



EOG Resources - Midland

Eddy County, NM (NAD 83 NME)

Thriller BWL Federal

#1H

OH

30-015-43909

Design: OH

PVA

08 March, 2017

NM OIL CONSERVATION
ARTESIA DISTRICT
MAY 07 2017
RECEIVED



EOG Resources, Inc.

PVA

Company: EOG Resources - Midland
 Project: Eddy County, NM (NAD 83 NME)
 Site: Thriller BWL Federal
 Well: #1H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #1H
 TVD Reference: KB = 25' @ 2991.0usft (Noram #30)
 MD Reference: KB = 25' @ 2991.0usft (Noram #30)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.1 Single User Db

Project Eddy County, NM (NAD 83 NME)

Map System: US State Plane 1983
Geo Datum: North American Datum 1983
Map Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

Site Thriller BWL Federal

Site Position:	Northing:	398,277.70 usft	Latitude:	32° 5' 40.380 N
From: Map	Easting:	639,269.20 usft	Longitude:	104° 1' 1.518 W
Position Uncertainty: 0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.17 °

Well #1H

Well Position	+N/-S	0.0 usft	Northing:	398,277.70 usft	Latitude:	32° 5' 40.380 N
	+E/-W	0.0 usft	Easting:	639,269.20 usft	Longitude:	104° 1' 1.518 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	2,966.0 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	2/9/2017	7.19	59.88	47,853

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	2.89

Survey Program **Date** 3/8/2017

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
146.0	13,361.0	Leam MWD #1 (OH)	MWD	MWD - Standard



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0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.0	0.0	
146.0	0.40	302.70	146.0	0.3	-0.4	0.27	0.27	0.00	-0.5	0.0	
273.0	1.80	193.50	273.0	-1.4	-1.3	1.55	1.10	-85.98	-1.7	-0.9	
416.0	2.60	180.70	415.9	-6.9	-1.8	0.65	0.56	-8.95	-6.9	-1.7	
605.0	2.60	193.00	604.7	-15.3	-2.8	0.29	0.00	6.51	-15.6	0.7	
790.0	4.00	158.20	789.4	-25.4	-1.4	1.29	0.76	-18.81	-23.1	-10.7	
975.0	4.70	133.20	973.9	-36.6	6.5	1.08	0.38	-13.51	-29.5	-22.3	
1,160.0	4.70	125.10	1,158.2	-46.1	18.3	0.36	0.00	-4.38	-37.9	-27.0	
1,345.0	4.70	125.10	1,342.6	-54.8	30.7	0.00	0.00	0.00	-46.3	-26.5	
1,532.0	4.90	126.60	1,529.0	-64.0	43.3	0.13	0.11	0.80	-52.1	-24.6	
1,719.0	5.20	125.30	1,715.2	-73.7	56.7	0.17	0.16	-0.70	-54.1	-25.0	
1,907.0	5.60	121.30	1,902.4	-83.4	71.5	0.29	0.21	-2.13	-55.3	-27.2	
2,095.0	4.20	120.40	2,089.7	-91.6	85.2	0.75	-0.74	-0.48	-56.4	-26.0	
2,283.0	6.20	119.00	2,276.9	-100.0	100.0	1.07	1.06	-0.74	-58.3	-24.9	
2,471.0	6.20	126.20	2,463.8	-110.9	117.1	0.41	0.00	3.83	-66.4	-15.3	
2,659.0	6.60	125.70	2,650.7	-123.2	134.1	0.21	0.21	-0.27	-72.6	-15.1	
2,783.0	4.20	132.90	2,774.1	-130.5	143.2	2.01	-1.94	5.81	-75.8	-5.6	
2,943.0	4.60	128.50	2,933.6	-138.5	152.5	0.33	0.25	-2.75	-74.9	-11.7	
3,130.0	4.00	125.10	3,120.1	-146.9	163.7	0.35	-0.32	-1.82	-73.4	-15.5	
3,318.0	5.50	118.60	3,307.5	-155.0	177.0	0.85	0.80	-3.46	-72.2	-21.7	
3,506.0	4.80	116.00	3,494.7	-162.7	192.0	0.39	-0.37	-1.38	-73.7	-21.9	
3,693.0	5.30	112.80	3,681.0	-169.5	207.0	0.31	0.27	-1.71	-74.8	-22.3	
3,881.0	5.70	118.10	3,868.1	-177.3	223.2	0.34	0.21	2.82	-80.0	-11.7	
4,069.0	5.60	115.70	4,055.2	-185.6	239.7	0.14	-0.05	-1.28	-83.6	-11.9	
4,257.0	5.50	128.50	4,242.3	-195.2	255.0	0.66	-0.05	6.81	-87.4	9.1	
4,444.0	4.70	125.00	4,428.6	-205.2	268.3	0.46	-0.43	-1.87	-89.8	4.3	
4,632.0	5.30	141.50	4,615.9	-216.4	280.0	0.83	0.32	8.78	-86.6	28.6	



