

Submit 1 Copy To Appropriate District
Office
District I - (575) 393-6161
1625 N French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM
87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised August 1, 2011

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS)		WELL API NO. 30-015-40254
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐		5. Indicate Type of Lease STATE ☒ FEE ☐
2. Name of Operator COG Operating LLC		6. State Oil & Gas Lease No.
3. Address of Operator One Concho Center - 600 W Illinois Ave Midland, TX 79701		7. Lease Name or Unit Agreement Name BR-549 State
4. Well Location Unit Letter D : 205 feet from the NORTH line and 180 feet from the WEST line Section 27 Township 17S Range 29E NMPM County EDDY		8. Well Number 5
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3545'		9. OGRID Number 229137
		10. Pool name or Wildcat Bear Grass Draw: Glor-Yeso 97534

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐

OTHER: **Add BHL**



OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

COG Operating LLC submitted APD for this well at this location:
SHL: 205' FNL 180' FWL, Unit D

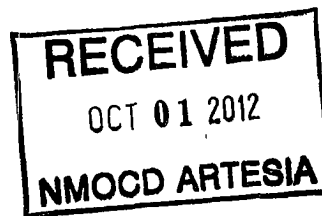
COG Operating LLC respectfully requests permission to add a BHL:
SHL: 205' FNL 180' FWL, Unit D
BHL: 330' FNL 330' FWL, Unit D

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

A revised C-102 and directional plan are attached for your review.

Spud Date:

Rig Release Date:



I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE [Signature] TITLE Permitting Tech DATE 10/1/2012

Type or print name Kelly J. Holly E-mail address: kholly@concho.com PHONE: 432-685-4384
For State Use Only

APPROVED BY: [Signature] TITLE Geologist DATE 10/1/2012
Conditions of Approval (if any):

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 30-015-40254	Pool Code 97534	Pool Name Bear Grass Draw; Glor-Yeso
Property Code 308156	Property Name BR-549 STATE	Well Number 5
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3545'

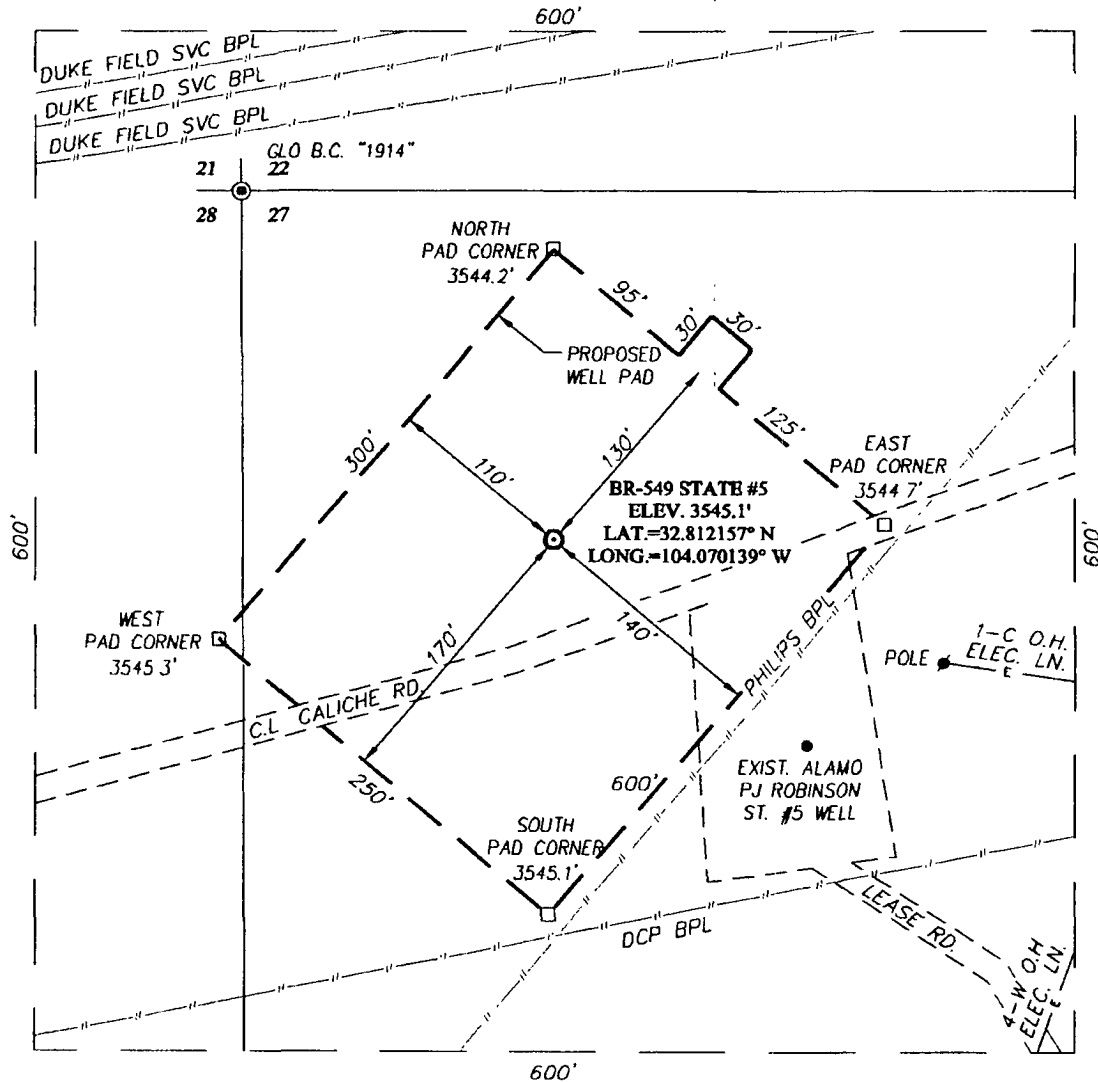
Surface Location									
UL or lot No. D	Section 27	Township 17-S	Range 29-E	Lot Idn	Feet from the 205	North/South line NORTH	Feet from the 180	East/West line WEST	County EDDY

