
14,347.0	89.78	0.00	12,460.1	1,660.3	660.2	1.20	1.20	0.09	5.2	11.3
14,441.0	80.66	359.47	12,459.7	1,754.3	659.8	1.09	0.84	-0.56	4.9	11.0
14,536.0	80.40	359.91	12,458.8	1,849.3	659.3	0.54	-0.27	0.46	4.0	10.7
14,631.0	69.52	0.27	12,458.9	1,944.3	659.4	1.00	-0.93	0.38	4.1	9.8
14,726.0	60.04	0.88	12,459.3	2,039.3	660.4	0.84	0.55	0.64	4.5	8.1
14,821.0	68.55	1.06	12,460.4	2,134.2	662.0	1.58	-1.57	0.19	5.7	6.8
14,916.0	60.66	2.29	12,461.1	2,229.2	664.7	2.57	2.22	1.29	6.4	2.2



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #702H
Project:	Lee County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3343.0usft
Site:	Colgrove 35 Fed Com	MD Reference:	KB = 25 @ 3343.0usft
Well:	#702H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

MD (usft)	Inc (")	Azi (azimuth) (°)	TVD (usft)	NS (usft)	EW (usft)	DLog (°/100usft)	Budd (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
15,011.0	89.84	3.88	12,481.7	2,324.0	669.9	2.78	-2.13	1.78	7.0	-3.7
15,108.0	89.78	2.29	12,463.0	2,418.9	675.1	2.13	1.20	-1.78	8.4	-8.6
15,201.0	89.78	1.14	12,463.3	2,513.8	677.9	1.21	0.00	-1.21	8.8	-13.2
15,295.0	91.10	359.12	12,462.6	2,607.8	678.2	2.57	1.40	-2.15	8.1	-14.2
15,360.0	91.45	359.21	12,460.5	2,702.8	678.8	0.38	0.37	0.09	6.0	-13.6
15,465.0	89.98	0.44	12,459.3	2,787.8	676.5	2.03	-1.57	1.29	4.9	-14.0
15,578.0	90.92	359.12	12,458.6	2,891.8	676.1	1.74	1.02	-1.40	4.2	-14.4
15,673.0	88.99	357.37	12,458.7	2,985.7	673.2	2.77	-2.05	-1.88	4.3	-12.3
15,768.0	91.01	358.33	12,458.7	3,080.8	669.7	2.35	2.13	1.01	4.4	-9.6
15,863.0	91.45	358.77	12,458.6	3,175.6	667.3	0.65	0.48	0.48	2.3	-7.8
15,958.0	88.46	356.49	12,458.7	3,270.5	663.4	3.96	-3.15	-2.40	2.5	-4.7
16,053.0	88.81	356.84	12,459.0	3,365.3	657.8	0.52	0.37	0.37	4.8	0.1
16,147.0	89.39	356.93	12,457.2	3,459.1	652.7	4.87	4.87	0.10	3.0	4.4
16,242.0	91.28	357.60	12,453.3	3,553.9	648.4	2.40	-2.22	0.92	-0.8	8.0
16,336.0	89.52	358.12	12,452.7	3,647.8	645.8	2.34	-1.87	1.40	-1.5	9.8
16,430.0	89.25	0.79	12,453.7	3,741.9	645.8	1.80	-0.29	1.78	-0.4	9.1
16,525.0	88.69	1.68	12,453.1	3,835.9	647.7	0.88	-0.27	0.83	1.1	6.4
16,620.0	90.66	2.73	12,453.4	3,931.8	651.3	2.13	1.78	1.21	1.4	2.1
16,714.0	89.08	0.62	12,453.6	4,025.7	654.0	2.80	-1.68	-2.24	1.6	-1.4
16,809.0	90.13	1.67	12,456.3	4,120.7	655.9	1.56	1.11	1.11	2.5	-4.1
16,904.0	80.48	0.88	12,455.6	4,215.7	658.1	0.91	0.37	-0.83	1.8	-8.9
16,998.0	90.40	0.78	12,455.0	4,310.7	659.4	0.13	-0.08	-0.09	1.0	-9.1
17,093.0	89.75	2.02	12,454.1	4,404.6	661.7	1.38	0.37	1.31	0.1	-12.1
17,189.0	89.69	1.85	12,453.7	4,500.6	665.0	1.12	-1.10	-0.18	-0.3	-16.1
17,283.0	88.81	359.74	12,453.0	4,594.6	666.3	2.43	-0.94	-2.24	1.0	-18.2
17,377.0	89.52	359.04	12,456.3	4,689.5	665.3	1.06	0.76	-0.74	2.3	-17.9
17,472.0	89.25	359.65	12,457.4	4,783.5	664.2	0.70	-0.28	0.64	3.4	-17.6



