

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

Form C-103
Revised July 18, 2013

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

WELL API NO. 30-015-45748
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Daisy 24 State Com
8. Well Number 504H
9. OGRID Number 229137
10. Pool name or Wildcat Hay Hallow; Bone Spring, North 30216

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.)

1. Type of Well: Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

COG Operating LLC

3. Address of Operator

600 W. Illinois Ave., Midland, TX 79701

4. Well Location

Unit Letter C : 275 feet from the North line and 2000 feet from the West line
Section 24 Township 25S Range 27E NMPM County Eddy

11: Elevation (Show whether DR, RKB, RT, GR, etc.)
3057' GR

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 2080' FWL, Sec 25, T25S, R27E, Unit N

TO: 50' FSL 2310' FWL, Sec 25, T25S, R27E, Unit N

* 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

DATE

Conditions of Approval (if any):

RECEIVED

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240
Phone: (505) 393-6161 Fax: (505) 393-0720

DISTRICT II
811 S. FIRST ST., ARTESIA, NM 88210
Phone: (505) 748-1283 Fax: (505) 748-9720

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) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

MAR 18 2019

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 30-015-45748	Pool Code 30216	Pool Name Hay Hollow; Bone Spring, North
Property Code 325001	Property Name DAISY 24 STATE COM	Well Number 504H
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3057.2'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	24	25-S	27-E		275	NORTH	2000	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
N	25	25-S	27-E		50	SOUTH	2310	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 NAD 83 NME SURFACE LOCATION Y=408142.6 N X=599351.4 E LAT.=32.121924° N LONG.=104.145936° W Y=408422.3 N X=599982.4 E FTP 100' FNL & 2310' FWL Y=408319.9 N X=599660.0 E LAT.=32.122410° N LONG.=104.144935° W GRID AZ. TO FTP 60°12'02" SECTION 24 SECTION 25 GRID AZ. - 179°18'51" HORZ. DIST. - 10459.0' NAD 83 NME PROPOSED BOTTOM HOLE LOCATION Y=397861.7 N X=599786.2 E LAT.=32.093661° N LONG.=104.144590° W Y=397801.9 N X=597476.9 E Y=397812.9 N X=600076.6 E FTP 100' FSL & 2310' FWL Y=397911.7 N X=599785.6 E LAT.=32.093798° N LONG.=104.144592° W 2000' 275' S.L. 2310' B.H.	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 5, 2018 Date of Survey Signature & Seal of Professional Surveyor <i>[Signature]</i> 3/6/19 Certificate No. CHAD HARCROW 17777 W.O. # 19-311 DRAWN BY: WN
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Rev 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 #504H

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 #504H
Project:	Eddy County, NM (NAD 27 NME)	TVD Reference:	KB=26' @ 3083.20usft (Scandril Freedom)
Site:	Sec. 24, T 25S., R 27 E	MD Reference:	KB=26' @ 3083.20usft (Scandril Freedom)
Well:	Daisy State Com #504H	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
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Site Position:		Northing:	408,345.40 usft	Latitude:	32.12253
From:	Map	Easting:	556,167.10 usft	Longitude:	-104.15191
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.10 °

Well	Daisy State Com #504H				
Well Position	+N/-S	0.00 usft	Northing:	408,085.00 usft	Latitude: 32.12180
	+E/-W	0.00 usft	Easting:	558,167.60 usft	Longitude: -104.14545
Position Uncertainty	0.00 usft		Wellhead Elevation:	0.00 usft	Ground Level: 3,057.20 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	47,880

