

Submit 1 Copy To Appropriate District Office
District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised July 18, 2013

OIL CONSERVATION DIVISION
1220 South St. Francis
Santa Fe, NM 87505

WELL API NO.	30-025-46752
5. Indicate Type of Lease	STATE ☒ FEE ☐
6. State Oil & Gas Lease No.	320561
7. Lease Name or Unit Agreement Name	HEMLOCK 32 STATE
8. Well Number	#201H
9. OGRID Number	7377
10. Pool name or Wildcat	59900 TRIPLE X; BONE SPRING
11. Elevation (Show whether DR, RKB, RT, GR, etc.)	3661 GL

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐

2. Name of Operator
EOG RESOURCES

3. Address of Operator
P O BOX 2267, MIDLAND TX 79702

4. Well Location
Unit Letter M : 304 feet from the SOUTH line and 501 feet from the WEST line
Section 32 Township 23S Range 33E NMPM County LEA CO, NM

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
3661 GL

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☒	COMMENCE DRILLING OPNS. ☒	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☒	
DOWNHOLE COMMINGLE ☐			
CLOSED-LOOP SYSTEM ☐			
OTHER: ☐	CASING CHANGE ☐	OTHER: ☒	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

EOG respectfully requests an amendment to our approved APD for this well to reflect the following changes:
Change casing and cement design to run a production string consisting of
6", 24.5#, ECP-110, VAM-TOP HT

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Emily Follis TITLE Sr. Regulatory Administrator DATE 02/06/2020

Type or print name Emily Follis E-mail address: emily_follis@eogresources.com PHONE: 432-848-9163

For State Use Only

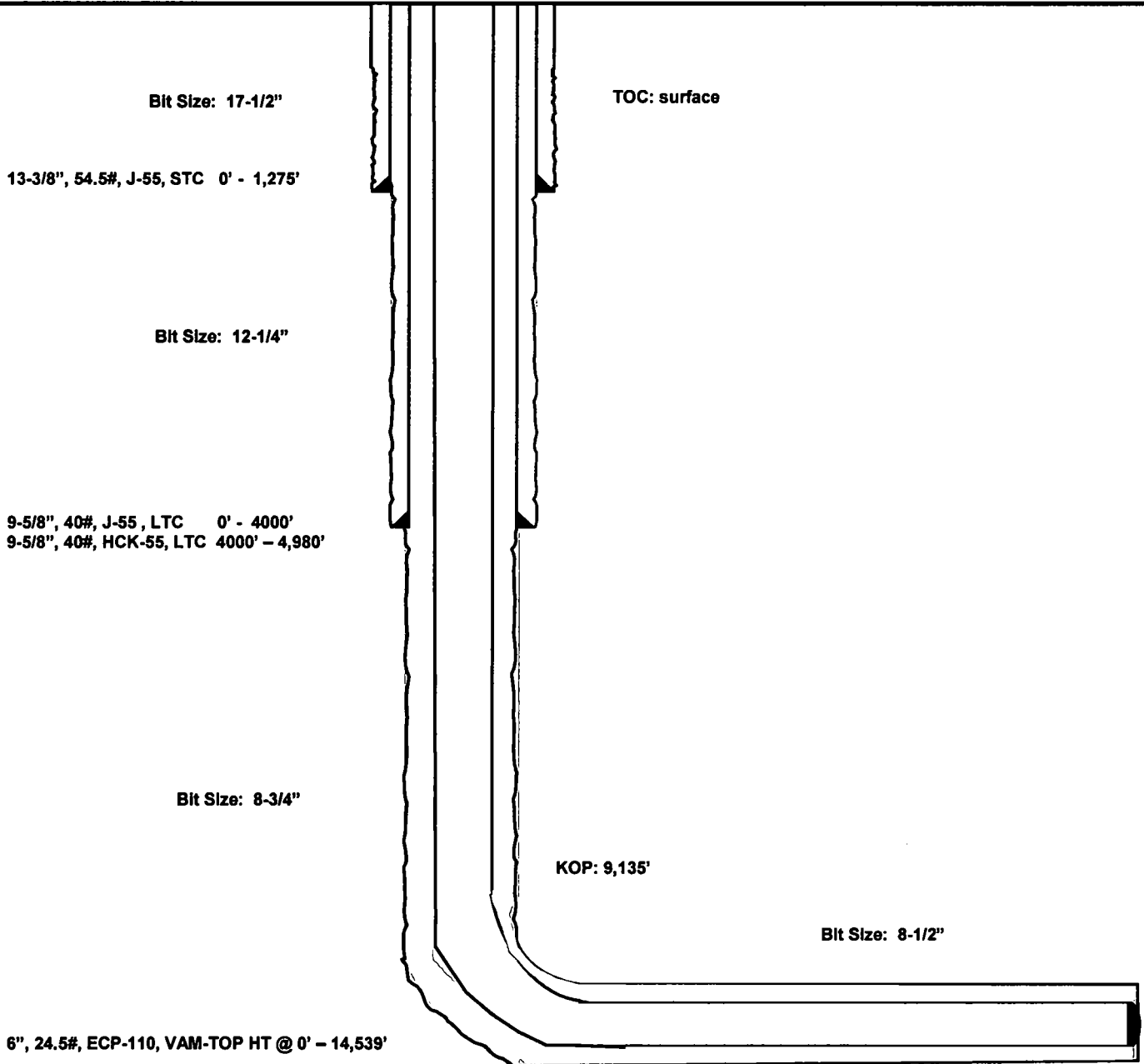
APPROVED BY: [Signature] TITLE Petroleum Engineer DATE 02/10/2020
Conditions of Approval (if any):

