

HOBBS OCD

Form 3160-4
(August 2007)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTDEC 04 2019
NMOCFORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.
NMNM118726

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. ANTIETAM 9 FEDERAL COM 713H		
Contact: KAY MADDOX E-Mail: KAY_MADDOX@EOGRESOURCES.COM					
3. Address PO BOX 2267 MIDLAND, TX 79702			9. API Well No. 30-025-45476		
3a. Phone No. (include area code) Ph: 432-686-3658					
4. Location of Well (Report location clearly and in accordance with Federal requirements)* Sec 9 T25S R33E Mer NMP At surface NENE 1052FNL 690FEL 32.149449 N Lat, 103.570996 W Lon Sec 9 T25S R33E Mer NMP At top prod interval reported below NWNE 618FNL 1407FEL 32.150646 N Lat, 103.573310 W Lon Sec 16 T25S R33E Mer NMP At total depth SWNE 2523FNL 1411FEL 32.130892 N Lat, 103.573340 W Lon			10. Field and Pool, or Exploratory WC025 G09 S253309P; UPPER		
			11. Sec., T., R., M., or Block and Survey or Area Sec 9 T25S R33E Mer NMP		
			12. County or Parish LEA		
			13. State NM		
14. Date Spudded 02/09/2019		15. Date T.D. Reached 04/01/2019		16. Date Completed ☐ D & A ☒ Ready to Prod. 06/30/2019	
17. Elevations (DF, KB, RT, GL)* 3417 GL					
18. Total Depth: MD 19990 TVD 12493		19. Plug Back T.D.: MD 19908 TVD 12493		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		1213		645		0	
8.750	7.625 HCP110	29.7		11814		1900		0	
6.750	5.500 ICYP110	20.0		19967		795		6456	

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

26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) WOLFCAMP	12787	19908	12787 TO 19908	3.250	1428	OPEN
B)						
C)						
D)						

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

Depth Interval	Amount and Type of Material
12787 TO 19908	18,256,824 LBS PROPPANT; 270,674 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
06/30/2019	07/03/2019	24	→	3207.0	6624.0	6594.0	45.0		FLOW FROM WELL
Choke Size	Tbg. Press. Flwg. SI	Csg. Press. SI	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
64	SI	1808.0	→				2065	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. SI	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
	SI		→						

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

ELECTRONIC SUBMISSION #474021 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

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

Reclamation due: 12/30/2019

ACCEPTED FOR RECORD

NOV 15 2019

BUREAU OF LAND MANAGEMENT

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	1102		BARREN	RUSTLER	1102
T/SALT	1495		BARREN	T/SALT	1495
B/SALT	4927		BARREN	B/SALT	4927
BRUSHY CANYON	7633		OIL & GAS	BRUSHY CANYON	7633
1ST BONE SPRING SAND	10084		OIL & GAS	1ST BONE SPRING SAND	10084
2ND BONE SPRING SAND	10716		OIL & GAS	2ND BONE SPRING SAND	10716
3RD BONE SPRING SAND	11847		OIL & GAS	3RD BONE SPRING SAND	11847
WOLFCAMP	12285		OIL & GAS	WOLFCAMP	12285

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 #474021 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 MADDOXTitle REGULATORY SPECIALISTSignature (Electronic Submission)Date 07/18/2019

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: (505) 393-6161 Fax: (505) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (505) 748-1283 Fax: (505) 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 30-025-45476	² Pool Code 98180	³ Pool Name WC025 G-09 S2533049; Upper Wolfcamp
⁴ Property Code 987131	⁵ Property Name ANTIETAM 9 FED COM	⁶ Well Number #713H
⁷ GRID No. 7377	⁸ Operator Name EOG RESOURCES, INC.	⁹ Elevation 3416'

¹⁰Surface Location

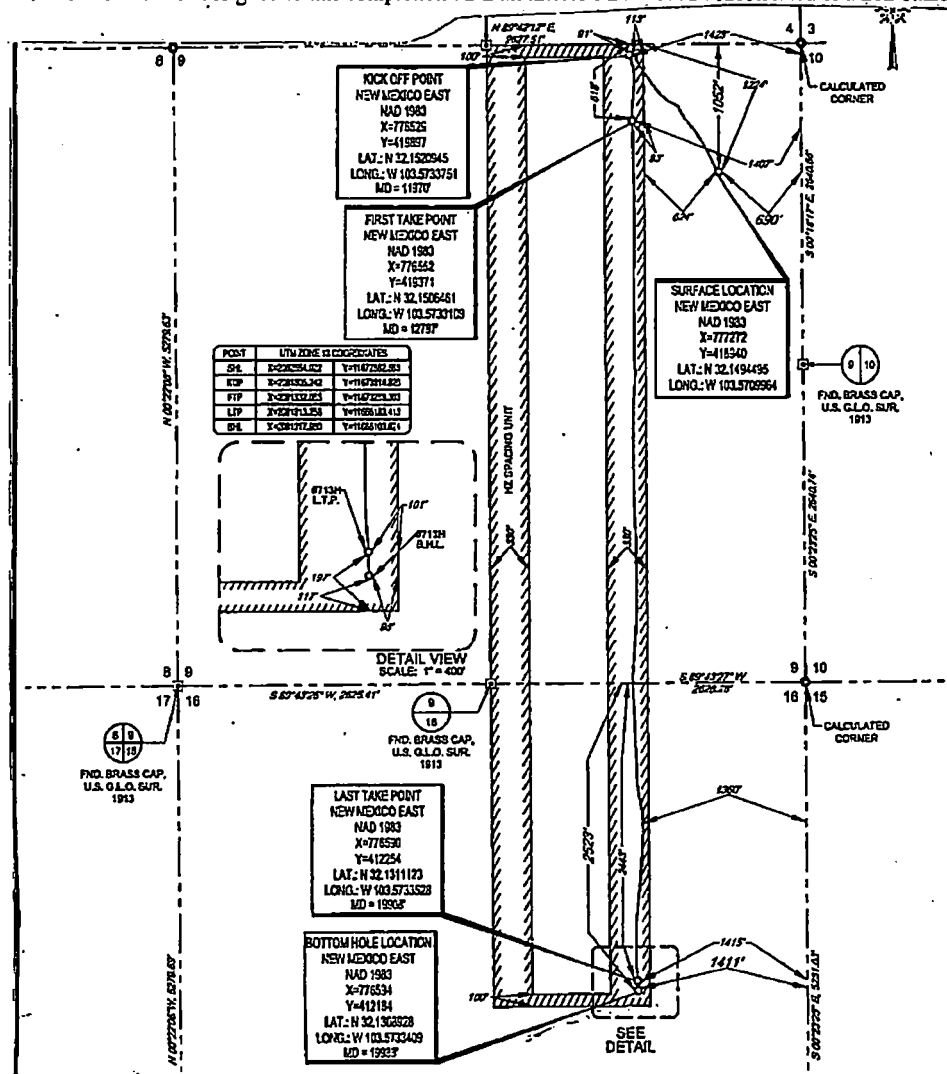
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	9	25-S	33-E	-	1052'	NORTH	690'	EAST	LEA

