

Submit a 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

Form C-103
Revised July 18, 2013

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

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. 30-015-45745
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 600 W. Illinois Ave., Midland, TX 79701		7. Lease Name or Unit Agreement Name Daisy 24 State Com
4. Well Location Unit Letter <u>D</u> : <u>275</u> feet from the <u>North</u> line and <u>385</u> feet from the <u>West</u> line Section <u>24</u> Township <u>25S</u> Range <u>27E</u> NMPM County <u>Eddy</u>		8. Well Number <u>501H</u>
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3051' GR		9. OGRID Number 229137
		10. Pool name or Wildcat Hay Hallow; Bone Spring, North 30216

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 ☐
CLOSED-LOOP SYSTEM ☐
OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐
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 respectfully requests to change the BHL of this well

FROM: 50' FSL 100' FWL, Sec 25, T25S, R27E, Unit M

TO: 50' FSL 330' FWL, Sec 25, T25S, R27E, Unit M

☒ Attached are the revised C102 and directional plan.

RECEIVED

MAR 18 2019

DISTRICT II-ARTESIA O.C.D.

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

TITLE

Regulatory Analyst

DATE

03/15/19

Type or print name

Robyn M. Russell

E-mail address:

Russell@concho.com

PHONE:

(432) 685-4385

For State Use Only

APPROVED BY:

TITLE

Geologist

DATE

3-20-19

Conditions of Approval (if any):

RECEIVED

DISTRICT I
1626 N. FRENCH DR., HOBBS, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

DISTRICT II
811 S. FIRST ST., ARTESIA, NM 88210
Phone: (505) 748-1283 Fax: (505) 748-0720

DISTRICT III
1000 RIO BRAZOS RD., AZTEC, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505
Phone: (505) 478-3460 Fax: (505) 478-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

MAR 18 2019

Form C-102

August 1, 2011

Submit one copy to appropriate

District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-45745	Pool Code 30216	Pool Name Hay Hollow; Bone Spring, North
Property Code 325001	Property Name DAISY 24 STATE COM	Well Number 501H
GRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3051.0'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	24	25-S	27-E		275	NORTH	385	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	25	25-S	27-E		50	SOUTH	330	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
640			

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

Y=408403.0 N X=597350.8 E 385' NAD 83 NME SURFACE LOCATION Y=408130.8 N X=597736.4 E LAT.=32.121900° N LONG.=104.151153° W 275' S.L. Y=408422.3 N X=599982.4 E FTP 100' FNL & 330' FWL Y=408305.4 N X=597681.0 E LAT.=32.122380° N LONG.=104.151331° W GRID AZ. TO FTP 342°23'38" SECTION 24 SECTION 25 NAD 83 NME PROPOSED BOTTOM HOLE LOCATION Y=397853.3 N X=597805.9 E LAT.=32.093647° N LONG.=104.150985° W GRID AZ. - 179°18'55" HORZ. DIST. - 10452.9' Y=397801.9 N X=597476.9 E 330' B.H. Y=397812.9 N X=600076.6 E LTP 100' FSL & 330' FWL Y=397903.3 N X=597805.3 E LAT.=32.093784° N LONG.=104.150986° W	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. <i>[Signature]</i> 03/14/19 Signature Date Robyn M. Russell Printed Name Russell@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. DECEMBER 4, 2018 Date of Survey Signature & Seal of Professional Surveyor <i>[Signature]</i> 3/6/19 Certificate No. CHAD HARCROW 17777 W.O. # 19-308 DRAWN BY: WN
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RWP 3-20-19



C O N C H O

RECEIVED

MAR 18 2019

DISTRICT II-ARTESIA O.C.D.

