

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELL HOBBBS OCD**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.
JUN 10 2019

SUBMIT IN TRIPLICATE - Other Instructions on page 2

RECEIVED

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NMNM123530
2. Name of Operator COG OPERATING LLC		6. If Indian, Allottee or Tribe Name
Contact: MAYTE 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. BASEBALL CAP FEDERAL COM 705H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 25 T24S R34E SWSE 390FSL 2335FEL 32.182182 N Lat, 103.422737 W Lon		9. API Well No. 30-025-45789-00-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
☐ Subsequent Report	☐ Alter Casing
☐ Final Abandonment Notice	☐ Casing Repair
	☐ Change Plans
	☐ Convert to Injection
	☐ Deepen
	☐ Hydraulic Fracturing
	☐ New Construction
	☐ Plug and Abandon
	☐ Plug Back
	☐ Production (Start/Resume)
	☐ Recalibrate
	☐ Recombine
	☐ Temporarily Abandon
	☐ Water Disposal
	☐ Water Shut-Off
	☐ Well Integrity
	☒ Other Change to Original APD

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 LLC, respectfully requests approval for the following changes to the original APD.

BHL Change
From: 200' FNL & 2310' FEL Section 24. T24S. R34E
To: 200' FNL & 2310' FWL Section 24. T24S. R34E.

Formation Change:
From: Wildcat; Wolfcamp 98116
To: Wildcat; Bone Spring

Target formation will be the 3rd BSS at a TVD of 12,606'.

All previous COAs shall apply.

14. I hereby certify that the foregoing is true and correct.	
Electronic Submission #461756 verified by the BLM Well Information System For COG OPERATING LLC, sent to the Hobbs Committed to AFMSS for processing by PRISCILLA PEREZ on 04/17/2019 (19PP1569SE)	
Name (Printed/Typed) MAYTE REYES	Title SENIOR REGULATORY ANALYST
Signature (Electronic Submission)	Date 04/17/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By ZQIA STEVENS	Title PETROLEUM ENGINEER	Date 05/08/2019
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 **

Additional data for EC transaction #461756 that would not fit on the form

32. Additional remarks, continued

Intermediate

5M BOP System

Drill 12.25" hole to 11,900'

Set 9.625" 47# HCL-80 BTC @ 11,900'

Cement in two stages to surface with DV tool and ECP @ 5,490'

First Stage:

Lead: 950 sx of Halliburton NeoCem (11.0 ppg / 2.81 cuft/ sx)

Tail: 300 sx of Class H (16.4 ppg/ 1.10 cuft/sx)

Second Stage:

Lead: 750 sx of Halliburton NeoCem (11.0 ppg / 2.81 cuft/ sx)

Tail: 100 sx of Class C + 2% CaCl₂ (14.8 ppg/ 1.35 cuft/sx)

C102 Attached.

DISTRICT I
1020 N. FRANCIS DR., SOUTHWEST, NM 87505
Phone: (505) 263-0101 Fax: (505) 263-0720

DISTRICT II
811 S. FIRST ST., ARTESIA, NM 88210
Phone: (505) 748-1223 Fax: (505) 748-0720

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

DISTRICT IV
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505
Phone: (505) 476-3490 Fax: (505) 476-3492

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 30-025-45789	Pool Code 96434	Pool Name RED HILLS	Bone Spring, NORTH
Property Code 719803	Property Name BASEBALL CAP FEDERAL COM		Well Number 705H
OGRID No. 229137	Operator Name COG OPERATING, LLC		Elevation 3388.3'