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
G	16	25-S	33-E	-	2923'	NORTH	1411'	EAST	LEA

¹² Dedicated Acres 240.00	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 undivided mineral interest in the land including the proposed bottom hole location or has a right to drill this well of 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 7/15/19
Signature Date

KAY MADDOX
Printed Name

E-mail Address

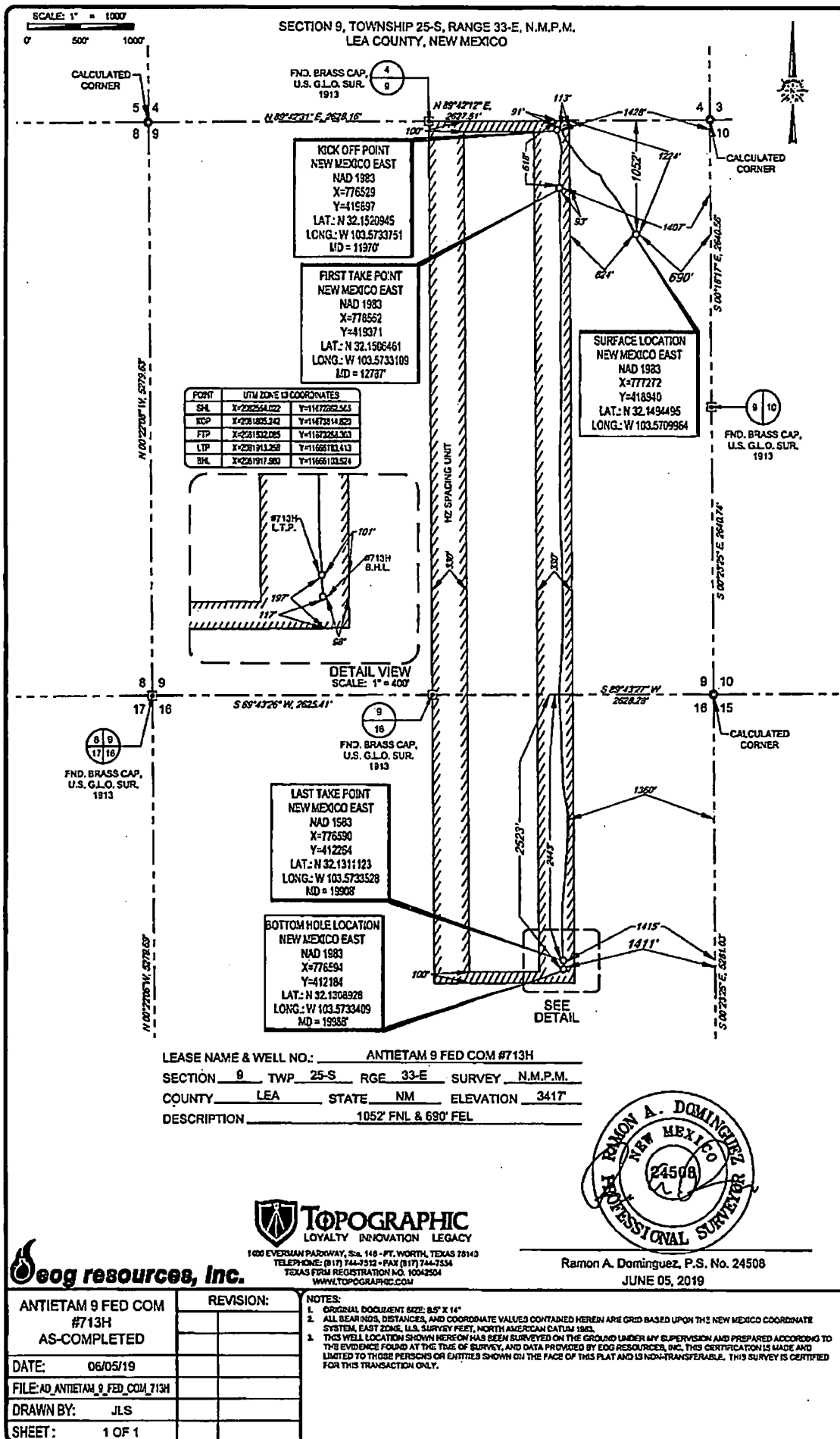
¹⁸SURVEYOR CERTIFICATION

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.