COG Operating L L C

Eddy County, NM (NAD 27 NME)

Sec. 24, T 25S. , R 27 E

Daisy State Com #501H

Wellbore #1

Plan: Plan #2

Standard Survey Report

11 March, 2019



INTEGRITY
DIRECTIONAL

Company:	COG Operating L L C	Local Co-ordinate Reference:	Well Daisy State Com #501H
Project:	Eddy County, NM (NAD 27 NME)	TVD Reference:	KB=30' @ 3081.00usft (Nabors 894)
Site:	Sec. 24, T 25S, R 27 E	MD Reference:	KB=30' @ 3081.00usft (Nabors 894)
Well:	Daisy State Com #501H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	EDM 5000.1

Project	Eddy County, NM (NAD 27 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	Sec. 24, T 25S, R 27 E		
Site Position:		Northing:	408,345.40 usft
From:	Map	Easting:	556,167.10 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32.12253
		Longitude:	-104.15191
		Grid Convergence:	0.10 °

Well	Daisy State Com #501H		
Well Position	+N/-S	0.00 usft	Northing: 408,073.20 usft
	+E/-W	0.00 usft	Easting: 556,552.70 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	32.12178
		Longitude:	-104.15066
		Ground Level:	3,051.00 usft

Wellbore	Wellbore #1		
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	12/31/2018	7.23	59.83	47,878

Design	Plan #2		
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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	179.61

Survey Tool Program		Date 3/11/2019		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	17.977.41	Plan #2 (Wellbore #1)	MWD	MWD - Standard

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

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Well:	Daisy State Com #501H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	EDM 5000.1

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)
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
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00

Company:	COG Operating L L C	Local Co-ordinate Reference:	Well Daisy State Com #501H
Project:	Eddy County, NM (NAD 27 NME)	TVD Reference:	KB=30' @ 3081.00usft (Nabors 894)
Site:	Sec. 24, T 25S., R 27 E	MD Reference:	KB=30' @ 3081.00usft (Nabors 894)
Well:	Daisy State Com #501H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	EDM 5000.1