Bottom Hole Location If Different From Surface									
UL or lot No. D	Section 27	Township 17-S	Range 29-E	Lot Idn	Feet from the 330	North/South line NORTH	Feet from the 330	East/West line WEST	County EDDY
Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

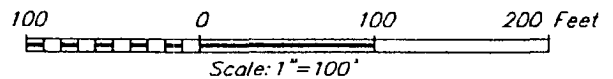
Estimated Completed Interval: 340 FNL + 340 FWL	CORNER COORDINATES A) Y=659479.5 N; X=580680.8 E B) Y=659479.7 N; X=582001.5 E C) Y=658157.9 N; X=582007.4 E D) Y=658156.9 N; X=580685.9 E	OPERATOR CERTIFICATION I hereby certify that the information herein is true and complete to the best of my knowledge 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 10-1-12 Signature Date Kelly J. Holly Printed Name kholly@concho.com E-mail Address	
	GEODETC COORDINATES NAD 27 NME SURFACE LOCATION Y=659274.6 N X=580861.5 E		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 MARCH 29, 2012
	LAT.=32.812157° N LONG.=104.070139° W BOTTOM HOLE LOCATION Y=659149.7 N X=581012.0 E		Date of Survey Signature & Seal of Professional Surveyor: Ronald E. Eidson 03/15/2012
	DSR Rel W.O. #12.13.1430		Certificate Number: Gary S. Eidson 12641 Ronald E. Eidson 3239

SECTION 27, TOWNSHIP 17 SOUTH, RANGE 29 EAST, N.M.P.M.
EDDY COUNTY **NEW MEXICO**



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF U.S. HWY. #82 (LOVINGTON HWY.) AND CO. RD. #212 (VALLEY GAS RD.). GO SOUTHEAST ON CO. RD. #212 APPROX. 0.4 MILES. TURN LEFT AND GO EAST APPROX. 0.2 MILES TO THE LOCATION



