

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM 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.Carlsbad Field Office
Lease Serial No. NMNM88163
Indian, Allottee or Tribe Name**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		8. Well Name and No. AVION FEDERAL 301H	
2. Name of Operator COG OPERATING LLC		9. API Well No. 30-025-44736	
3a. Address 2208 WEST MAIN STREET ARTESIA, NM 88210		3b. Phone No. (include area code) Ph: 575-748-6945	
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 22 T23S R32E NENE 480FNL 330FEL		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 recompleat 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 recompleat 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 LLC, respectfully requests approval for the following changes to the original approved APD.

BHL Change:

From: 200' FSL & 330' FEL Section 22. T23S. R32E
To: 200' FSL & 330' FEL Section 27. T23S. R32E

C102 attached.

Operator will drill 8-3/4" production hole to 19,800' MD / 9600' TVD.

14. I hereby certify that the foregoing is true and correct. Electronic Submission #433504 verified by the BLM Well Information System For COG OPERATING LLC, sent to the Hobbs Committed to AFMSS for processing by PRISCILLA PEREZ on 08/31/2018 ()	
Name (Printed/Typed) MAYTE X REYES	Title REGULATORY ANALYST
Signature (Electronic Submission)	Date 08/31/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <u>Musefa Haguel</u>	Title Petroleum Engineer	Date <u>9-7-2018</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 Carlsbad Field Office	

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)

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

Additional data for EC transaction #433504 that would not fit on the form

32. Additional remarks, continued

Operator will run 5.5? 17# P110 BTC to TD.

Operator will cement production casing and tie back 500? into the intermediate casing.

Lead: 750 sx TunedLite (10.3 ppg / 3.48 yield)

Tail: 2500 sx NeoCem (13.2ppg / 1.41 yield)

Directional plan attached.

- All previous CoAs still apply.

District I
1625 N French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Benito 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

* API Number 30-025-44736		* Pool Code 17644	* Pool Name Diamondtail; Bone Spring
* Property Code 312816	* Property Name AVION FEDERAL COM		* Well Number 301H
* OGRID No. 229137	* Operator Name COG OPERATING, LLC		* Elevation 3698.7

10 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	22	23 S	32 E		480	NORTH	330	EAST	LEA

11 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
P	27	23 S	32 E		200	SOUTH	330	EAST	LEA

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
160			

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.

N=472584.82 E=749932.57 FIRST TAKE POINT 330' FNL, 330' FEL LAT=32.2985045°N LONG=103.6550313°W GRID AZ. TO FTP N00°21'23"W N=472598.69 E=751253.41 AVION FEDERAL COM 301H 480' FNL, 330' FEL ELEV. = 3698.7' LAT. = 32.2980922°N (NAD83) LONG. = 103.6550313°W NMSP EAST (FT) N = 472113.81 E = 750928.82 N=467302.84 E=749967.40 N=467315.98 E=751288.86 N=462021.50 E=750001.08 N=462034.18 E=751322.29 SECTION 22 SECTION 27 PRODUCING AREA NMNM088163 NMLC0063228 BOTTOM OF HOLE 200' FNL, 330' FEL LAT. = 32.2889267°N LONG. = 103.6550249°W NMSP EAST (FT) N = 462230.95 E = 750991.11 LATITUDE AND LONGITUDE VALUES ARE NAD 83 STATE PLANE VALUES ARE NMSP EAST NAD 83 GRID	11 OPERATOR 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 at 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. <i>Mayte Reyes</i> Signature Date Mayte Reyes Printed Name mreyes1@concho.com E-mail Address 12 SURVEYOR 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 and correct to the best of my belief. JANUARY 11, 2013 Date of Survey FELIX F. JARAMILLO Professional Surveyor FELIX F. JARAMILLO, PLS 12797 Certificate Number SURVEY NO. 5609C
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Concho Resources

Lea County, NM

Avion Federal Com

Avion Federal Com #301H

Wellbore #1

Plan: plan2

Standard Planning Report

28 August, 2018





Project: Lea County, NM
Site: Avion Federal Com
Well: Avion Federal Com #301H
Depth Reference: GL 3698.7 + 26' KB @ 3724.70usft (Independence 205)
SHL Northing: 472054.27
SHL Easting: 709743.27
Rig: Independence 205
Plan: plan2