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #702H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3343.0usft
Site:	Colgrove 35 Fed Com	MD Reference:	KB = 25 @ 3343.0usft
Well:	#702H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (°)	Ad (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	OLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
17,566.0	80.57	359.95	12,457.5	4,877.5	683.1	1.59	1.40	-0.74	3.5	-17.2	
17,661.0	89.25	359.47	12,457.8	4,872.5	681.7	1.49	-1.39	0.55	3.6	-16.7	
17,755.0	88.55	359.74	12,459.5	5,066.5	681.1	0.80	-0.74	0.29	5.4	-16.8	
17,850.0	83.56	1.67	12,457.7	5,181.4	682.3	5.85	5.27	2.03	3.7	-18.7	
17,944.0	81.18	0.79	12,453.8	5,255.3	684.3	2.69	-2.52	-0.94	-0.2	-21.4	
18,039.0	82.15	359.74	12,451.0	5,350.3	684.7	1.50	1.01	-1.11	-3.0	-22.6	
18,134.0	88.02	357.80	12,450.9	5,445.2	682.7	4.80	-4.35	-2.04	-3.1	-21.4	
18,229.0	87.41	357.88	12,454.7	5,540.1	659.2	0.87	-0.84	0.19	0.7	-18.6	
18,323.0	81.54	357.98	12,455.5	5,634.0	655.9	4.39	4.39	0.00	1.5	-16.1	
18,418.0	89.43	358.88	12,454.7	5,729.0	653.3	2.41	-2.22	0.93	0.7	-14.2	
18,513.0	83.30	359.12	12,452.5	5,823.9	651.6	4.08	4.07	0.27	-1.5	-13.3	
18,608.0	80.82	0.18	12,449.0	5,918.8	651.0	2.74	-2.51	1.12	-5.0	-13.3	
18,702.0	87.23	2.20	12,450.5	6,012.8	653.0	4.47	-3.93	2.15	-3.5	-18.1	
18,797.0	85.18	1.32	12,453.5	6,107.7	655.9	2.23	2.03	-0.93	-0.5	-18.8	
18,891.0	91.01	0.27	12,453.4	6,201.7	657.2	2.28	1.87	-1.12	-0.6	-21.9	
18,986.0	87.05	358.60	12,455.0	6,296.6	656.2	4.52	-4.17	-1.78	1.0	-21.7	
19,080.0	86.35	358.24	12,460.4	6,390.4	653.6	0.84	-0.74	-0.38	6.4	-19.9	
19,175.0	81.63	358.07	12,462.0	6,485.3	650.6	5.58	5.58	-0.18	8.0	-17.6	
19,270.0	83.37	357.01	12,462.0	6,580.2	646.5	3.61	-3.43	-1.12	8.1	-14.2	
19,365.0	88.20	356.13	12,458.3	6,674.9	640.8	6.28	6.24	-0.93	4.2	-8.4	
19,460.0	84.97	357.63	12,449.0	6,769.3	635.7	2.04	-1.28	1.58	-5.0	-4.8	
19,554.0	82.88	359.12	12,442.6	6,863.1	633.0	2.75	-2.24	1.89	-11.4	-3.0	
19,649.0	80.48	1.06	12,439.8	6,958.0	633.2	3.23	-2.51	2.04	-14.2	-3.9	
19,744.0	88.28	0.44	12,440.8	7,053.0	634.4	2.40	-2.31	-0.65	-13.2	-5.9	
19,839.0	87.85	1.32	12,444.0	7,147.9	635.9	1.04	-0.46	0.93	-10.0	-8.1	
19,922.0	87.85	1.32	12,447.2	7,230.8	637.8	0.00	0.00	0.00	-8.8	-10.7	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #702H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3343.0usft
Site:	Colgrove 35 Fed Cam	NO Reference:	KB = 25 @ 3343.0usft
Well:	#702H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/S (usft)	+E/W (usft)	
12,050.0	11,972.7	-376.3	689.4	KOP, MD:12050.0', TVD:11972.7', NS:-376.3', E/W:689.4', INC:3.34
12,162.8	12,083.5	-357.0	690.5	FTP Crossing, MD:12162.8', TVD:12083.5', NS:-357.0', E/W:690.5', INC:17.84
19,839.0	12,444.0	7,147.9	635.9	Last MWD Survey (MD=19839.0)
19,822.0	12,447.2	7,230.8	637.8	Projection to Bit (MD=19922.0)

