

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NMNM136223
2. Name of Operator COG OPERATING LLC		6. If Indian, Allottee or Tribe Name
Contact: MAYTE X REYES E-Mail: mreyes1@concho.com		7. If Unit or CA/Agreement, Name and/or No.
3a. Address ONE CONCHO CENTER 600 W ILLINOIS AVENUE MIDLAND, TX 79701-4287	3b. Phone No. (include area code) Ph: 575-748-6945	8. Well Name and No. PITCHBLEND FED 19-30 208H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 19 T25S R35E 450FNL 660FEL 32.121914 N Lat, 103.400223 W Lon		9. API Well No. 30-025-45656-00-X1
		10. Field and Pool or Exploratory Area WILDCAT; WOLFCAMP
		11. County or Parish, State LEA COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original APD
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomple horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recomple in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

COG Operating respectfully requests approval for the following changes to the originally approved APD.

BHL Change
From: 2539' FNL & 330' FEL Section 30. T25S. R35E.
To: 2590' FNL & 750' FEL Section 30. T25S. R35E.

C102 attached.

Directional plan attached.
AC report attached.

All previous Conditions of Approval still apply. DR

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #498693 verified by the BLM Well Information System
For COG OPERATING LLC, sent to the Hobbs
Committed to AFMSS for processing by PRISCILLA PEREZ on 01/13/2020 (20PP0931SE)

Name (Printed/Typed) MAYTE X REYES	Title SENIOR REGULATORY ANALYST
Signature (Electronic Submission)	Date 01/09/2020

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <u>DYLAN ROSSMANGO</u>	Title <u>PETROLEUM ENGINEER</u>	Date <u>01/16/2020</u>
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		
Office Hobbs		

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.

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

Concho Resources LLC

Anticollision Report

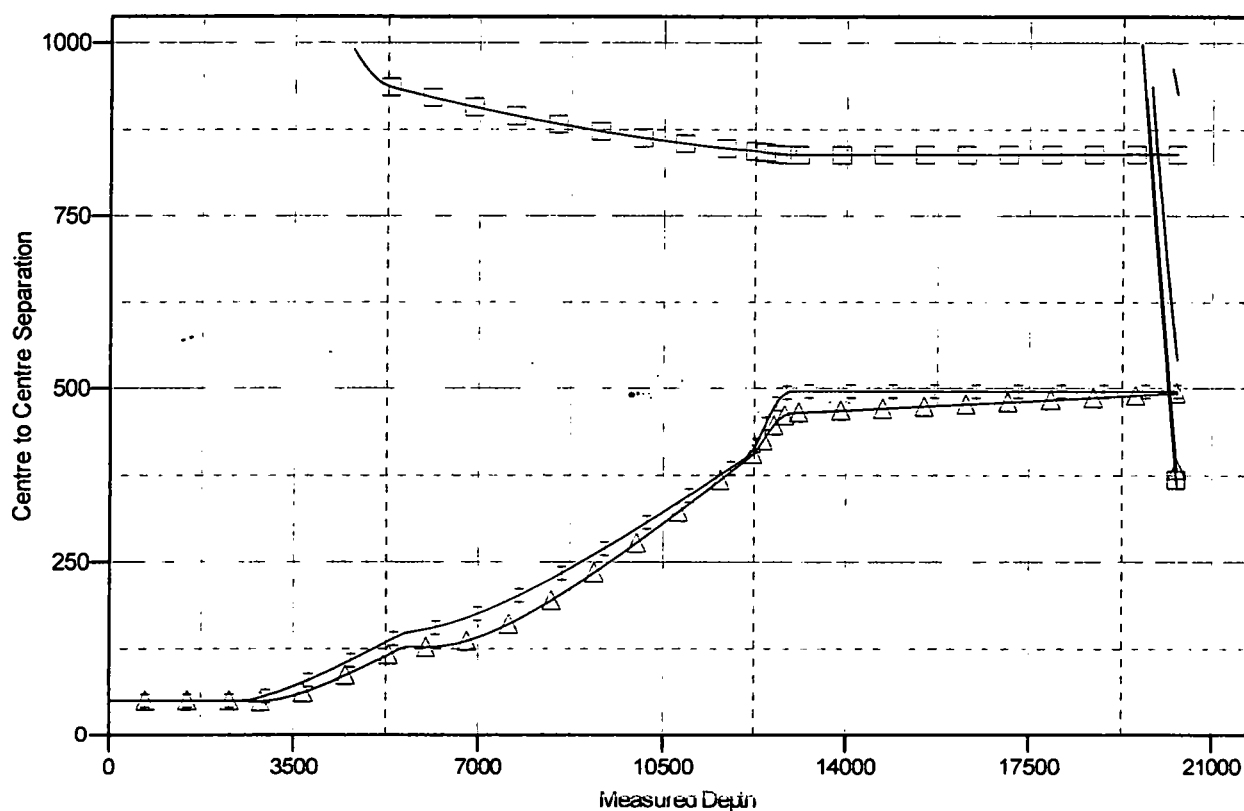
Company: NORTHERN DELAWARE BASIN
 Project: LEA COUNTY, NM
 Reference Site: BULLDOG
 Site Error: 0.0 usft
 Reference Well: PITCHBLENDE FEDERAL 19-30 208H
 Well Error: 3.0 usft
 Reference Wellbore: OWB
 Reference Design: PWP1

