

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 Dr.
Santa Fe, NM 87505

HOBBES OGD
FEB 03 2020
RECEIVED

WELL API NO. 30-025-46754
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 203H
9. OGRID Number 7377
10. Pool name or Wildcat 59900 TRIPLE X; BONE SPRING

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 <u>N</u> : <u>392</u> feet from the <u>SOUTH</u> line and <u>1894</u> feet from the <u>WEST</u> line Section <u>32</u> Township <u>23S</u> Range <u>33E</u> NMPM County <u>LEA CO, NM</u>	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3666 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: ☐		OTHER: CEMENT CHANGE ☒	

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:
Updated cement design to reflect R-111-P and ensure cement integrity in production string.

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 01/30/2020

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

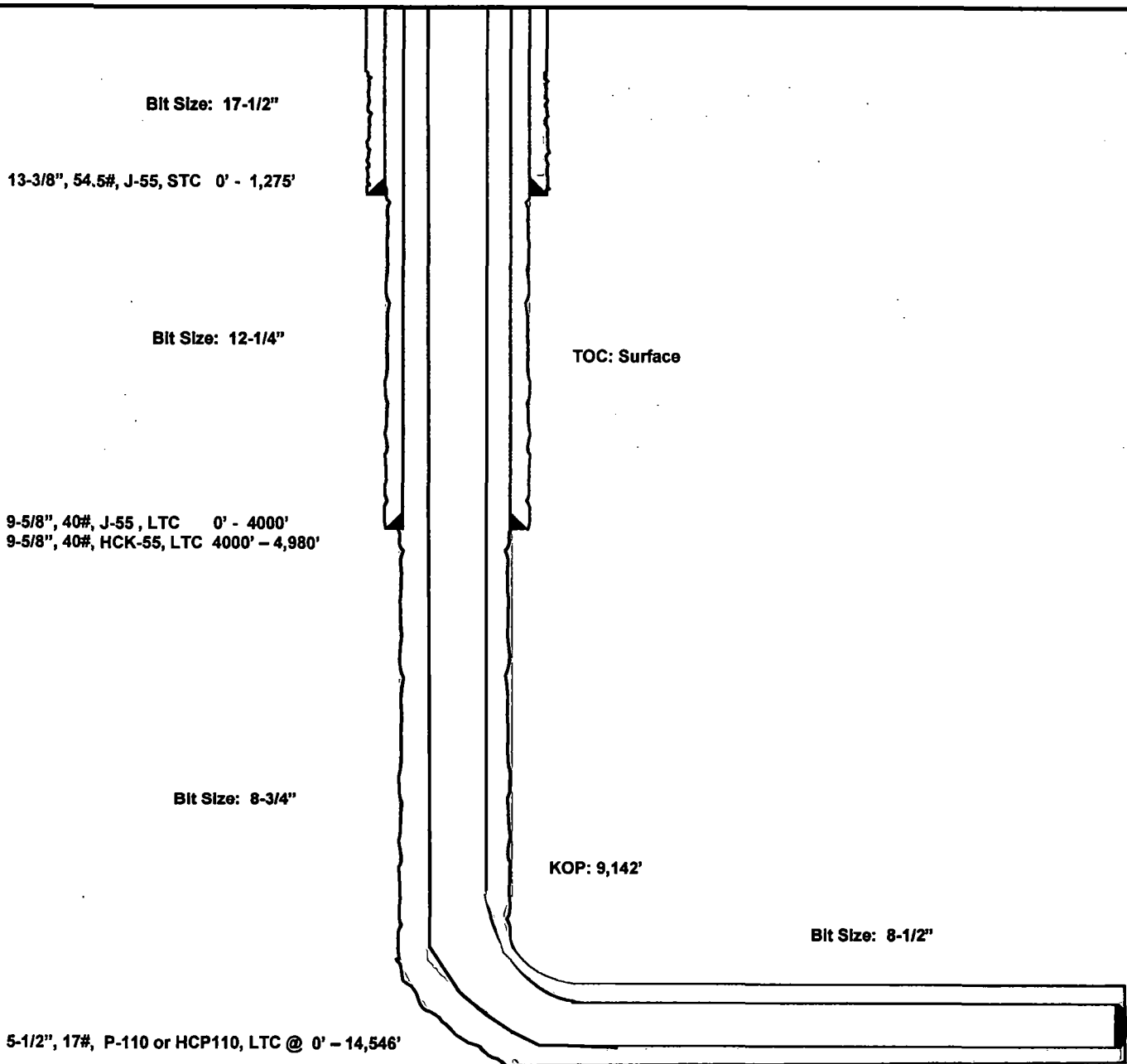
APPROVED BY: [Signature] TITLE Petroleum Engineer DATE 02/03/2020
Conditions of Approval (if any):