04/00/2018
Date of Survey
Signature and Seal of Professional Surveyor

18329
Professional Surveyor

Certificate Number





EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Antietam 9 Fed Com

#713H

OH

Design: OH

Midland PVA

01 April, 2019



Midland PVA

Company:	EOG Resources - Midland		Local Co-ordinate Reference:	VAD #713H
Project:	Lea County, NM (NAD 83 NME)		TVD Reference:	KB = 25 @ 3441.0usft
Site:	Antelam 9 Fed Com		MD Reference:	KB = 25 @ 3441.0usft
Well:	#713H		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	Antelam 9 Fed Com				
Site Position:		Northing:	419,815.00 usft	Latitude:	32° 8' 6.952 N
From:	Map	Easting:	774,698.00 usft	Longitude:	103° 34' 45.452 W
Position Uncertainty:	0.0 usft	Spot Radius:	13-3/16 "	Grid Convergence:	0.40 °

Well	#713H					
Well Position	+N-S	0.0 usft	Northing:	418,940.00 usft	Latitude:	32° 8' 58.014 N
	+E-W	0.0 usft	Easting:	777,272.00 usft	Longitude:	103° 34' 15.584 W
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,416.0 usft	

Wellbore	OH				
Magnetics:	Model Name	Sample Date:	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	7/15/2018	6.83	59.98	47,783.31018502

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (°)	
	0.0	0.0	0.0	185.57	

Survey Program	Date 4/1/2018			
From (usft)	To (usft)	Survey (Wellbore):	Tool Name	Description
175.0	19,990.0	Newco MWD (OH)	MWD	OWSG MWD - Standard



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well 0713H
Project:	Los County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3441.0usft
Site:	Antelope 9 Fed Com	MD Reference:	KB = 25 @ 3441.0usft
Well:	0713H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

MD (usft)	Inc (°)	Asl (azimuth) (°)	TVD (usft)	NPS (usft)	EW (usft)	DLog (°/100usft)	Bull (°/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
175.0	1.20	183.50	175.0	-1.8	-0.1	0.69	0.69	0.00	0.0	0.0
353.0	1.40	189.40	352.9	-5.8	-0.6	0.14	0.11	3.31	0.0	0.0
508.0	1.10	186.20	507.9	-9.2	-1.1	0.20	-0.18	-2.06	0.0	0.0
695.0	1.00	183.60	694.9	-12.6	-1.3	0.06	-0.05	-1.39	0.0	0.0
881.0	1.00	200.40	880.8	-15.7	-2.0	0.16	0.00	8.03	0.0	0.0
1,069.0	0.30	157.20	1,068.8	-17.7	-2.4	0.43	-0.37	-22.98	0.0	0.0
1,172.0	0.70	65.50	1,171.8	-17.7	-1.7	0.75	0.39	-89.03	0.0	0.0
1,331.0	2.60	348.10	1,330.8	-13.4	-1.7	1.78	1.38	-48.68	-1.1	-0.4
1,425.0	8.00	335.00	1,424.5	-6.6	-4.2	3.45	3.30	-13.94	-2.6	-1.4
1,612.0	12.60	331.80	1,608.8	20.7	-18.2	3.70	3.69	-1.68	-13.0	-3.4
1,799.0	13.00	333.50	1,791.1	57.9	-37.4	0.20	0.05	0.88	-23.1	-8.9
1,886.0	12.80	333.50	1,873.3	94.3	-58.1	0.11	-0.11	0.00	-26.4	-12.7
2,174.0	12.90	334.20	2,158.6	132.8	-74.5	0.10	0.05	0.37	-29.8	-18.4
2,362.0	12.50	334.50	2,339.9	170.7	-92.6	0.04	0.00	0.18	-33.4	-24.7
2,549.0	12.50	328.50	2,522.3	208.4	-112.8	0.96	-0.21	-4.28	-31.7	-32.9
2,737.0	13.00	326.70	2,705.7	241.0	-135.6	0.27	0.27	0.11	-34.3	-33.9
2,824.0	13.20	328.70	2,807.8	276.9	-158.3	0.26	0.11	1.07	-39.0	-34.6
3,111.0	13.40	330.10	3,069.8	313.9	-180.2	0.20	0.11	0.75	-44.2	-38.6
3,299.0	12.30	316.70	3,253.1	347.3	-204.8	1.69	-0.59	-7.13	-37.3	-45.1
3,486.0	12.40	320.30	3,435.8	377.3	-231.3	0.42	0.05	1.93	-41.2	-38.3
3,674.0	10.50	317.80	3,620.1	405.5	-255.7	1.04	-1.01	-1.33	-38.0	-35.0
3,861.0	9.30	323.60	3,804.3	420.3	-276.1	0.83	-0.64	3.10	-34.4	-29.5
4,048.0	7.50	330.40	3,989.3	453.1	-281.1	1.10	-0.86	3.64	-25.8	-27.2
4,235.0	9.50	325.70	4,174.2	476.4	-305.8	1.13	1.07	-2.51	-12.1	-30.7
4,423.0	8.90	333.20	4,360.3	499.3	-319.6	1.49	-1.38	3.99	-3.7	-32.4
4,610.0	4.90	345.30	4,546.3	517.1	-326.7	1.25	-1.07	6.47	7.2	-42.2