Local Co-ordinate Reference: Well PITCHBLENDE FEDERAL 19-30 208H
 TVD Reference: KB=26' @ 3357.0usft (MCVAY 8)
 MD Reference: KB=26' @ 3357.0usft (MCVAY 8)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: edm
 Offset TVD Reference: Offset Datum

Reference Depths are relative to KB=26' @ 3357.0usft (MCVAY 8)
 Offset Depths are relative to Offset Datum
 Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: PITCHBLENDE FEDERAL 19-30 208H
 Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
 Grid Convergence at Surface is: 0.50°

Ladder Plot



LEGEND

PITCHBLENDE FEDERAL 19-30 208H, OWB, PWP1 V0
 PITCHBLENDE FEDERAL 19-30 208H, OWB, PWP1 V0
 PITCHBLENDE FEDERAL 19-30 457H, OWB, NABORS #1 V0
 SQUARE WELL FEDCOM #1H, OWB, ACTUAL WELLPATH V0
 SQUARE WELL FEDCOM #2TY, OWB, ACTUAL WELLPATH V0
 SQUARE WELL FEDCOM #2H, OWB, ACTUAL WELLPATH V0
 SQUARE WELL FEDCOM #2H, STOI, STOI-ACTUAL WELLPATH V0

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Concho Resources LLC

Anticollision Report

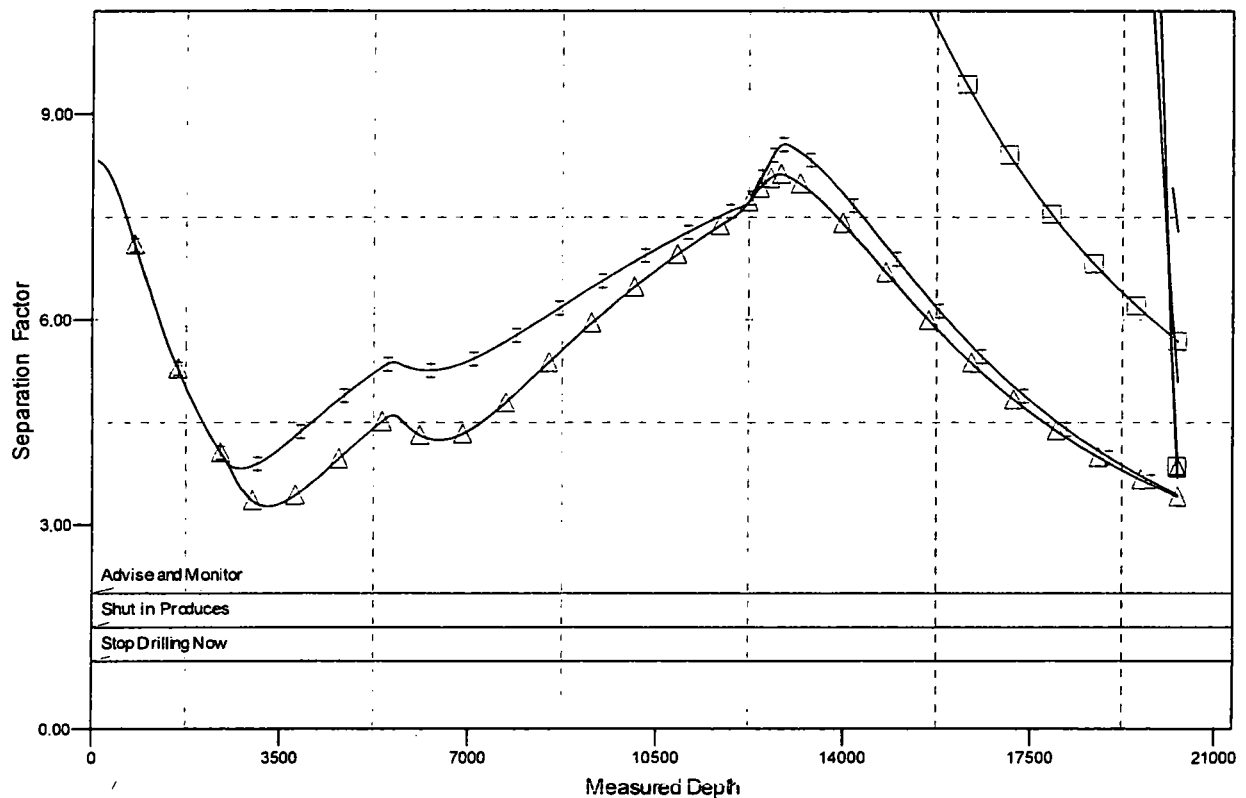
Company: NORTHERN DELAWARE BASIN
Project: LEA COUNTY, NM
Reference Site: BULLDOG
Site Error: 0.0 usft
Reference Well: PITCHBLEND FEDERAL 19-30 208H
Well Error: 3.0 usft
Reference Wellbore: OWB
Reference Design: PWP1