Hemlock 32 State #201H
Lea County, New Mexico

304' FSL
501' FWL
Section 32
T-23-S, R-33-E

Revised Wellbore
2/3/2020
API: 30-025-46752

KB: 3,686'
GL: 3,661'



Lateral: 14,539' MD, 9,605' TVD
BH Location: 100' FNL & 330' FWL
Section 32
T-23-S, R-33-E

EOG RESOURCES, INC.
HEMLOCK 32 STATE #201H

Revised Permit Information:

Well Name: Hemlock 32 State #201H

Location:

SHL: 304' FSL & 501' FWL, Section 32, T-23-S, R-33-E, Lea Co., N.M.

BHL: 100' FNL & 330' FWL, Section 32, T-23-S, R-33-E, Lea Co., N.M.

Casing Program:

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
17.5"	0' – 1,275'	13.375"	54.5#	J-55	STC	1.125	1.25	1.60
12.25"	0' – 4,000'	9.625"	40#	J-55	LTC	1.125	1.25	1.60
12.25"	4000' – 4980'	9.625"	40#	HCK-55	LTC	1.125	1.25	1.60
8.75"	0' – 9,885'	6"	24.5#	ECP-110	VAM-TOP HT	1.125	1.25	1.60
8.5"	9,885' – 14,539'	6"	24.5#	ECP-110	VAM-TOP HT	1.125	1.25	1.60

Cement Program:

Depth	No. Sacks	Wt. ppg	Yld Ft ³ /ft	Slurry Description
1,275'	790	13.5	1.73	Lead: Class C + 4.0% Bentonite + 0.5% CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	160	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
4,980'	500	9.0	3.5	Lead: Class C + 10% NaCl + 6% Bentonite Gel + 3% MagOx (TOC @ Surface)
	350	14.4	1.20	Tail: Class C + 10% NaCl + 3% MagOx
14,539'	1,520	14.4	1.31	1 st Stage (Tail): Class H + 5% Salt (TOC @ 7,400')
	1,400	12.7	3.21	2 nd Stage (Bradenhead squeeze): Class C + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (TOC @ Surface)



EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Hemlock 32 State

#201H

OH

Plan: Plan #0.1

Standard Planning Report

13 January, 2020



Planning Report

Database: EDM
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Hemlock 32 State
Well: #201H
Wellbore: OH
Design: Plan #0.1