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #713H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3441.0usft
Site:	Antelope 9 Fed Com	MD Reference:	KB = 25 @ 3441.0usft
Well:	#713H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	NS (usft)	EW (usft)	DLog (°/100usft)	Bullid (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
4,798.0	4.20	334.20	4,733.7	531.2	-331.8	0.57	-0.32	-5.80	38.8	-48.0	
4,892.0	7.20	298.50	4,827.2	537.2	-338.6	4.78	3.09	-37.98	68.4	-9.9	
4,885.0	11.30	292.50	4,919.0	543.5	-352.1	4.52	4.41	-6.45	70.8	8.9	
5,079.0	14.80	295.80	5,010.5	552.2	-371.4	3.81	3.72	3.51	66.8	12.9	
5,266.0	14.00	289.80	5,191.7	573.9	-412.8	0.68	-0.43	2.14	56.2	26.4	
5,358.0	16.70	310.00	5,280.4	587.9	-432.3	4.14	2.83	11.09	54.1	23.2	
5,547.0	17.50	313.90	5,481.1	625.0	-473.6	0.74	0.42	2.06	38.1	28.9	
5,734.0	18.10	319.20	5,639.1	666.2	-513.2	0.77	0.32	2.30	21.1	32.7	
5,921.0	16.70	324.80	5,817.8	709.8	-548.1	1.28	-0.75	3.53	7.3	33.5	
6,109.0	15.30	324.30	5,998.3	752.0	-578.1	0.75	-0.74	-0.27	-6.1	33.8	
6,296.0	13.70	325.80	6,179.3	780.4	-605.0	0.88	-0.88	0.20	-13.3	34.0	
6,483.0	13.60	325.60	6,361.1	828.7	-629.8	0.11	-0.11	-0.11	-18.6	33.5	
6,670.0	13.80	329.30	6,542.8	863.8	-653.5	0.49	0.18	1.88	-21.9	33.0	
6,858.0	13.80	333.10	6,723.4	902.9	-674.9	0.48	0.05	2.04	-26.0	30.4	
7,044.0	11.30	338.60	6,906.8	940.2	-691.9	1.52	-1.38	2.93	-25.9	25.8	
7,231.0	7.20	354.60	7,091.4	968.1	-699.7	2.53	-2.14	8.56	-14.0	17.8	
7,419.0	2.70	45.60	7,278.7	984.1	-697.6	3.18	-2.45	27.13	-2.0	2.4	
7,607.0	2.30	44.60	7,468.5	989.9	-691.8	0.21	-0.21	-0.53	-7.1	-14.6	
7,794.0	2.10	61.40	7,653.4	994.7	-688.5	0.18	-0.11	3.64	-15.7	-18.0	
7,982.0	2.00	67.50	7,841.3	998.1	-680.8	0.31	-0.05	8.56	-26.8	-12.0	
8,168.0	1.70	71.30	8,027.2	1,000.2	-675.2	0.17	-0.18	2.04	-33.4	-10.0	
8,355.0	1.40	91.60	8,214.1	1,001.1	-670.3	0.33	-0.16	10.88	-39.7	3.2	
8,542.0	1.40	91.90	8,401.0	1,000.8	-665.7	0.09	0.00	0.16	-44.2	3.4	
8,729.0	1.80	123.60	8,588.0	999.2	-681.0	0.51	0.21	17.11	-40.6	27.5	
8,915.0	2.00	142.30	8,773.9	995.0	-656.6	0.34	0.11	9.89	-35.8	39.8	
9,102.0	1.70	153.90	8,960.8	989.9	-653.3	0.26	-0.16	6.20	-33.1	48.9	
9,289.0	1.20	170.20	9,147.7	985.5	-651.8	0.34	-0.27	8.72	-23.2	55.1	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #713H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3441.0usft
Site:	Antietam 9 Fed Com	MD Reference:	KB = 25 @ 3441.0usft
Well:	#713H	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)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
9,477.0	1.20	247.50	9,335.7	982.8	-853.3	0.80	0.00	41.12	48.2	36.7	
9,564.0	1.30	289.20	9,522.8	982.8	-657.1	0.48	0.05	22.30	55.3	-2.1	
9,852.0	2.60	287.00	9,710.5	983.2	-663.4	0.79	0.89	-11.81	45.7	18.2	
10,039.0	2.00	252.80	9,897.4	982.1	-670.7	0.44	-0.32	-7.59	32.5	27.8	
10,227.0	3.00	233.60	10,085.2	978.2	-677.8	0.69	0.53	-10.21	13.5	35.9	
10,413.0	3.10	230.70	10,270.9	972.1	-685.6	0.10	0.05	-1.56	1.8	36.3	
10,600.0	2.70	249.30	10,457.7	967.3	-693.7	0.54	-0.21	9.85	4.1	35.4	
10,787.0	2.00	258.60	10,644.6	965.0	-700.9	0.41	-0.37	3.90	0.9	35.2	
10,974.0	2.00	288.60	10,831.4	955.2	-707.2	0.55	0.00	18.04	12.3	31.6	
11,068.0	1.80	281.80	10,825.4	956.0	-710.3	0.27	-0.21	-5.11	6.5	32.4	
11,162.0	2.60	274.80	11,019.3	968.4	-713.3	0.33	0.21	-7.45	-0.8	32.8	
11,255.0	1.50	250.30	11,112.3	966.0	-718.4	0.90	-0.11	-26.34	-17.1	28.9	
11,348.0	1.50	224.60	11,205.2	964.8	-718.7	0.91	-0.43	-27.63	-30.8	17.9	
11,442.0	2.00	229.90	11,299.2	962.7	-720.8	0.56	0.53	5.84	-31.7	20.8	