Surface Location

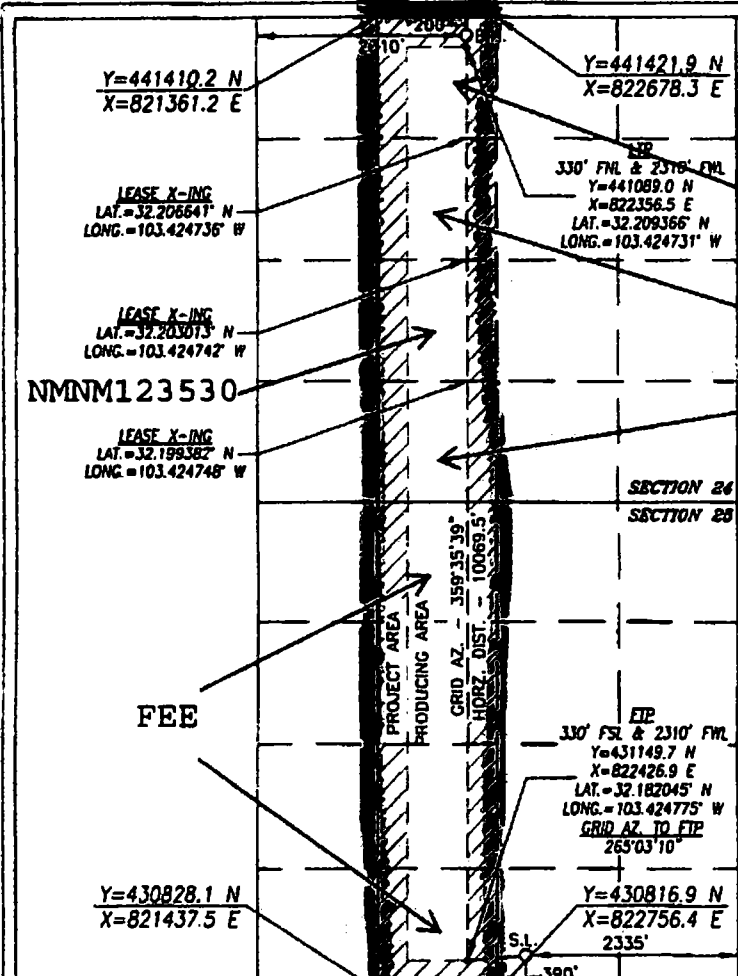
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	25	24-S	34-E		390	SOUTH	2335	EAST	LEA

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
C	24	24-S	34-E		200	NORTH	2310	WEST	LEA

Dedicated Acres 320	Joint or Infill	Consolidation Code	Order No.
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**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**

	NAD 83 NME <u>PROPOSED BOTTOM HOLE LOCATION</u> Y=441219.0 N X=822355.6 E LAT.=32.209723° N LONG.=103.424731° W NMN015684 FEE	OPERATOR CERTIFICATION I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature <u>Mayte Reyes</u> Date <u>8/26/18</u> Printed Name <u>Mayte Reyes</u> E-mail Address <u>mreyes1@concho.com</u>
	NAD 83 NME <u>SURFACE LOCATION</u> Y=431204.4 N X=823058.2 E LAT.=32.182181° N LONG.=103.422734° W SECTION 24 SECTION 25 GRID AZ. TO FTP 265°03'10" 330' FSL & 2310' FWL Y=431149.7 N X=822426.9 E LAT.=32.182045° N LONG.=103.424775° W	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. AUGUST 7, 2018 Date of Survey Signature & Seal of Professional Surveyor  Chad L. HARCROW NEW MEXICO 17777 LICENSED PROFESSIONAL SURVEYOR 8/26/18 Certificate No. CHAD HARCROW 17777 W.O. # 18-930 DRAWN BY: SP



Concho Resources

Lea County, NM

Baseball Cap Federal Com

Baseball Cap Federal Com #705H

Wellbore #1

Plan: plan2

Standard Planning Report

16 April, 2019



a business unit of Turbo Drill Industries, Inc.

Database: EDM 5000.14 Single User Db
Company: Concho Resources

Project: Lea County, NM

Site: Baseball Cap Federal Com
Well: Baseball Cap Federal Com #705H
Wellbore: Wellbore #1
Design: plan2

Local Co-ordinate Reference: Well Baseball Cap Federal Com #705H
TVD Reference: GL 3388.3' + 26' KB @ 3414.30usft
 (Independence 205)
MD Reference: GL 3388.3' + 26' KB @ 3414.30usft
 (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	Baseball Cap Federal Com				
Site Position:		Northing:	431,145.50 usft	Latitude:	32° 10' 55.394 N
From:	Map	Easting:	781,902.60 usft	Longitude:	103° 25' 19.799 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.49 °

Well	Baseball Cap Federal Com #705H					
Well Position	+N/-S	0.30 usft	Northing:	431,145.80 usft	Latitude:	32° 10' 55.400 N
	+E/-W	-30.00 usft	Easting:	781,872.60 usft	Longitude:	103° 25' 20.148 W
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	3,388.30 usft

Wellbore	Wellbore #1					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)	
	HDGM	10/25/18	6.68	59.85	47,869.00000000	

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	355.99	

Plan Survey Tool Program		Date	04/16/19		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	22,677.37 plan2 (Wellbore #1)	MWD+HRGM OWSG MWD + HRGM		