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Survey											
MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
4.819.0	4.90	140.10	4.802.1	-229.3	290.5	0.22	-0.21	-0.75	-89.5	23.5	
5.007.0	4.80	143.80	4.989.5	-241.8	300.3	0.17	-0.05	1.97	-89.4	26.0	
5.195.0	4.50	145.50	5.176.8	-254.2	309.1	0.18	-0.16	0.90	-89.7	24.8	
5.383.0	2.30	138.20	5.364.5	-263.1	315.8	1.19	-1.17	-3.88	-88.6	10.0	
5.571.0	2.00	138.50	5.552.4	-268.4	320.5	0.16	-0.16	0.16	-81.0	8.1	
5.757.0	1.40	125.50	5.738.3	-272.1	324.5	0.38	-0.32	-6.99	-71.7	-10.0	
5.945.0	0.90	356.10	5.926.3	-272.0	326.3	1.11	-0.27	-68.83	43.1	-40.0	
6.133.0	0.70	84.00	6.114.3	-270.4	327.3	0.60	-0.11	46.76	-29.2	-32.6	
6.321.0	0.80	94.60	6.302.2	-270.4	329.8	0.09	0.05	5.64	-25.1	-18.1	
6.509.0	0.60	121.30	6.490.2	-271.0	331.9	0.20	-0.11	14.20	-18.1	-2.3	
6.696.0	0.50	266.10	6.677.2	-271.6	332.0	0.56	-0.05	77.43	3.8	3.8	
6.883.0	0.90	252.40	6.864.2	-272.1	329.7	0.23	0.21	-7.33	-3.6	-1.9	
7.071.0	1.20	270.50	7.052.2	-272.5	326.4	0.24	0.16	9.63	-8.6	-1.2	
7.259.0	0.50	281.90	7.240.2	-272.3	323.6	0.38	-0.37	6.06	-11.5	0.9	
7.447.0	2.50	256.60	7.428.1	-273.1	318.8	1.10	1.06	-13.46	-15.6	-4.5	
7.546.0	1.30	263.70	7.527.0	-273.7	315.6	1.23	-1.21	7.17	-19.3	-2.2	
7.639.0	0.90	258.20	7.620.0	-274.0	313.8	0.44	-0.43	-5.91	-20.8	-4.2	
7.733.0	1.10	103.20	7.714.0	-274.3	314.0	2.08	0.21	-164.89	20.3	-5.3	
7.827.0	1.30	91.60	7.808.0	-274.6	315.9	0.33	0.21	-12.34	19.0	-1.3	
7.921.0	1.20	84.90	7.902.0	-274.5	318.0	0.19	-0.11	-7.13	17.0	0.8	
7.968.0	3.00	12.50	7.948.9	-273.3	318.7	6.12	3.83	-154.04	3.0	16.0	
8.015.0	6.90	5.80	7.995.7	-269.3	319.3	8.37	8.30	-14.26	-2.9	16.1	
8.062.0	10.20	5.30	8.042.2	-262.3	320.0	7.02	7.02	-1.06	-10.0	16.1	
8.109.0	11.70	10.20	8.088.4	-253.5	321.2	3.75	3.19	10.43	-15.3	16.8	
8.156.0	15.00	3.50	8.134.1	-242.7	322.4	7.74	7.02	-14.26	-21.0	13.7	
8.203.0	19.80	357.50	8.178.9	-228.7	322.4	10.89	10.21	-12.77	-24.6	11.2	
8.250.0	25.50	350.50	8.222.3	-210.7	320.4	13.40	12.13	-14.89	-27.6	9.8	