Local Co-ordinate Reference: Well PITCHBLEND FEDERAL 19-30 208H
TVD Reference: KB=26' @ 3357.0usft (MCVAY 8)
MD Reference: KB=26' @ 3357.0usft (MCVAY 8)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: edm
Offset TVD Reference: Offset Datum

Reference Depths are relative to KB=26' @ 3357.0usft (MCVAY 8)
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: PITCHBLEND FEDERAL 19-30 208H
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Grid Convergence at Surface is: 0.50°

Separation Factor Plot



LEGEND

PITCHBLEND FEDERAL 19-30 208H, OWB, PWP1 V0
PITCHBLEND FEDERAL 19-30 208H, OWB, PWP1 V0
PITCHBLEND FEDERAL 19-30 208H, OWB, HARBOR 19 V0

SQUARE BLUFF FEDERAL 19-30 208H, OWB, ACTUAL WELLPATH V0
SQUARE BLUFF FEDERAL 19-30 208H, OWB, ACTUAL WELLPATH V0
SQUARE BLUFF FEDERAL 19-30 208H, OWB, ACTUAL WELLPATH V0

SQUARE BLUFF FEDERAL 19-30 208H, STOI, 8101, ACTUAL WELLPATH V0

NORTHERN DELAWARE BASIN

LEA COUNTY, NM

BULLDOG

PITCHBLEND FEDERAL 19-30 208H

OWB

Plan: PWP1

Standard Survey Report

08 January, 2020

Concho Resources LLC

Survey Report

Company: NORTHERN DELAWARE BASIN
Project: LEA COUNTY, NM
Site: BULLDOG
Well: PITCHBLEND FEDERAL 19-30 208H
Wellbore: OWB
Design: PWP1

Local Co-ordinate Reference: Well PITCHBLEND FEDERAL 19-30 208H
TVD Reference: KB=26' @ 3357.0usft (MCVAY 8)
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North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: edm

Project	LEA COUNTY, NM		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Well: PITCHBLEND FEDERAL 19-30 208H

Well Position	+N-S	0.0 usft	Northing:	409,281.10 usft	Latitude:	32° 7' 18.437 N
	+E-W	0.0 usft	Easting:	789,024.90 usft	Longitude:	103° 23' 59.139 W
Position Uncertainty		3.0 usft	Wellhead Elevation:	usft	Ground Level:	3,331.0 usft

Wellbore: OWB

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	1/6/2020	6.59	59.96	47,633.25123307

Design: PWP1

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	180.15

Survey Tool Program Date 1/8/2020

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	12,099.0	PWP1 (OWB)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4
12,099.0	20,313.3	PWP1 (OWB)	MWD+IFR1+FDIR	OWSG MWD + IFR1 + FDIR Correction

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

Concho Resources LLC

Survey Report

Company: NORTHERN DELAWARE BASIN
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Site: BULLDOG
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Wellbore: OWB
Design: PWP1

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MD Reference: KB=26' @ 3357.0usft (MCVAY 8)
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Survey Calculation Method: Minimum Curvature
Database: edm