Local Co-ordinate Reference: Well #201H
TVD Reference: KB = 25 @ 3686.0usft
MD Reference: KB = 25 @ 3686.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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	Hemlock 32 State			
Site Position:		Northing:	457,257.00 usft	Latitude: 32° 15' 17.825 N
From:	Map	Easting:	767,769.00 usft	Longitude: 103° 36' 3.080 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.39 °

Well	#201H			
Well Position	+N/-S	-60.0 usft	Northing: 457,197.00 usft	Latitude: 32° 15' 17.239 N
	+E/-W	-126.0 usft	Easting: 767,643.00 usft	Longitude: 103° 36' 4.552 W
Position Uncertainty	0.0 usft	Wellhead Elevation:		Ground Level: 3,661.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	1/13/2020	6.69	60.05	47,686.70233109

Design	Plan #0.1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	357.60

Plan Survey Tool Program	Date	1/13/2020		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	14,538.9 Plan #0.1 (OH)	EOG MWD+IFR1 MWD + IFR1	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,546.7	2.93	213.53	1,546.6	-3.1	-2.1	2.00	2.00	0.00	213.53	
7,376.1	2.93	213.53	7,368.4	-251.9	-166.9	0.00	0.00	0.00	0.00	
7,522.8	0.00	0.00	7,515.0	-255.0	-169.0	2.00	-2.00	0.00	180.00	
9,135.3	0.00	0.00	9,127.5	-255.0	-169.0	0.00	0.00	0.00	0.00	KOP(Hemlock 32 Sta)
9,885.3	90.00	359.61	9,605.0	222.5	-172.3	12.00	12.00	-0.05	359.61	
14,538.9	90.00	359.61	9,605.0	4,876.0	-204.0	0.00	0.00	0.00	0.00	PBHL(Hemlock 32 St)



Planning Report

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 Project: Lea County, NM (NAD 83 NME)
 Site: Hemlock 32 State
 Well: #201H
 Wellbore: OH
 Design: Plan #0.1