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)
5,400.00	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
Start Build 2.00									
5,700.00	2.00	347.92	5,699.98	1.71	-0.37	-1.71	2.00	2.00	0.00
5,800.00	4.00	347.92	5,799.84	6.82	-1.46	-6.83	2.00	2.00	0.00
5,900.00	6.00	347.92	5,899.45	15.35	-3.28	-15.37	2.00	2.00	0.00
5,982.30	7.65	347.92	5,981.16	24.91	-5.33	-24.94	2.00	2.00	0.00
Start 1137.49 hold at 5982.30 MD									
6,000.00	7.65	347.92	5,998.71	27.21	-5.82	-27.25	0.00	0.00	0.00
6,100.00	7.65	347.92	6,097.82	40.22	-8.61	-40.28	0.00	0.00	0.00
6,200.00	7.65	347.92	6,196.93	53.23	-11.39	-53.31	0.00	0.00	0.00
6,300.00	7.65	347.92	6,296.04	66.24	-14.18	-66.34	0.00	0.00	0.00
6,400.00	7.65	347.92	6,395.15	79.25	-16.96	-79.36	0.00	0.00	0.00
6,500.00	7.65	347.92	6,494.26	92.26	-19.74	-92.39	0.00	0.00	0.00
6,600.00	7.65	347.92	6,593.37	105.27	-22.53	-105.42	0.00	0.00	0.00
6,700.00	7.65	347.92	6,692.49	118.28	-25.31	-118.45	0.00	0.00	0.00
6,800.00	7.65	347.92	6,791.60	131.29	-28.10	-131.48	0.00	0.00	0.00
6,900.00	7.65	347.92	6,890.71	144.30	-30.88	-144.51	0.00	0.00	0.00
7,000.00	7.65	347.92	6,989.82	157.32	-33.66	-157.54	0.00	0.00	0.00
7,100.00	7.65	347.92	7,088.93	170.33	-36.45	-170.57	0.00	0.00	0.00
7,119.79	7.65	347.92	7,108.54	172.90	-37.00	-173.15	0.00	0.00	0.00
Start DLS 10.00 TFO -168.50									
7,200.00	1.61	250.20	7,188.51	177.74	-39.18	-178.00	10.00	-7.53	-121.83
7,300.00	10.64	187.45	7,287.89	168.09	-41.70	-168.37	10.00	9.03	-62.75
7,400.00	20.58	183.38	7,384.08	141.33	-43.94	-141.62	10.00	9.95	-4.07
7,500.00	30.56	181.90	7,474.17	98.27	-45.83	-98.57	10.00	9.98	-1.48
7,600.00	40.55	181.10	7,555.42	40.21	-47.30	-40.53	10.00	9.99	-0.80
7,700.00	50.54	180.58	7,625.37	-31.08	-48.32	30.75	10.00	9.99	-0.53
7,800.00	60.54	180.19	7,681.88	-113.42	-48.85	113.09	10.00	9.99	-0.39
7,900.00	70.53	179.86	7,723.24	-204.33	-48.88	203.99	10.00	10.00	-0.32
8,000.00	80.53	179.58	7,748.19	-301.03	-48.40	300.70	10.00	10.00	-0.28
8,095.89	90.12	179.32	7,756.00	-396.49	-47.49	396.16	10.00	10.00	-0.27
Start 9881.52 hold at 8095.89 MD									
8,100.00	90.12	179.32	7,755.99	-400.60	-47.44	400.27	0.00	0.00	0.00
8,200.00	90.12	179.32	7,755.79	-500.59	-46.26	500.27	0.00	0.00	0.00
8,300.00	90.12	179.32	7,755.58	-600.58	-45.08	600.27	0.00	0.00	0.00
8,400.00	90.12	179.32	7,755.38	-700.58	-43.89	700.27	0.00	0.00	0.00
8,500.00	90.12	179.32	7,755.18	-800.57	-42.71	800.26	0.00	0.00	0.00
8,600.00	90.12	179.32	7,754.98	-900.56	-41.53	900.26	0.00	0.00	0.00
8,700.00	90.12	179.32	7,754.77	-1,000.56	-40.35	1,000.26	0.00	0.00	0.00
8,800.00	90.12	179.32	7,754.57	-1,100.55	-39.17	1,100.26	0.00	0.00	0.00
8,900.00	90.12	179.32	7,754.37	-1,200.54	-37.99	1,200.26	0.00	0.00	0.00
9,000.00	90.12	179.32	7,754.17	-1,300.53	-36.80	1,300.26	0.00	0.00	0.00

Company:	COG Operating L L C	Local Co-ordinate Reference:	Well Daisy State Com #501H
Project:	Eddy County, NM (NAD 27 NME)	TVD Reference:	KB=30' @ 3081.00usft (Nabors 894)
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Design:	Plan #2	Database:	EDM 5000.1