11,535.0	2.00	234.30	11,392.1	960.7	-723.4	0.17	0.00	4.73	-33.2	23.3	
11,629.0	2.40	243.50	11,486.1	958.6	-725.5	0.57	0.43	9.79	-32.7	28.6	
11,722.0	3.80	261.10	11,578.9	957.5	-731.3	1.80	1.51	18.92	-27.4	37.7	
11,763.0	3.80	263.30	11,619.8	957.2	-734.0	0.44	0.24	5.37	-28.7	38.8	
11,834.0	1.80	293.80	11,790.8	957.6	-742.4	1.44	-1.17	17.84	-12.9	50.9	
12,027.0	8.00	163.80	11,883.4	952.0	-742.0	10.04	6.56	-139.78	-32.9	-42.8	
12,121.0	28.00	158.80	11,972.3	924.9	-732.1	21.32	21.28	-5.32	-41.1	-39.9	
12,168.0	31.30	160.30	12,013.1	903.1	-724.0	7.20	7.02	3.19	-51.7	-32.1	
12,215.0	34.50	168.00	12,052.6	878.7	-716.6	9.47	8.81	12.13	-62.0	-21.0	
12,262.0	36.50	167.70	12,090.9	852.1	-710.4	4.75	4.28	3.62	-68.0	-13.5	
12,308.0	36.80	169.90	12,127.3	824.5	-705.0	5.79	5.00	4.78	-71.0	-5.7	
12,355.0	41.40	174.10	12,163.3	794.8	-700.8	7.89	5.53	8.94	-71.3	2.8	
12,402.0	44.00	181.90	12,197.8	762.8	-699.7	12.53	5.53	18.60	-68.4	10.8	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well 0713H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3441.0usft
Site:	Antelope 9 Fed Com	MD Reference:	KB = 25 @ 3441.0usft
Well:	0713H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	NS (usft)	EW (usft)	DLeg (°/100usft)	Buile (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
12,449.0	52.00	183.90	12,229.2	727.9	-701.6	17.31	17.02	4.26	-65.9	9.8	
12,495.0	56.30	184.40	12,256.2	690.7	-704.3	9.39	9.35	1.09	-64.5	8.8	
12,542.0	58.30	184.70	12,281.8	651.3	-707.4	4.29	4.26	0.64	-61.4	2.8	
12,589.0	60.10	184.60	12,305.6	611.1	-710.7	3.83	3.83	-0.21	-55.5	-1.5	
12,636.0	63.50	183.10	12,327.8	569.8	-713.4	7.76	7.23	-3.19	-47.5	-5.5	
12,683.0	64.70	185.40	12,348.4	527.6	-716.6	5.09	2.55	4.89	-37.3	-9.1	
12,776.0	70.20	178.90	12,394.1	441.9	-719.7	8.75	5.91	-6.99	-10.6	-13.6	
12,823.0	78.20	178.10	12,396.8	396.7	-718.5	17.10	17.02	-1.70	1.6	-12.4	
12,869.0	87.30	178.60	12,402.6	351.1	-717.2	18.80	19.78	0.87	7.2	-11.3	
12,916.0	91.00	178.90	12,403.3	304.2	-716.1	7.92	7.87	0.05	7.8	-10.6	
12,963.0	91.30	178.70	12,402.4	257.2	-715.1	0.77	0.64	-0.43	6.8	-9.9	
13,056.0	90.20	178.80	12,401.2	164.2	-713.1	1.19	-1.16	0.11	5.4	-8.5	
13,149.0	90.20	178.70	12,400.8	71.2	-711.9	0.11	0.00	-0.11	4.9	-7.0	
13,243.0	88.10	178.10	12,403.9	-22.7	-708.4	4.41	-4.36	-0.64	7.5	-5.0	
13,338.0	85.60	178.10	12,410.6	-115.4	-705.4	0.54	-0.54	0.00	19.8	-2.5	
13,430.0	89.70	179.50	12,414.5	-209.2	-703.4	4.61	4.38	1.49	17.3	-1.2	
13,523.0	89.50	178.80	12,415.1	-302.2	-702.8	0.48	-0.22	0.43	17.5	-1.3	
13,618.0	89.30	180.20	12,416.1	-397.2	-703.0	0.38	-0.21	0.32	16.1	-2.0	
13,711.0	88.70	179.00	12,417.7	-490.2	-702.3	1.44	-0.65	-1.29	19.4	-1.9	
13,806.0	90.70	180.30	12,418.2	-594.2	-701.8	2.54	2.13	1.38	19.4	-2.0	
13,898.0	90.20	178.80	12,417.5	-677.2	-701.8	0.78	-0.54	-0.54	18.1	-2.6	
13,992.0	91.60	182.90	12,418.0	-771.2	-704.1	3.62	1.49	3.30	15.4	-5.5	
14,088.0	92.90	181.20	12,412.3	-865.0	-707.4	2.28	1.38	-1.81	10.4	-9.4	
14,180.0	89.10	179.50	12,410.7	-959.0	-708.0	4.43	-4.04	-1.81	7.6	-10.6	
14,273.0	89.20	178.90	12,412.1	-1,052.0	-707.5	0.44	0.11	0.43	7.7	-10.7	
14,367.0	88.10	178.00	12,415.9	-1,145.9	-706.8	3.43	-3.30	-0.98	10.4	-10.4	
14,460.0	88.50	177.30	12,421.9	-1,239.8	-703.8	1.87	0.43	-1.83	15.2	-8.0	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well 0713H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3441.0usft
Site:	Antelope 8 Fed Com	MD Reference:	KB = 25 @ 3441.0usft