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSEct	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
26.00	0.00	0.00	26.00	0.00	0.00	0.00	0.00	0.00	Ground Level at 26.00' MD
5930.00	0.00	0.00	5930.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
6330.00	8.00	359.63	6328.70	27.88	-0.18	2.00	359.63	-27.88	Start 2510.00 hold at 6330.00 MD
8840.00	8.00	359.63	8814.27	377.20	-2.44	0.00	0.00	-377.20	Start Drop -2.00
9240.00	0.00	0.00	9212.98	405.08	-2.62	2.00	180.00	-405.08	Start DLS 12.00 TFO 179.63
9994.26	90.51	179.63	9890.42	-76.64	0.51	12.00	179.63	76.64	Start 9806.55 hold at 9994.26 MD
99800.81	90.51	179.63	9603.00	-9882.59	64.23	0.00	0.00	9882.80	TD at 19800.81

FORMATION TOP DETAILS

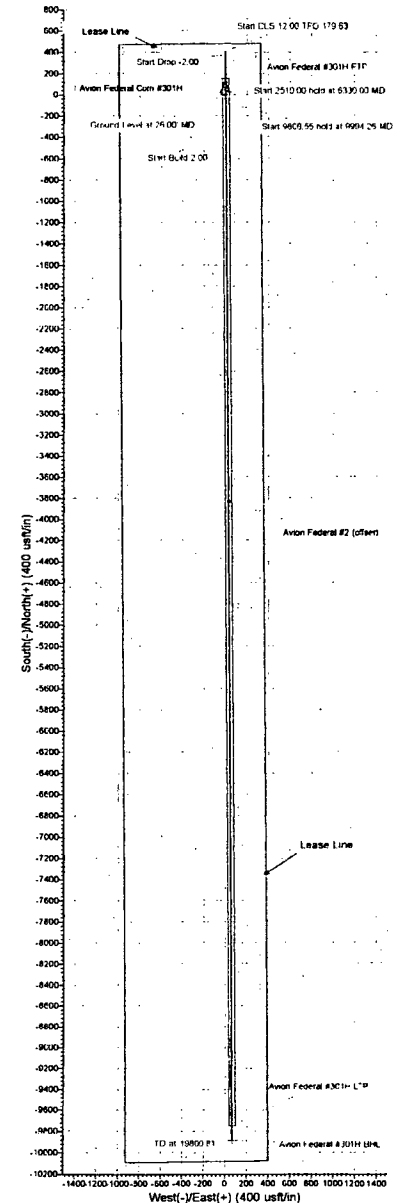
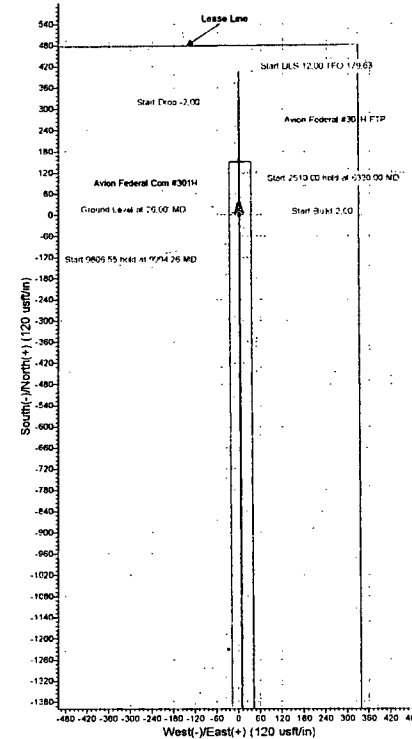
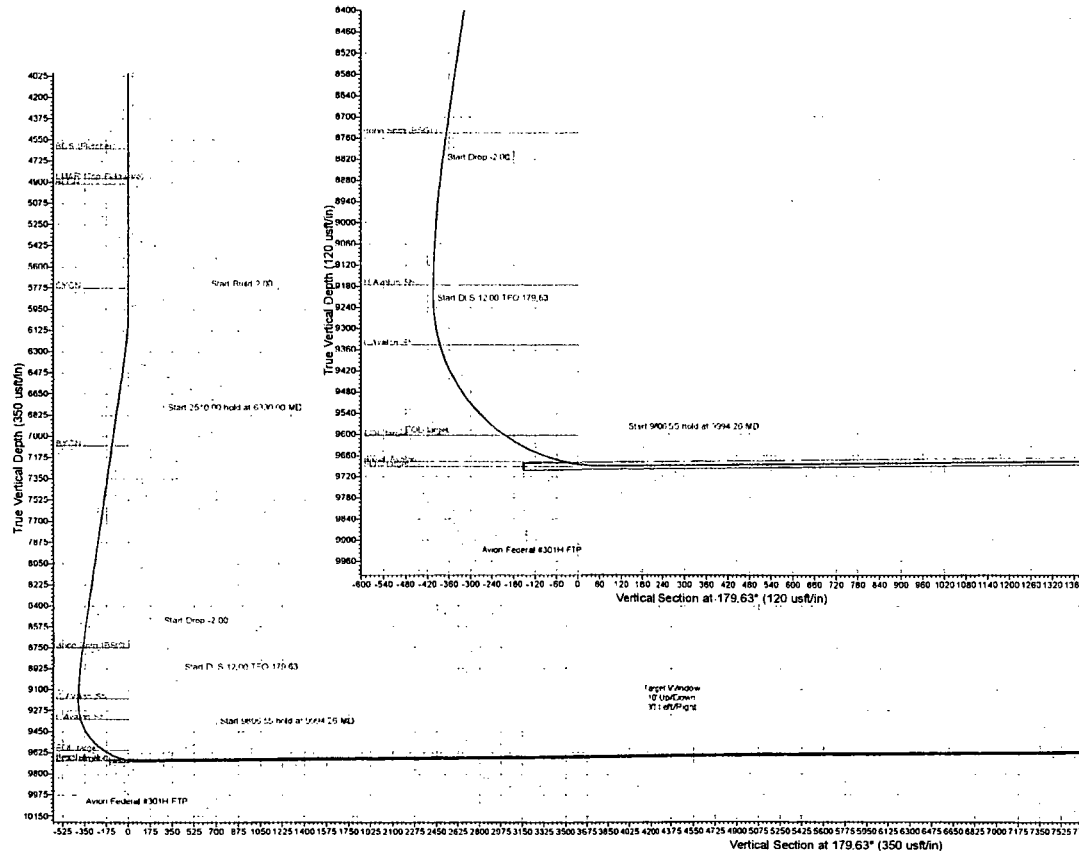
TVDPath	MDPath	Formation
1210.00	1210.00	Rustler
1626.00	1626.00	TOS
4622.00	4622.00	BOS (Fletcher)
4869.00	4869.00	LMAR (Top Delaware)
4913.00	4913.00	BLCN
5774.00	5774.00	CYCN
7077.00	7085.65	BYCN
8745.00	8770.04	Bone Sprg (BSGL)
9175.00	9202.02	U Avalon Sh
9345.00	9373.77	L Avalon Sh
9603.00	9696.43	EOL target
9677.00	9876.44	Basal Avalon
9690.00	9869.48	EOC target