Hemlock 32 State #203H
Lea County, New Mexico

392' FSL
1894' FWL
Section 32
T-23-S, R-33-E

Revised Wellbore
1/30/2020
API: 30-025-46754

KB: 3,691'
GL: 3,666'



Lateral: 14,546' MD, 9,605' TVD
BH Location: 100' FNL & 1650' FWL
Section 32
T-23-S, R-33-E

EOG RESOURCES, INC.
HEMLOCK 32 STATE #203H

Revised Permit Information:

Well Name: Hemlock 32 State #203H

Location:

SHL: 392' FSL & 1894' FWL, Section 32, T-23-S, R-33-E, Lea Co., N.M.

BHL: 100' FNL & 1650' FWL, Section 32, T-23-S, R-33-E, Lea Co., N.M.

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
14,546'	1,800	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

#203H

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: #203H
Wellbore: OH
Design: Plan #0.1

Local Co-ordinate Reference: Well #203H
TVD Reference: KB = 25 @ 3691.0usft
MD Reference: KB = 25 @ 3691.0usft
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	#203H			
Well Position	+N/-S	34.0 usft	Northing:	457,291.00 usft
	+E/-W	1,266.0 usft	Easting:	769,035.00 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:		Ground Level: 3,666.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	1/13/2020	6.69	60.05	47,687.26870157

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	356.70

Plan Survey Tool Program	Date 1/13/2020			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	14,545.8 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	
1,602.8	4.06	215.09	1,602.6	-5.9	-4.1	2.00	2.00	0.00	215.09	
7,326.9	4.06	215.09	7,312.4	-337.1	-236.9	0.00	0.00	0.00	0.00	
7,529.7	0.00	0.00	7,515.0	-343.0	-241.0	2.00	-2.00	0.00	180.00	
9,142.2	0.00	0.00	9,127.5	-343.0	-241.0	0.00	0.00	0.00	0.00	KOP(Hemlock 32 Sta
9,892.2	90.00	359.61	9,605.0	134.5	-244.3	12.00	12.00	-0.05	359.61	
14,545.8	90.00	359.61	9,605.0	4,788.0	-276.0	0.00	0.00	0.00	0.00	PBHL(Hemlock 32 St



Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well #203H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3691.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3691.0usft
Site:	Hemlock 32 State	North Reference:	Grid
Well:	#203H	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)
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	215.09	1,500.0	-1.4	-1.0	-1.4	2.00	2.00	0.00
1,602.8	4.06	215.09	1,602.6	-5.9	-4.1	-5.6	2.00	2.00	0.00
1,700.0	4.06	215.09	1,699.6	-11.5	-8.1	-11.0	0.00	0.00	0.00
1,800.0	4.06	215.09	1,799.3	-17.3	-12.1	-16.6	0.00	0.00	0.00
1,900.0	4.06	215.09	1,899.1	-23.1	-16.2	-22.1	0.00	0.00	0.00
2,000.0	4.06	215.09	1,998.8	-28.9	-20.3	-27.6	0.00	0.00	0.00
2,100.0	4.06	215.09	2,098.6	-34.6	-24.3	-33.2	0.00	0.00	0.00
2,200.0	4.06	215.09	2,198.3	-40.4	-28.4	-38.7	0.00	0.00	0.00
2,300.0	4.06	215.09	2,298.1	-46.2	-32.5	-44.3	0.00	0.00	0.00
2,400.0	4.06	215.09	2,397.8	-52.0	-36.5	-49.8	0.00	0.00	0.00
2,500.0	4.06	215.09	2,497.6	-57.8	-40.6	-55.4	0.00	0.00	0.00
2,600.0	4.06	215.09	2,597.3	-63.6	-44.7	-60.9	0.00	0.00	0.00
2,700.0	4.06	215.09	2,697.1	-69.4	-48.7	-66.4	0.00	0.00	0.00
2,800.0	4.06	215.09	2,796.8	-75.2	-52.8	-72.0	0.00	0.00	0.00
2,900.0	4.06	215.09	2,896.6	-80.9	-56.9	-77.5	0.00	0.00	0.00
3,000.0	4.06	215.09	2,996.3	-86.7	-60.9	-83.1	0.00	0.00	0.00
3,100.0	4.06	215.09	3,096.1	-92.5	-65.0	-88.6	0.00	0.00	0.00
3,200.0	4.06	215.09	3,195.8	-98.3	-69.1	-94.2	0.00	0.00	0.00
3,300.0	4.06	215.09	3,295.6	-104.1	-73.1	-99.7	0.00	0.00	0.00
3,400.0	4.06	215.09	3,395.3	-109.9	-77.2	-105.3	0.00	0.00	0.00
3,500.0	4.06	215.09	3,495.1	-115.7	-81.3	-110.8	0.00	0.00	0.00
3,600.0	4.06	215.09	3,594.8	-121.5	-85.3	-116.3	0.00	0.00	0.00
3,700.0	4.06	215.09	3,694.6	-127.2	-89.4	-121.9	0.00	0.00	0.00
3,800.0	4.06	215.09	3,794.3	-133.0	-93.5	-127.4	0.00	0.00	0.00
3,900.0	4.06	215.09	3,894.1	-138.8	-97.5	-133.0	0.00	0.00	0.00
4,000.0	4.06	215.09	3,993.8	-144.6	-101.6	-138.5	0.00	0.00	0.00
4,100.0	4.06	215.09	4,093.6	-150.4	-105.7	-144.1	0.00	0.00	0.00
4,200.0	4.06	215.09	4,193.3	-156.2	-109.7	-149.6	0.00	0.00	0.00
4,300.0	4.06	215.09	4,293.1	-162.0	-113.8	-155.1	0.00	0.00	0.00
4,400.0	4.06	215.09	4,392.8	-167.7	-117.9	-160.7	0.00	0.00	0.00
4,500.0	4.06	215.09	4,492.6	-173.5	-121.9	-166.2	0.00	0.00	0.00
4,600.0	4.06	215.09	4,592.3	-179.3	-126.0	-171.8	0.00	0.00	0.00
4,700.0	4.06	215.09	4,692.1	-185.1	-130.1	-177.3	0.00	0.00	0.00
4,800.0	4.06	215.09	4,791.8	-190.9	-134.1	-182.9	0.00	0.00	0.00
4,900.0	4.06	215.09	4,891.6	-196.7	-138.2	-188.4	0.00	0.00	0.00
5,000.0	4.06	215.09	4,991.3	-202.5	-142.3	-193.9	0.00	0.00	0.00
5,100.0	4.06	215.09	5,091.1	-208.3	-146.3	-199.5	0.00	0.00	0.00
5,200.0	4.06	215.09	5,190.8	-214.0	-150.4	-205.0	0.00	0.00	0.00
5,300.0	4.06	215.09	5,290.6	-219.8	-154.5	-210.6	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: #203H
Wellbore: OH
Design: Plan #0.1