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 (Independence 205)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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	
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,500.00	6.00	247.00	4,499.45	-6.13	-14.45	2.00	2.00	0.00	247.00	
10,712.50	6.00	247.00	10,677.92	-259.87	-612.21	0.00	0.00	0.00	0.00	
11,012.50	0.00	0.00	10,977.37	-266.00	-626.65	2.00	-2.00	0.00	180.00	
12,068.25	0.00	0.00	12,033.12	-266.00	-626.65	0.00	0.00	0.00	0.00	
12,977.95	90.97	359.58	12,606.00	316.64	-630.92	10.00	10.00	0.00	359.58	
22,677.37	90.98	359.58	12,441.00	10,014.40	-702.20	0.00	0.00	0.00	-13.21	Baseball Cap Federal

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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
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
Start Build 2.00									
4,300.00	2.00	247.00	4,299.98	-0.68	-1.61	-0.57	2.00	2.00	0.00
4,400.00	4.00	247.00	4,399.84	-2.73	-6.42	-2.27	2.00	2.00	0.00
4,500.00	6.00	247.00	4,499.45	-6.13	-14.45	-5.11	2.00	2.00	0.00
Start 6212.50 hold at 4500.00 MD									
4,600.00	6.00	247.00	4,598.90	-10.22	-24.07	-8.51	0.00	0.00	0.00
4,700.00	6.00	247.00	4,698.36	-14.30	-33.69	-11.91	0.00	0.00	0.00
4,800.00	6.00	247.00	4,797.81	-18.38	-43.31	-15.31	0.00	0.00	0.00
4,900.00	6.00	247.00	4,897.26	-22.47	-52.93	-18.71	0.00	0.00	0.00

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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	6.00	247.00	4,996.71	-26.55	-62.56	-22.11	0.00	0.00	0.00
5,100.00	6.00	247.00	5,096.17	-30.64	-72.18	-25.51	0.00	0.00	0.00
5,200.00	6.00	247.00	5,195.62	-34.72	-81.80	-28.92	0.00	0.00	0.00
5,300.00	6.00	247.00	5,295.07	-38.81	-91.42	-32.32	0.00	0.00	0.00
5,400.00	6.00	247.00	5,394.52	-42.89	-101.04	-35.72	0.00	0.00	0.00
5,500.00	6.00	247.00	5,493.97	-46.97	-110.67	-39.12	0.00	0.00	0.00
5,600.00	6.00	247.00	5,593.43	-51.06	-120.29	-42.52	0.00	0.00	0.00
5,700.00	6.00	247.00	5,692.88	-55.14	-129.91	-45.92	0.00	0.00	0.00
5,800.00	6.00	247.00	5,792.33	-59.23	-139.53	-49.32	0.00	0.00	0.00
5,900.00	6.00	247.00	5,891.78	-63.31	-149.15	-52.72	0.00	0.00	0.00
6,000.00	6.00	247.00	5,991.23	-67.40	-158.77	-56.12	0.00	0.00	0.00
6,100.00	6.00	247.00	6,090.69	-71.48	-168.40	-59.53	0.00	0.00	0.00
6,200.00	6.00	247.00	6,190.14	-75.56	-178.02	-62.93	0.00	0.00	0.00
6,300.00	6.00	247.00	6,289.59	-79.65	-187.64	-66.33	0.00	0.00	0.00
6,400.00	6.00	247.00	6,389.04	-83.73	-197.26	-69.73	0.00	0.00	0.00
6,500.00	6.00	247.00	6,488.50	-87.82	-206.88	-73.13	0.00	0.00	0.00
6,600.00	6.00	247.00	6,587.95	-91.90	-216.51	-76.53	0.00	0.00	0.00
6,700.00	6.00	247.00	6,687.40	-95.99	-226.13	-79.93	0.00	0.00	0.00
6,800.00	6.00	247.00	6,786.85	-100.07	-235.75	-83.33	0.00	0.00	0.00
6,900.00	6.00	247.00	6,886.30	-104.15	-245.37	-86.74	0.00	0.00	0.00
7,000.00	6.00	247.00	6,985.76	-108.24	-254.99	-90.14	0.00	0.00	0.00
7,100.00	6.00	247.00	7,085.21	-112.32	-264.62	-93.54	0.00	0.00	0.00
7,200.00	6.00	247.00	7,184.66	-116.41	-274.24	-96.94	0.00	0.00	0.00
7,300.00	6.00	247.00	7,284.11	-120.49	-283.86	-100.34	0.00	0.00	0.00
7,400.00	6.00	247.00	7,383.57	-124.58	-293.48	-103.74	0.00	0.00	0.00
7,500.00	6.00	247.00	7,483.02	-128.66	-303.10	-107.14	0.00	0.00	0.00
7,600.00	6.00	247.00	7,582.47	-132.74	-312.72	-110.54	0.00	0.00	0.00
7,700.00	6.00	247.00	7,681.92	-136.83	-322.35	-113.95	0.00	0.00	0.00
7,800.00	6.00	247.00	7,781.37	-140.91	-331.97	-117.35	0.00	0.00	0.00
7,900.00	6.00	247.00	7,880.83	-145.00	-341.59	-120.75	0.00	0.00	0.00
8,000.00	6.00	247.00	7,980.28	-149.08	-351.21	-124.15	0.00	0.00	0.00
8,100.00	6.00	247.00	8,079.73	-153.17	-360.83	-127.55	0.00	0.00	0.00
8,200.00	6.00	247.00	8,179.18	-157.25	-370.46	-130.95	0.00	0.00	0.00
8,300.00	6.00	247.00	8,278.64	-161.33	-380.08	-134.35	0.00	0.00	0.00
8,400.00	6.00	247.00	8,378.09	-165.42	-389.70	-137.75	0.00	0.00	0.00
8,500.00	6.00	247.00	8,477.54	-169.50	-399.32	-141.16	0.00	0.00	0.00
8,600.00	6.00	247.00	8,576.99	-173.59	-408.94	-144.56	0.00	0.00	0.00
8,700.00	6.00	247.00	8,676.44	-177.67	-418.57	-147.96	0.00	0.00	0.00
8,800.00	6.00	247.00	8,775.90	-181.75	-428.19	-151.36	0.00	0.00	0.00
8,900.00	6.00	247.00	8,875.35	-185.84	-437.81	-154.76	0.00	0.00	0.00
9,000.00	6.00	247.00	8,974.80	-189.92	-447.43	-158.16	0.00	0.00	0.00
9,100.00	6.00	247.00	9,074.25	-194.01	-457.05	-161.56	0.00	0.00	0.00
9,200.00	6.00	247.00	9,173.71	-198.09	-466.68	-164.96	0.00	0.00	0.00
9,300.00	6.00	247.00	9,273.16	-202.18	-476.30	-168.37	0.00	0.00	0.00
9,400.00	6.00	247.00	9,372.61	-206.26	-485.92	-171.77	0.00	0.00	0.00
9,500.00	6.00	247.00	9,472.06	-210.34	-495.54	-175.17	0.00	0.00	0.00
9,600.00	6.00	247.00	9,571.51	-214.43	-505.16	-178.57	0.00	0.00	0.00
9,700.00	6.00	247.00	9,670.97	-218.51	-514.78	-181.97	0.00	0.00	0.00
9,800.00	6.00	247.00	9,770.42	-222.60	-524.41	-185.37	0.00	0.00	0.00
9,900.00	6.00	247.00	9,869.87	-226.68	-534.03	-188.77	0.00	0.00	0.00
10,000.00	6.00	247.00	9,969.32	-230.77	-543.65	-192.17	0.00	0.00	0.00
10,100.00	6.00	247.00	10,068.77	-234.85	-553.27	-195.58	0.00	0.00	0.00

Database: EDM 5000.14 Single User Db
Company: Concho Resources

Local Co-ordinate Reference:
TVD Reference:

Well Baseball Cap Federal Com #705H
GL 3388.3' + 26' KB @ 3414.30usft
(Independence 205)

Project: Lea County, NM

MD Reference:

GL 3388.3' + 26' KB @ 3414.30usft
(Independence 205)

Site: Baseball Cap Federal Com

North Reference:

Grid

Well: Baseball Cap Federal Com #705H

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)
10,200.00	6.00	247.00	10,168.23	-238.93	-562.89	-198.98	0.00	0.00	0.00
10,300.00	6.00	247.00	10,267.68	-243.02	-572.52	-202.38	0.00	0.00	0.00
10,400.00	6.00	247.00	10,367.13	-247.10	-582.14	-205.78	0.00	0.00	0.00
10,500.00	6.00	247.00	10,466.58	-251.19	-591.76	-209.18	0.00	0.00	0.00
10,600.00	6.00	247.00	10,566.04	-255.27	-601.38	-212.58	0.00	0.00	0.00
10,700.00	6.00	247.00	10,665.49	-259.36	-611.00	-215.98	0.00	0.00	0.00
10,712.50	6.00	247.00	10,677.92	-259.87	-612.21	-216.41	0.00	0.00	0.00
Start Drop -2.00									
10,800.00	4.25	247.00	10,765.07	-262.92	-619.40	-218.95	2.00	-2.00	0.00
10,900.00	2.25	247.00	10,864.90	-265.14	-624.62	-220.80	2.00	-2.00	0.00
11,000.00	0.25	247.00	10,964.87	-265.99	-626.63	-221.51	2.00	-2.00	0.00
11,012.50	0.00	0.00	10,977.37	-266.00	-626.65	-221.51	2.00	-2.00	0.00
Start 1055.75 hold at 11012.50 MD									
11,100.00	0.00	0.00	11,064.87	-266.00	-626.65	-221.51	0.00	0.00	0.00
11,200.00	0.00	0.00	11,164.87	-266.00	-626.65	-221.51	0.00	0.00	0.00
11,300.00	0.00	0.00	11,264.87	-266.00	-626.65	-221.51	0.00	0.00	0.00
11,400.00	0.00	0.00	11,364.87	-266.00	-626.65	-221.51	0.00	0.00	0.00
11,500.00	0.00	0.00	11,464.87	-266.00	-626.65	-221.51	0.00	0.00	0.00
11,600.00	0.00	0.00	11,564.87	-266.00	-626.65	-221.51	0.00	0.00	0.00
11,700.00	0.00	0.00	11,664.87	-266.00	-626.65	-221.51	0.00	0.00	0.00
11,800.00	0.00	0.00	11,764.87	-266.00	-626.65	-221.51	0.00	0.00	0.00
11,900.00	0.00	0.00	11,864.87	-266.00	-626.65	-221.51	0.00	0.00	0.00
12,000.00	0.00	0.00	11,964.87	-266.00	-626.65	-221.51	0.00	0.00	0.00
12,068.25	0.00	0.00	12,033.12	-266.00	-626.65	-221.51	0.00	0.00	0.00
Start Build 10.00									
12,100.00	3.18	359.58	12,064.86	-265.12	-626.66	-220.64	10.00	10.00	0.00
12,200.00	13.18	359.58	12,163.71	-250.92	-626.76	-206.46	10.00	10.00	0.00
12,300.00	23.18	359.58	12,258.60	-219.77	-626.99	-175.37	10.00	10.00	0.00
12,400.00	33.18	359.58	12,346.64	-172.61	-627.34	-128.31	10.00	10.00	0.00
12,500.00	43.18	359.58	12,425.16	-110.88	-627.79	-66.70	10.00	10.00	0.00
12,600.00	53.18	359.58	12,491.76	-36.46	-628.34	7.58	10.00	10.00	0.00
12,644.82	57.66	359.58	12,517.19	0.43	-628.61	44.40	10.00	10.00	0.00
Baseball Cap Federal Com #705H FTP									
12,700.00	63.18	359.58	12,544.42	48.39	-628.96	92.27	10.00	10.00	0.00
12,800.00	73.18	359.58	12,581.55	141.11	-629.64	184.80	10.00	10.00	0.00
12,900.00	83.18	359.58	12,602.02	238.86	-630.35	282.36	10.00	10.00	0.00
12,977.95	90.97	359.58	12,606.00	316.64	-630.92	360.00	10.00	10.00	0.00
LP - Start DLS 0.00 TFO -13.21									
13,000.00	90.97	359.58	12,605.62	338.69	-631.09	382.00	0.00	0.00	0.00
13,100.00	90.97	359.58	12,603.93	438.67	-631.82	481.79	0.00	0.00	0.00
13,200.00	90.97	359.58	12,602.24	538.66	-632.55	581.58	0.00	0.00	0.00
13,300.00	90.97	359.58	12,600.54	638.64	-633.28	681.37	0.00	0.00	0.00
13,400.00	90.97	359.58	12,598.85	738.62	-634.02	781.16	0.00	0.00	0.00
13,500.00	90.97	359.58	12,597.16	838.60	-634.75	880.95	0.00	0.00	0.00
13,600.00	90.97	359.58	12,595.46	938.59	-635.48	980.74	0.00	0.00	0.00
13,700.00	90.97	359.58	12,593.77	1,038.57	-636.22	1,080.53	0.00	0.00	0.00
13,800.00	90.97	359.58	12,592.08	1,138.55	-636.95	1,180.32	0.00	0.00	0.00
13,900.00	90.97	359.58	12,590.38	1,238.54	-637.68	1,280.11	0.00	0.00	0.00
14,000.00	90.97	359.58	12,588.69	1,338.52	-638.42	1,379.90	0.00	0.00	0.00
14,100.00	90.97	359.58	12,586.99	1,438.50	-639.15	1,479.69	0.00	0.00	0.00
14,200.00	90.97	359.58	12,585.30	1,538.49	-639.88	1,579.48	0.00	0.00	0.00

Database: EDM 5000.14 Single User Db
Company: Concho Resources

Project: Lea County, NM

Site: Baseball Cap Federal Com
Well: Baseball Cap Federal Com #705H
Wellbore: Wellbore #1
Design: plan2

Local Co-ordinate Reference: Well Baseball Cap Federal Com #705H
TVD Reference: GL 3388.3' + 26' KB @ 3414.30usft
 (Independence 205)
MD Reference: GL 3388.3' + 26' KB @ 3414.30usft
 (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)
14,300.00	90.97	359.58	12,583.60	1,638.47	-640.62	1,679.26	0.00	0.00	0.00
14,400.00	90.97	359.58	12,581.91	1,738.45	-641.35	1,779.05	0.00	0.00	0.00
14,500.00	90.97	359.58	12,580.21	1,838.43	-642.08	1,878.84	0.00	0.00	0.00
14,600.00	90.97	359.58	12,578.52	1,938.42	-642.82	1,978.63	0.00	0.00	0.00
14,700.00	90.97	359.58	12,576.82	2,038.40	-643.55	2,078.42	0.00	0.00	0.00
14,800.00	90.97	359.58	12,575.12	2,138.38	-644.28	2,178.21	0.00	0.00	0.00
14,900.00	90.97	359.58	12,573.43	2,238.37	-645.02	2,278.00	0.00	0.00	0.00
15,000.00	90.97	359.58	12,571.73	2,338.35	-645.75	2,377.79	0.00	0.00	0.00
15,100.00	90.97	359.58	12,570.04	2,438.33	-646.49	2,477.58	0.00	0.00	0.00
15,200.00	90.97	359.58	12,568.34	2,538.31	-647.22	2,577.37	0.00	0.00	0.00
15,300.00	90.97	359.58	12,566.64	2,638.30	-647.95	2,677.16	0.00	0.00	0.00
15,400.00	90.97	359.58	12,564.94	2,738.28	-648.69	2,776.95	0.00	0.00	0.00
15,500.00	90.97	359.58	12,563.25	2,838.26	-649.42	2,876.74	0.00	0.00	0.00
15,600.00	90.97	359.58	12,561.55	2,938.25	-650.15	2,976.53	0.00	0.00	0.00
15,700.00	90.97	359.58	12,559.85	3,038.23	-650.89	3,076.32	0.00	0.00	0.00
15,800.00	90.97	359.58	12,558.16	3,138.21	-651.62	3,176.10	0.00	0.00	0.00
15,900.00	90.97	359.58	12,556.46	3,238.20	-652.36	3,275.89	0.00	0.00	0.00
16,000.00	90.97	359.58	12,554.76	3,338.18	-653.09	3,375.68	0.00	0.00	0.00
16,100.00	90.97	359.58	12,553.06	3,438.16	-653.83	3,475.47	0.00	0.00	0.00
16,200.00	90.97	359.58	12,551.36	3,538.14	-654.56	3,575.26	0.00	0.00	0.00
16,300.00	90.97	359.58	12,549.67	3,638.13	-655.29	3,675.05	0.00	0.00	0.00
16,400.00	90.97	359.58	12,547.97	3,738.11	-656.03	3,774.84	0.00	0.00	0.00
16,500.00	90.97	359.58	12,546.27	3,838.09	-656.76	3,874.63	0.00	0.00	0.00
16,600.00	90.97	359.58	12,544.57	3,938.08	-657.50	3,974.42	0.00	0.00	0.00
16,700.00	90.97	359.58	12,542.87	4,038.06	-658.23	4,074.21	0.00	0.00	0.00
16,800.00	90.97	359.58	12,541.17	4,138.04	-658.97	4,174.00	0.00	0.00	0.00
16,900.00	90.97	359.58	12,539.47	4,238.02	-659.70	4,273.79	0.00	0.00	0.00
17,000.00	90.97	359.58	12,537.77	4,338.01	-660.43	4,373.58	0.00	0.00	0.00
17,100.00	90.97	359.58	12,536.07	4,437.99	-661.17	4,473.37	0.00	0.00	0.00
17,200.00	90.97	359.58	12,534.37	4,537.97	-661.90	4,573.16	0.00	0.00	0.00
17,300.00	90.97	359.58	12,532.67	4,637.96	-662.64	4,672.95	0.00	0.00	0.00
17,400.00	90.97	359.58	12,530.97	4,737.94	-663.37	4,772.73	0.00	0.00	0.00
17,500.00	90.97	359.58	12,529.27	4,837.92	-664.11	4,872.52	0.00	0.00	0.00
17,600.00	90.97	359.58	12,527.57	4,937.90	-664.84	4,972.31	0.00	0.00	0.00
17,700.00	90.97	359.58	12,525.87	5,037.89	-665.58	5,072.10	0.00	0.00	0.00
17,800.00	90.97	359.58	12,524.17	5,137.87	-666.31	5,171.89	0.00	0.00	0.00
17,900.00	90.97	359.58	12,522.47	5,237.85	-667.05	5,271.68	0.00	0.00	0.00
18,000.00	90.97	359.58	12,520.77	5,337.84	-667.78	5,371.47	0.00	0.00	0.00
18,100.00	90.97	359.58	12,519.06	5,437.82	-668.52	5,471.26	0.00	0.00	0.00
18,200.00	90.98	359.58	12,517.36	5,537.80	-669.25	5,571.05	0.00	0.00	0.00
18,300.00	90.98	359.58	12,515.66	5,637.78	-669.99	5,670.84	0.00	0.00	0.00
18,400.00	90.98	359.58	12,513.96	5,737.77	-670.72	5,770.63	0.00	0.00	0.00
18,500.00	90.98	359.58	12,512.26	5,837.75	-671.46	5,870.42	0.00	0.00	0.00
18,600.00	90.98	359.58	12,510.55	5,937.73	-672.19	5,970.21	0.00	0.00	0.00
18,700.00	90.98	359.58	12,508.85	6,037.71	-672.93	6,070.00	0.00	0.00	0.00
18,800.00	90.98	359.58	12,507.15	6,137.70	-673.66	6,169.79	0.00	0.00	0.00
18,900.00	90.98	359.58	12,505.45	6,237.68	-674.40	6,269.57	0.00	0.00	0.00
19,000.00	90.98	359.58	12,503.74	6,337.66	-675.13	6,369.36	0.00	0.00	0.00
19,100.00	90.98	359.58	12,502.04	6,437.65	-675.87	6,469.15	0.00	0.00	0.00
19,200.00	90.98	359.58	12,500.34	6,537.63	-676.60	6,568.94	0.00	0.00	0.00
19,300.00	90.98	359.58	12,498.63	6,637.61	-677.34	6,668.73	0.00	0.00	0.00
19,400.00	90.98	359.58	12,496.93	6,737.59	-678.07	6,768.52	0.00	0.00	0.00

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Project: Lea County, NM

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Design: plan2

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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)
19,500.00	90.98	359.58	12,495.23	6,837.58	-678.81	6,868.31	0.00	0.00	0.00
19,600.00	90.98	359.58	12,493.52	6,937.56	-679.55	6,968.10	0.00	0.00	0.00
19,700.00	90.98	359.58	12,491.82	7,037.54	-680.28	7,067.89	0.00	0.00	0.00
19,800.00	90.98	359.58	12,490.11	7,137.53	-681.02	7,167.68	0.00	0.00	0.00
19,900.00	90.98	359.58	12,488.41	7,237.51	-681.75	7,267.47	0.00	0.00	0.00
20,000.00	90.98	359.58	12,486.70	7,337.49	-682.49	7,367.26	0.00	0.00	0.00
20,100.00	90.98	359.58	12,485.00	7,437.47	-683.22	7,467.05	0.00	0.00	0.00
20,200.00	90.98	359.58	12,483.29	7,537.46	-683.96	7,566.84	0.00	0.00	0.00
20,300.00	90.98	359.58	12,481.59	7,637.44	-684.70	7,666.63	0.00	0.00	0.00
20,400.00	90.98	359.58	12,479.88	7,737.42	-685.43	7,766.41	0.00	0.00	0.00
20,500.00	90.98	359.58	12,478.18	7,837.40	-686.17	7,866.20	0.00	0.00	0.00
20,600.00	90.98	359.58	12,476.47	7,937.39	-686.90	7,965.99	0.00	0.00	0.00
20,700.00	90.98	359.58	12,474.77	8,037.37	-687.64	8,065.78	0.00	0.00	0.00
20,800.00	90.98	359.58	12,473.06	8,137.35	-688.37	8,165.57	0.00	0.00	0.00
20,900.00	90.98	359.58	12,471.35	8,237.34	-689.11	8,265.36	0.00	0.00	0.00
21,000.00	90.98	359.58	12,469.65	8,337.32	-689.85	8,365.15	0.00	0.00	0.00
21,100.00	90.98	359.58	12,467.94	8,437.30	-690.58	8,464.94	0.00	0.00	0.00
21,200.00	90.98	359.58	12,466.23	8,537.28	-691.32	8,564.73	0.00	0.00	0.00
21,300.00	90.98	359.58	12,464.53	8,637.27	-692.06	8,664.52	0.00	0.00	0.00
21,400.00	90.98	359.58	12,462.82	8,737.25	-692.79	8,764.31	0.00	0.00	0.00
21,500.00	90.98	359.58	12,461.11	8,837.23	-693.53	8,864.10	0.00	0.00	0.00
21,600.00	90.98	359.58	12,459.41	8,937.21	-694.26	8,963.89	0.00	0.00	0.00
21,700.00	90.98	359.58	12,457.70	9,037.20	-695.00	9,063.68	0.00	0.00	0.00
21,800.00	90.98	359.58	12,455.99	9,137.18	-695.74	9,163.47	0.00	0.00	0.00
21,900.00	90.98	359.58	12,454.28	9,237.16	-696.47	9,263.25	0.00	0.00	0.00
22,000.00	90.98	359.58	12,452.57	9,337.15	-697.21	9,363.04	0.00	0.00	0.00
22,100.00	90.98	359.58	12,450.87	9,437.13	-697.95	9,462.83	0.00	0.00	0.00
22,200.00	90.98	359.58	12,449.16	9,537.11	-698.68	9,562.62	0.00	0.00	0.00
22,300.00	90.98	359.58	12,447.45	9,637.09	-699.42	9,662.41	0.00	0.00	0.00
22,400.00	90.98	359.58	12,445.74	9,737.08	-700.16	9,762.20	0.00	0.00	0.00
22,500.00	90.98	359.58	12,444.03	9,837.06	-700.89	9,861.99	0.00	0.00	0.00
22,547.39	90.98	359.58	12,443.22	9,884.44	-701.24	9,909.28	0.00	0.00	0.00
Baseball Cap Federal Com #705H LTP									
22,600.00	90.98	359.58	12,442.32	9,937.04	-701.63	9,961.78	0.00	0.00	0.00
22,677.37	90.98	359.58	12,441.00	10,014.40	-702.20	10,038.99	0.00	0.00	0.00
TD at 22677.37 MD - Baseball Cap Federal Com #705H PBHL									

Database: EDM 5000.14 Single User Db
Company: Concho Resources
Project: Lea County, NM
Site: Baseball Cap Federal Com
Well: Baseball Cap Federal Com #705H
Wellbore: Wellbore #1
Design: plan2

Local Co-ordinate Reference: Well Baseball Cap Federal Com #705H
TVD Reference: GL 3388.3' + 26' KB @ 3414.30usft
(Independence 205)
MD Reference: GL 3388.3' + 26' KB @ 3414.30usft
(Independence 205)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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
Baseball Cap Federal C	0.00	0.00	12,441.00	9,884.40	-701.20	441,030.20	781,171.40	32° 12' 33.266 N	103° 25' 27.334 W
- plan misses target center by 2.22usft at 22547.39usft MD (12443.22 TVD, 9884.44 N, -701.24 E)									
- Point									
Baseball Cap Federal C	0.00	0.01	12,441.00	10,014.40	-702.20	441,160.20	781,170.40	32° 12' 34.553 N	103° 25' 27.333 W
- plan hits target center									
- Point									
Baseball Cap Federal C	0.00	0.01	12,606.00	-54.70	-631.30	431,091.10	781,241.30	32° 10' 54.911 N	103° 25' 27.498 W
- plan misses target center by 104.56usft at 12644.82usft MD (12517.19 TVD, 0.43 N, -628.61 E)									
- Point									

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
903.30	903.30	Rustler			
1,400.30	1,400.30	TOS			
5,202.70	5,198.30	BOS (Fletcher)			
5,501.33	5,495.30	LMAR (Top Delaware)			
5,537.53	5,531.30	BLCN			
6,540.02	6,528.30	CYCN			
8,134.76	8,114.30	BYCN			
9,443.93	9,416.30	Bone Sprg (BSGL)			
9,653.08	9,624.30	U Avalon Sh			
9,972.83	9,942.30	L Avalon Sh			
10,493.68	10,460.30	B Avalon Sh			
10,629.43	10,595.30	FBSG_sand			
11,342.43	11,307.30	SBSG_sand			
11,673.43	11,638.30	SBSG_sand_Base			
12,277.02	12,237.30	TBSG_sand			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
4,200.00	4,200.00	0.00	0.00	Start Build 2.00
4,500.00	4,499.45	-6.13	-14.45	Start 6212.50 hold at 4500.00 MD
10,712.50	10,677.92	-259.87	-612.21	Start Drop -2.00
11,012.50	10,977.37	-266.00	-626.65	Start 1055.75 hold at 11012.50 MD
12,068.25	12,033.12	-266.00	-626.65	Start Build 10.00
12,977.95	12,606.00	316.64	-630.92	LP - Start DLS 0.00 TFO -13.21
22,677.37	12,441.00	10,014.40	-702.20	TD at 22677.37 MD