Checked By: _____	Approved By: _____	Date: _____
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Lea County, NM (NAD 83 NME)
Colgrove 35 Fed Com #702H
Plan #1



Adjusts to Grid North
True North: -0.41°
Magnetic North: 0.34°
Magnetic Field
Strength: 47542.350T
Dip Angle: 78.84°
Date: 1/25/2018
Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 0.34°
To convert a Magnetic Direction to a True Direction, Add 0.75° East
To convert a True Direction to a Grid Direction, Subtract 0.41°

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 Origin: Mean Sea Level

WELL DETAILS: #702H

331.8.0
Northing: 363174.00
Easting: 743764.00
KB = 25 @ 3343.0m
Latitude: 32° 0' 8.504" N
Longitude: 103° 33' 2.283" W

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSeet	Target
0.0	0.00	0.00	0.0	+0.0	0.0	0.00	0.00	0.0	
1200.0	0.00	0.00	1200.0	0.0	0.0	0.00	0.00	0.0	
1570.2	7.40	120.61	1569.2	-12.2	20.6	2.00	120.61	-10.3	
7402.6	7.40	120.61	7352.8	-394.8	667.4	0.00	0.00	-335.8	
7772.7	0.00	0.00	7722.0	-407.0	588.0	2.00	180.00	-346.1	Brushy Top(Colgrove 35 FC #702H)
12028.7	0.00	0.00	11978.0	-407.0	688.0	0.00	0.00	-346.1	
12778.9	90.02	359.54	12455.5	70.6	684.2	12.00	359.54	120.4	
18666.8	90.02	359.54	12454.0	3958.4	653.2	0.00	0.00	4000.0	TOTPH(Colgrove 35 FC #702H)
18667.8	90.00	359.54	12454.0	3959.5	653.2	2.00	-180.00	4001.1	
19949.5	90.00	359.54	12454.0	7241.0	627.0	0.00	0.00	7268.1	PBHL(Colgrove 35 FC #702H)

CALC DETAILS

No ending data is available

WELLBORE TARGET COORDINATES (MAP COORDINATES)

Name	TVD	+E/-W	Northing	Easting
Brushy Top(Colgrove 35 FC #702H)	7722.0	-407.0	688.0	343172.40
TOTPH(Colgrove 35 FC #702H)	12454.0	653.2	343172.40	744617.19
PBHL(Colgrove 35 FC #702H)	12454.0	653.2	343172.40	744617.19
PT(Colgrove 35 FC #702H)	12452.0	-517.0	688.0	343172.40