COG OPERATING, LLC

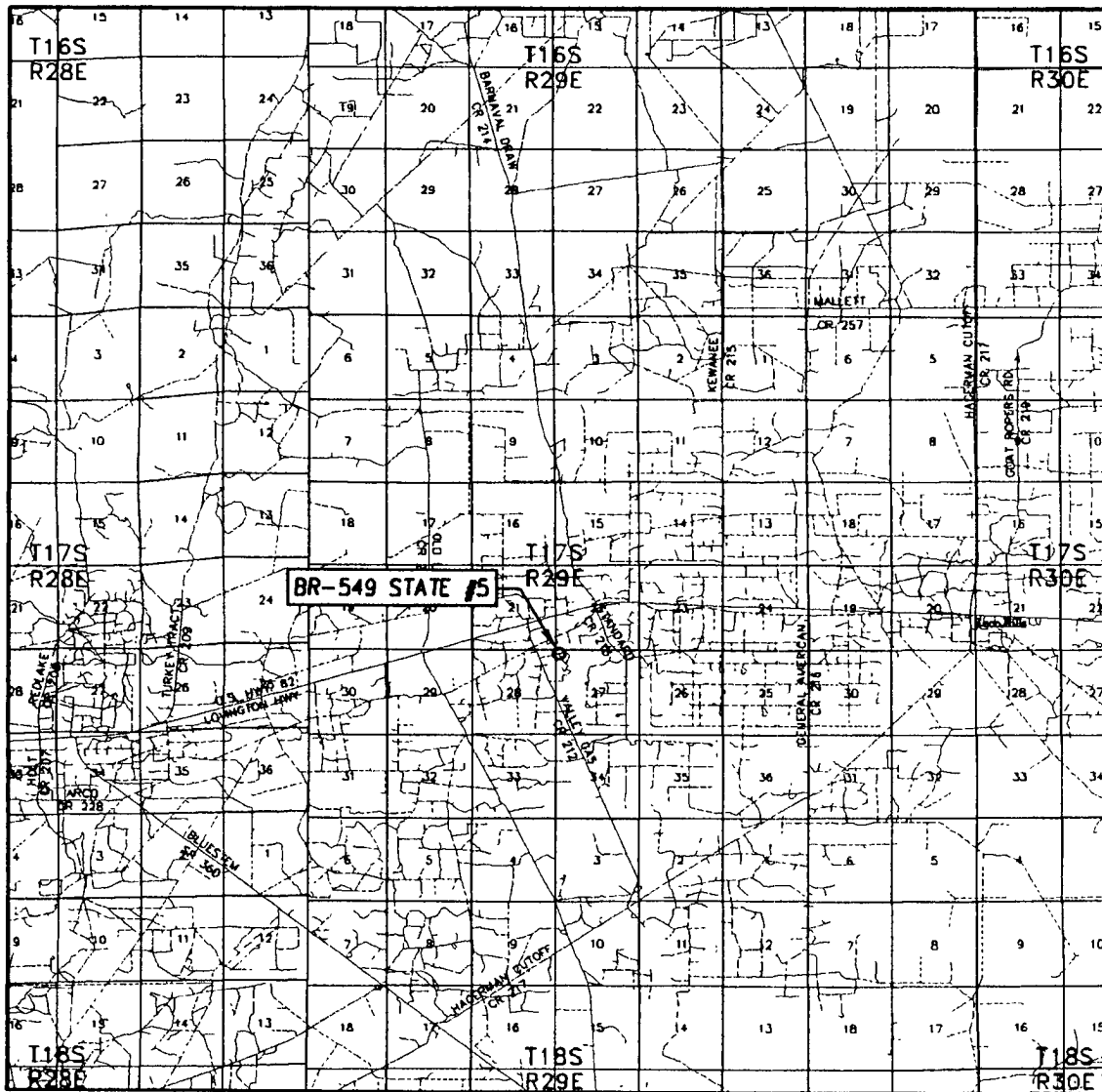
BR-549 STATE #5 WELL
LOCATED 205 FEET FROM THE NORTH LINE
AND 180 FEET FROM THE WEST LINE OF SECTION 27,
TOWNSHIP 17 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO

PROVIDING SURVEYING SERVICES
 SINCE 1946
JOHN WEST SURVEYING COMPANY
 412 N DAL PASO
 HOBBS, N.M. 88240
 (575) 393-3117 www.jwsc.biz

