

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.*5 Lease Serial No.
NMNM118109

6 If Indian, Allottee or Tribe Name

7 If Unit or CA/Agreement, Name and/or No

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other8. Well Name and No
TUMAK FEDERAL 32. Name of Operator
COG OPERATING LLCContact KELLY J HOLLY
E-Mail: kholly@conchoresources.com

9 API Well No

30-015-40459

3a. Address
550 WEST TEXAS AVENUE SUITE 100
MIDLAND, TX 797013b. Phone No (include area code)
Ph: 432-685-438410 Field and Pool, or Exploratory
EMPIRE; Gler-Yeso

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 14 T17S R28E SWSW 245FSL 230FWL

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 recompleate 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/BLA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleation 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 submitted APD for this well at this location:
SHL: 245' FSL & 230' FWL, Unit M

COG Operating LLC respectfully requests permission to add a BHL:
SHL: 245' FSL & 230' FWL, Unit M
BHL: 330' FSL & 330' FWL, Unit M

Reason for adding a BHL is to avoid a Non-Standard location

A revised C-102 and directional plan are attached.

RECEIVED

JUL 11 2012

Accepted for record
NMOCD

NMOCD ARTESIA

TES 7/12/2012

14 I hereby certify that the foregoing is true and correct

Electronic Submission #141049 verified by the BLM Well Information System

For COG OPERATING LLC, sent to the Carlsbad

Committed to AFMSS for processing by BEVERLY WEATHERFORD on 06/21/2012 (12BMW0097SE)

Name (Printed/Typed) KELLY J HOLLY

Title PERMITTING TECH

Signature (Electronic Submission)

Date 06/19/2012

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By CHRISTOPHER WALLS

Title PETROLEUM ENGINEER

Date 07/09/2012

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

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

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

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 Brazos 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, 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 30-015-	Pool Code 96210	Pool Name Empire; Glorieta Yeso
Property Code	Property Name TUMAK FEDERAL	Well Number 3
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3702'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	14	17-S	28-E		245	SOUTH	230	WEST	EDDY

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
M	14	17-S	28-E		330	SOUTH	330	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
40			

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

CORNER COORDINATES
A) Y=665980.2 N; X=554845.5 E
B) Y=666102.5 N; X=556140.5 E
C) Y=664774.1 N; X=556176.8 E
D) Y=664652.5 N; X=554883.3 E

GEODETIC COORDINATES
NAD 27 NME
SURFACE LOCATION
Y=664919.4 N
X=555105.8 E
LAT.=32.827822° N
LONG.=104.153939° W
BOTTOM HOLE LOCATION
Y=665013.9 N
X=555203.1 E

DETAIL
T17S R28E
B.H.
330'
230'
245'
330'
GRID AZ.=45°49'23"
HORIZ.DIST.=135.7'

DETAIL
3710.2'
3689.1'
600'
3703.6'
3695.6'

SEE DETAIL

Estimated completed
Interval: 330 FSL + 330 FWL

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.

6-19-12
Signature Date
Kelly J. Holly
Printed Name
kholly@concho.com
E-mail Address

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.

SEPTEMBER 28, 2011
Date of Survey
Signature & Seal of Professional Surveyor:

Ronald J. Eidson 05/30/2012
Certificate Number 12641
Ronald J. Eidson 3239
AF/DSR RefWO#11.11.1093 JWSC W.O.: 12 13 0987



COG Operating LLC

Eddy County, NM (NAN27 NME)

Tumak Federal #3

OH

Plan #1 7-7/8" Hole

Surface: 245' FSL, 230' FWL, Sec 14, T17S, R28E, Unit M

BHL: 380' FSL, 380' FWL, Sec 14, T17S, R28E, Unit M

Paddock Top = 90' N of Surface & 88' E of Surface @ 3650' TVD

Penetration Point: 330 FSL 330 FWL

Standard Planning Report

12 June, 2012





Scientific Drilling International, Inc.
Planning Report



Database: EDM 5000.1 Single User Db
Company: COG Operating LLC
Project: Eddy County, NM (NAN27 NME)
Site: Tumak Federal #3
Well: Tumak Federal #3
Wellbore: OH
Design: Plan #1 7-7/8" Hole

Local Co-ordinate Reference: Site Tumak Federal #3
TVD Reference: GL @ 3702.00usft
MD Reference: GL @ 3702.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project:	Eddy County, NM (NAN27 NME)		
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:	Tumak Federal #3		
Site Position:	Northing:	664,919.40 usft	Latitude: 32° 49' 40.158 N
From: Map	Easting:	555,105.80 usft	Longitude: 104° 9' 14.182 W
Position Uncertainty:	0.00 usft	Slot Radius: 13-3/16 "	Grid Convergence: 0.10 °

Well:	Tumak Federal #3		
Well Position	+N/-S	0.00 usft	Northing: 664,919.40 usft
	+E/-W	0.00 usft	Easting: 555,105.80 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	Ground Level: 3,702.00 usft

Wellbore:	OH		
Magnetic:	Model Name	Sample Date	Declination
	IGRF2010	06/12/12	7.78
			Dip Angle
			60.82
			Field Strength
			48,814

Design:	Plan #1 7-7/8" Hole		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			(°)
			44.30

Plan Options										
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	
950.00	0.00	0.00	950.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,086.38	2.73	44.30	1,086.33	2.32	2.27	2.00	2.00	32.48	44.30	
5,404.94	2.73	44.30	5,400.00	149.40	145.80	0.00	0.00	0.00	0.00	PBHL-Tumak Fed #3



Scientific Drilling International, Inc.
Planning Report



Database: EDM 5000.1 Single User Db
Company: COG Operating LLC
Project: Eddy County, NM (NAN27 NME)
Site: Tumak Federal #3
Well: Tumak Federal #3
Wellbore: OH
Design: Plan #1 7-7/8" Hole

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Site Tumak Federal #3
GL @ 3702.00usft
GL @ 3702.00usft
Grid
Minimum Curvature

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/S (usft)	+E/W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Bulk 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	
850.00	0.00	0.00	850.00	0.00	0.00	0.00	0.00	0.00	0.00	
8-5/8" Casing										
950.00	0.00	0.00	950.00	0.00	0.00	0.00	0.00	0.00	0.00	
KOP Start Build 2.00°/100'										
1,000.00	1.00	44.30	1,000.00	0.31	0.30	0.44	2.00	2.00	0.00	
1,086.38	2.73	44.30	1,086.33	2.32	2.27	3.25	2.00	2.00	0.00	
EOC hold 2.73°										
1,100.00	2.73	44.30	1,099.93	2.79	2.72	3.89	0.00	0.00	0.00	
1,200.00	2.73	44.30	1,199.82	6.19	6.04	8.65	0.00	0.00	0.00	
1,300.00	2.73	44.30	1,299.71	9.60	9.37	13.41	0.00	0.00	0.00	
1,400.00	2.73	44.30	1,399.59	13.00	12.69	18.17	0.00	0.00	0.00	
1,500.00	2.73	44.30	1,499.48	16.41	16.01	22.93	0.00	0.00	0.00	
1,600.00	2.73	44.30	1,599.37	19.82	19.34	27.69	0.00	0.00	0.00	
1,700.00	2.73	44.30	1,699.25	23.22	22.68	32.45	0.00	0.00	0.00	
1,800.00	2.73	44.30	1,799.14	26.63	25.99	37.20	0.00	0.00	0.00	
1,900.00	2.73	44.30	1,899.03	30.03	29.31	41.96	0.00	0.00	0.00	
2,000.00	2.73	44.30	1,998.91	33.44	32.63	46.72	0.00	0.00	0.00	
2,100.00	2.73	44.30	2,098.80	36.84	35.96	51.48	0.00	0.00	0.00	
2,200.00	2.73	44.30	2,198.69	40.25	39.28	56.24	0.00	0.00	0.00	
2,300.00	2.73	44.30	2,298.57	43.65	42.60	61.00	0.00	0.00	0.00	
2,400.00	2.73	44.30	2,398.46	47.06	45.93	65.76	0.00	0.00	0.00	
2,500.00	2.73	44.30	2,498.35	50.47	49.25	70.52	0.00	0.00	0.00	
2,600.00	2.73	44.30	2,598.23	53.87	52.57	75.27	0.00	0.00	0.00	
2,700.00	2.73	44.30	2,698.12	57.28	55.90	80.03	0.00	0.00	0.00	
2,800.00	2.73	44.30	2,798.01	60.68	59.22	84.79	0.00	0.00	0.00	
2,900.00	2.73	44.30	2,897.89	64.09	62.55	89.55	0.00	0.00	0.00	
3,000.00	2.73	44.30	2,997.78	67.49	65.87	94.31	0.00	0.00	0.00	
3,100.00	2.73	44.30	3,097.67	70.90	69.19	99.07	0.00	0.00	0.00	
3,200.00	2.73	44.30	3,197.55	74.31	72.52	103.83	0.00	0.00	0.00	
3,300.00	2.73	44.30	3,297.44	77.71	75.84	108.59	0.00	0.00	0.00	
3,400.00	2.73	44.30	3,397.33	81.12	79.16	113.34	0.00	0.00	0.00	
3,500.00	2.73	44.30	3,497.21	84.52	82.49	118.10	0.00	0.00	0.00	
3,600.00	2.73	44.30	3,597.10	87.93	85.81	122.86	0.00	0.00	0.00	
3,652.96	2.73	44.30	3,650.00	89.73	87.57	125.38	0.00	0.00	0.00	
Top of Paddock										
3,700.00	2.73	44.30	3,696.99	91.33	89.14	127.62	0.00	0.00	0.00	
3,800.00	2.73	44.30	3,796.87	94.74	92.46	132.38	0.00	0.00	0.00	
3,900.00	2.73	44.30	3,896.76	98.15	95.78	137.14	0.00	0.00	0.00	
4,000.00	2.73	44.30	3,996.65	101.55	99.11	141.90	0.00	0.00	0.00	
4,100.00	2.73	44.30	4,096.53	104.96	102.43	146.66	0.00	0.00	0.00	
4,200.00	2.73	44.30	4,196.42	108.36	105.75	151.41	0.00	0.00	0.00	
4,300.00	2.73	44.30	4,296.31	111.77	109.08	156.17	0.00	0.00	0.00	
4,400.00	2.73	44.30	4,396.19	115.17	112.40	160.93	0.00	0.00	0.00	
4,500.00	2.73	44.30	4,496.08	118.58	115.72	165.69	0.00	0.00	0.00	
4,600.00	2.73	44.30	4,595.97	121.99	119.05	170.45	0.00	0.00	0.00	
4,700.00	2.73	44.30	4,695.85	125.39	122.37	175.21	0.00	0.00	0.00	
4,800.00	2.73	44.30	4,795.74	128.80	125.70	179.97	0.00	0.00	0.00	
4,900.00	2.73	44.30	4,895.63	132.20	129.02	184.73	0.00	0.00	0.00	
5,000.00	2.73	44.30	4,995.51	135.61	132.34	189.48	0.00	0.00	0.00	
5,100.00	2.73	44.30	5,095.40	139.01	135.67	194.24	0.00	0.00	0.00	
5,200.00	2.73	44.30	5,195.29	142.42	138.99	199.00	0.00	0.00	0.00	
5,300.00	2.73	44.30	5,295.17	145.82	142.31	203.76	0.00	0.00	0.00	
5,400.00	2.73	44.30	5,395.06	149.23	145.64	208.52	0.00	0.00	0.00	



Scientific Drilling International, Inc.
Planning Report



Database: EDM 5000.1 Single User Db
Company: COG Operating LLC
Project: Eddy County, NM (NAN27 NME)
Site: Tumak Federal #3
Well: Tumak Federal #3
Wellbore: OH
Design: Plan #1 7-7/8" Hole

Local Coordinate Reference: Site Tumak Federal #3
TVD Reference: GL @ 3702.00usft
MD Reference: GL @ 3702.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
5,404.94	2.73	44.30	5,400.00	149.40	145.80	208.75	0.00	0.00	0.00
PBHL-Tumak Fed #3									

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N-S (usft)	+E-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL-Tumak Fed #3	0.00	0.01	5,400.00	149.40	145.80	665,068.80	555,251.60	32° 49' 41.634 N	104° 9' 12.470 W
- plan hits target center									
- Circle (radius 50.00)									

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
850.00	850.00	8-5/8" Casing	8-5/8	12-1/4

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,652.96	3,650.00	Top of Paddock		0.00	

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates	Comment
950.00	950.00	+N-S (usft) 0.00 +E-W (usft) 0.00	KOP Start Build 2.00°/100'
1,086.38	1,086.33	+N-S (usft) 2.32 +E-W (usft) 2.27	EOC hold 2.73°

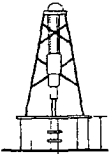


Tumak Federal #3
Eddy County, NM (NAN27 NME)
Northing (Y) 664919.40
Easting (X) 555105.80
Plan #1 7-7/8" Hole

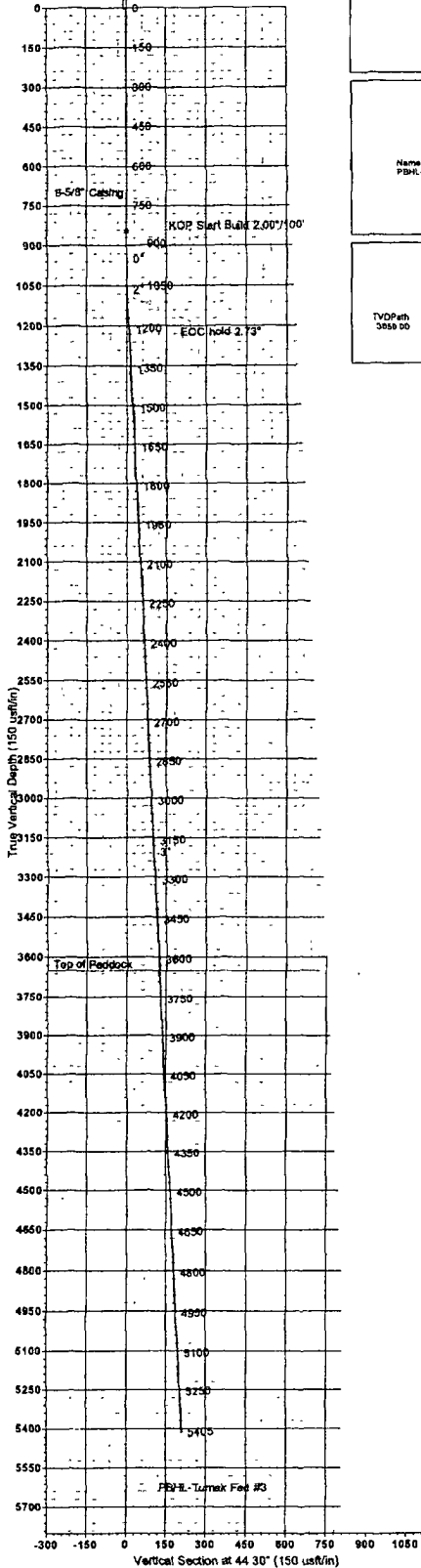


Assume to Grid North
True North -0.10°
Magnetic North 7.68°
Magnetic Field
Strength 48813.8 nT
Dip Angle 80.62°
Date 09/12/2012
Model IGRF2010

To convert Magnetic North to Grid, Add 7.68°
To convert True North to Grid, Subtract 0.10°



GL 3782.00



WELL DETAILS: Tumak Federal #3

Well-S	Well-W	Northing	Ground Level	3782.00	Latitude	Longitude	Slut
0.00	0.00	664919.40	Easting	555105.80	32° 46' 40.154 N	104° 6' 14.182 W	

SITE DETAILS: Tumak Federal #3

Site Centre Northing: 664919.40
Easting: 555105.80
Positional Uncertainty: 0.00
Convergence: 0.10
Local North: Grid

SECTION DETAILS

Sec	MD	Inc	Az	TVD	+N-S	+E-W	Dip	Tface	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	850.00	0.00	0.00	850.00	0.00	0.00	0.00	0.00	0.00	
3	1689.58	2.73	44.30	1688.33	2.32	2.27	2.50	44.30	3.25	
4	5404.94	2.73	44.30	6400.00	149.40	145.40	0.00	0.00	208.75	PBHL Tumak Fed #3

DESIGN TARGET DETAILS

Name	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude	Shape
PBHL-Tumak Fed #3 - plan hits target center	5400.00	149.40	145.40	665008.90	555351.80	32° 46' 41.034 N	104° 6' 12.470 W	Circle (Radius: 50.00)

FORMATION TOP DETAILS

TVDPath	MDPath	Formation	DipAngle	DipDir
3639.00	3652.06	Top of Padlock	0.00	

CASING DETAILS

TVD	MD	Name	Size
850.00	850.00	8-5/8" Casing	8-5/8"

PROJECT DETAILS: Eddy County, NM (NAN27 NME)

Geodetic System: US State Plane 1987 (Exact solution)
Datum: NAD 1987 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