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8,297.0	29.70	354.70	8,263.9	-189.1	317.7	9.84	8.94	8.94	-27.8	14.0	
8,344.0	35.40	355.10	8,303.5	-164.0	315.4	12.14	12.13	0.85	-27.8	16.1	
8,390.0	41.40	354.90	8,339.6	-135.5	312.9	13.05	13.04	-0.43	-27.9	18.1	
8,437.0	47.20	357.70	8,373.2	-102.8	310.8	13.02	12.34	5.96	-27.2	20.6	
8,484.0	53.40	359.30	8,403.2	-66.6	309.9	13.45	13.19	3.40	-26.9	21.4	
8,531.0	60.90	359.30	8,428.7	-27.2	309.4	15.96	15.96	0.00	-27.7	21.1	
8,578.0	65.80	359.50	8,449.8	14.8	309.0	10.43	10.43	0.43	-28.6	20.8	
8,625.0	71.80	359.10	8,466.8	58.6	308.5	12.79	12.77	-0.85	-29.2	20.4	
8,672.0	77.20	359.10	8,479.3	103.9	307.8	11.49	11.49	0.00	-29.5	20.3	
8,719.0	82.10	0.20	8,487.7	150.1	307.5	10.68	10.43	2.34	-29.0	19.8	
8,765.0	87.10	0.90	8,492.1	195.9	307.9	10.97	10.87	1.52	-27.8	18.5	
8,859.0	91.00	0.30	8,493.6	289.8	308.9	4.20	4.15	-0.64	-26.6	15.7	
8,907.0	91.30	0.50	8,492.7	337.8	309.2	0.75	0.62	0.42	-27.6	14.5	
9,001.0	91.20	0.30	8,490.6	431.8	309.9	0.24	-0.11	-0.21	-29.9	12.1	
9,095.0	90.70	359.50	8,489.1	525.8	309.7	1.00	-0.53	-0.85	-31.7	10.6	
9,189.0	88.80	359.60	8,489.5	619.8	309.0	2.02	-2.02	0.11	-31.6	9.6	
9,283.0	90.70	0.30	8,489.9	713.8	308.9	2.15	2.02	0.74	-31.4	7.9	
9,376.0	91.80	1.60	8,487.9	806.7	310.5	1.83	1.18	1.40	-33.7	4.7	
9,470.0	90.20	0.90	8,486.2	900.7	312.5	1.86	-1.70	-0.74	-35.6	0.9	
9,564.0	90.90	0.70	8,485.3	994.7	313.8	0.77	0.74	-0.21	-36.7	-2.1	
9,658.0	90.00	0.20	8,484.6	1,088.7	314.6	1.10	-0.96	-0.53	-37.7	-4.6	
9,751.0	89.60	1.20	8,484.9	1,181.6	315.7	1.16	-0.43	1.08	-37.6	-7.4	
9,845.0	88.10	0.90	8,486.8	1,275.6	317.4	1.63	-1.60	-0.32	-35.9	-10.9	
9,939.0	89.30	1.90	8,488.9	1,369.6	319.7	1.66	1.28	1.06	-34.0	-14.9	
10,033.0	87.70	0.70	8,491.4	1,463.5	321.8	2.13	-1.70	-1.28	-31.8	-18.8	
10,127.0	88.50	0.20	8,494.5	1,557.4	322.6	1.00	0.85	-0.53	-28.9	-21.2	
10,205.0	89.50	358.90	8,495.9	1,635.4	322.0	2.10	1.28	-1.67	-27.7	-22.0	