Survey Date: 3/29/12	CAD Date: 4/27/12	Drawn By: ACR
W.O. No: 12110641	Rev:	Rel. W.O.:

Sheet 1 of 1

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 27 TWP. 17-S RGE. 29-E

SURVEY N.M.P.M

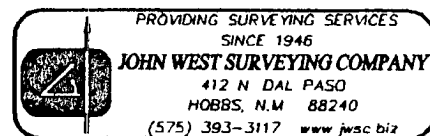
COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 205' FNL & 180' FWL

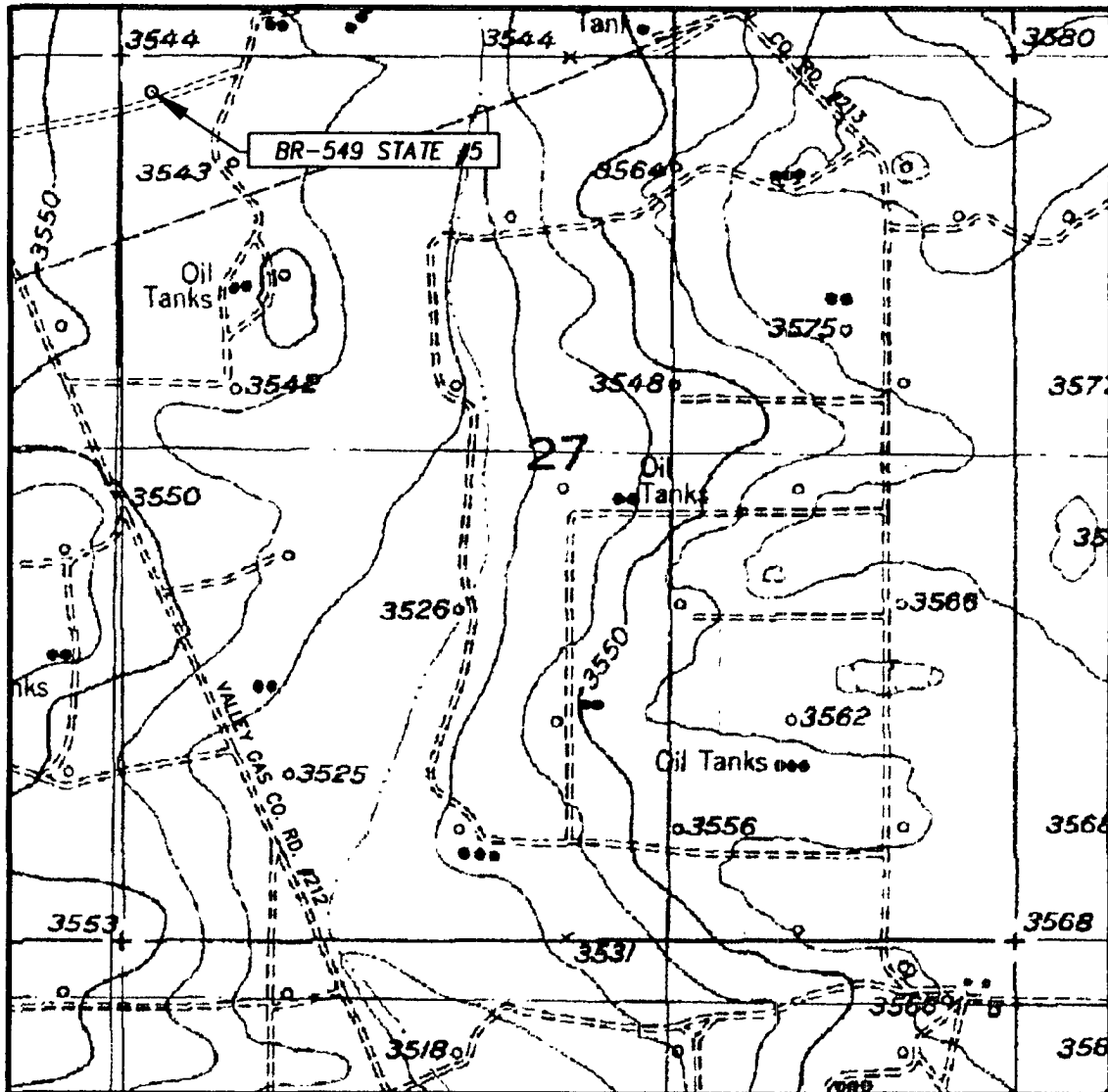
ELEVATION 3545'