Local Co-ordinate Reference: Well #201H
 TVD Reference: KB = 25 @ 3686.0usft
 MD Reference: KB = 25 @ 3686.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	2.00	213.53	1,500.0	-1.5	-1.0	-1.4	2.00	2.00	0.00
1,546.7	2.93	213.53	1,546.6	-3.1	-2.1	-3.0	2.00	2.00	0.00
1,600.0	2.93	213.53	1,599.9	-5.4	-3.6	-5.3	0.00	0.00	0.00
1,700.0	2.93	213.53	1,699.7	-9.7	-6.4	-9.4	0.00	0.00	0.00
1,800.0	2.93	213.53	1,799.6	-13.9	-9.2	-13.5	0.00	0.00	0.00
1,900.0	2.93	213.53	1,899.5	-18.2	-12.1	-17.7	0.00	0.00	0.00
2,000.0	2.93	213.53	1,999.3	-22.5	-14.9	-21.8	0.00	0.00	0.00
2,100.0	2.93	213.53	2,099.2	-26.7	-17.7	-26.0	0.00	0.00	0.00
2,200.0	2.93	213.53	2,199.1	-31.0	-20.5	-30.1	0.00	0.00	0.00
2,300.0	2.93	213.53	2,298.9	-35.3	-23.4	-34.3	0.00	0.00	0.00
2,400.0	2.93	213.53	2,398.8	-39.5	-26.2	-38.4	0.00	0.00	0.00
2,500.0	2.93	213.53	2,498.7	-43.8	-29.0	-42.6	0.00	0.00	0.00
2,600.0	2.93	213.53	2,598.6	-48.1	-31.9	-46.7	0.00	0.00	0.00
2,700.0	2.93	213.53	2,698.4	-52.3	-34.7	-50.8	0.00	0.00	0.00
2,800.0	2.93	213.53	2,798.3	-56.6	-37.5	-55.0	0.00	0.00	0.00
2,900.0	2.93	213.53	2,898.2	-60.9	-40.3	-59.1	0.00	0.00	0.00
3,000.0	2.93	213.53	2,998.0	-65.1	-43.2	-63.3	0.00	0.00	0.00
3,100.0	2.93	213.53	3,097.9	-69.4	-46.0	-67.4	0.00	0.00	0.00
3,200.0	2.93	213.53	3,197.8	-73.7	-48.8	-71.6	0.00	0.00	0.00
3,300.0	2.93	213.53	3,297.6	-77.9	-51.7	-75.7	0.00	0.00	0.00
3,400.0	2.93	213.53	3,397.5	-82.2	-54.5	-79.9	0.00	0.00	0.00
3,500.0	2.93	213.53	3,497.4	-86.5	-57.3	-84.0	0.00	0.00	0.00
3,600.0	2.93	213.53	3,597.2	-90.7	-60.1	-88.2	0.00	0.00	0.00
3,700.0	2.93	213.53	3,697.1	-95.0	-63.0	-92.3	0.00	0.00	0.00
3,800.0	2.93	213.53	3,797.0	-99.3	-65.8	-96.4	0.00	0.00	0.00
3,900.0	2.93	213.53	3,896.9	-103.5	-68.6	-100.6	0.00	0.00	0.00
4,000.0	2.93	213.53	3,996.7	-107.8	-71.5	-104.7	0.00	0.00	0.00
4,100.0	2.93	213.53	4,096.6	-112.1	-74.3	-108.9	0.00	0.00	0.00
4,200.0	2.93	213.53	4,196.5	-116.3	-77.1	-113.0	0.00	0.00	0.00
4,300.0	2.93	213.53	4,296.3	-120.6	-79.9	-117.2	0.00	0.00	0.00
4,400.0	2.93	213.53	4,396.2	-124.9	-82.8	-121.3	0.00	0.00	0.00
4,500.0	2.93	213.53	4,496.1	-129.1	-85.6	-125.5	0.00	0.00	0.00
4,600.0	2.93	213.53	4,595.9	-133.4	-88.4	-129.6	0.00	0.00	0.00
4,700.0	2.93	213.53	4,695.8	-137.7	-91.2	-133.7	0.00	0.00	0.00
4,800.0	2.93	213.53	4,795.7	-141.9	-94.1	-137.9	0.00	0.00	0.00
4,900.0	2.93	213.53	4,895.5	-146.2	-96.9	-142.0	0.00	0.00	0.00
5,000.0	2.93	213.53	4,995.4	-150.5	-99.7	-146.2	0.00	0.00	0.00
5,100.0	2.93	213.53	5,095.3	-154.7	-102.6	-150.3	0.00	0.00	0.00
5,200.0	2.93	213.53	5,195.1	-159.0	-105.4	-154.5	0.00	0.00	0.00



Planning Report

Database: EDM
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Hemlock 32 State
Well: #201H
Wellbore: OH
Design: Plan #0.1