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting
Avion Federal #301H BHL	9603.00	-9882.59	64.23	462171.88	709807.50
Avion Federal #301H FTP	9690.00	152.87	-3.20	472207.14	709740.07
Avion Federal #301H LTP	9603.00	-9749.37	65.40	462304.90	709808.67



Azimuths to Grid North
True North: -0.35°
Magnetic North: 6.35°
Magnetic Field
Strength: 48082.4snT
Dip Angle: 60.02°
Date: 8/27/2018
Model: HDGM



Database: EDM 5000.14 Single User Db
Company: Concho Resources
Project: Lea County, NM
Site: Avion Federal Com
Well: Avion Federal Com #301H
Wellbore: Wellbore #1
Design: plan2

Local Co-ordinate Reference: Well Avion Federal Com #301H
TVD Reference: GL 3698.7 + 26' KB @ 3724.70usft
 (Independence 205)
MD Reference: GL 3698.7 + 26' KB @ 3724.70usft
 (Independence 205)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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		

Site	Avion Federal Com			
Site Position:		Northing:	472,054.27 usft	Latitude: 32° 17' 45.488 N
From:	Map	Easting:	709,743.27 usft	Longitude: 103° 39' 16.373 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"	Grid Convergence: 0.36 °

Well:	Avion Federal Com #301H			
Well Position	+N/-S	0.00 usft	Northing:	472,054.27 usft
	+E/-W	0.00 usft	Easting:	709,743.27 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:		Ground Level: 3,698.70 usft

Wellbore:	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	8/27/2018	6.72	60.02	48,082.40000000

Design	plan2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	179.63

Plan Survey Tool Program		Date 8/28/2018		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	19,800.81 plan2 (Wellbore #1)	MWD	
OWSG MWD - Standard				

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Avion Federal Com #301H
Company:	Concho Resources	TVD Reference:	GL 3698.7 + 26' KB @ 3724.70usft (Independence 205)
Project:	Lea County, NM	MD Reference:	GL 3698.7 + 26' KB @ 3724.70usft (Independence 205)
Site:	Avion Federal Com	North Reference:	Grid
Well:	Avion Federal Com #301H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	plan2		