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	177.58

Survey Tool Program		Date 3/11/2019		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	18,075.61	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 #504H	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 #504H
Project:	Eddy County, NM (NAD 27 NME)	TVD Reference:	KB=26' @ 3083.20usft (Scandril Freedom)
Site:	Sec. 24, T 25S., R 27 E	MD Reference:	KB=26' @ 3083.20usft (Scandril Freedom)
Well:	Daisy State Com #504H	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	15.89	5,699.98	1.68	0.48	-1.66	2.00	2.00	0.00
5,800.00	4.00	15.89	5,799.84	6.71	1.91	-6.62	2.00	2.00	0.00
5,900.00	6.00	15.89	5,899.45	15.09	4.30	-14.90	2.00	2.00	0.00
5,976.54	7.53	15.89	5,975.46	23.77	6.77	-23.46	2.00	2.00	0.00
Start 1204.55 hold at 5976.54 MD									
6,000.00	7.53	15.89	5,998.71	26.72	7.61	-26.38	0.00	0.00	0.00
6,100.00	7.53	15.89	6,097.85	39.33	11.20	-38.82	0.00	0.00	0.00
6,200.00	7.53	15.89	6,196.99	51.93	14.79	-51.26	0.00	0.00	0.00
6,300.00	7.53	15.89	6,296.13	64.54	18.38	-63.70	0.00	0.00	0.00
6,400.00	7.53	15.89	6,395.26	77.14	21.97	-76.15	0.00	0.00	0.00
6,500.00	7.53	15.89	6,494.40	89.75	25.55	-88.59	0.00	0.00	0.00
6,600.00	7.53	15.89	6,593.54	102.35	29.14	-101.03	0.00	0.00	0.00
6,700.00	7.53	15.89	6,692.68	114.96	32.73	-113.47	0.00	0.00	0.00
6,800.00	7.53	15.89	6,791.81	127.56	36.32	-125.91	0.00	0.00	0.00
6,900.00	7.53	15.89	6,890.95	140.17	39.91	-138.36	0.00	0.00	0.00
7,000.00	7.53	15.89	6,990.09	152.77	43.50	-150.80	0.00	0.00	0.00
7,100.00	7.53	15.89	7,089.23	165.38	47.09	-163.24	0.00	0.00	0.00
7,181.09	7.53	15.89	7,169.62	175.60	50.00	-173.33	0.00	0.00	0.00
Start DLS 10.00 TFO 146.88									
7,200.00	6.04	25.77	7,188.39	177.69	50.77	-175.38	10.00	-7.91	52.21
7,300.00	6.92	126.72	7,288.01	178.82	57.90	-176.22	10.00	0.88	100.96
7,400.00	16.09	148.59	7,385.93	163.36	69.98	-160.25	10.00	9.17	21.87
7,500.00	25.88	154.49	7,479.20	131.75	86.65	-127.97	10.00	9.79	5.90
7,600.00	35.78	157.28	7,564.96	84.97	107.39	-80.36	10.00	9.90	2.79
7,700.00	45.72	158.98	7,640.63	24.44	131.58	-18.86	10.00	9.94	1.70
7,800.00	55.67	160.19	7,703.90	-48.00	158.47	54.66	10.00	9.96	1.21
7,900.00	65.64	161.14	7,752.84	-130.16	187.27	137.96	10.00	9.97	0.95
8,000.00	75.61	161.94	7,785.98	-219.54	217.08	228.51	10.00	9.97	0.81
8,100.00	85.58	162.68	7,802.29	-313.42	247.01	323.57	10.00	9.97	0.74
8,144.27	90.00	163.00	7,804.00	-355.68	260.05	366.35	10.00	9.97	0.72
Start DLS 4.00 TFO 89.58									
8,200.00	90.02	165.23	7,803.99	-409.27	275.31	420.54	4.00	0.03	4.00
8,300.00	90.05	169.23	7,803.94	-506.78	297.41	518.89	4.00	0.03	4.00
8,400.00	90.07	173.23	7,803.83	-605.59	312.65	618.26	4.00	0.03	4.00
8,500.00	90.10	177.23	7,803.68	-705.22	320.97	718.15	4.00	0.03	4.00
8,552.42	90.12	179.33	7,803.58	-757.61	322.55	770.56	4.00	0.03	4.00
Start 9523.77 hold at 8552.42 MD									
8,600.00	90.12	179.33	7,803.48	-805.19	323.11	818.12	0.00	0.00	0.00
8,700.00	90.12	179.33	7,803.27	-905.18	324.28	918.08	0.00	0.00	0.00
8,800.00	90.12	179.33	7,803.07	-1,005.18	325.46	1,018.03	0.00	0.00	0.00