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)
9,100.00	90.12	179.32	7,753.96	-1,400.53	-35.62	1,400.25	0.00	0.00	0.00
9,200.00	90.12	179.32	7,753.76	-1,500.52	-34.44	1,500.25	0.00	0.00	0.00
9,300.00	90.12	179.32	7,753.56	-1,600.51	-33.26	1,600.25	0.00	0.00	0.00
9,400.00	90.12	179.32	7,753.36	-1,700.51	-32.08	1,700.25	0.00	0.00	0.00
9,500.00	90.12	179.32	7,753.15	-1,800.50	-30.89	1,800.25	0.00	0.00	0.00
9,600.00	90.12	179.32	7,752.95	-1,900.49	-29.71	1,900.25	0.00	0.00	0.00
9,700.00	90.12	179.32	7,752.75	-2,000.48	-28.53	2,000.25	0.00	0.00	0.00
9,800.00	90.12	179.32	7,752.55	-2,100.48	-27.35	2,100.24	0.00	0.00	0.00
9,900.00	90.12	179.32	7,752.35	-2,200.47	-26.17	2,200.24	0.00	0.00	0.00
10,000.00	90.12	179.32	7,752.14	-2,300.46	-24.98	2,300.24	0.00	0.00	0.00
10,100.00	90.12	179.32	7,751.94	-2,400.45	-23.80	2,400.24	0.00	0.00	0.00
10,200.00	90.12	179.32	7,751.74	-2,500.45	-22.62	2,500.24	0.00	0.00	0.00
10,300.00	90.12	179.32	7,751.54	-2,600.44	-21.44	2,600.24	0.00	0.00	0.00
10,400.00	90.12	179.32	7,751.33	-2,700.43	-20.26	2,700.24	0.00	0.00	0.00
10,500.00	90.12	179.32	7,751.13	-2,800.43	-19.07	2,800.23	0.00	0.00	0.00
10,600.00	90.12	179.32	7,750.93	-2,900.42	-17.89	2,900.23	0.00	0.00	0.00
10,700.00	90.12	179.32	7,750.73	-3,000.41	-16.71	3,000.23	0.00	0.00	0.00
10,800.00	90.12	179.32	7,750.52	-3,100.40	-15.53	3,100.23	0.00	0.00	0.00
10,900.00	90.12	179.32	7,750.32	-3,200.40	-14.35	3,200.23	0.00	0.00	0.00
11,000.00	90.12	179.32	7,750.12	-3,300.39	-13.17	3,300.23	0.00	0.00	0.00
11,100.00	90.12	179.32	7,749.92	-3,400.38	-11.98	3,400.22	0.00	0.00	0.00
11,200.00	90.12	179.32	7,749.71	-3,500.38	-10.80	3,500.22	0.00	0.00	0.00
11,300.00	90.12	179.32	7,749.51	-3,600.37	-9.62	3,600.22	0.00	0.00	0.00
11,400.00	90.12	179.32	7,749.31	-3,700.36	-8.44	3,700.22	0.00	0.00	0.00
11,500.00	90.12	179.32	7,749.11	-3,800.35	-7.26	3,800.22	0.00	0.00	0.00
11,600.00	90.12	179.32	7,748.91	-3,900.35	-6.07	3,900.22	0.00	0.00	0.00
11,700.00	90.12	179.32	7,748.70	-4,000.34	-4.89	4,000.22	0.00	0.00	0.00
11,800.00	90.12	179.32	7,748.50	-4,100.33	-3.71	4,100.21	0.00	0.00	0.00
11,900.00	90.12	179.32	7,748.30	-4,200.33	-2.53	4,200.21	0.00	0.00	0.00
12,000.00	90.12	179.32	7,748.10	-4,300.32	-1.35	4,300.21	0.00	0.00	0.00
12,100.00	90.12	179.32	7,747.89	-4,400.31	-0.16	4,400.21	0.00	0.00	0.00
12,200.00	90.12	179.32	7,747.69	-4,500.30	1.02	4,500.21	0.00	0.00	0.00
12,300.00	90.12	179.32	7,747.49	-4,600.30	2.20	4,600.21	0.00	0.00	0.00
12,400.00	90.12	179.32	7,747.29	-4,700.29	3.38	4,700.21	0.00	0.00	0.00
12,500.00	90.12	179.32	7,747.08	-4,800.28	4.56	4,800.20	0.00	0.00	0.00
12,600.00	90.12	179.32	7,746.88	-4,900.28	5.74	4,900.20	0.00	0.00	0.00
12,700.00	90.12	179.32	7,746.68	-5,000.27	6.93	5,000.20	0.00	0.00	0.00
12,800.00	90.12	179.32	7,746.48	-5,100.26	8.11	5,100.20	0.00	0.00	0.00
12,900.00	90.12	179.32	7,746.27	-5,200.25	9.29	5,200.20	0.00	0.00	0.00
13,000.00	90.12	179.32	7,746.07	-5,300.25	10.47	5,300.20	0.00	0.00	0.00
13,100.00	90.12	179.32	7,745.87	-5,400.24	11.65	5,400.19	0.00	0.00	0.00
13,200.00	90.12	179.32	7,745.67	-5,500.23	12.84	5,500.19	0.00	0.00	0.00
13,300.00	90.12	179.32	7,745.47	-5,600.22	14.02	5,600.19	0.00	0.00	0.00

Company:	COG Operating L L C	Local Co-ordinate Reference:	Well Daisy State Com #501H
Project:	Eddy County, NM (NAD 27 NME)	TVD Reference:	KB=30' @ 3081.00usft (Nabors 894)
Site:	Sec. 24, T 25S., R 27 E	MD Reference:	KB=30' @ 3081.00usft (Nabors 894)
Well:	Daisy State Com #501H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	EDM 5000.1

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Buid Rate (°/100usft)	Turn Rate (°/100usft)
13,400.00	90.12	179.32	7,745.26	-5,700.22	15.20	5,700.19	0.00	0.00	0.00
13,500.00	90.12	179.32	7,745.06	-5,800.21	16.38	5,800.19	0.00	0.00	0.00
13,600.00	90.12	179.32	7,744.86	-5,900.20	17.56	5,900.19	0.00	0.00	0.00
13,700.00	90.12	179.32	7,744.66	-6,000.20	18.75	6,000.19	0.00	0.00	0.00
13,800.00	90.12	179.32	7,744.45	-6,100.19	19.93	6,100.18	0.00	0.00	0.00
13,900.00	90.12	179.32	7,744.25	-6,200.18	21.11	6,200.18	0.00	0.00	0.00
14,000.00	90.12	179.32	7,744.05	-6,300.17	22.29	6,300.18	0.00	0.00	0.00
14,100.00	90.12	179.32	7,743.85	-6,400.17	23.47	6,400.18	0.00	0.00	0.00
14,200.00	90.12	179.32	7,743.64	-6,500.16	24.66	6,500.18	0.00	0.00	0.00
14,300.00	90.12	179.32	7,743.44	-6,600.15	25.84	6,600.18	0.00	0.00	0.00
14,400.00	90.12	179.32	7,743.24	-6,700.15	27.02	6,700.18	0.00	0.00	0.00
14,500.00	90.12	179.32	7,743.04	-6,800.14	28.20	6,800.17	0.00	0.00	0.00
14,600.00	90.12	179.32	7,742.83	-6,900.13	29.38	6,900.17	0.00	0.00	0.00
14,700.00	90.12	179.32	7,742.63	-7,000.12	30.56	7,000.17	0.00	0.00	0.00
14,800.00	90.12	179.32	7,742.43	-7,100.12	31.75	7,100.17	0.00	0.00	0.00
14,900.00	90.12	179.32	7,742.23	-7,200.11	32.93	7,200.17	0.00	0.00	0.00
15,000.00	90.12	179.32	7,742.03	-7,300.10	34.11	7,300.17	0.00	0.00	0.00
15,100.00	90.12	179.32	7,741.82	-7,400.10	35.29	7,400.17	0.00	0.00	0.00
15,200.00	90.12	179.32	7,741.62	-7,500.09	36.47	7,500.16	0.00	0.00	0.00
15,300.00	90.12	179.32	7,741.42	-7,600.08	37.66	7,600.16	0.00	0.00	0.00
15,400.00	90.12	179.32	7,741.22	-7,700.07	38.84	7,700.16	0.00	0.00	0.00
15,500.00	90.12	179.32	7,741.01	-7,800.07	40.02	7,800.16	0.00	0.00	0.00
15,600.00	90.12	179.32	7,740.81	-7,900.06	41.20	7,900.16	0.00	0.00	0.00
15,700.00	90.12	179.32	7,740.61	-8,000.05	42.38	8,000.16	0.00	0.00	0.00
15,800.00	90.12	179.32	7,740.41	-8,100.05	43.57	8,100.15	0.00	0.00	0.00
15,900.00	90.12	179.32	7,740.20	-8,200.04	44.75	8,200.15	0.00	0.00	0.00
16,000.00	90.12	179.32	7,740.00	-8,300.03	45.93	8,300.15	0.00	0.00	0.00
16,100.00	90.12	179.32	7,739.80	-8,400.02	47.11	8,400.15	0.00	0.00	0.00
16,200.00	90.12	179.32	7,739.60	-8,500.02	48.29	8,500.15	0.00	0.00	0.00
16,300.00	90.12	179.32	7,739.39	-8,600.01	49.47	8,600.15	0.00	0.00	0.00
16,400.00	90.12	179.32	7,739.19	-8,700.00	50.66	8,700.15	0.00	0.00	0.00
16,500.00	90.12	179.32	7,738.99	-8,799.99	51.84	8,800.14	0.00	0.00	0.00
16,600.00	90.12	179.32	7,738.79	-8,899.99	53.02	8,900.14	0.00	0.00	0.00
16,700.00	90.12	179.32	7,738.59	-8,999.98	54.20	9,000.14	0.00	0.00	0.00
16,800.00	90.12	179.32	7,738.38	-9,099.97	55.38	9,100.14	0.00	0.00	0.00
16,900.00	90.12	179.32	7,738.18	-9,199.97	56.57	9,200.14	0.00	0.00	0.00
17,000.00	90.12	179.32	7,737.98	-9,299.96	57.75	9,300.14	0.00	0.00	0.00
17,100.00	90.12	179.32	7,737.78	-9,399.95	58.93	9,400.14	0.00	0.00	0.00
17,200.00	90.12	179.32	7,737.57	-9,499.94	60.11	9,500.13	0.00	0.00	0.00
17,300.00	90.12	179.32	7,737.37	-9,599.94	61.29	9,600.13	0.00	0.00	0.00
17,400.00	90.12	179.32	7,737.17	-9,699.93	62.48	9,700.13	0.00	0.00	0.00
17,500.00	90.12	179.32	7,736.97	-9,799.92	63.66	9,800.13	0.00	0.00	0.00
17,600.00	90.12	179.32	7,736.76	-9,899.92	64.84	9,900.13	0.00	0.00	0.00

Company:	COG Operating L L C	Local Co-ordinate Reference:	Well Daisy State Com #501H
Project:	Eddy County, NM (NAD 27 NME)	TVD Reference:	KB=30' @ 3081.00usft (Nabors 894)
Site:	Sec. 24, T 25S., R 27 E	MD Reference:	KB=30' @ 3081.00usft (Nabors 894)
Well:	Daisy State Com #501H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	EDM 5000.1

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)
17,700.00	90.12	179.32	7,736.56	-9,999.91	66.02	10,000.13	0.00	0.00	0.00
17,800.00	90.12	179.32	7,736.36	-10,099.90	67.20	10,100.12	0.00	0.00	0.00
17,900.00	90.12	179.32	7,736.16	-10,199.89	68.39	10,200.12	0.00	0.00	0.00
17,977.41	90.12	179.32	7,736.00	-10,277.30	69.30	10,277.53	0.00	0.00	0.00
TD at 17977.41									

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									
Daisy State Com #50'	0.00	0.00	0.00	172.90	-285.40	408,246.10	556,267.30	32.12226	-104.15158
- plan misses target center by 333.69usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Point									
Daisy State Com #50'	0.00	0.00	7,736.00	-10,277.30	69.30	397,795.90	556,622.00	32.09353	-104.15050
- plan hits target center									
- Point									
Daisy State Com #50'	0.00	0.00	7,736.10	-10,227.30	68.70	397,845.90	556,621.40	32.09366	-104.15050
- plan misses target center by 27.41usft at 17900.00usft MD (7736.16 TVD, -10199.89 N, 68.39 E)									
- Point									

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
578.00	578.00	TOS		0.00		
2,020.00	2,020.00	BOS (Fletcher)		0.00		
2,214.00	2,214.00	LMAR (Top Delaware)		0.00		
2,250.00	2,250.00	BLCN		0.00		
3,067.00	3,067.00	CYCN		0.00		
4,263.00	4,263.00	BYCN				
5,881.45	5,881.00	Bone Sprg (BSGL)				
6,179.89	6,177.00	U Avalon Sh				
6,418.01	6,413.00	L Avalon Sh				
6,752.99	6,745.00	B Avalon Sh				
6,807.47	6,799.00	FBSG_sand				
7,379.75	7,365.00	SBSG_sand				

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5600	5600	0	0	Start Build 2.00
5982	5981	25	-5	Start 1137.49 hold at 5982.30 MD
7120	7109	173	-37	Start DLS 10.00 TFO -168.50
8096	7756	-396	-47	Start 9881.52 hold at 8095.89 MD
17,977	7736	-10,277	69	TD at 17977.41

Company:	COG Operating L L C	Local Co-ordinate Reference:	Well Daisy State Com #501H
Project:	Eddy County, NM (NAD 27 NME)	TVD Reference:	KB=30' @ 3081.00usft (Nabors 894)
Site:	Sec. 24, T 25S. , R 27 E	MD Reference:	KB=30' @ 3081.00usft (Nabors 894)
Well:	Daisy State Com #501H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	EDM 5000.1

Checked By: _____ Approved By: _____ Date: _____



COG Operating L L C
Project: Eddy County, NM (NAD 27 NME)
Site: Sec. 24, T 25S., R 27 E
Well: Daisy State Com #501H
Wellbore: Wellbore #1
Plan: Plan #2 (Daisy State Com #501H/Wellbore #1)
Nabors 894

WELL DETAILS: Daisy State Com #501H

Ground Elevation:: 3051.00
RKB Elevation: KB=30' @ 3081.00usft (Nabors 894)
Rig Name: Nabors 894

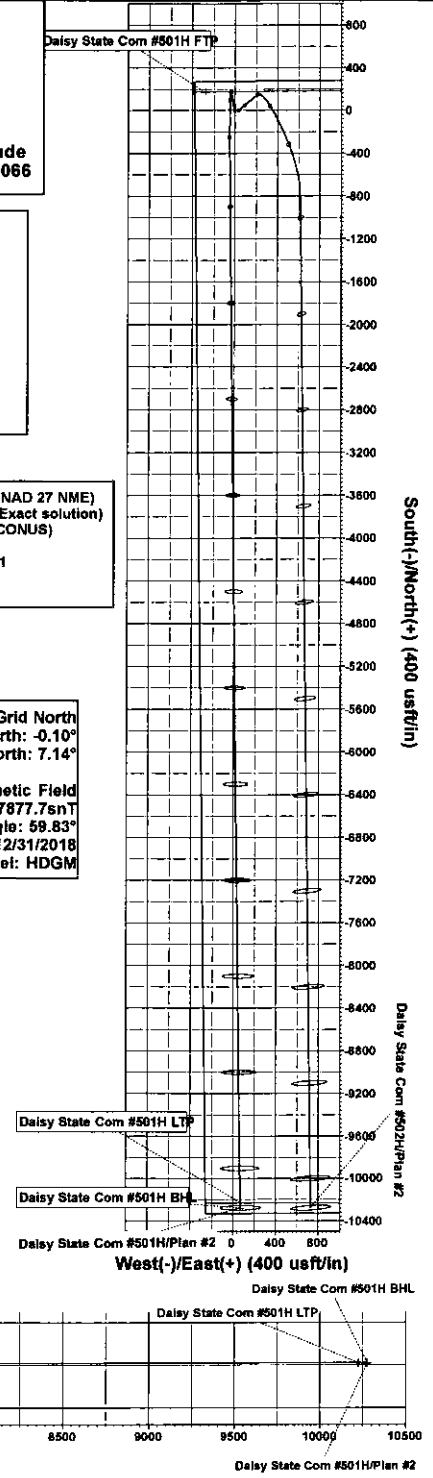
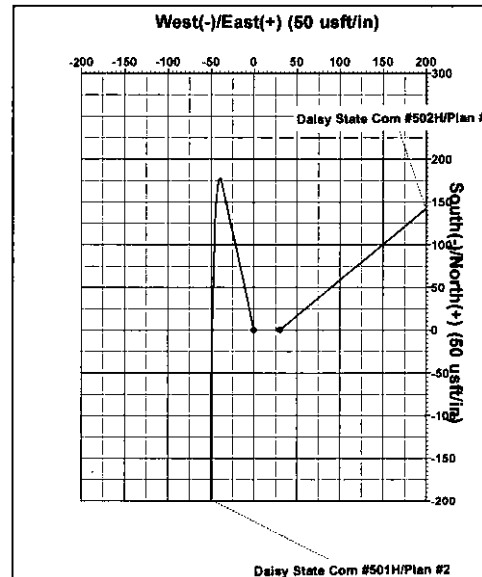
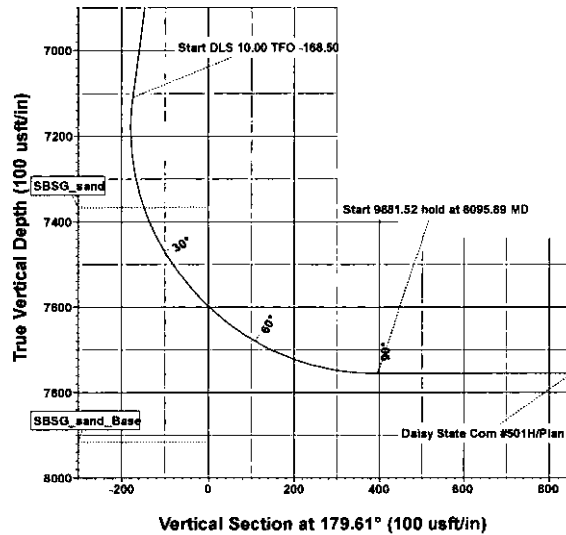
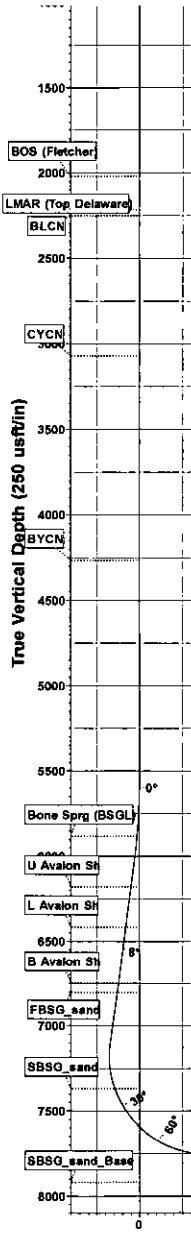
Northing 408073.20 Easting 566552.70 Latitude 32.12178 Longitude -104.16066

Planned Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
2	5600.00	0.00	0.00	5600.00	0.00	0.00	0.00	0.00	0.00	Start 1137.49 hold at 5982.30 MD
3	5982.30	7.66	347.92	5981.16	24.91	-5.33	2.00	347.92	-24.94	Start DLS 10.00 TFO -168.50
4	7119.79	7.66	347.92	7108.54	172.90	-37.00	0.00	0.00	-173.15	Start 9881.52 hold at 8095.89 MD
5	8095.89	90.12	179.32	7756.00	-396.49	-47.49	10.00	-168.50	396.16	TD at 17977.41
6	17977.41	90.12	179.32	7736.00	-10277.30	69.30	0.00	0.00	10277.53	

PROJECT DETAILS: Eddy County, NM (NAD 27 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
Local North: Grid

Azimuths to Grid North
True North: -0.10°
Magnetic North: 7.14°
Magnetic Field
Strength: 47877.7snT
Dip Angle: 59.83°
Date: 12/31/2018
Model: HDGM



Vertical Section at 179.61° (250 usft/in)