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10,299.0	89.80	357.70	8,496.4	1,729.4	319.2	1.32	0.32	-1.28	-27.4	-21.0
10,393.0	91.30	358.20	8,495.5	1,823.3	315.8	1.68	1.60	0.53	-28.5	-19.3
10,486.0	91.90	357.20	8,492.9	1,916.2	312.1	1.25	0.65	-1.08	-31.3	-17.3
10,580.0	91.80	357.50	8,489.9	2,010.0	307.7	0.34	-0.11	0.32	-34.6	-14.7
10,674.0	91.00	358.60	8,487.6	2,104.0	304.5	1.45	-0.85	1.17	-37.1	-13.2
10,768.0	88.90	357.90	8,487.7	2,197.9	301.7	2.35	-2.23	-0.74	-37.2	-12.1
10,862.0	88.30	358.20	8,490.0	2,291.8	298.5	0.71	-0.64	0.32	-35.1	-10.6
10,956.0	88.90	359.10	8,492.3	2,385.8	296.3	1.15	0.64	0.96	-33.0	-10.1
11,049.0	89.80	358.40	8,493.3	2,478.7	294.2	1.23	0.97	-0.75	-32.1	-9.8
11,143.0	90.70	359.30	8,492.9	2,572.7	292.3	1.35	0.96	0.96	-32.6	-9.6
11,237.0	88.70	357.00	8,493.4	2,666.7	289.3	3.24	-2.13	-2.45	-32.3	-8.3
11,331.0	89.00	357.20	8,495.3	2,760.5	284.6	0.38	0.32	0.21	-30.5	-5.3
11,425.0	90.30	358.80	8,495.9	2,854.5	281.3	2.19	1.38	1.70	-30.1	-3.7
11,518.0	90.00	358.40	8,495.6	2,947.4	279.0	0.54	-0.32	-0.43	-30.5	-3.1
11,612.0	91.50	0.00	8,494.4	3,041.4	277.7	2.33	1.60	1.70	-31.9	-3.5
11,706.0	89.60	358.80	8,493.5	3,135.4	276.7	2.39	-2.02	-1.28	-32.9	-4.3
11,800.0	88.20	0.30	8,495.3	3,229.4	276.0	2.18	-1.49	1.60	-31.3	-5.3
11,894.0	89.50	2.80	8,497.2	3,323.3	278.5	3.00	1.38	2.66	-29.6	-9.5
11,988.0	88.50	0.30	8,498.8	3,417.2	281.1	2.86	-1.06	-2.66	-28.1	-13.8
12,081.0	88.90	0.50	8,500.9	3,510.2	281.7	0.48	0.43	0.22	-26.1	-16.1
12,175.0	89.20	358.90	8,502.5	3,604.2	281.2	1.73	0.32	-1.70	-24.7	-17.4
12,269.0	89.10	357.50	8,503.9	3,698.1	278.3	1.49	-0.11	-1.49	-23.4	-16.1
12,363.0	89.70	357.40	8,504.9	3,792.0	274.1	0.65	0.64	-0.11	-22.6	-13.7
12,456.0	88.80	355.40	8,506.1	3,884.8	268.2	2.36	-0.97	-2.15	-21.5	-9.5
12,550.0	90.30	355.90	8,506.8	3,978.6	261.1	1.68	1.60	0.53	-20.9	-4.1
12,644.0	91.10	355.80	8,505.7	4,072.3	254.3	0.86	0.85	-0.11	-22.2	0.9
12,738.0	90.70	357.40	8,504.2	4,166.1	248.7	1.75	-0.43	1.70	-23.9	4.8



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12,832.0	91.40	357.20	8,502.5	4,260.0	244.3	0.77	0.74	-0.21	-25.7	7.5
12,926.0	90.00	358.20	8,501.3	4,353.9	240.5	1.83	-1.49	1.06	-27.0	9.6
13,019.0	88.20	356.60	8,502.8	4,446.8	236.3	2.59	-1.94	-1.72	-25.7	12.1
13,113.0	89.40	358.90	8,504.8	4,540.7	232.6	2.76	1.28	2.45	-23.9	14.0
13,207.0	89.00	356.80	8,506.1	4,634.6	229.1	2.27	-0.43	-2.23	-22.8	15.8
13,300.0	89.30	355.80	8,507.5	4,727.4	223.1	1.12	0.32	-1.08	-21.5	20.1
Last MWD Survey										
13,361.0	89.30	355.80	8,508.2	4,788.3	218.6	0.00	0.00	0.00	-20.8	23.5
Projection To Bit										

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
13,300.0	8,507.5	4,727.4	223.1	Last MWD Survey
13,361.0	8,508.2	4,788.3	218.6	Projection To Bit

Checked By: _____ Approved By: _____ Date: _____

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit Original
to Appropriate
District Office

**NM OIL CONSERVATION
ARTESIA DISTRICT**

AUG 13 2018

GAS CAPTURE PLAN

Date: 8/13/18

RECEIVED

☒ Original

Operator & OGRID No.: Percussion Petroleum Operating LLC, 371755

☐ Amended - Reason for Amendment: _____

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Morris Boyd State Com #6B	30-015-44867	N-23-19S-25E	550 FSL 2610 FWL	800	Flared	Will flare until gathering line is constructed
Morris Boyd 26 Fee Com #7H	30-015-44879	N-23-19S-25E	550 FSL 2630 FWL	800	Flared	Will flare until gathering line is constructed

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to Gas Transporter and will be connected to Gas Transporter low/high pressure gathering system located in Eddy County, New Mexico. It will require 21,000' of pipeline to connect the facility to low/high pressure gathering system. Operator provides (periodically) to Gas Transporter a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Operator and Gas Transporter have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Gas Transporter Processing Plant located in Sec. 26, Twn. 18S, Rng. 25E, Eddy County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on Gas Transporter system at that time. Based on current information, it is Operator's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
 - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
 - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
 - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines