

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010**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 reverse side.**

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		8. Well Name and No. CARMEN 3 FEDERAL COM 15H
2. Name of Operator COG OPERATING LLC Contact: KELLY J HOLLY E-Mail: kholly@concho.com		9. API Well No. 30-015-40539
3a. Address ONE CONCHO CENTER 600 W ILLINOIS AVE MIDLAND, TX 79701	3b. Phone No. (include area code) Ph: 432-685-4384	10. Field and Pool, or Exploratory LOCO HILLS
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 3 T17S R30E Mer NMP NENE 330FNL 330FEL		11. County or Parish, and State EDDY COUNTY, NM

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

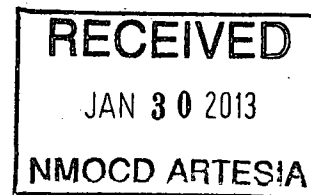
TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans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

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 shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall 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 permission to change the Horizontal TVD Depth:

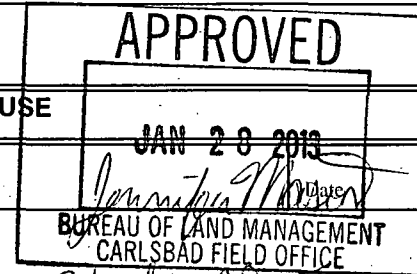
FROM: 5650'
TO: 5800'

A revised directional plan is attached for your review.

Accepted for record
NMOCD

Original COGs Stillstand

14. Thereby certify that the foregoing is true and correct.	
Electronic Submission #183410 verified by the BLM Well Information System For COG OPERATING LLC, sent to the Carlsbad Committed to AFMSS for processing by KURT SIMMONS on 01/16/2013 ()	
Name (Printed/Typed) KELLY J HOLLY	Title PERMITTING TECH
Signature (Electronic Submission)	Date 01/15/2013
THIS SPACE FOR FEDERAL OR STATE OFFICE USE	
Approved By	Title
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	
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.	



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

Plan Proposal

FOR

COG Operating, LLC
Carmen 3 Federal Com #15H
Eddy Co., NM

Design #1

Presented By:

Aaron Boger
Account Manager

Dusty Moyer
Well Planner

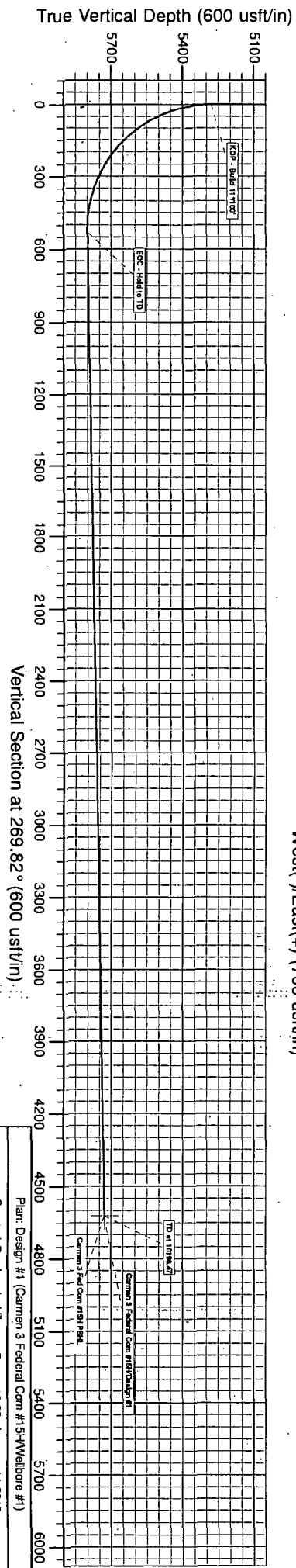
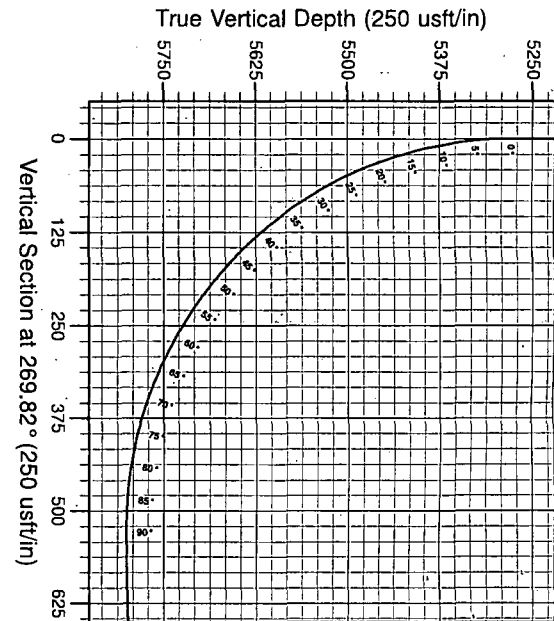
SHL
330' FNL & 330' FEL
Penetration Point
330' FNL & 330' FEL
PBHL
330' FNL & 330' FWL