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
26.00	0.00	0.00	26.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,930.00	0.00	0.00	5,930.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,330.00	8.00	359.63	6,328.70	27.88	-0.18	2.00	2.00	0.00	359.63	
8,840.00	8.00	359.63	8,814.27	377.20	-2.44	0.00	0.00	0.00	0.00	
9,240.00	0.00	0.00	9,212.98	405.08	-2.62	2.00	-2.00	0.00	180.00	
9,994.26	90.51	179.63	9,690.42	-76.64	0.51	12.00	12.00	23.82	179.63	
19,800.81	90.51	179.63	9,603.00	-9,882.59	64.23	0.00	0.00	0.00	0.00	Avion Federal #301H



Database: EDM 5000.14 Single User Db
Company: Concho Resources

Project: Lea County, NM

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Well: Avion Federal Com #301H
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(Independence 205)
MD Reference: GL 3698.7 + 26' KB @ 3724.70usft
(Independence 205)
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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26.00	0.00	0.00	26.00	0.00	0.00	0.00	0.00	0.00	0.00
Ground Level at 26.00' MD									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00

Database: EDM 5000.14 Single User Db
Company: Concho Resources

Project: Lea County, NM

Site: Avion Federal Com
Well: Avion Federal Com #301H
Wellbore: Wellbore #1
Design: plan2

Local Co-ordinate Reference: Well Avion Federal Com #301H
TVD Reference: GL 3698.7 + 26' KB @ 3724.70usft
 (Independence 205)
MD Reference: GL 3698.7 + 26' KB @ 3724.70usft
 (Independence 205)
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)
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,930.00	0.00	0.00	5,930.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
6,000.00	1.40	359.63	5,999.99	0.86	-0.01	-0.86	2.00	2.00	0.00
6,100.00	3.40	359.63	6,099.90	5.04	-0.03	-5.04	2.00	2.00	0.00
6,200.00	5.40	359.63	6,199.60	12.71	-0.08	-12.71	2.00	2.00	0.00
6,300.00	7.40	359.63	6,298.97	23.86	-0.15	-23.86	2.00	2.00	0.00
6,330.00	8.00	359.63	6,328.70	27.88	-0.18	-27.88	2.00	2.00	0.00
Start 2510.00 hold at 6330.00 MD									
6,400.00	8.00	359.63	6,398.02	37.62	-0.24	-37.62	0.00	0.00	0.00
6,500.00	8.00	359.63	6,497.05	51.54	-0.33	-51.54	0.00	0.00	0.00
6,600.00	8.00	359.63	6,596.07	65.46	-0.42	-65.46	0.00	0.00	0.00
6,700.00	8.00	359.63	6,695.10	79.37	-0.51	-79.37	0.00	0.00	0.00
6,800.00	8.00	359.63	6,794.13	93.29	-0.60	-93.29	0.00	0.00	0.00
6,900.00	8.00	359.63	6,893.15	107.21	-0.69	-107.21	0.00	0.00	0.00
7,000.00	8.00	359.63	6,992.18	121.12	-0.78	-121.13	0.00	0.00	0.00
7,100.00	8.00	359.63	7,091.21	135.04	-0.87	-135.04	0.00	0.00	0.00
7,200.00	8.00	359.63	7,190.23	148.96	-0.96	-148.96	0.00	0.00	0.00
7,300.00	8.00	359.63	7,289.26	162.87	-1.05	-162.88	0.00	0.00	0.00
7,400.00	8.00	359.63	7,388.29	176.79	-1.14	-176.80	0.00	0.00	0.00
7,500.00	8.00	359.63	7,487.32	190.71	-1.23	-190.71	0.00	0.00	0.00
7,600.00	8.00	359.63	7,586.34	204.63	-1.32	-204.63	0.00	0.00	0.00
7,700.00	8.00	359.63	7,685.37	218.54	-1.41	-218.55	0.00	0.00	0.00
7,800.00	8.00	359.63	7,784.40	232.46	-1.50	-232.46	0.00	0.00	0.00
7,900.00	8.00	359.63	7,883.42	246.38	-1.59	-246.38	0.00	0.00	0.00
8,000.00	8.00	359.63	7,982.45	260.29	-1.68	-260.30	0.00	0.00	0.00
8,100.00	8.00	359.63	8,081.48	274.21	-1.77	-274.22	0.00	0.00	0.00
8,200.00	8.00	359.63	8,180.50	288.13	-1.86	-288.13	0.00	0.00	0.00
8,300.00	8.00	359.63	8,279.53	302.04	-1.95	-302.05	0.00	0.00	0.00
8,400.00	8.00	359.63	8,378.56	315.96	-2.04	-315.97	0.00	0.00	0.00
8,500.00	8.00	359.63	8,477.58	329.88	-2.13	-329.89	0.00	0.00	0.00
8,600.00	8.00	359.63	8,576.61	343.80	-2.22	-343.80	0.00	0.00	0.00
8,700.00	8.00	359.63	8,675.64	357.71	-2.31	-357.72	0.00	0.00	0.00
8,800.00	8.00	359.63	8,774.66	371.63	-2.40	-371.64	0.00	0.00	0.00
8,840.00	8.00	359.63	8,814.27	377.20	-2.44	-377.20	0.00	0.00	0.00
Start Drop -2.00									
8,900.00	6.80	359.63	8,873.77	384.92	-2.49	-384.93	2.00	-2.00	0.00
9,000.00	4.80	359.63	8,973.26	395.03	-2.55	-395.04	2.00	-2.00	0.00
9,100.00	2.80	359.63	9,073.03	401.66	-2.59	-401.66	2.00	-2.00	0.00
9,200.00	0.80	359.63	9,172.98	404.80	-2.61	-404.81	2.00	-2.00	0.00
9,240.00	0.00	0.00	9,212.98	405.08	-2.62	-405.08	2.00	-2.00	0.00
Start DLS 12.00 TFO 179.63									
9,300.00	7.20	179.63	9,272.82	401.31	-2.59	-401.32	12.00	12.00	0.00

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Avion Federal Com #301H
Company:	Concho Resources	TVD Reference:	GL 3698.7 + 26' KB @ 3724.70usft (Independence 205)
Project:	Lea County, NM	MD Reference:	GL 3698.7 + 26' KB @ 3724.70usft (Independence 205)
Site:	Avion Federal Com	North Reference:	Grid
Well:	Avion Federal Com #301H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	plan2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Bulld Rate (°/100usft)	Turn Rate (°/100usft)
9,400.00	19.20	179.63	9,370.00	378.52	-2.44	-378.53	12.00	12.00	0.00
9,500.00	31.20	179.63	9,460.32	336.02	-2.17	-336.03	12.00	12.00	0.00
9,600.00	43.20	179.63	9,539.82	275.67	-1.78	-275.68	12.00	12.00	0.00
9,700.00	55.20	179.63	9,605.05	200.11	-1.28	-200.12	12.00	12.00	0.00
9,800.00	67.20	179.63	9,653.13	112.64	-0.72	-112.64	12.00	12.00	0.00
9,900.00	79.20	179.63	9,681.98	17.09	-0.09	-17.09	12.00	12.00	0.00
9,994.26	90.51	179.63	9,690.42	-76.64	0.51	76.64	12.00	12.00	0.00
Start 9806.55 hold at 9994.26 MD									
10,000.00	90.51	179.63	9,690.37	-82.38	0.55	82.38	0.00	0.00	0.00
10,100.00	90.51	179.63	9,689.48	-182.37	1.20	182.38	0.00	0.00	0.00
10,200.00	90.51	179.63	9,688.59	-282.37	1.85	282.37	0.00	0.00	0.00
10,300.00	90.51	179.63	9,687.70	-382.36	2.50	382.37	0.00	0.00	0.00
10,400.00	90.51	179.63	9,686.81	-482.35	3.15	482.36	0.00	0.00	0.00
10,500.00	90.51	179.63	9,685.91	-582.35	3.80	582.36	0.00	0.00	0.00
10,600.00	90.51	179.63	9,685.02	-682.34	4.45	682.36	0.00	0.00	0.00
10,700.00	90.51	179.63	9,684.13	-782.34	5.10	782.35	0.00	0.00	0.00
10,800.00	90.51	179.63	9,683.24	-882.33	5.75	882.35	0.00	0.00	0.00
10,900.00	90.51	179.63	9,682.35	-982.32	6.40	982.34	0.00	0.00	0.00
11,000.00	90.51	179.63	9,681.46	-1,082.32	7.05	1,082.34	0.00	0.00	0.00
11,100.00	90.51	179.63	9,680.56	-1,182.31	7.70	1,182.34	0.00	0.00	0.00
11,200.00	90.51	179.63	9,679.67	-1,282.31	8.35	1,282.33	0.00	0.00	0.00
11,300.00	90.51	179.63	9,678.78	-1,382.30	9.00	1,382.33	0.00	0.00	0.00
11,400.00	90.51	179.63	9,677.89	-1,482.29	9.65	1,482.32	0.00	0.00	0.00
11,500.00	90.51	179.63	9,677.00	-1,582.29	10.30	1,582.32	0.00	0.00	0.00
11,600.00	90.51	179.63	9,676.11	-1,682.28	10.95	1,682.32	0.00	0.00	0.00
11,700.00	90.51	179.63	9,675.22	-1,782.27	11.60	1,782.31	0.00	0.00	0.00
11,800.00	90.51	179.63	9,674.32	-1,882.27	12.25	1,882.31	0.00	0.00	0.00
11,900.00	90.51	179.63	9,673.43	-1,982.26	12.90	1,982.30	0.00	0.00	0.00
12,000.00	90.51	179.63	9,672.54	-2,082.26	13.55	2,082.30	0.00	0.00	0.00
12,100.00	90.51	179.63	9,671.65	-2,182.25	14.20	2,182.30	0.00	0.00	0.00
12,200.00	90.51	179.63	9,670.76	-2,282.24	14.85	2,282.29	0.00	0.00	0.00
12,300.00	90.51	179.63	9,669.87	-2,382.24	15.50	2,382.29	0.00	0.00	0.00
12,400.00	90.51	179.63	9,668.98	-2,482.23	16.14	2,482.28	0.00	0.00	0.00
12,500.00	90.51	179.63	9,668.08	-2,582.23	16.79	2,582.28	0.00	0.00	0.00
12,600.00	90.51	179.63	9,667.19	-2,682.22	17.44	2,682.28	0.00	0.00	0.00
12,700.00	90.51	179.63	9,666.30	-2,782.21	18.09	2,782.27	0.00	0.00	0.00
12,800.00	90.51	179.63	9,665.41	-2,882.21	18.74	2,882.27	0.00	0.00	0.00
12,900.00	90.51	179.63	9,664.52	-2,982.20	19.39	2,982.27	0.00	0.00	0.00
13,000.00	90.51	179.63	9,663.63	-3,082.20	20.04	3,082.26	0.00	0.00	0.00
13,100.00	90.51	179.63	9,662.74	-3,182.19	20.69	3,182.26	0.00	0.00	0.00
13,200.00	90.51	179.63	9,661.84	-3,282.18	21.34	3,282.25	0.00	0.00	0.00
13,300.00	90.51	179.63	9,660.95	-3,382.18	21.99	3,382.25	0.00	0.00	0.00
13,400.00	90.51	179.63	9,660.06	-3,482.17	22.64	3,482.25	0.00	0.00	0.00
13,500.00	90.51	179.63	9,659.17	-3,582.17	23.29	3,582.24	0.00	0.00	0.00
13,600.00	90.51	179.63	9,658.28	-3,682.16	23.94	3,682.24	0.00	0.00	0.00
13,700.00	90.51	179.63	9,657.39	-3,782.15	24.59	3,782.23	0.00	0.00	0.00
13,800.00	90.51	179.63	9,656.50	-3,882.15	25.24	3,882.23	0.00	0.00	0.00
13,900.00	90.51	179.63	9,655.60	-3,982.14	25.89	3,982.23	0.00	0.00	0.00
14,000.00	90.51	179.63	9,654.71	-4,082.14	26.54	4,082.22	0.00	0.00	0.00
14,100.00	90.51	179.63	9,653.82	-4,182.13	27.19	4,182.22	0.00	0.00	0.00
14,200.00	90.51	179.63	9,652.93	-4,282.12	27.84	4,282.21	0.00	0.00	0.00
14,300.00	90.51	179.63	9,652.04	-4,382.12	28.49	4,382.21	0.00	0.00	0.00