Well:	0713H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Designer:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (°)	Ad (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg. (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
14,554.0	88.60	180.80	12,427.6	-1,332.4	-701.9	3.51	0.11	3.51	19.6	-6.9	
14,648.0	90.10	181.70	12,430.3	-1,426.4	-703.8	3.90	3.72	1.17	21.1	-8.4	
14,741.0	89.20	178.90	12,433.3	-1,519.3	-702.6	6.85	-4.19	-5.16	22.9	-8.8	
14,835.0	88.40	177.50	12,437.7	-1,613.0	-698.1	2.43	2.34	0.64	26.1	-4.9	
14,929.0	88.20	183.20	12,441.7	-1,706.9	-699.1	6.91	-1.70	6.70	28.8	-8.8	
15,022.0	88.40	184.30	12,445.6	-1,769.6	-705.7	1.80	1.72	0.54	31.6	-13.7	
15,115.0	90.80	182.70	12,446.2	-1,892.4	-711.4	3.10	2.58	-1.72	31.1	-20.0	
15,209.0	93.90	181.00	12,442.3	-1,988.2	-714.4	3.78	3.30	-1.81	26.1	-23.8	
15,302.0	87.10	179.10	12,441.5	-2,079.2	-714.5	7.58	-7.31	-2.04	24.2	-24.3	
15,396.0	87.20	179.40	12,446.2	-2,173.1	-713.2	0.34	0.11	0.32	27.7	-23.7	
15,489.0	89.40	179.10	12,448.0	-2,266.0	-712.0	2.39	2.37	-0.32	29.3	-23.1	
15,583.0	91.40	180.10	12,448.3	-2,360.0	-711.4	2.38	2.13	1.06	27.5	-23.0	
15,675.0	90.00	179.20	12,447.2	-2,452.0	-710.8	1.81	-1.52	-0.98	25.2	-23.0	
15,767.0	91.10	179.50	12,448.9	-2,484.0	-710.4	3.56	3.44	0.94	24.5	-22.9	
15,738.0	92.30	179.20	12,446.0	-2,515.0	-710.1	3.99	3.87	-0.97	23.2	-22.7	
15,769.0	92.10	179.30	12,444.8	-2,545.9	-709.7	0.72	-0.65	0.32	21.7	-22.5	
15,862.0	91.10	178.40	12,442.2	-2,638.9	-707.8	1.45	-1.08	-0.97	17.9	-21.3	
15,955.0	90.00	178.00	12,441.3	-2,731.8	-704.9	1.28	-1.18	-0.43	15.9	-18.9	
16,048.0	87.40	176.90	12,443.4	-2,824.7	-700.8	3.04	-2.80	-1.18	16.9	-15.4	
16,141.0	88.70	178.50	12,448.2	-2,917.4	-695.4	0.87	-0.75	-0.43	20.5	-10.6	
16,235.0	87.60	178.40	12,452.9	-3,011.2	-691.2	2.23	0.96	2.02	24.0	-7.1	
16,329.0	89.90	179.60	12,454.9	-3,105.2	-689.8	2.82	2.45	1.60	24.9	-6.3	
16,422.0	88.50	178.50	12,456.2	-3,198.1	-688.5	2.13	-1.51	-1.51	25.1	-5.6	
16,516.0	91.00	178.40	12,456.8	-3,292.1	-688.8	2.83	2.66	0.96	24.4	-4.5	
16,609.0	89.60	179.10	12,456.1	-3,385.1	-685.6	1.54	-1.51	-0.32	22.7	-3.9	
16,703.0	89.90	179.80	12,456.5	-3,478.1	-684.7	0.81	0.32	0.74	22.0	-3.8	
16,796.0	88.40	179.50	12,459.5	-3,572.0	-684.5	3.76	-3.78	0.11	23.8	-3.9	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #713H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3441.0usft
Site:	Antietam 8 Fed Com	MD Reference:	KB = 25 @ 3441.0usft
Well:	#713H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Incl (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	D Leg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
16,890.0	87.30	181.30	12,464.7	-3,665.9	-685.4	1.77	0.98	1.49	27.9	-5.5	
16,984.0	88.70	182.80	12,468.0	-3,759.8	-688.8	2.18	1.49	1.60	30.0	-9.5	
17,078.0	89.80	184.00	12,469.2	-3,853.8	-694.4	1.73	1.17	1.28	30.1	-15.6	
17,172.0	89.50	184.90	12,469.8	-3,947.3	-701.7	1.01	-0.32	0.96	29.9	-23.5	
17,265.0	91.00	182.80	12,469.4	-4,040.1	-707.9	2.77	1.81	-2.26	28.7	-30.4	
17,359.0	91.30	186.30	12,467.5	-4,133.8	-715.4	3.74	0.32	3.72	26.2	-38.3	
17,453.0	88.00	177.70	12,468.1	-4,227.6	-718.7	9.80	-3.51	-9.15	25.9	-42.3	
17,546.0	90.20	178.00	12,469.5	-4,320.5	-715.2	2.39	2.37	0.32	26.5	-39.4	
17,640.0	86.70	176.30	12,472.1	-4,414.3	-710.5	4.14	-3.72	-1.81	28.4	-35.3	
17,733.0	86.00	176.10	12,478.0	-4,507.0	-704.3	0.78	-0.75	-0.22	33.5	-29.8	
17,827.0	80.20	177.40	12,481.1	-4,600.7	-699.0	4.68	4.47	1.38	35.8	-25.1	
17,919.0	83.10	179.80	12,478.5	-4,692.6	-696.8	4.09	3.15	2.81	32.3	-23.5	