Local Co-ordinate Reference: Well #203H
TVD Reference: KB = 25 @ 3691.0usft
MD Reference: KB = 25 @ 3691.0usft
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)
5,400.0	4.06	215.09	5,390.3	-225.6	-158.5	-216.1	0.00	0.00	0.00
5,500.0	4.06	215.09	5,490.1	-231.4	-162.6	-221.7	0.00	0.00	0.00
5,600.0	4.06	215.09	5,589.8	-237.2	-166.7	-227.2	0.00	0.00	0.00
5,700.0	4.06	215.09	5,689.6	-243.0	-170.7	-232.8	0.00	0.00	0.00
5,800.0	4.06	215.09	5,789.3	-248.8	-174.8	-238.3	0.00	0.00	0.00
5,900.0	4.06	215.09	5,889.1	-254.6	-178.9	-243.8	0.00	0.00	0.00
6,000.0	4.06	215.09	5,988.8	-260.3	-182.9	-249.4	0.00	0.00	0.00
6,100.0	4.06	215.09	6,088.6	-266.1	-187.0	-254.9	0.00	0.00	0.00
6,200.0	4.06	215.09	6,188.3	-271.9	-191.1	-260.5	0.00	0.00	0.00
6,300.0	4.06	215.09	6,288.1	-277.7	-195.1	-266.0	0.00	0.00	0.00
6,400.0	4.06	215.09	6,387.8	-283.5	-199.2	-271.6	0.00	0.00	0.00
6,500.0	4.06	215.09	6,487.6	-289.3	-203.3	-277.1	0.00	0.00	0.00
6,600.0	4.06	215.09	6,587.3	-295.1	-207.3	-282.6	0.00	0.00	0.00
6,700.0	4.06	215.09	6,687.1	-300.9	-211.4	-288.2	0.00	0.00	0.00
6,800.0	4.06	215.09	6,786.8	-306.6	-215.5	-293.7	0.00	0.00	0.00
6,900.0	4.06	215.09	6,886.6	-312.4	-219.5	-299.3	0.00	0.00	0.00
7,000.0	4.06	215.09	6,986.3	-318.2	-223.6	-304.8	0.00	0.00	0.00
7,100.0	4.06	215.09	7,086.1	-324.0	-227.6	-310.4	0.00	0.00	0.00
7,200.0	4.06	215.09	7,185.8	-329.8	-231.7	-315.9	0.00	0.00	0.00
7,300.0	4.06	215.09	7,285.6	-335.6	-235.8	-321.4	0.00	0.00	0.00
7,326.9	4.06	215.09	7,312.4	-337.1	-236.9	-322.9	0.00	0.00	0.00
7,400.0	2.59	215.09	7,385.4	-340.6	-239.3	-326.3	2.00	-2.00	0.00
7,500.0	0.59	215.09	7,485.3	-342.9	-240.9	-328.4	2.00	-2.00	0.00
7,529.7	0.00	0.00	7,515.0	-343.0	-241.0	-328.6	2.00	-2.00	0.00
7,600.0	0.00	0.00	7,585.3	-343.0	-241.0	-328.6	0.00	0.00	0.00
7,700.0	0.00	0.00	7,685.3	-343.0	-241.0	-328.6	0.00	0.00	0.00
7,800.0	0.00	0.00	7,785.3	-343.0	-241.0	-328.6	0.00	0.00	0.00
7,900.0	0.00	0.00	7,885.3	-343.0	-241.0	-328.6	0.00	0.00	0.00
8,000.0	0.00	0.00	7,985.3	-343.0	-241.0	-328.6	0.00	0.00	0.00
8,100.0	0.00	0.00	8,085.3	-343.0	-241.0	-328.6	0.00	0.00	0.00
8,200.0	0.00	0.00	8,185.3	-343.0	-241.0	-328.6	0.00	0.00	0.00
8,300.0	0.00	0.00	8,285.3	-343.0	-241.0	-328.6	0.00	0.00	0.00
8,400.0	0.00	0.00	8,385.3	-343.0	-241.0	-328.6	0.00	0.00	0.00
8,500.0	0.00	0.00	8,485.3	-343.0	-241.0	-328.6	0.00	0.00	0.00
8,600.0	0.00	0.00	8,585.3	-343.0	-241.0	-328.6	0.00	0.00	0.00
8,700.0	0.00	0.00	8,685.3	-343.0	-241.0	-328.6	0.00	0.00	0.00
8,800.0	0.00	0.00	8,785.3	-343.0	-241.0	-328.6	0.00	0.00	0.00
8,900.0	0.00	0.00	8,885.3	-343.0	-241.0	-328.6	0.00	0.00	0.00
9,000.0	0.00	0.00	8,985.3	-343.0	-241.0	-328.6	0.00	0.00	0.00
9,100.0	0.00	0.00	9,085.3	-343.0	-241.0	-328.6	0.00	0.00	0.00
9,142.2	0.00	0.00	9,127.5	-343.0	-241.0	-328.6	0.00	0.00	0.00
9,150.0	0.94	359.61	9,135.3	-342.9	-241.0	-328.5	12.00	12.00	0.00
9,175.0	3.94	359.61	9,160.3	-341.9	-241.0	-327.4	12.00	12.00	0.00
9,200.0	6.94	359.61	9,185.2	-339.5	-241.0	-325.1	12.00	12.00	0.00
9,225.0	9.94	359.61	9,209.9	-335.8	-241.0	-321.4	12.00	12.00	0.00
9,250.0	12.94	359.61	9,234.4	-330.9	-241.1	-316.5	12.00	12.00	0.00
9,275.0	15.94	359.61	9,258.6	-324.6	-241.1	-310.2	12.00	12.00	0.00
9,300.0	18.94	359.61	9,282.5	-317.2	-241.2	-302.7	12.00	12.00	0.00
9,325.0	21.94	359.61	9,305.9	-308.4	-241.2	-294.0	12.00	12.00	0.00
9,350.0	24.94	359.61	9,328.8	-298.5	-241.3	-284.1	12.00	12.00	0.00
9,375.0	27.94	359.61	9,351.2	-287.4	-241.4	-273.0	12.00	12.00	0.00
9,400.0	30.94	359.61	9,373.0	-275.1	-241.5	-260.7	12.00	12.00	0.00
9,425.0	33.94	359.61	9,394.1	-261.7	-241.6	-247.3	12.00	12.00	0.00
9,450.0	36.94	359.61	9,414.4	-247.2	-241.7	-232.8	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: #203H
Wellbore: OH
Design: Plan #0.1