Database: EDM 5000.14 Single User Db
Company: Concho Resources
Project: Lea County, NM
Site: Avion Federal Com
Well: Avion Federal Com #301H
Wellbore: Wellbore #1
Design: plan2

Local Co-ordinate Reference: Well Avion Federal Com #301H
TVD Reference: GL 3698.7 + 26' KB @ 3724.70usft
 (Independence 205)
MD Reference: GL 3698.7 + 26' KB @ 3724.70usft
 (Independence 205)
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)
14,400.00	90.51	179.63	9,651.15	-4,482.11	29.14	4,482.21	0.00	0.00	0.00
14,500.00	90.51	179.63	9,650.25	-4,582.10	29.79	4,582.20	0.00	0.00	0.00
14,600.00	90.51	179.63	9,649.36	-4,682.10	30.44	4,682.20	0.00	0.00	0.00
14,700.00	90.51	179.63	9,648.47	-4,782.09	31.09	4,782.19	0.00	0.00	0.00
14,800.00	90.51	179.63	9,647.58	-4,882.09	31.74	4,882.19	0.00	0.00	0.00
14,900.00	90.51	179.63	9,646.69	-4,982.08	32.39	4,982.19	0.00	0.00	0.00
15,000.00	90.51	179.63	9,645.80	-5,082.07	33.04	5,082.18	0.00	0.00	0.00
15,100.00	90.51	179.63	9,644.91	-5,182.07	33.69	5,182.18	0.00	0.00	0.00
15,200.00	90.51	179.63	9,644.01	-5,282.06	34.34	5,282.17	0.00	0.00	0.00
15,300.00	90.51	179.63	9,643.12	-5,382.06	34.99	5,382.17	0.00	0.00	0.00
15,400.00	90.51	179.63	9,642.23	-5,482.05	35.64	5,482.17	0.00	0.00	0.00
15,500.00	90.51	179.63	9,641.34	-5,582.04	36.29	5,582.16	0.00	0.00	0.00
15,600.00	90.51	179.63	9,640.45	-5,682.04	36.94	5,682.16	0.00	0.00	0.00
15,700.00	90.51	179.63	9,639.56	-5,782.03	37.59	5,782.15	0.00	0.00	0.00
15,800.00	90.51	179.63	9,638.67	-5,882.03	38.24	5,882.15	0.00	0.00	0.00
15,900.00	90.51	179.63	9,637.77	-5,982.02	38.89	5,982.15	0.00	0.00	0.00
16,000.00	90.51	179.63	9,636.88	-6,082.01	39.54	6,082.14	0.00	0.00	0.00
16,100.00	90.51	179.63	9,635.99	-6,182.01	40.18	6,182.14	0.00	0.00	0.00
16,200.00	90.51	179.63	9,635.10	-6,282.00	40.83	6,282.13	0.00	0.00	0.00
16,300.00	90.51	179.63	9,634.21	-6,382.00	41.48	6,382.13	0.00	0.00	0.00
16,400.00	90.51	179.63	9,633.32	-6,481.99	42.13	6,482.13	0.00	0.00	0.00
16,500.00	90.51	179.63	9,632.43	-6,581.98	42.78	6,582.12	0.00	0.00	0.00
16,600.00	90.51	179.63	9,631.53	-6,681.98	43.43	6,682.12	0.00	0.00	0.00
16,700.00	90.51	179.63	9,630.64	-6,781.97	44.08	6,782.11	0.00	0.00	0.00
16,800.00	90.51	179.63	9,629.75	-6,881.96	44.73	6,882.11	0.00	0.00	0.00
16,900.00	90.51	179.63	9,628.86	-6,981.96	45.38	6,982.11	0.00	0.00	0.00
17,000.00	90.51	179.63	9,627.97	-7,081.95	46.03	7,082.10	0.00	0.00	0.00
17,100.00	90.51	179.63	9,627.08	-7,181.95	46.68	7,182.10	0.00	0.00	0.00
17,200.00	90.51	179.63	9,626.19	-7,281.94	47.33	7,282.09	0.00	0.00	0.00
17,300.00	90.51	179.63	9,625.29	-7,381.93	47.98	7,382.09	0.00	0.00	0.00
17,400.00	90.51	179.63	9,624.40	-7,481.93	48.63	7,482.09	0.00	0.00	0.00
17,500.00	90.51	179.63	9,623.51	-7,581.92	49.28	7,582.08	0.00	0.00	0.00
17,600.00	90.51	179.63	9,622.62	-7,681.92	49.93	7,682.08	0.00	0.00	0.00
17,700.00	90.51	179.63	9,621.73	-7,781.91	50.58	7,782.07	0.00	0.00	0.00
17,800.00	90.51	179.63	9,620.84	-7,881.90	51.23	7,882.07	0.00	0.00	0.00
17,900.00	90.51	179.63	9,619.95	-7,981.90	51.88	7,982.07	0.00	0.00	0.00
18,000.00	90.51	179.63	9,619.05	-8,081.89	52.53	8,082.06	0.00	0.00	0.00
18,100.00	90.51	179.63	9,618.16	-8,181.89	53.18	8,182.06	0.00	0.00	0.00
18,200.00	90.51	179.63	9,617.27	-8,281.88	53.83	8,282.05	0.00	0.00	0.00
18,300.00	90.51	179.63	9,616.38	-8,381.87	54.48	8,382.05	0.00	0.00	0.00
18,400.00	90.51	179.63	9,615.49	-8,481.87	55.13	8,482.05	0.00	0.00	0.00
18,500.00	90.51	179.63	9,614.60	-8,581.86	55.78	8,582.04	0.00	0.00	0.00
18,600.00	90.51	179.63	9,613.70	-8,681.86	56.43	8,682.04	0.00	0.00	0.00
18,700.00	90.51	179.63	9,612.81	-8,781.85	57.08	8,782.03	0.00	0.00	0.00
18,800.00	90.51	179.63	9,611.92	-8,881.84	57.73	8,882.03	0.00	0.00	0.00
18,900.00	90.51	179.63	9,611.03	-8,981.84	58.38	8,982.03	0.00	0.00	0.00
19,000.00	90.51	179.63	9,610.14	-9,081.83	59.03	9,082.02	0.00	0.00	0.00
19,100.00	90.51	179.63	9,609.25	-9,181.82	59.68	9,182.02	0.00	0.00	0.00
19,200.00	90.51	179.63	9,608.36	-9,281.82	60.33	9,282.01	0.00	0.00	0.00
19,300.00	90.51	179.63	9,607.46	-9,381.81	60.98	9,382.01	0.00	0.00	0.00
19,400.00	90.51	179.63	9,606.57	-9,481.81	61.63	9,482.01	0.00	0.00	0.00
19,500.00	90.51	179.63	9,605.68	-9,581.80	62.28	9,582.00	0.00	0.00	0.00