OPERATOR COG OPERATING, LLC

LEASE BR-549 STATE



LOCATION VERIFICATION MAP



SCALE: 1" = 1000'

CONTOUR INTERVAL:
RED LAKE SE, N.M. - 10'

SEC 27 TWP 17-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 205' FNL & 180' FWL

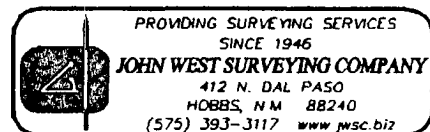
ELEVATION 3545'

OPERATOR COG OPERATING, LLC

LEASE BR-549 STATE

U.S.G.S. TOPOGRAPHIC MAP

RED SPRING LAKE SE, NM





COG Operating LLC

Eddy County, NM (NAN27 NME)

BR-549 State #5

OH

Plan #1 - 7-7/8" Hole

Surface: 205' FNL, 180' FWL, Sec 27, T17S, R29E, Unit D

Top of Paddock @ 3950' TVD: 340' FNL, 340' FWL, Sec 27, T17S, R29E, Unit D

BHL: 340' FNL, 340' FWL, Sec 27, T17S, R29E, Unit D

Standard Planning Report

26 September, 2012





Scientific Drilling
Planning Report



Database: EDM 5000 1 Single User Db
Company: COG Operating LLC
Project: Eddy County, NM (NAN27 NME)
Site: BR-549 State
Well: #5
Wellbore: OH
Design: Plan #1 - 7-7/8" Hole

Local Co-ordinate Reference: Well #5
TVD Reference: GL @ 3545.00usft
MD Reference: GL @ 3545.00usft
North Reference: Grd
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		Using geodetic scale factor

Site	BR-549 State		
Site Position:		Northing:	659,274.60 usft
From:	Map	Easting:	580,861.50 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"
		Latitude:	32° 48' 43.767 N
		Longitude:	104° 4' 12.502 W
		Grid Convergence:	0.14°

Well	#5		
Well Position	+N-S	0.00 usft	Northing:
	+E-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	
		Latitude:	32° 48' 43.767 N
		Longitude:	104° 4' 12.502 W
		Ground Level:	3,545.00 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010	9/26/2012	(°)
			Dip Angle
			(°)
			Field Strength
			(nT)
			60.61
			48,786

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
			(°)
			130.05

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	
1,050.00	0.00	0.00	1,050.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,274.03	4.48	130.05	1,273.80	-5.63	6.70	2.00	2.00	0.00	130.05	
3,733.95	4.48	130.05	3,726.20	-129.28	153.81	0.00	0.00	0.00	0.00	
3,957.97	0.00	0.00	3,950.00	-134.91	160.51	2.00	-2.00	0.00	180.00	T1-#1
5,907.97	0.00	0.00	5,900.00	-134.91	160.51	0.00	0.00	0.00	0.00	PBHL-#1



Scientific Drilling
Planning Report



Database: EDM 5000.1 Single User Db
Company: COG Operating LLC
Project: Eddy County, NM (NAN27 NME)
Site: BR-549 State
Well: #5
Wellbore: OH
Design: Plan #1 - 7-7/8" Hole