18,013.0	91.30	177.30	12,474.0	-4,786.5	-694.4	3.28	-1.91	-2.66	27.0	-21.7	
18,107.0	80.20	175.00	12,473.8	-4,880.3	-688.1	2.71	-1.17	-2.45	28.0	-15.9	
18,231.0	91.60	180.60	12,471.7	-5,004.2	-683.6	4.89	1.13	4.76	22.9	-12.4	
18,264.0	92.30	178.20	12,469.5	-5,067.1	-682.1	7.54	1.11	-7.48	20.3	-11.2	
18,388.0	90.00	167.50	12,467.8	-5,160.0	-668.7	9.57	-2.45	-9.26	17.8	1.5	
18,481.0	89.10	167.40	12,468.4	-5,250.8	-648.5	0.97	-0.97	-0.11	17.8	21.0	
18,512.0	88.30	170.70	12,468.8	-5,281.2	-642.6	10.66	0.85	10.65	17.9	26.8	
18,543.0	89.30	174.10	12,469.2	-5,311.9	-638.6	10.97	0.00	10.97	17.9	30.7	
18,574.0	88.70	178.60	12,469.5	-5,342.9	-638.6	14.57	1.29	14.52	17.9	32.5	
18,606.0	88.80	180.60	12,469.6	-5,374.9	-638.4	6.26	0.31	6.25	17.9	32.5	
18,637.0	90.70	180.00	12,469.5	-5,405.8	-638.5	3.49	2.60	-1.94	17.4	32.2	
18,668.0	91.00	179.20	12,469.0	-5,439.9	-636.3	2.76	0.97	-2.58	16.6	32.2	
18,699.0	89.40	181.60	12,468.9	-5,467.9	-638.5	9.30	-5.16	7.74	16.3	31.8	
18,731.0	88.40	184.30	12,469.5	-5,499.8	-638.2	9.00	-3.12	8.44	16.7	29.9	
18,762.0	87.50	184.80	12,470.6	-5,530.7	-640.6	3.32	-2.90	1.61	17.8	27.2	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #713H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3441.0usft
Site:	Antietam 9 Fed Corn	MD Reference:	KB = 25 @ 3441.0usft
Well:	#713H	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)	DLog (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
18,793.0	88.80	183.50	12,471.6	-5,561.6	-642.9	6.93	4.19	-4.19	18.3	24.8	
18,825.0	89.70	182.70	12,472.0	-5,593.5	-644.6	3.76	2.81	-2.50	18.4	22.9	
18,856.0	89.10	181.10	12,472.4	-5,624.5	-645.6	5.51	-1.94	-3.18	18.4	21.7	
18,887.0	88.40	182.20	12,473.0	-5,655.5	-646.5	4.21	-2.26	3.55	18.9	20.8	
18,919.0	87.90	184.10	12,474.1	-5,687.4	-648.3	6.14	-1.56	5.94	19.7	18.6	
18,950.0	88.60	184.60	12,475.0	-5,718.3	-650.6	2.77	2.28	1.61	20.4	18.0	
18,981.0	88.70	184.30	12,475.7	-5,749.2	-653.0	1.02	0.32	-0.97	20.8	13.4	
19,012.0	89.00	183.70	12,476.4	-5,780.1	-655.2	2.16	0.97	-1.94	21.2	11.1	
19,043.0	89.40	183.10	12,476.8	-5,811.1	-657.0	2.33	1.29	-1.94	21.3	9.0	
19,137.0	89.50	185.60	12,477.7	-5,904.8	-664.2	2.66	0.11	2.66	21.4	1.3	
19,231.0	90.50	186.10	12,477.7	-5,998.3	-673.7	1.19	1.06	0.53	20.7	-8.8	
19,324.0	90.30	185.00	12,477.0	-6,090.9	-682.7	1.20	-0.22	-1.18	20.0	-18.4	
19,417.0	90.10	183.60	12,476.7	-6,183.8	-689.7	1.52	-0.22	-1.51	19.7	-26.0	
19,512.0	89.50	180.40	12,477.9	-6,278.5	-693.0	3.77	-1.68	-3.37	20.8	-29.9	
19,605.0	88.00	179.20	12,480.7	-6,371.5	-692.7	1.40	-0.54	-1.29	23.7	-30.2	
19,698.0	89.80	179.40	12,482.5	-6,464.4	-691.6	1.95	1.94	0.22	25.5	-29.7	
19,791.0	87.00	177.00	12,485.1	-6,557.4	-688.6	3.96	-3.01	-2.58	28.1	-27.3	
19,885.0	87.60	176.60	12,489.5	-6,651.1	-683.6	0.67	0.64	-0.21	32.5	-22.8	
19,937.0	87.60	177.00	12,491.6	-6,703.0	-680.8	0.54	0.38	0.38	34.6	-20.4	
19,990.0	87.80	177.00	12,493.7	-6,755.9	-678.0	0.00	0.00	0.00	38.7	-17.9	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #713H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB @ 25 @ 3441.0usft
Site:	Antelope 9 Fed Com	MD Reference:	KB @ 25 @ 3441.0usft
Well:	#713H	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)	
11,970.0	11,828.6	957.1	-743.0	KOP, MD:11970.0', TVD:11828.6', NS:957.1', EW:-743.0', INC:2.51
12,046.0	11,902.1	948.9	-741.0	FTP Crossing, MD:12046.0', TVD:11902.1', NS:948.9', EW:-741.0', INC:12.03
19,937.0	12,491.6	-8,703.0	-680.6	Last MWD Survey (MD=19937.0')
19,990.0	12,493.7	-8,755.8	-678.0	Projection to Bit (MD=19990.0')