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Avion Federal Com #301H
Company:	Concho Resources	TVD Reference:	GL 3698.7 + 26' KB @ 3724.70usft (Independence 205)
Project:	Lea County, NM	MD Reference:	GL 3698.7 + 26' KB @ 3724.70usft (Independence 205)
Site:	Avion Federal Com	North Reference:	Grid
Well:	Avion Federal Com #301H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	plan2		

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)
19,600.00	90.51	179.63	9,604.79	-9,681.79	62.93	9,682.00	0.00	0.00	0.00
19,700.00	90.51	179.63	9,603.90	-9,781.79	63.58	9,781.99	0.00	0.00	0.00
19,800.00	90.51	179.63	9,603.01	-9,881.78	64.22	9,881.99	0.00	0.00	0.00
19,800.81	90.51	179.63	9,603.00	-9,882.59	64.23	9,882.80	0.00	0.00	0.00
TD at 19800.81									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Avion Federal #301H LT	0.51	0.00	9,603.00	-9,749.37	65.40	462,304.90	709,808.67	32° 16' 9.008 N	103° 39' 16.330 W
- hit/miss target									
- Shape									
- plan misses target center by 2.36usft at 19667.60usft MD (9604.19 TVD, -9749.39 N, 63.36 E)									
- Rectangle (sides W60.00 H9,900.00 D20.00)									
Avion Federal #301H BF	0.00	0.00	9,603.00	-9,882.59	64.23	462,171.68	709,807.50	32° 16' 7.690 N	103° 39' 16.353 W
- plan hits target center									
- Point									
Avion Federal #301H FT	0.00	0.00	9,690.00	152.87	-3.20	472,207.14	709,740.07	32° 17' 47.001 N	103° 39' 16.399 W
- plan misses target center by 50.23usft at 9782.46usft MD (9646.04 TVD, 128.68 N, -0.82 E)									
- Point									

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,210.00	1,210.00	Rustler	Mixed Lithologies			
1,626.00	1,626.00	TOS	Salt			
4,622.00	4,622.00	BOS (Fletcher)	Anhydrite			
4,869.00	4,869.00	LMAR (Top Delaware)	Limestone			
4,913.00	4,913.00	BLCN	Silt, Sand & Carb			
5,774.00	5,774.00	CYCN	Silt, Sand & Carb			
7,085.65	7,077.00	BYCN	Silt, Sand & Carb			
8,770.04	8,745.00	Bone Sprg (BSGL)	Limestone			
9,202.02	9,175.00	U Avalon Sh	Silt, Shale & Carb			
9,373.77	9,345.00	L Avalon Sh	Silt, Shale & Carb			
9,696.43	9,603.00	EOL target				
9,876.44	9,677.00	Basal Avalon				
9,969.48	9,690.00	EOC target				

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Avion Federal Com #301H
Company:	Concho Resources	TVD Reference:	GL 3698.7 + 26' KB @ 3724.70usft (Independence 205)
Project:	Lea County, NM	MD Reference:	GL 3698.7 + 26' KB @ 3724.70usft (Independence 205)
Site:	Avion Federal Com	North Reference:	Grid
Well:	Avion Federal Com #301H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	plan2		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
26.00	26.00	0.00	0.00	Ground Level at 26.00' MD
5,930.00	5,930.00	0.00	0.00	Start Build 2.00
6,330.00	6,328.70	27.88	-0.18	Start 2510.00 hold at 6330.00 MD
8,840.00	8,814.27	377.20	-2.44	Start Drop -2.00
9,240.00	9,212.98	405.08	-2.62	Start DLS 12.00 TFO 179.63
9,994.26	9,690.42	-76.64	0.51	Start 9806.55 hold at 9994.26 MD
19,800.81	9,603.00	-9,882.59	64.23	TD at 19800.81