Local Co-ordinate Reference: Well #201H
TVD Reference: KB = 25 @ 3686.0usft
MD Reference: KB = 25 @ 3686.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300.0	2.93	213.53	5,295.0	-163.3	-108.2	-158.6	0.00	0.00	0.00
5,400.0	2.93	213.53	5,394.9	-167.6	-111.0	-162.8	0.00	0.00	0.00
5,500.0	2.93	213.53	5,494.8	-171.8	-113.9	-166.9	0.00	0.00	0.00
5,600.0	2.93	213.53	5,594.6	-176.1	-116.7	-171.1	0.00	0.00	0.00
5,700.0	2.93	213.53	5,694.5	-180.4	-119.5	-175.2	0.00	0.00	0.00
5,800.0	2.93	213.53	5,794.4	-184.6	-122.4	-179.3	0.00	0.00	0.00
5,900.0	2.93	213.53	5,894.2	-188.9	-125.2	-183.5	0.00	0.00	0.00
6,000.0	2.93	213.53	5,994.1	-193.2	-128.0	-187.6	0.00	0.00	0.00
6,100.0	2.93	213.53	6,094.0	-197.4	-130.8	-191.8	0.00	0.00	0.00
6,200.0	2.93	213.53	6,193.8	-201.7	-133.7	-195.9	0.00	0.00	0.00
6,300.0	2.93	213.53	6,293.7	-206.0	-136.5	-200.1	0.00	0.00	0.00
6,400.0	2.93	213.53	6,393.6	-210.2	-139.3	-204.2	0.00	0.00	0.00
6,500.0	2.93	213.53	6,493.4	-214.5	-142.2	-208.4	0.00	0.00	0.00
6,600.0	2.93	213.53	6,593.3	-218.8	-145.0	-212.5	0.00	0.00	0.00
6,700.0	2.93	213.53	6,693.2	-223.0	-147.8	-216.6	0.00	0.00	0.00
6,800.0	2.93	213.53	6,793.0	-227.3	-150.6	-220.8	0.00	0.00	0.00
6,900.0	2.93	213.53	6,892.9	-231.6	-153.5	-224.9	0.00	0.00	0.00
7,000.0	2.93	213.53	6,992.8	-235.8	-156.3	-229.1	0.00	0.00	0.00
7,100.0	2.93	213.53	7,092.7	-240.1	-159.1	-233.2	0.00	0.00	0.00
7,200.0	2.93	213.53	7,192.5	-244.4	-161.9	-237.4	0.00	0.00	0.00
7,300.0	2.93	213.53	7,292.4	-248.6	-164.8	-241.5	0.00	0.00	0.00
7,376.1	2.93	213.53	7,368.4	-251.9	-166.9	-244.7	0.00	0.00	0.00
7,400.0	2.46	213.53	7,392.3	-252.8	-167.5	-245.6	2.00	-2.00	0.00
7,500.0	0.46	213.53	7,492.2	-254.9	-169.0	-247.6	2.00	-2.00	0.00
7,522.8	0.00	0.00	7,515.0	-255.0	-169.0	-247.7	2.00	-2.00	0.00
7,600.0	0.00	0.00	7,592.2	-255.0	-169.0	-247.7	0.00	0.00	0.00
7,700.0	0.00	0.00	7,692.2	-255.0	-169.0	-247.7	0.00	0.00	0.00
7,800.0	0.00	0.00	7,792.2	-255.0	-169.0	-247.7	0.00	0.00	0.00
7,900.0	0.00	0.00	7,892.2	-255.0	-169.0	-247.7	0.00	0.00	0.00
8,000.0	0.00	0.00	7,992.2	-255.0	-169.0	-247.7	0.00	0.00	0.00
8,100.0	0.00	0.00	8,092.2	-255.0	-169.0	-247.7	0.00	0.00	0.00
8,200.0	0.00	0.00	8,192.2	-255.0	-169.0	-247.7	0.00	0.00	0.00
8,300.0	0.00	0.00	8,292.2	-255.0	-169.0	-247.7	0.00	0.00	0.00
8,400.0	0.00	0.00	8,392.2	-255.0	-169.0	-247.7	0.00	0.00	0.00
8,500.0	0.00	0.00	8,492.2	-255.0	-169.0	-247.7	0.00	0.00	0.00
8,600.0	0.00	0.00	8,592.2	-255.0	-169.0	-247.7	0.00	0.00	0.00
8,700.0	0.00	0.00	8,692.2	-255.0	-169.0	-247.7	0.00	0.00	0.00
8,800.0	0.00	0.00	8,792.2	-255.0	-169.0	-247.7	0.00	0.00	0.00
8,900.0	0.00	0.00	8,892.2	-255.0	-169.0	-247.7	0.00	0.00	0.00
9,000.0	0.00	0.00	8,992.2	-255.0	-169.0	-247.7	0.00	0.00	0.00
9,100.0	0.00	0.00	9,092.2	-255.0	-169.0	-247.7	0.00	0.00	0.00
9,135.3	0.00	0.00	9,127.5	-255.0	-169.0	-247.7	0.00	0.00	0.00
9,150.0	1.77	359.61	9,142.2	-254.8	-169.0	-247.5	12.00	12.00	0.00
9,175.0	4.77	359.61	9,167.2	-253.3	-169.0	-246.1	12.00	12.00	0.00
9,200.0	7.77	359.61	9,192.0	-250.6	-169.0	-243.3	12.00	12.00	0.00
9,225.0	10.77	359.61	9,216.7	-246.6	-169.1	-239.3	12.00	12.00	0.00
9,250.0	13.77	359.61	9,241.1	-241.3	-169.1	-234.0	12.00	12.00	0.00
9,275.0	16.77	359.61	9,265.2	-234.7	-169.1	-227.4	12.00	12.00	0.00
9,300.0	19.77	359.61	9,289.0	-226.9	-169.2	-219.6	12.00	12.00	0.00
9,325.0	22.77	359.61	9,312.3	-217.8	-169.3	-210.5	12.00	12.00	0.00
9,350.0	25.77	359.61	9,335.1	-207.5	-169.3	-200.3	12.00	12.00	0.00
9,375.0	28.77	359.61	9,357.3	-196.1	-169.4	-188.8	12.00	12.00	0.00
9,400.0	31.77	359.61	9,378.9	-183.5	-169.5	-176.2	12.00	12.00	0.00
9,425.0	34.77	359.61	9,399.8	-169.8	-169.6	-162.5	12.00	12.00	0.00