Local Co-ordinate Reference: Well #5
TVD Reference: GL @ 3545 00usft
MD Reference: GL @ 3545 00usft
North Reference: Gnd
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
950 00	0 00	0 00	950 00	0 00	0 00	0 00	0 00	0 00	0 00
8-5/8" Casing									
1,050 00	0 00	0 00	1,050 00	0 00	0 00	0 00	0 00	0 00	0 00
KOP Start Build 2.00									
1,100 00	1 00	130 05	1,100 00	-0 28	0 33	0 44	2 00	2 00	0 00
1,200 00	3 00	130 05	1,199 93	-2 53	3 01	3 93	2 00	2 00	0 00
1,274 03	4 48	130 05	1,273 80	-5 63	6 70	8 75	2 00	2 00	0 00
Start 2459.92 hold at 1274.03 MD									
1,300 00	4 48	130 05	1,299.69	-6.94	8 26	10 78	0 00	0 00	0 00
1,400 00	4 48	130 05	1,399 39	-11 96	14 24	18 60	0 00	0 00	0 00
1,500 00	4 48	130 05	1,499 08	-16 99	20 22	26 41	0 00	0 00	0 00
1,600 00	4 48	130 05	1,598 78	-22 02	26 20	34 22	0 00	0 00	0 00
1,700 00	4 48	130 05	1,698 47	-27 04	32 18	42 03	0 00	0 00	0 00
1,800 00	4 48	130 05	1,798 16	-32 07	38 16	49 84	0 00	0 00	0 00
1,900 00	4 48	130 05	1,897 86	-37 10	44 14	57 66	0 00	0 00	0 00
2,000 00	4 48	130 05	1,997 55	-42 12	50 12	65 47	0 00	0 00	0 00
2,100 00	4 48	130 05	2,097 25	-47 15	56 10	73 28	0 00	0 00	0 00
2,200 00	4 48	130 05	2,196 94	-52 18	62 08	81 09	0 00	0 00	0 00
2,300 00	4 48	130 05	2,296.64	-57 20	68 06	88 90	0 00	0 00	0 00
2,400 00	4 48	130 05	2,396 33	-62.23	74 04	96 72	0 00	0 00	0 00
2,500 00	4 48	130 05	2,496.03	-67 26	80 02	104 53	0 00	0 00	0 00
2,600 00	4 48	130 05	2,595 72	-72 28	86 00	112 34	0 00	0 00	0 00
2,700 00	4 48	130 05	2,695 41	-77 31	91 98	120 15	0 00	0 00	0 00
2,800 00	4 48	130 05	2,795 11	-82 33	97 96	127 96	0 00	0 00	0 00
2,900 00	4 48	130 05	2,894 80	-87 36	103 94	135 78	0 00	0 00	0 00
3,000 00	4 48	130 05	2,994 50	-92 39	109 92	143 59	0 00	0 00	0 00
3,100 00	4 48	130 05	3,094 19	-97 41	115 90	151 40	0 00	0 00	0 00
3,200 00	4 48	130 05	3,193 89	-102 44	121 88	159 21	0 00	0 00	0 00
3,300 00	4 48	130 05	3,293.58	-107 47	127 86	167 02	0 00	0 00	0 00
3,400 00	4 48	130 05	3,393 27	-112 49	133 84	174.84	0 00	0 00	0 00
3,500 00	4 48	130 05	3,492 97	-117 52	139 82	182 65	0 00	0 00	0 00
3,600 00	4 48	130 05	3,592 66	-122 55	145 80	190 46	0 00	0 00	0 00
3,700 00	4 48	130 05	3,692 36	-127 57	151 78	198 27	0 00	0 00	0 00
3,733 95	4 48	130 05	3,726 20	-129 28	153 81	200 92	0 00	0 00	0 00
Start Drop -2.00									
3,800 00	3.16	130 05	3,792 11	-132 11	157.18	205 33	2 00	-2 00	0 00
3,900 00	1 16	130 05	3,892 03	-134 53	160 06	209 09	2 00	-2 00	0 00
3,957 97	0 00	0 00	3,950 00	-134 91	160 51	209 68	2 00	-2.00	0 00
Start 1950.00 hold at 3957.97 MD - Top of Paddock - T1-#1									
5,907 97	0 00	0 00	5,900 00	-134 91	160 51	209 68	0 00	0 00	0 00
PBHL-#1									



Scientific Drilling
Planning Report



Database: EDM 5000.1 Single User Db
Company: COG Operating LLC
Project: Eddy County, NM (NAN27 NME)
Site: BR-549 State
Well: #5
Wellbore: OH
Design: Plan #1 - 7-7/8" Hole