Local Co-ordinate Reference: Well #203H
TVD Reference: KB = 25 @ 3691.0usft
MD Reference: KB = 25 @ 3691.0usft
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)
9,475.0	39.94	359.61	9,434.0	-231.6	-241.8	-217.3	12.00	12.00	0.00
9,500.0	42.94	359.61	9,452.8	-215.1	-241.9	-200.8	12.00	12.00	0.00
9,525.0	45.94	359.61	9,470.6	-197.6	-242.0	-183.3	12.00	12.00	0.00
9,550.0	48.94	359.61	9,487.5	-179.2	-242.1	-164.9	12.00	12.00	0.00
9,575.0	51.94	359.61	9,503.4	-159.9	-242.2	-145.7	12.00	12.00	0.00
9,600.0	54.94	359.61	9,518.3	-139.8	-242.4	-125.6	12.00	12.00	0.00
9,625.0	57.94	359.61	9,532.1	-119.0	-242.5	-104.8	12.00	12.00	0.00
9,650.0	60.94	359.61	9,544.9	-97.5	-242.7	-83.3	12.00	12.00	0.00
9,675.0	63.94	359.61	9,556.4	-75.3	-242.8	-61.2	12.00	12.00	0.00
9,700.0	66.94	359.61	9,566.8	-52.6	-243.0	-38.5	12.00	12.00	0.00
9,725.0	69.94	359.61	9,576.0	-29.3	-243.1	-15.3	12.00	12.00	0.00
9,750.0	72.94	359.61	9,584.0	-5.6	-243.3	8.4	12.00	12.00	0.00
9,775.0	75.94	359.61	9,590.7	18.5	-243.5	32.4	12.00	12.00	0.00
9,800.0	78.94	359.61	9,596.1	42.9	-243.6	56.8	12.00	12.00	0.00
9,825.0	81.94	359.61	9,600.2	67.5	-243.8	81.4	12.00	12.00	0.00
9,850.0	84.94	359.61	9,603.1	92.3	-244.0	106.2	12.00	12.00	0.00
9,875.0	87.94	359.61	9,604.7	117.3	-244.1	131.1	12.00	12.00	0.00
9,892.2	90.00	359.61	9,605.0	134.5	-244.3	148.3	12.00	12.00	0.00
9,900.0	90.00	359.61	9,605.0	142.3	-244.3	156.1	0.00	0.00	0.00
10,000.0	90.00	359.61	9,605.0	242.3	-245.0	256.0	0.00	0.00	0.00
10,100.0	90.00	359.61	9,605.0	342.3	-245.7	355.8	0.00	0.00	0.00
10,200.0	90.00	359.61	9,605.0	442.3	-246.4	455.7	0.00	0.00	0.00
10,300.0	90.00	359.61	9,605.0	542.3	-247.0	555.6	0.00	0.00	0.00
10,400.0	90.00	359.61	9,605.0	642.3	-247.7	655.5	0.00	0.00	0.00
10,500.0	90.00	359.61	9,605.0	742.3	-248.4	755.3	0.00	0.00	0.00
10,600.0	90.00	359.61	9,605.0	842.3	-249.1	855.2	0.00	0.00	0.00
10,700.0	90.00	359.61	9,605.0	942.3	-249.8	955.1	0.00	0.00	0.00
10,800.0	90.00	359.61	9,605.0	1,042.3	-250.4	1,054.9	0.00	0.00	0.00
10,900.0	90.00	359.61	9,605.0	1,142.3	-251.1	1,154.8	0.00	0.00	0.00
11,000.0	90.00	359.61	9,605.0	1,242.3	-251.8	1,254.7	0.00	0.00	0.00
11,100.0	90.00	359.61	9,605.0	1,342.3	-252.5	1,354.6	0.00	0.00	0.00
11,200.0	90.00	359.61	9,605.0	1,442.2	-253.2	1,454.4	0.00	0.00	0.00
11,300.0	90.00	359.61	9,605.0	1,542.2	-253.9	1,554.3	0.00	0.00	0.00
11,400.0	90.00	359.61	9,605.0	1,642.2	-254.5	1,654.2	0.00	0.00	0.00
11,500.0	90.00	359.61	9,605.0	1,742.2	-255.2	1,754.0	0.00	0.00	0.00
11,600.0	90.00	359.61	9,605.0	1,842.2	-255.9	1,853.9	0.00	0.00	0.00
11,700.0	90.00	359.61	9,605.0	1,942.2	-256.6	1,953.8	0.00	0.00	0.00
11,800.0	90.00	359.61	9,605.0	2,042.2	-257.3	2,053.7	0.00	0.00	0.00
11,900.0	90.00	359.61	9,605.0	2,142.2	-258.0	2,153.5	0.00	0.00	0.00
12,000.0	90.00	359.61	9,605.0	2,242.2	-258.6	2,253.4	0.00	0.00	0.00
12,100.0	90.00	359.61	9,605.0	2,342.2	-259.3	2,353.3	0.00	0.00	0.00
12,200.0	90.00	359.61	9,605.0	2,442.2	-260.0	2,453.1	0.00	0.00	0.00
12,300.0	90.00	359.61	9,605.0	2,542.2	-260.7	2,553.0	0.00	0.00	0.00
12,400.0	90.00	359.61	9,605.0	2,642.2	-261.4	2,652.9	0.00	0.00	0.00
12,500.0	90.00	359.61	9,605.0	2,742.2	-262.0	2,752.8	0.00	0.00	0.00
12,600.0	90.00	359.61	9,605.0	2,842.2	-262.7	2,852.6	0.00	0.00	0.00
12,700.0	90.00	359.61	9,605.0	2,942.2	-263.4	2,952.5	0.00	0.00	0.00
12,800.0	90.00	359.61	9,605.0	3,042.2	-264.1	3,052.4	0.00	0.00	0.00
12,900.0	90.00	359.61	9,605.0	3,142.2	-264.8	3,152.2	0.00	0.00	0.00
13,000.0	90.00	359.61	9,605.0	3,242.2	-265.5	3,252.1	0.00	0.00	0.00
13,100.0	90.00	359.61	9,605.0	3,342.2	-266.1	3,352.0	0.00	0.00	0.00
13,200.0	90.00	359.61	9,605.0	3,442.2	-266.8	3,451.9	0.00	0.00	0.00
13,300.0	90.00	359.61	9,605.0	3,542.2	-267.5	3,551.7	0.00	0.00	0.00
13,400.0	90.00	359.61	9,605.0	3,642.2	-268.2	3,651.6	0.00	0.00	0.00