Checked By: _____	Approved By: _____	Date: _____
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Lea County, NM (NAD 83 NME)

Antietam 9 Fed Com #713H

Plan #3

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

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Elevation: GDS 1983
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

WELL DETAILS: #713H

KB = 25 @ 3441.Dos2 3418.0
Northing 412940.00 Easting 777272.00 Latitude 32° 5' 52.014 N Longitude 102° 54' 13.584 W

Adjustments to Grid North
True North: 0.41°
Magnetic North: 0.47°
Magnetic Field
Strength: 47783.1nT
Dip Angle: 63.83°
Date: 2015/01/16
Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 0.41°
To convert a Magnetic Direction to a True Direction, Add 0.47°
To convert a True Direction to a Grid Direction, Subtract 0.41°

SECTION DETAILS

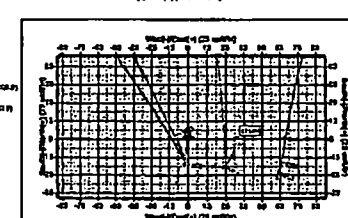
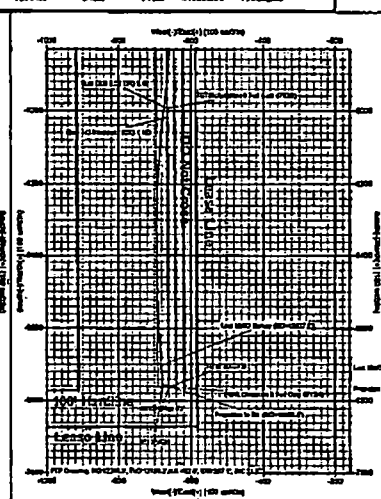
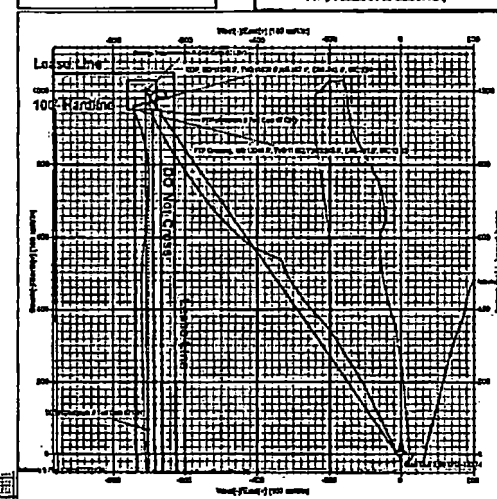
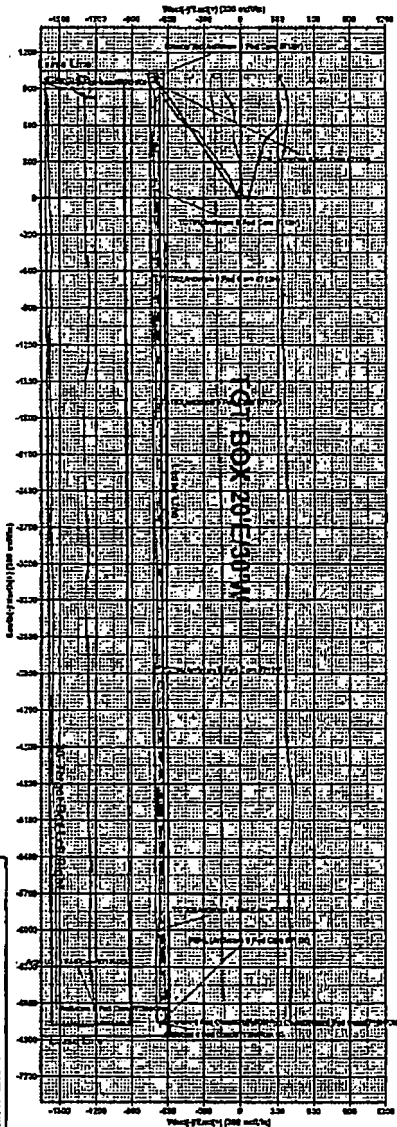
MD	Inc	Adj	TVD	+N-S	+E-W	Dlog	TFace	Vsect	Target
1	1172.0	0.70	55.50	1171.8	-17.7	-1.7	0.00	17.8	
2	1200.2	0.70	55.50	1200.0	-17.8	-1.8	0.00	17.6	
3	1808.2	12.01	324.95	1803.8	36.0	-34.3	2.00	-103.74	-32.5
4	7158.5	12.01	324.95	7036.7	947.8	-674.0	0.00	-877.7	
5	7759.1	0.00	0.00	7633.0	999.0	-710.0	2.00	180.00	-925.3
6	11948.4	0.00	0.00	11822.3	999.0	-710.0	0.00	0.00	-925.3
7	12847.3	89.88	179.63	12395.3	427.2	-706.3	10.00	179.63	-356.6
8	13205.8	89.88	179.63	12398.0	68.7	-704.0	0.00	0.00	0.0
9	13212.1	89.76	179.63	12398.0	62.4	-704.0	2.00	179.67	6.3
10	13909.8	89.76	179.63	12399.0	-635.1	-699.3	0.00	0.00	700.0
11	13934.7	89.25	179.63	12399.2	-680.2	-699.3	2.00	-179.94	725.0
12	14915.0	89.25	179.63	12412.0	-1840.4	-693.0	0.00	0.00	1700.0
13	14917.3	89.30	179.63	12412.0	-1842.6	-693.0	2.00	0.01	1702.2
14	17117.0	89.30	179.63	12438.0	-3842.2	-678.8	0.00	0.00	3850.0
15	17128.2	89.52	179.63	12439.0	-3833.4	-678.7	2.00	-0.34	3501.1
16	19268.8	89.52	179.63	12457.0	-5993.8	-654.9	0.00	0.00	6030.0
17	19293.1	80.01	179.63	12457.1	-6018.1	-654.7	2.00	0.60	6054.2
18	20037.0	90.01	179.63	12457.0	-6762.0	-660.0	0.00	0.00	6794.1

LOGGING DETAILS

No casing data is available

WELLS TARGET DETAILS (MAP COORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting
Brushy Top (Antietam 9 Fed Com #713H)	7623.8	999.0	-713.0	418379.00	776562.00
TOT1 (Antietam 9 Fed Com #713H)	12286.0	62.7	-704.0	418063.70	776369.00
TOT2 (Antietam 9 Fed Com #713H)	12298.0	-433.1	-688.5	418254.80	776371.50
TOT3 (Antietam 9 Fed Com #713H)	12413.0	-1840.4	-693.0	417289.80	776279.00
TOT4 (Antietam 9 Fed Com #713H)	12418.0	-1842.6	-693.0	417289.80	776279.00
TOT5 (Antietam 9 Fed Com #713H)	12437.0	-3842.2	-678.8	418063.70	776369.00
TOT6 (Antietam 9 Fed Com #713H)	12439.0	-3833.4	-678.7	418063.70	776369.00
PEHL (Antietam 9 Fed Com #713H)	12457.0	-6018.1	-654.7	418063.70	776369.00
FTP (Antietam 9 Fed Com #713H)	12984.0	943.0	-713.0	418883.00	776362.00



Bureau of Land Management
WATER PRODUCTION & DISPOSAL INFORMATION

LEASE: ANTIETAM 9 FEDERAL COM # 713H 30-025-45476
ANTIETAM 9 FEDERAL COM # 714H 30-025-45477
ANTIETAM 9 FEDERAL COM # 715H 30-025-45478
Lease no NMNM 118726
SECTION 9, T25S, R33E

1. Name of formation producing water on lease: WOLFCAMP
2. Amount of water produced from all formations in barrels per day 6000-9500 BWPD
3. How water is stored on lease 4 - 400 BBL Tanks
4. How water is moved to disposal facility Pipeline/Trucked
5. Disposal Facility:
EOG Red Hills Gathering System - 97% of water, 3% water. Majority of water is recycled

a. Name of Operator/facility well name & number

EOG RESOURCES, INC	EOG RESOURCES, INC
BLACK Bear 36 State #5	Dragon 36 State SWD #11
30-025-40585	30-025-41615
H-36-25S-33E	C-36-24S-33E
Permit no 1359	Permit no 1486

Type of facility or wells SWD