Local Co-ordinate Reference: Well #5
TVD Reference: GL @ 3545.00usft
MD Reference: GL @ 3545.00usft
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
T1-#1 - plan hits target center - Point	0 00	0 00	3,950 00	-134 91	160 51	659,139 70	581,022 00	32° 48' 42 428 N	104° 4' 10 625 W
PBHL-#1 - plan hits target center - Circle (radius 10 00)	0 00	0 00	5,900 00	-134 91	160 51	659,139 70	581,022 00	32° 48' 42 428 N	104° 4' 10 625 W

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
950 00	950 00	8-5/8" Casing	8-5/8	12-1/4

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,957 97	3,950 00	Top of Paddock		0.00	

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
1,050 00	1,050 00	0 00	0 00	KOP Start Build 2 00
1,274 03	1,273 80	-5 63	6 70	Start 2459 92 hold at 1274 03 MD
3,733 95	3,726 20	-129 28	153 81	Start Drop -2 00
3,957 97	3,950 00	-134 91	160 51	Start 1950 00 hold at 3957 97 MD



Adjusts to Grid North
True North -0.14°
Magnetic North 7.64°

Magnetic Field
Strength 48785.55nT
Dip Angle 60.61°
To convert a Magnetic Direction to a Grid Direction, Add 7.56°
To convert a True Direction to a Grid Direction, Subtract 0.14°

BR-549 State #5
Eddy County, NM (NAN27 NME)
Northing: 659274.60
Easting: 580861.50
Plan #1 - 7-7/8" Hole

WELL DETAILS:									
+N-S	+E-W	Ground Level	3545.00	Latitude	Longitude				
0.00	0.00	Northing	659274.60	Easting	580861.50	32° 48' 43.767 N	104° 4' 12.502 W		

SECTION DETAILS									
MD	Inc	Az	TVD	+N-S	+E-W	Diag	TFace	VSeal	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1050.00	0.00	0.00	1050.00	0.00	0.00	0.00	0.00	0.00	
1274.03	4.48	130.05	1273.90	-5.83	6.70	2.00	130.05	8.75	
3733.95	4.48	130.05	3726.20	-129.28	153.81	0.00	0.00	200.92	
3957.97	0.00	0.00	3950.00	-134.91	160.51	2.00	180.00	200.68	T1-#1
5807.97	0.00	0.00	5800.00	-134.91	160.51	0.00	0.00	200.68	PBHL-#1

DESIGN TARGET DETAILS					
Name	TVD	+N-S	+E-W	Northing	Easting
T1-#1	3950.00	-134.91	160.51	659139.70	581022.00
PBHL-#1	5800.00	-134.91	160.51	659139.70	581022.00

SITE DETAILS: BR-549 State			
Site Centre Northing	659274.60		
Site Centre Easting	580861.50		
Positional Uncertainty	0.00		
Convergence	0.14		
Local North	Grid		

PROJECT DETAILS: Eddy County, NM (NAN27 NME)			
Geodetic System	US State Plane 1927 (Exact solution)		
Datum	NAD 1927 (NADCON CONUS)		
Ellipsoid	Clarke 1866		
Zone	New Mexico East 3001		
System Datum	Mean Sea Level		

CASING DETAILS			
TVD	MD	Name	Size
950.00	950.00-5/8"	Casing	8-5/8"

FORMATION TOP DETAILS			
TVDPath	MDPath	Formation	
3850.00	3857.97	Top of Paddock	

Map System	US State Plane 1927 (Exact solution)
Datum	NAD 1927 (NADCON CONUS)
Ellipsoid	Clarke 1866
Zone Name	New Mexico East 3001
Local Origin	Well #5, Grid North
Latitude	32° 48' 43.767 N
Longitude	104° 4' 12.502 W
Grid East	580861.50
Grid North	659274.60
Scale Factor	1.000
Geomagnetic Model	IGRF 2010
Sample Date	26-Sep-12
Magnetic Declination	7.70°
Dip Angle from Horizontal	60.61°
Magnetic Field Strength	48786
To convert a Magnetic Direction to a Grid Direction, Add 7.56°	
To convert a Magnetic Direction to a True Direction, Add 7.70° East	
To convert a True Direction to a Grid Direction, Subtract 0.14°	