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)
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 2.00									
2,600.0	2.00	347.32	2,600.0	1.7	-0.4	-1.7	2.00	2.00	0.00
2,621.9	2.44	347.32	2,621.9	2.5	-0.6	-2.5	2.00	2.00	0.00
Start 9576.5 hold at 2621.9 MD									
2,700.0	2.44	347.32	2,699.9	5.8	-1.3	-5.8	0.00	0.00	0.00
2,800.0	2.44	347.32	2,799.8	9.9	-2.2	-9.9	0.00	0.00	0.00
2,900.0	2.44	347.32	2,899.7	14.1	-3.2	-14.1	0.00	0.00	0.00
3,000.0	2.44	347.32	2,999.6	18.2	-4.1	-18.2	0.00	0.00	0.00
3,100.0	2.44	347.32	3,099.5	22.4	-5.0	-22.4	0.00	0.00	0.00
3,200.0	2.44	347.32	3,199.4	26.5	-6.0	-26.5	0.00	0.00	0.00
3,300.0	2.44	347.32	3,299.3	30.7	-6.9	-30.7	0.00	0.00	0.00
3,400.0	2.44	347.32	3,399.3	34.8	-7.8	-34.8	0.00	0.00	0.00
3,500.0	2.44	347.32	3,499.2	39.0	-8.8	-39.0	0.00	0.00	0.00
3,600.0	2.44	347.32	3,599.1	43.1	-9.7	-43.1	0.00	0.00	0.00
3,700.0	2.44	347.32	3,699.0	47.3	-10.6	-47.2	0.00	0.00	0.00
3,800.0	2.44	347.32	3,798.9	51.4	-11.6	-51.4	0.00	0.00	0.00
3,900.0	2.44	347.32	3,898.8	55.6	-12.5	-55.5	0.00	0.00	0.00
4,000.0	2.44	347.32	3,998.7	59.7	-13.4	-59.7	0.00	0.00	0.00
4,100.0	2.44	347.32	4,098.6	63.9	-14.4	-63.8	0.00	0.00	0.00
4,200.0	2.44	347.32	4,198.5	68.0	-15.3	-68.0	0.00	0.00	0.00
4,300.0	2.44	347.32	4,298.4	72.2	-16.2	-72.1	0.00	0.00	0.00
4,400.0	2.44	347.32	4,398.4	76.3	-17.2	-76.3	0.00	0.00	0.00
4,500.0	2.44	347.32	4,498.3	80.5	-18.1	-80.4	0.00	0.00	0.00
4,600.0	2.44	347.32	4,598.2	84.6	-19.0	-84.6	0.00	0.00	0.00
4,700.0	2.44	347.32	4,698.1	88.8	-20.0	-88.7	0.00	0.00	0.00
4,800.0	2.44	347.32	4,798.0	92.9	-20.9	-92.9	0.00	0.00	0.00
4,900.0	2.44	347.32	4,897.9	97.1	-21.8	-97.0	0.00	0.00	0.00
5,000.0	2.44	347.32	4,997.8	101.2	-22.8	-101.2	0.00	0.00	0.00
5,100.0	2.44	347.32	5,097.7	105.4	-23.7	-105.3	0.00	0.00	0.00
5,200.0	2.44	347.32	5,197.6	109.5	-24.6	-109.5	0.00	0.00	0.00
5,300.0	2.44	347.32	5,297.5	113.7	-25.6	-113.6	0.00	0.00	0.00
5,400.0	2.44	347.32	5,397.4	117.8	-26.5	-117.8	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company: NORTHERN DELAWARE BASIN
 Project: LEA COUNTY, NM
 Site: BULLDOG
 Well: PITCHBLEND FEDERAL 19-30 208H
 Wellbore: OWB
 Design: PWP1

Local Co-ordinate Reference: Well PITCHBLEND FEDERAL 19-30 208H
 TVD Reference: KB=26' @ 3357.0usft (MCVAY 8)
 MD Reference: KB=26' @ 3357.0usft (MCVAY 8)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: edm

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)
5,500.0	2.44	347.32	5,497.4	122.0	-27.4	-121.9	0.00	0.00	0.00
5,600.0	2.44	347.32	5,597.3	126.1	-28.4	-126.1	0.00	0.00	0.00
5,700.0	2.44	347.32	5,697.2	130.3	-29.3	-130.2	0.00	0.00	0.00
5,800.0	2.44	347.32	5,797.1	134.4	-30.2	-134.4	0.00	0.00	0.00