Planning Report

Database: EDM
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Hemlock 32 State
 Well: #201H
 Wellbore: OH
 Design: Plan #0.1

Local Co-ordinate Reference: Well #201H
 TVD Reference: KB = 25 @ 3686.0usft
 MD Reference: KB = 25 @ 3686.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,450.0	37.77	359.61	9,419.9	-155.0	-169.7	-147.7	12.00	12.00	0.00
9,475.0	40.77	359.61	9,439.3	-139.2	-169.8	-131.9	12.00	12.00	0.00
9,500.0	43.77	359.61	9,457.8	-122.3	-169.9	-115.1	12.00	12.00	0.00
9,525.0	46.77	359.61	9,475.4	-104.6	-170.0	-97.4	12.00	12.00	0.00
9,550.0	49.77	359.61	9,492.0	-85.9	-170.2	-78.7	12.00	12.00	0.00
9,575.0	52.77	359.61	9,507.7	-66.4	-170.3	-59.3	12.00	12.00	0.00
9,600.0	55.77	359.61	9,522.2	-46.1	-170.4	-39.0	12.00	12.00	0.00
9,625.0	58.77	359.61	9,535.8	-25.1	-170.6	-18.0	12.00	12.00	0.00
9,650.0	61.77	359.61	9,548.2	-3.4	-170.7	3.7	12.00	12.00	0.00
9,675.0	64.77	359.61	9,559.4	18.9	-170.9	26.0	12.00	12.00	0.00
9,700.0	67.77	359.61	9,569.5	41.8	-171.0	48.9	12.00	12.00	0.00
9,725.0	70.77	359.61	9,578.3	65.2	-171.2	72.3	12.00	12.00	0.00
9,750.0	73.77	359.61	9,585.9	89.0	-171.3	96.1	12.00	12.00	0.00
9,775.0	76.77	359.61	9,592.3	113.2	-171.5	120.2	12.00	12.00	0.00
9,800.0	79.77	359.61	9,597.4	137.6	-171.7	144.7	12.00	12.00	0.00
9,825.0	82.77	359.61	9,601.2	162.3	-171.8	169.4	12.00	12.00	0.00
9,850.0	85.77	359.61	9,603.7	187.2	-172.0	194.2	12.00	12.00	0.00
9,875.0	88.77	359.61	9,604.9	212.2	-172.2	219.2	12.00	12.00	0.00
9,885.3	90.00	359.61	9,605.0	222.5	-172.3	229.5	12.00	12.00	0.00
9,900.0	90.00	359.61	9,605.0	237.2	-172.4	244.2	0.00	0.00	0.00
10,000.0	90.00	359.61	9,605.0	337.2	-173.0	344.1	0.00	0.00	0.00
10,100.0	90.00	359.61	9,605.0	437.2	-173.7	444.1	0.00	0.00	0.00
10,200.0	90.00	359.61	9,605.0	537.2	-174.4	544.0	0.00	0.00	0.00
10,300.0	90.00	359.61	9,605.0	637.2	-175.1	643.9	0.00	0.00	0.00
10,400.0	90.00	359.61	9,605.0	737.2	-175.8	743.9	0.00	0.00	0.00