WATER



Azimuths to Grid North
 True North: -0.21
 Magnetic North: 7.41
 Magnetic Field
 Strength: 48801.9sntT
 Dip Angle: 60.68
 Date: 2013/01/14
 Model: IGRF2010

PROJECT DETAILS: Eddy County(NM27E)						
Geodetic System: US State Plane 1927 (Exact solution)						
Datum: NAD 1927 (NADCON CONUS)						
Ellipsoid: Clarke 1866						
Zone: New Mexico East 3001						
Carmen 3 Fed Com #15B PBHL						
WELLBORE TARGET DETAILS (LAT/LONG)						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape Point
Carmen 3 Fed Com #15B PBHL	5728.59	-14.40	-4621.30	32° 52' 11.087 N	103° 58' 0.404 W	

[illegible]

Archer

COG Operating, LLC

Eddy County(NM27E)

Sec.3-T17S-R30E

Carmen 3 Federal Com #15H

Wellbore #1

Plan: Design #1

Standard Planning Report

14 January, 2013



Database:	EDMDBBW	Local Co-ordinate Reference:	Well: Carmen 3 Federal Com #15H
Company:	COG Operating, LLC	TVD Reference:	WELL @ 3771.00usft (Original Well Elev)
Project:	Eddy County(NM27E)	MD Reference:	WELL @ 3771.00usft (Original Well Elev)
Site:	Sec.3-T17S-R30E	North Reference:	Grid
Well:	Carmen 3 Federal Com #15H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project:	Eddy County(NM27E)		
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:	Sec.3-T17S-R30E		
Site Position:		Northing:	679,000.900 usft
From:	Map	Easting:	612,549.700 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"
		Latitude:	32° 51' 58.029 N
		Longitude:	103° 58' 0.398 W
		Grid Convergence:	0.20 °

Well:	Carmen 3 Federal Com #15H					
Well Position	+N/-S	1,334.00 usft	Northing:	680,334.900 usft	Latitude:	32° 52' 11.068
	+E/-W	4,616.20 usft	Easting:	617,165.900 usft	Longitude:	103° 57' 6.219 W
Position Uncertainty	0.00 usft		Wellhead Elevation:	usft	Ground Level:	3,757.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2013/01/14	7.62	60.68	48,802

Design:	Design #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth: 0.00	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	269.82

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)	(°)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,279.21	0.00	0.00	5,279.21	0.00	0.00	0.00	0.00	0.00	0.00	
6,106.48	91.00	269.82	5,800.00	-1.65	-529.96	11.00	11.00	0.00	269.82	Carmen 3 Fed Com #
10,198.47	91.00	269.82	5,728.59	-14.40	-4,621.30	0.00	0.00	0.00	0.00	Carmen 3 Fed Com #



Archer
Planning Report



Database:	EDMDBBW	Local Co-ordinate Reference:	Well Carmen 3 Federal Com #15H
Company:	COG Operating, LLC	TVD Reference:	WELL @ 3771.00usft (Original Well Elev)
Project:	Eddy County(NM27E)	MD Reference:	WELL @ 3771.00usft (Original Well Elev)
Site:	Sec 3-T17S-R30E	North Reference:	Grid
Well:	Carmen 3 Federal Com #15H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	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
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
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
KOP: Build 11°/100'									

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Company:	COG Operating, LLC	TVD Reference:	WELL @ 3771.00usft (Original Well Elev)
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Site:	Sec 3-T17S-R30E	North Reference:	Grid
Well:	Carmen 3 Federal Com #15H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,279.21	0.00	0.00	5,279.21	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	2.29	269.82	5,299.99	0.00	-0.41	0.41	11.00	11.00	0.00
5,350.00	7.79	269.82	5,349.78	-0.01	-4.80	4.80	11.00	11.00	0.00
5,400.00	13.29	269.82	5,398.92	-0.04	-13.94	13.94	11.00	11.00	0.00
5,450.00	18.79	269.82	5,446.96	-0.09	-27.75	27.75	11.00	11.00	0.00
5,500.00	24.29	269.82	5,493.45	-0.14	-46.10	46.10	11.00	11.00	0.00
5,550.00	29.79	269.82	5,537.97	-0.21	-68.82	68.82	11.00	11.00	0.00
5,600.00	35.29	269.82	5,580.10	-0.30	-95.70	95.70	11.00	11.00	0.00
5,650.00	40.79	269.82	5,619.47	-0.39	-126.50	126.50	11.00	11.00	0.00
5,700.00	46.29	269.82	5,655.70	-0.50	-160.92	160.92	11.00	11.00	0.00
5,750.00	51.79	269.82	5,688.47	-0.62	-198.67	198.67	11.00	11.00	0.00
5,800.00	57.29	269.82	5,717.46	-0.75	-239.37	239.38	11.00	11.00	0.00
5,850.00	62.79	269.82	5,742.43	-0.88	-282.67	282.68	11.00	11.00	0.00
5,900.00	68.29	269.82	5,763.12	-1.02	-328.17	328.17	11.00	11.00	0.00
5,950.00	73.79	269.82	5,779.37	-1.17	-375.44	375.44	11.00	11.00	0.00
6,000.00	79.29	269.82	5,791.00	-1.32	-424.04	424.05	11.00	11.00	0.00
6,050.00	84.79	269.82	5,797.93	-1.48	-473.54	473.54	11.00	11.00	0.00
6,100.00	90.29	269.82	5,800.07	-1.63	-523.48	523.48	11.00	11.00	0.00
EOC - Hold to TD									
6,106.48	91.00	269.82	5,800.00	-1.65	-529.96	529.96	11.00	11.00	0.00
6,200.00	91.00	269.82	5,798.37	-1.94	-623.46	623.46	0.00	0.00	0.00
6,300.00	91.00	269.82	5,796.62	-2.25	-723.45	723.45	0.00	0.00	0.00
6,400.00	91.00	269.82	5,794.88	-2.57	-823.43	823.43	0.00	0.00	0.00
6,500.00	91.00	269.82	5,793.13	-2.88	-923.41	923.42	0.00	0.00	0.00
6,600.00	91.00	269.82	5,791.39	-3.19	-1,023.40	1,023.40	0.00	0.00	0.00
6,700.00	91.00	269.82	5,789.64	-3.50	-1,123.38	1,123.39	0.00	0.00	0.00
6,800.00	91.00	269.82	5,787.90	-3.81	-1,223.37	1,223.37	0.00	0.00	0.00
6,900.00	91.00	269.82	5,786.15	-4.12	-1,323.35	1,323.36	0.00	0.00	0.00
7,000.00	91.00	269.82	5,784.41	-4.44	-1,423.34	1,423.34	0.00	0.00	0.00
7,100.00	91.00	269.82	5,782.66	-4.75	-1,523.32	1,523.33	0.00	0.00	0.00
7,200.00	91.00	269.82	5,780.92	-5.06	-1,623.30	1,623.31	0.00	0.00	0.00
7,300.00	91.00	269.82	5,779.17	-5.37	-1,723.29	1,723.30	0.00	0.00	0.00
7,400.00	91.00	269.82	5,777.43	-5.68	-1,823.27	1,823.28	0.00	0.00	0.00
7,500.00	91.00	269.82	5,775.68	-5.99	-1,923.26	1,923.27	0.00	0.00	0.00
7,600.00	91.00	269.82	5,773.94	-6.30	-2,023.24	2,023.25	0.00	0.00	0.00
7,700.00	91.00	269.82	5,772.19	-6.62	-2,123.23	2,123.24	0.00	0.00	0.00
7,800.00	91.00	269.82	5,770.45	-6.93	-2,223.21	2,223.22	0.00	0.00	0.00
7,900.00	91.00	269.82	5,768.70	-7.24	-2,323.19	2,323.21	0.00	0.00	0.00
8,000.00	91.00	269.82	5,766.95	-7.55	-2,423.18	2,423.19	0.00	0.00	0.00
8,100.00	91.00	269.82	5,765.21	-7.86	-2,523.16	2,523.17	0.00	0.00	0.00
8,200.00	91.00	269.82	5,763.46	-8.17	-2,623.15	2,623.16	0.00	0.00	0.00
8,300.00	91.00	269.82	5,761.72	-8.49	-2,723.13	2,723.14	0.00	0.00	0.00
8,400.00	91.00	269.82	5,759.97	-8.80	-2,823.12	2,823.13	0.00	0.00	0.00
8,500.00	91.00	269.82	5,758.23	-9.11	-2,923.10	2,923.11	0.00	0.00	0.00
8,600.00	91.00	269.82	5,756.48	-9.42	-3,023.08	3,023.10	0.00	0.00	0.00
8,700.00	91.00	269.82	5,754.74	-9.73	-3,123.07	3,123.08	0.00	0.00	0.00
8,800.00	91.00	269.82	5,752.99	-10.04	-3,223.05	3,223.07	0.00	0.00	0.00
8,900.00	91.00	269.82	5,751.25	-10.35	-3,323.04	3,323.05	0.00	0.00	0.00
9,000.00	91.00	269.82	5,749.50	-10.67	-3,423.02	3,423.04	0.00	0.00	0.00
9,100.00	91.00	269.82	5,747.76	-10.98	-3,523.01	3,523.02	0.00	0.00	0.00
9,200.00	91.00	269.82	5,746.01	-11.29	-3,622.99	3,623.01	0.00	0.00	0.00
9,300.00	91.00	269.82	5,744.27	-11.60	-3,722.97	3,722.99	0.00	0.00	0.00
9,400.00	91.00	269.82	5,742.52	-11.91	-3,822.96	3,822.98	0.00	0.00	0.00