5,900.0	2.44	347.32	5,897.0	138.6	-31.2	-138.5	0.00	0.00	0.00
6,000.0	2.44	347.32	5,996.9	142.7	-32.1	-142.7	0.00	0.00	0.00
6,100.0	2.44	347.32	6,096.8	146.9	-33.0	-146.8	0.00	0.00	0.00
6,200.0	2.44	347.32	6,196.7	151.0	-34.0	-150.9	0.00	0.00	0.00
6,300.0	2.44	347.32	6,296.6	155.2	-34.9	-155.1	0.00	0.00	0.00
6,400.0	2.44	347.32	6,396.5	159.3	-35.9	-159.2	0.00	0.00	0.00
6,500.0	2.44	347.32	6,496.5	163.5	-36.8	-163.4	0.00	0.00	0.00
6,600.0	2.44	347.32	6,596.4	167.6	-37.7	-167.5	0.00	0.00	0.00
6,700.0	2.44	347.32	6,696.3	171.8	-38.7	-171.7	0.00	0.00	0.00
6,800.0	2.44	347.32	6,796.2	175.9	-39.6	-175.8	0.00	0.00	0.00
6,900.0	2.44	347.32	6,896.1	180.1	-40.5	-180.0	0.00	0.00	0.00
7,000.0	2.44	347.32	6,996.0	184.2	-41.5	-184.1	0.00	0.00	0.00
7,100.0	2.44	347.32	7,095.9	188.4	-42.4	-188.3	0.00	0.00	0.00
7,200.0	2.44	347.32	7,195.8	192.5	-43.3	-192.4	0.00	0.00	0.00
7,300.0	2.44	347.32	7,295.7	196.7	-44.3	-196.6	0.00	0.00	0.00
7,400.0	2.44	347.32	7,395.6	200.8	-45.2	-200.7	0.00	0.00	0.00
7,500.0	2.44	347.32	7,495.5	205.0	-46.1	-204.9	0.00	0.00	0.00
7,600.0	2.44	347.32	7,595.5	209.1	-47.1	-209.0	0.00	0.00	0.00
7,700.0	2.44	347.32	7,695.4	213.3	-48.0	-213.2	0.00	0.00	0.00
7,800.0	2.44	347.32	7,795.3	217.4	-48.9	-217.3	0.00	0.00	0.00
7,900.0	2.44	347.32	7,895.2	221.6	-49.9	-221.5	0.00	0.00	0.00
8,000.0	2.44	347.32	7,995.1	225.7	-50.8	-225.6	0.00	0.00	0.00
8,100.0	2.44	347.32	8,095.0	229.9	-51.7	-229.8	0.00	0.00	0.00
8,200.0	2.44	347.32	8,194.9	234.0	-52.7	-233.9	0.00	0.00	0.00
8,300.0	2.44	347.32	8,294.8	238.2	-53.6	-238.1	0.00	0.00	0.00
8,400.0	2.44	347.32	8,394.7	242.3	-54.5	-242.2	0.00	0.00	0.00
8,500.0	2.44	347.32	8,494.6	246.5	-55.5	-246.4	0.00	0.00	0.00
8,600.0	2.44	347.32	8,594.6	250.6	-56.4	-250.5	0.00	0.00	0.00
8,700.0	2.44	347.32	8,694.5	254.8	-57.3	-254.7	0.00	0.00	0.00
8,800.0	2.44	347.32	8,794.4	259.0	-58.3	-258.8	0.00	0.00	0.00
8,900.0	2.44	347.32	8,894.3	263.1	-59.2	-262.9	0.00	0.00	0.00
9,000.0	2.44	347.32	8,994.2	267.3	-60.1	-267.1	0.00	0.00	0.00
9,100.0	2.44	347.32	9,094.1	271.4	-61.1	-271.2	0.00	0.00	0.00
9,200.0	2.44	347.32	9,194.0	275.6	-62.0	-275.4	0.00	0.00	0.00
9,300.0	2.44	347.32	9,293.9	279.7	-62.9	-279.5	0.00	0.00	0.00
9,400.0	2.44	347.32	9,393.8	283.9	-63.9	-283.7	0.00	0.00	0.00
9,500.0	2.44	347.32	9,493.7	288.0	-64.8	-287.8	0.00	0.00	0.00
9,600.0	2.44	347.32	9,593.6	292.2	-65.7	-292.0	0.00	0.00	0.00
9,700.0	2.44	347.32	9,693.6	296.3	-66.7	-296.1	0.00	0.00	0.00
9,800.0	2.44	347.32	9,793.5	300.5	-67.6	-300.3	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company: NORTHERN DELAWARE BASIN
Project: LEA COUNTY, NM
Site: BULLDOG
Well: PITCHBLEND FEDERAL 19-30 208H
Wellbore: OWB
Design: PWP1