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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)
13,500.0	90.00	359.61	9,605.0	3,742.2	-268.9	3,751.5	0.00	0.00	0.00
13,600.0	90.00	359.61	9,605.0	3,842.2	-269.5	3,851.3	0.00	0.00	0.00
13,700.0	90.00	359.61	9,605.0	3,942.2	-270.2	3,951.2	0.00	0.00	0.00
13,800.0	90.00	359.61	9,605.0	4,042.2	-270.9	4,051.1	0.00	0.00	0.00
13,900.0	90.00	359.61	9,605.0	4,142.2	-271.6	4,151.0	0.00	0.00	0.00
14,000.0	90.00	359.61	9,605.0	4,242.2	-272.3	4,250.8	0.00	0.00	0.00
14,100.0	90.00	359.61	9,605.0	4,342.2	-273.0	4,350.7	0.00	0.00	0.00
14,200.0	90.00	359.61	9,605.0	4,442.2	-273.6	4,450.6	0.00	0.00	0.00
14,300.0	90.00	359.61	9,605.0	4,542.2	-274.3	4,550.4	0.00	0.00	0.00
14,400.0	90.00	359.61	9,605.0	4,642.2	-275.0	4,650.3	0.00	0.00	0.00
14,500.0	90.00	359.61	9,605.0	4,742.2	-275.7	4,750.2	0.00	0.00	0.00
14,545.8	90.00	359.61	9,605.0	4,788.0	-276.0	4,795.9	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KOP(Hemlock 32 State #1 - plan hits target center - Point	0.00	0.00	9,127.5	-343.0	-241.0	456,948.00	768,794.00	32° 15' 14.698 N	103° 35' 51.169 W
PBHL(Hemlock 32 State #1 - plan hits target center - Point	0.00	0.00	9,605.0	4,788.0	-276.0	462,079.00	768,759.00	32° 16' 5.472 N	103° 35' 51.167 W
FTP(Hemlock 32 State #1 - plan misses target center by 163.4usft at 9545.6usft MD (9484.6 TVD, -182.5 N, -242.1 E) - Point	0.00	0.00	9,605.0	-293.0	-241.0	456,998.00	768,794.00	32° 15' 15.192 N	103° 35' 51.165 W