10,500.0	90.00	359.61	9,605.0	837.2	-176.4	843.8	0.00	0.00	0.00
10,600.0	90.00	359.61	9,605.0	937.2	-177.1	943.8	0.00	0.00	0.00
10,700.0	90.00	359.61	9,605.0	1,037.2	-177.8	1,043.7	0.00	0.00	0.00
10,800.0	90.00	359.61	9,605.0	1,137.2	-178.5	1,143.6	0.00	0.00	0.00
10,900.0	90.00	359.61	9,605.0	1,237.2	-179.2	1,243.6	0.00	0.00	0.00
11,000.0	90.00	359.61	9,605.0	1,337.2	-179.9	1,343.5	0.00	0.00	0.00
11,100.0	90.00	359.61	9,605.0	1,437.2	-180.5	1,443.4	0.00	0.00	0.00
11,200.0	90.00	359.61	9,605.0	1,537.2	-181.2	1,543.4	0.00	0.00	0.00
11,300.0	90.00	359.61	9,605.0	1,637.1	-181.9	1,643.3	0.00	0.00	0.00
11,400.0	90.00	359.61	9,605.0	1,737.1	-182.6	1,743.3	0.00	0.00	0.00
11,500.0	90.00	359.61	9,605.0	1,837.1	-183.3	1,843.2	0.00	0.00	0.00
11,600.0	90.00	359.61	9,605.0	1,937.1	-184.0	1,943.1	0.00	0.00	0.00
11,700.0	90.00	359.61	9,605.0	2,037.1	-184.6	2,043.1	0.00	0.00	0.00
11,800.0	90.00	359.61	9,605.0	2,137.1	-185.3	2,143.0	0.00	0.00	0.00
11,900.0	90.00	359.61	9,605.0	2,237.1	-186.0	2,243.0	0.00	0.00	0.00
12,000.0	90.00	359.61	9,605.0	2,337.1	-186.7	2,342.9	0.00	0.00	0.00
12,100.0	90.00	359.61	9,605.0	2,437.1	-187.4	2,442.8	0.00	0.00	0.00
12,200.0	90.00	359.61	9,605.0	2,537.1	-188.0	2,542.8	0.00	0.00	0.00
12,300.0	90.00	359.61	9,605.0	2,637.1	-188.7	2,642.7	0.00	0.00	0.00
12,400.0	90.00	359.61	9,605.0	2,737.1	-189.4	2,742.6	0.00	0.00	0.00
12,500.0	90.00	359.61	9,605.0	2,837.1	-190.1	2,842.6	0.00	0.00	0.00
12,600.0	90.00	359.61	9,605.0	2,937.1	-190.8	2,942.5	0.00	0.00	0.00
12,700.0	90.00	359.61	9,605.0	3,037.1	-191.5	3,042.5	0.00	0.00	0.00
12,800.0	90.00	359.61	9,605.0	3,137.1	-192.1	3,142.4	0.00	0.00	0.00
12,900.0	90.00	359.61	9,605.0	3,237.1	-192.8	3,242.3	0.00	0.00	0.00
13,000.0	90.00	359.61	9,605.0	3,337.1	-193.5	3,342.3	0.00	0.00	0.00
13,100.0	90.00	359.61	9,605.0	3,437.1	-194.2	3,442.2	0.00	0.00	0.00
13,200.0	90.00	359.61	9,605.0	3,537.1	-194.9	3,542.2	0.00	0.00	0.00
13,300.0	90.00	359.61	9,605.0	3,637.1	-195.5	3,642.1	0.00	0.00	0.00