Local Co-ordinate Reference: Well PITCHBLEND FEDERAL 19-30 208H
TVD Reference: KB=26' @ 3357.0usft (MCVAY 8)
MD Reference: KB=26' @ 3357.0usft (MCVAY 8)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: edm

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)
9,900.0	2.44	347.32	9,893.4	304.6	-68.5	-304.4	0.00	0.00	0.00
10,000.0	2.44	347.32	9,993.3	308.8	-69.5	-308.6	0.00	0.00	0.00
10,100.0	2.44	347.32	10,093.2	312.9	-70.4	-312.7	0.00	0.00	0.00
10,200.0	2.44	347.32	10,193.1	317.1	-71.3	-316.9	0.00	0.00	0.00
10,300.0	2.44	347.32	10,293.0	321.2	-72.3	-321.0	0.00	0.00	0.00
10,400.0	2.44	347.32	10,392.9	325.4	-73.2	-325.2	0.00	0.00	0.00
10,500.0	2.44	347.32	10,492.8	329.5	-74.1	-329.3	0.00	0.00	0.00
10,600.0	2.44	347.32	10,592.7	333.7	-75.1	-333.5	0.00	0.00	0.00
10,700.0	2.44	347.32	10,692.6	337.8	-76.0	-337.6	0.00	0.00	0.00
10,800.0	2.44	347.32	10,792.6	342.0	-76.9	-341.8	0.00	0.00	0.00
10,900.0	2.44	347.32	10,892.5	346.1	-77.9	-345.9	0.00	0.00	0.00
11,000.0	2.44	347.32	10,992.4	350.3	-78.8	-350.1	0.00	0.00	0.00
11,100.0	2.44	347.32	11,092.3	354.4	-79.7	-354.2	0.00	0.00	0.00
11,200.0	2.44	347.32	11,192.2	358.6	-80.7	-358.4	0.00	0.00	0.00
11,300.0	2.44	347.32	11,292.1	362.7	-81.6	-362.5	0.00	0.00	0.00
11,400.0	2.44	347.32	11,392.0	366.9	-82.5	-366.6	0.00	0.00	0.00
11,500.0	2.44	347.32	11,491.9	371.0	-83.5	-370.8	0.00	0.00	0.00
11,600.0	2.44	347.32	11,591.8	375.2	-84.4	-374.9	0.00	0.00	0.00
11,700.0	2.44	347.32	11,691.7	379.3	-85.3	-379.1	0.00	0.00	0.00
11,800.0	2.44	347.32	11,791.7	383.5	-86.3	-383.2	0.00	0.00	0.00
11,900.0	2.44	347.32	11,891.6	387.6	-87.2	-387.4	0.00	0.00	0.00
12,000.0	2.44	347.32	11,991.5	391.8	-88.1	-391.5	0.00	0.00	0.00
12,100.0	2.44	347.32	12,091.4	395.9	-89.1	-395.7	0.00	0.00	0.00
12,198.4	2.44	347.32	12,189.7	400.0	-90.0	-399.8	0.00	0.00	0.00
Start DLS 12.00 TFO -167.86									
12,200.0	2.25	346.30	12,191.3	400.1	-90.0	-399.8	12.00	-11.71	-64.21
12,300.0	9.82	182.41	12,290.9	393.4	-90.8	-393.2	12.00	7.57	-103.89
12,400.0	21.81	180.73	12,386.9	366.2	-91.4	-366.0	12.00	11.99	-1.68
12,500.0	33.81	180.21	12,475.2	319.7	-91.6	-319.4	12.00	12.00	-0.52
12,600.0	45.81	179.94	12,551.9	255.8	-91.8	-255.5	12.00	12.00	-0.27
12,700.0	57.81	179.77	12,613.6	177.3	-91.6	-177.1	12.00	12.00	-0.18
12,800.0	69.81	179.63	12,657.7	87.7	-91.2	-87.5	12.00	12.00	-0.13
12,900.0	81.81	179.52	12,682.1	-9.0	-90.4	9.3	12.00	12.00	-0.11
12,964.4	89.53	179.45	12,687.0	-73.2	-89.9	73.4	12.00	12.00	-0.11
Start 7348.9 hold at 12964.4 MD									
13,000.0	89.53	179.45	12,687.3	-108.8	-89.5	109.0	0.00	0.00	0.00
13,100.0	89.53	179.45	12,688.1	-208.8	-88.6	209.0	0.00	0.00	0.00
13,200.0	89.53	179.45	12,688.9	-308.8	-87.6	309.0	0.00	0.00	0.00
13,300.0	89.53	179.45	12,689.7	-408.8	-86.6	409.0	0.00	0.00	0.00
13,400.0	89.53	179.45	12,690.5	-508.8	-85.7	509.0	0.00	0.00	0.00
13,500.0	89.53	179.45	12,691.4	-608.8	-84.7	609.0	0.00	0.00	0.00
13,600.0	89.53	179.45	12,692.2	-708.8	-83.8	709.0	0.00	0.00	0.00
13,700.0	89.53	179.45	12,693.0	-808.7	-82.8	809.0	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company: NORTHERN DELAWARE BASIN
Project: LEA COUNTY, NM
Site: BULLDOG
Well: PITCHBLENDE FEDERAL 19-30 208H
Wellbore: OWB
Design: PWP1

Local Co-ordinate Reference: Well PITCHBLENDE FEDERAL 19-30 208H
TVD Reference: KB=26' @ 3357.0usft (MCVAY 8)
MD Reference: KB=26' @ 3357.0usft (MCVAY 8)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: edm