Lea County, NM (NAD 83 NME)

Hemlock 32 State #203H

Plan #0.1

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

To convert a Magnetic Direction to a Grid Direction, Add 8.25°
To convert a Magnetic Direction to a True Direction, Add 8.69° East
To convert a True Direction to a Grid Direction, Subtract 0.39°

WELL DETAILS: #203H

KB = 25 @ 3691.0usft 3696.0
Northing 457291.00 Easting 769033.00 Latitude 32° 15' 18.076 N Longitude 103° 35' 48.333 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VFace	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	1602.8	4.06	215.09	1602.6	-5.9	-4.1	2.00	215.09	-5.6	
4	7326.9	4.06	215.09	7312.4	-337.1	-236.9	0.00	0.00	-322.9	
5	7529.7	0.00	0.00	7515.0	-343.0	-241.0	2.00	180.00	-328.6	
6	9142.2	0.00	0.00	9127.5	-343.0	-241.0	0.00	0.00	-328.6	KOP(Hemlock 32 State #203H)
7	9892.2	90.00	359.61	9605.0	134.5	-244.3	12.00	359.61	148.3	PBHL(Hemlock 32 State #203H)
8	14545.8	90.00	359.61	9605.0	4788.0	-276.0	0.00	0.00	4795.9	

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting
KOP(Hemlock 32 State #203H)	9127.5	-343.0	-241.0	456348.00	768794.00
PBHL(Hemlock 32 State #203H)	9605.0	4788.0	-276.0	456378.00	768794.00
FTP(Hemlock 32 State #203H)	9605.0	-293.0	-241.0	456393.00	768794.00

Vertical Section of 356.70° (200 units)

West-Offset (+) (200 units)

Geog resources
11-2000-11-2000