Database:	EDM	Local Co-ordinate Reference:	Well #201H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3686.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3686.0usft
Site:	Hemlock 32 State	North Reference:	Grid
Well:	#201H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,400.0	90.00	359.61	9,605.0	3,737.1	-196.2	3,742.0	0.00	0.00	0.00
13,500.0	90.00	359.61	9,605.0	3,837.1	-196.9	3,842.0	0.00	0.00	0.00
13,600.0	90.00	359.61	9,605.0	3,937.1	-197.6	3,941.9	0.00	0.00	0.00
13,700.0	90.00	359.61	9,605.0	4,037.1	-198.3	4,041.9	0.00	0.00	0.00
13,800.0	90.00	359.61	9,605.0	4,137.1	-199.0	4,141.8	0.00	0.00	0.00
13,900.0	90.00	359.61	9,605.0	4,237.1	-199.6	4,241.7	0.00	0.00	0.00
14,000.0	90.00	359.61	9,605.0	4,337.1	-200.3	4,341.7	0.00	0.00	0.00
14,100.0	90.00	359.61	9,605.0	4,437.1	-201.0	4,441.6	0.00	0.00	0.00
14,200.0	90.00	359.61	9,605.0	4,537.1	-201.7	4,541.5	0.00	0.00	0.00
14,300.0	90.00	359.61	9,605.0	4,637.1	-202.4	4,641.5	0.00	0.00	0.00
14,400.0	90.00	359.61	9,605.0	4,737.1	-203.1	4,741.4	0.00	0.00	0.00
14,500.0	90.00	359.61	9,605.0	4,837.1	-203.7	4,841.4	0.00	0.00	0.00
14,538.9	90.00	359.61	9,605.0	4,876.0	-204.0	4,880.3	0.00	0.00	0.00

Design Targets

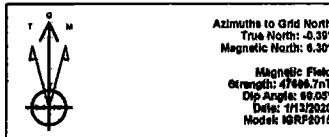
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
KOP(Hemlock 32 State #1)	0.00	0.00	9,127.5	-255.0	-169.0	456,942.00	767,474.00	32° 15' 14.728 N	103° 36' 6.540 W
- plan hits target center									
- Point									
PBHL(Hemlock 32 State #2)	0.00	0.00	9,605.0	4,876.0	-204.0	462,073.00	767,439.00	32° 16' 5.502 N	103° 36' 6.541 W
- plan hits target center									
- Point									
FTP(Hemlock 32 State #3)	0.00	0.00	9,605.0	-205.0	-169.0	456,992.00	767,474.00	32° 15' 15.222 N	103° 36' 6.536 W
- plan misses target center by 163.4usft at 9536.3usft MD (9483.0 TVD, -96.2 N, -170.1 E)									
- Point									



Lea County, NM (NAD 83 NME)

Hemlock 32 State #201H

Plan #0.1



To convert a Magnetic Direction to a Grid Direction, Add 0.30°
To convert a Magnetic Direction to a True Direction, Add 0.69° East
To convert a True Direction to a Grid Direction, Subtract 0.30°

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

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

WELL DETAILS: #201H

KB = 25 @ 3686.0usft 3561.0
Northing 457197.00 Easting 767843.00 Latitude 32° 15' 17.239 N Longitude 103° 38' 4.582 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1400.0	0.00	0.00	1400.0	0.0	0.0	0.00	0.00	0.0	
3	1546.7	2.93	213.53	1546.6	-3.1	-2.1	2.00	213.53	-3.0	
4	7376.1	2.93	213.53	7388.4	-251.9	-166.9	0.00	0.00	-244.7	
5	7522.8	0.00	0.00	7515.0	-255.0	-169.0	2.00	180.00	-247.7	
6	9135.3	0.00	0.00	9127.5	-255.0	-169.0	0.00	0.00	-247.7	KOP(Hemlock 32 State #201H)
7	9885.3	90.00	359.61	9605.0	222.5	-172.3	12.00	359.61	229.5	
8	14538.9	90.00	359.61	9605.0	4876.0	-204.0	0.00	0.00	4880.3	PBHL(Hemlock 32 State #201H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP COORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP(Hemlock 32 State #201H)	9127.5	-255.0	-169.0	456942.00	767474.00
PBHL(Hemlock 32 State #201H)	9605.0	4876.0	-204.0	462273.00	767439.00
FTP(Hemlock 32 State #201H)	9605.0	-205.0	-169.0	456992.00	767474.00