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)
13,800.0	89.53	179.45	12,693.8	-908.7	-81.8	908.9	0.00	0.00	0.00
13,900.0	89.53	179.45	12,694.6	-1,008.7	-80.9	1,008.9	0.00	0.00	0.00
14,000.0	89.53	179.45	12,695.4	-1,108.7	-79.9	1,108.9	0.00	0.00	0.00
14,100.0	89.53	179.45	12,696.3	-1,208.7	-78.9	1,208.9	0.00	0.00	0.00
14,200.0	89.53	179.45	12,697.1	-1,308.7	-78.0	1,308.9	0.00	0.00	0.00
14,300.0	89.53	179.45	12,697.9	-1,408.7	-77.0	1,408.9	0.00	0.00	0.00
14,400.0	89.53	179.45	12,698.7	-1,508.7	-76.1	1,508.9	0.00	0.00	0.00
14,500.0	89.53	179.45	12,699.5	-1,608.7	-75.1	1,608.9	0.00	0.00	0.00
14,600.0	89.53	179.45	12,700.3	-1,708.7	-74.1	1,708.9	0.00	0.00	0.00
14,700.0	89.53	179.45	12,701.2	-1,808.7	-73.2	1,808.8	0.00	0.00	0.00
14,800.0	89.53	179.45	12,702.0	-1,908.7	-72.2	1,908.8	0.00	0.00	0.00
14,900.0	89.53	179.45	12,702.8	-2,008.6	-71.3	2,008.8	0.00	0.00	0.00
15,000.0	89.53	179.45	12,703.6	-2,108.6	-70.3	2,108.8	0.00	0.00	0.00
15,100.0	89.53	179.45	12,704.4	-2,208.6	-69.3	2,208.8	0.00	0.00	0.00
15,200.0	89.53	179.45	12,705.2	-2,308.6	-68.4	2,308.8	0.00	0.00	0.00
15,300.0	89.53	179.45	12,706.1	-2,408.6	-67.4	2,408.8	0.00	0.00	0.00
15,400.0	89.53	179.45	12,706.9	-2,508.6	-66.4	2,508.8	0.00	0.00	0.00
15,500.0	89.53	179.45	12,707.7	-2,608.6	-65.5	2,608.8	0.00	0.00	0.00
15,600.0	89.53	179.45	12,708.5	-2,708.6	-64.5	2,708.7	0.00	0.00	0.00
15,700.0	89.53	179.45	12,709.3	-2,808.6	-63.6	2,808.7	0.00	0.00	0.00
15,800.0	89.53	179.45	12,710.1	-2,908.6	-62.6	2,908.7	0.00	0.00	0.00
15,900.0	89.53	179.45	12,711.0	-3,008.6	-61.6	3,008.7	0.00	0.00	0.00
16,000.0	89.53	179.45	12,711.8	-3,108.6	-60.7	3,108.7	0.00	0.00	0.00
16,100.0	89.53	179.45	12,712.6	-3,208.6	-59.7	3,208.7	0.00	0.00	0.00
16,200.0	89.53	179.45	12,713.4	-3,308.5	-58.8	3,308.7	0.00	0.00	0.00
16,300.0	89.53	179.45	12,714.2	-3,408.5	-57.8	3,408.7	0.00	0.00	0.00
16,400.0	89.53	179.45	12,715.0	-3,508.5	-56.8	3,508.7	0.00	0.00	0.00
16,500.0	89.53	179.45	12,715.9	-3,608.5	-55.9	3,608.7	0.00	0.00	0.00
16,600.0	89.53	179.45	12,716.7	-3,708.5	-54.9	3,708.6	0.00	0.00	0.00
16,700.0	89.53	179.45	12,717.5	-3,808.5	-53.9	3,808.6	0.00	0.00	0.00
16,800.0	89.53	179.45	12,718.3	-3,908.5	-53.0	3,908.6	0.00	0.00	0.00
16,900.0	89.53	179.45	12,719.1	-4,008.5	-52.0	4,008.6	0.00	0.00	0.00
17,000.0	89.53	179.45	12,719.9	-4,108.5	-51.1	4,108.6	0.00	0.00	0.00
17,100.0	89.53	179.45	12,720.8	-4,208.5	-50.1	4,208.6	0.00	0.00	0.00
17,200.0	89.53	179.45	12,721.6	-4,308.5	-49.1	4,308.6	0.00	0.00	0.00
17,300.0	89.53	179.45	12,722.4	-4,408.5	-48.2	4,408.6	0.00	0.00	0.00
17,400.0	89.53	179.45	12,723.2	-4,508.4	-47.2	4,508.6	0.00	0.00	0.00
17,500.0	89.53	179.45	12,724.0	-4,608.4	-46.3	4,608.5	0.00	0.00	0.00
17,600.0	89.53	179.45	12,724.8	-4,708.4	-45.3	4,708.5	0.00	0.00	0.00
17,700.0	89.53	179.45	12,725.7	-4,808.4	-44.3	4,808.5	0.00	0.00	0.00
17,800.0	89.53	179.45	12,726.5	-4,908.4	-43.4	4,908.5	0.00	0.00	0.00
17,900.0	89.53	179.45	12,727.3	-5,008.4	-42.4	5,008.5	0.00	0.00	0.00
18,000.0	89.53	179.45	12,728.1	-5,108.4	-41.4	5,108.5	0.00	0.00	0.00
18,100.0	89.53	179.45	12,728.9	-5,208.4	-40.5	5,208.5	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company: NORTHERN DELAWARE BASIN
Project: LEA COUNTY, NM
Site: BULLDOG
Well: PITCHBLEND FEDERAL 19-30 208H
Wellbore: OWB
Design: PWP1

Local Co-ordinate Reference: Well PITCHBLEND FEDERAL 19-30 208H
TVD Reference: KB=26' @ 3357.0usft (MCVAY 8)
MD Reference: KB=26' @ 3357.0usft (MCVAY 8)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: edm