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Carmen 3 Federal Com #15H
Company:	COG Operating, LLC	TVD Reference:	WELL @ 3771.00usft (Original Well Elev)
Project:	Eddy County(NM27E)	MD Reference:	WELL @ 3771.00usft (Original Well Elev)
Site:	Sec 3-T17S-R30E	North Reference:	Grid
Well:	Carmen 3 Federal Com #15H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,500.00	91.00	269.82	5,740.78	-12.22	-3,922.94	3,922.96	0.00	0.00	0.00
9,600.00	91.00	269.82	5,739.03	-12.54	-4,022.93	4,022.95	0.00	0.00	0.00
9,700.00	91.00	269.82	5,737.29	-12.85	-4,122.91	4,122.93	0.00	0.00	0.00
9,800.00	91.00	269.82	5,735.54	-13.16	-4,222.90	4,222.92	0.00	0.00	0.00
9,900.00	91.00	269.82	5,733.80	-13.47	-4,322.88	4,322.90	0.00	0.00	0.00
10,000.00	91.00	269.82	5,732.05	-13.78	-4,422.86	4,422.89	0.00	0.00	0.00
10,100.00	91.00	269.82	5,730.30	-14.09	-4,522.85	4,522.87	0.00	0.00	0.00
TD at 10198.47									
10,198.47	91.00	269.82	5,728.59	-14.40	-4,621.30	4,621.32	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Carmen 3 Fed Com #15	0.00	0.00	5,728.59	-14.40	-4,621.30	680,320.500	612,544.600	32° 52' 11.087 N	103° 58' 0.404 W
- plan hits target center									
- Point									

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Comment
5,279.21	5,279.21	0.00	0.00	KOP - Build 11"/100'
6,106.48	5,800.00	-1.65	-529.96	EOC - Hold to TD
10,198.47	5,728.59	-14.40	-4,621.30	TD at 10198.47