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)
18,200.0	89.53	179.45	12,729.7	-5,308.4	-39.5	5,308.5	0.00	0.00	0.00
18,300.0	89.53	179.45	12,730.6	-5,408.4	-38.6	5,408.5	0.00	0.00	0.00
18,400.0	89.53	179.45	12,731.4	-5,508.4	-37.6	5,508.4	0.00	0.00	0.00
18,500.0	89.53	179.45	12,732.2	-5,608.4	-36.6	5,608.4	0.00	0.00	0.00
18,600.0	89.53	179.45	12,733.0	-5,708.4	-35.7	5,708.4	0.00	0.00	0.00
18,700.0	89.53	179.45	12,733.8	-5,808.3	-34.7	5,808.4	0.00	0.00	0.00
18,800.0	89.53	179.45	12,734.6	-5,908.3	-33.8	5,908.4	0.00	0.00	0.00
18,900.0	89.53	179.45	12,735.5	-6,008.3	-32.8	6,008.4	0.00	0.00	0.00
19,000.0	89.53	179.45	12,736.3	-6,108.3	-31.8	6,108.4	0.00	0.00	0.00
19,100.0	89.53	179.45	12,737.1	-6,208.3	-30.9	6,208.4	0.00	0.00	0.00
19,200.0	89.53	179.45	12,737.9	-6,308.3	-29.9	6,308.4	0.00	0.00	0.00
19,300.0	89.53	179.45	12,738.7	-6,408.3	-28.9	6,408.3	0.00	0.00	0.00
19,400.0	89.53	179.45	12,739.5	-6,508.3	-28.0	6,508.3	0.00	0.00	0.00
19,500.0	89.53	179.45	12,740.4	-6,608.3	-27.0	6,608.3	0.00	0.00	0.00
19,600.0	89.53	179.45	12,741.2	-6,708.3	-26.1	6,708.3	0.00	0.00	0.00
19,700.0	89.53	179.45	12,742.0	-6,808.3	-25.1	6,808.3	0.00	0.00	0.00
19,800.0	89.53	179.45	12,742.8	-6,908.3	-24.1	6,908.3	0.00	0.00	0.00
19,900.0	89.53	179.45	12,743.6	-7,008.2	-23.2	7,008.3	0.00	0.00	0.00
20,000.0	89.53	179.45	12,744.4	-7,108.2	-22.2	7,108.3	0.00	0.00	0.00
20,100.0	89.53	179.45	12,745.3	-7,208.2	-21.3	7,208.3	0.00	0.00	0.00
20,200.0	89.53	179.45	12,746.1	-7,308.2	-20.3	7,308.3	0.00	0.00	0.00
20,300.0	89.53	179.45	12,746.9	-7,408.2	-19.3	7,408.2	0.00	0.00	0.00
20,313.3	89.53	179.45	12,747.0	-7,421.5	-19.2	7,421.5	0.00	0.00	0.00

TD at 20313.3

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
FTP (PITCHBLEND - plan misses target center by 163.2usft at 12609.9usft MD (12558.7 TVD, 248.6 N, -91.8 E) - Circle (radius 50.0)	0.00	0.00	12,687.0	349.5	-93.4	409,630.60	788,931.50	32° 7' 21.904 N	103° 24' 0.190 W
PBHL (PITCHBLEND - plan hits target center - Rectangle (sides W100.0 H7,771.1 D20.0)	-0.47	359.45	12,747.0	-7,421.5	-19.2	401,859.60	789,005.70	32° 6' 5.001 N	103° 24' 0.110 W
LTP (PITCHBLEND - plan misses target center by 0.4usft at 20263.3usft MD (12746.6 TVD, -7371.5 N, -19.7 E) - Point	0.00	0.00	12,747.0	-7,371.5	-19.7	401,909.60	789,005.20	32° 6' 5.496 N	103° 24' 0.111 W

Concho Resources LLC

Survey Report

Company: NORTHERN DELAWARE BASIN
Project: LEA COUNTY, NM
Site: BULLDOG
Well: PITCHBLEND FEDERAL 19-30 208H
Wellbore: OWB
Design: PWP1

Local Co-ordinate Reference: Well PITCHBLEND FEDERAL 19-30 208H
TVD Reference: KB=26' @ 3357.0usft (MCVAY 8)
MD Reference: KB=26' @ 3357.0usft (MCVAY 8)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: edm

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2500	2500	0	0	Start Build 2.00
2622	2622	3	-1	Start 9576.5 hold at 2621.9 MD
12,198	12,190	400	-90	Start DLS 12.00 TFO -167.86
12,964	12,687	-73	-90	Start 7348.9 hold at 12964.4 MD
20,313	12,747	-7421	-19	TD at 20313.3

Checked By: _____ Approved By: _____ Date: _____

DISTRICT I
1025 N. FRENCH DR., HOBBBS, NM 88040
Phone: (505) 583-6181 Fax: (505) 583-0720

DISTRICT II
611 S. FIRST ST., ARTESIA, NM 88210
Phone: (505) 748-1253 Fax: (505) 748-0720

DISTRICT III
1000 RIO BRAZOS RD., AZTEC, NM 87410
Phone: (505) 334-8178 Fax: (505) 334-8170

DISTRICT IV
1229 S. ST. FRANCIS DR., SANTA FE, NM 87505
Phone: (505) 478-3480 Fax: (505) 478-3482

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-45656	Pool Code 96340	Pool Name Fairview Mills; Bone Spring
Property Code	Property Name PITCHBLEND FEDERAL 19-30	Well Number 208H
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3331.0'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	19	25-S	35-E		450	NORTH	660	EAST	LEA

Bottom 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
H	30	25-S	35-E		2590	NORTH	750	EAST	LEA
Dedicated Acres 240	Joint or Infill	Consolidation Code	Order No.						

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