Company:	COG Operating L L C	Local Co-ordinate Reference:	Well Daisy State Com #504H
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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)
8,900.00	90.12	179.33	7,802.86	-1,105.17	326.64	1,117.98	0.00	0.00	0.00
9,000.00	90.12	179.33	7,802.66	-1,205.16	327.82	1,217.94	0.00	0.00	0.00
9,100.00	90.12	179.33	7,802.45	-1,305.16	328.99	1,317.89	0.00	0.00	0.00
9,200.00	90.12	179.33	7,802.25	-1,405.15	330.17	1,417.84	0.00	0.00	0.00
9,300.00	90.12	179.33	7,802.04	-1,505.14	331.35	1,517.80	0.00	0.00	0.00
9,400.00	90.12	179.33	7,801.83	-1,605.13	332.53	1,617.75	0.00	0.00	0.00
9,500.00	90.12	179.33	7,801.63	-1,705.13	333.70	1,717.70	0.00	0.00	0.00
9,600.00	90.12	179.33	7,801.42	-1,805.12	334.88	1,817.66	0.00	0.00	0.00
9,700.00	90.12	179.33	7,801.22	-1,905.11	336.06	1,917.61	0.00	0.00	0.00
9,800.00	90.12	179.33	7,801.01	-2,005.11	337.24	2,017.56	0.00	0.00	0.00
9,900.00	90.12	179.33	7,800.81	-2,105.10	338.42	2,117.52	0.00	0.00	0.00
10,000.00	90.12	179.33	7,800.60	-2,205.09	339.59	2,217.47	0.00	0.00	0.00
10,100.00	90.12	179.33	7,800.40	-2,305.08	340.77	2,317.42	0.00	0.00	0.00
10,200.00	90.12	179.33	7,800.19	-2,405.08	341.95	2,417.38	0.00	0.00	0.00
10,300.00	90.12	179.33	7,799.98	-2,505.07	343.13	2,517.33	0.00	0.00	0.00
10,400.00	90.12	179.33	7,799.78	-2,605.06	344.30	2,617.28	0.00	0.00	0.00
10,500.00	90.12	179.33	7,799.57	-2,705.06	345.48	2,717.24	0.00	0.00	0.00
10,600.00	90.12	179.33	7,799.37	-2,805.05	346.66	2,817.19	0.00	0.00	0.00
10,700.00	90.12	179.33	7,799.16	-2,905.04	347.84	2,917.14	0.00	0.00	0.00
10,800.00	90.12	179.33	7,798.96	-3,005.03	349.01	3,017.10	0.00	0.00	0.00
10,900.00	90.12	179.33	7,798.75	-3,105.03	350.19	3,117.05	0.00	0.00	0.00
11,000.00	90.12	179.33	7,798.55	-3,205.02	351.37	3,217.00	0.00	0.00	0.00
11,100.00	90.12	179.33	7,798.34	-3,305.01	352.55	3,316.96	0.00	0.00	0.00
11,200.00	90.12	179.33	7,798.13	-3,405.01	353.72	3,416.91	0.00	0.00	0.00
11,300.00	90.12	179.33	7,797.93	-3,505.00	354.90	3,516.86	0.00	0.00	0.00
11,400.00	90.12	179.33	7,797.72	-3,604.99	356.08	3,616.82	0.00	0.00	0.00
11,500.00	90.12	179.33	7,797.52	-3,704.98	357.26	3,716.77	0.00	0.00	0.00
11,600.00	90.12	179.33	7,797.31	-3,804.98	358.43	3,816.72	0.00	0.00	0.00
11,700.00	90.12	179.33	7,797.11	-3,904.97	359.61	3,916.68	0.00	0.00	0.00
11,800.00	90.12	179.33	7,796.90	-4,004.96	360.79	4,016.63	0.00	0.00	0.00
11,900.00	90.12	179.33	7,796.70	-4,104.96	361.97	4,116.58	0.00	0.00	0.00
12,000.00	90.12	179.33	7,796.49	-4,204.95	363.15	4,216.54	0.00	0.00	0.00
12,100.00	90.12	179.33	7,796.28	-4,304.94	364.32	4,316.49	0.00	0.00	0.00
12,200.00	90.12	179.33	7,796.08	-4,404.93	365.50	4,416.44	0.00	0.00	0.00
12,300.00	90.12	179.33	7,795.87	-4,504.93	366.68	4,516.40	0.00	0.00	0.00
12,400.00	90.12	179.33	7,795.67	-4,604.92	367.86	4,616.35	0.00	0.00	0.00
12,500.00	90.12	179.33	7,795.46	-4,704.91	369.03	4,716.30	0.00	0.00	0.00
12,600.00	90.12	179.33	7,795.26	-4,804.91	370.21	4,816.26	0.00	0.00	0.00
12,700.00	90.12	179.33	7,795.05	-4,904.90	371.39	4,916.21	0.00	0.00	0.00
12,800.00	90.12	179.33	7,794.85	-5,004.89	372.57	5,016.16	0.00	0.00	0.00
12,900.00	90.12	179.33	7,794.64	-5,104.88	373.74	5,116.12	0.00	0.00	0.00
13,000.00	90.12	179.33	7,794.43	-5,204.88	374.92	5,216.07	0.00	0.00	0.00
13,100.00	90.12	179.33	7,794.23	-5,304.87	376.10	5,316.02	0.00	0.00	0.00

Company:	COG Operating L L C	Local Co-ordinate Reference:	Well Daisy State Com #504H
Project:	Eddy County, NM (NAD 27 NME)	TVD Reference:	KB=26' @ 3083.20usft (Scandril Freedom)
Site:	Sec. 24, T 25S., R 27 E	MD Reference:	KB=26' @ 3083.20usft (Scandril Freedom)
Well:	Daisy State Com #504H	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)
13,200.00	90.12	179.33	7,794.02	-5,404.86	377.28	5,415.98	0.00	0.00	0.00
13,300.00	90.12	179.33	7,793.82	-5,504.86	378.45	5,515.93	0.00	0.00	0.00
13,400.00	90.12	179.33	7,793.61	-5,604.85	379.63	5,615.88	0.00	0.00	0.00
13,500.00	90.12	179.33	7,793.41	-5,704.84	380.81	5,715.84	0.00	0.00	0.00
13,600.00	90.12	179.33	7,793.20	-5,804.83	381.99	5,815.79	0.00	0.00	0.00
13,700.00	90.12	179.33	7,793.00	-5,904.83	383.17	5,915.74	0.00	0.00	0.00
13,800.00	90.12	179.33	7,792.79	-6,004.82	384.34	6,015.70	0.00	0.00	0.00
13,900.00	90.12	179.33	7,792.58	-6,104.81	385.52	6,115.65	0.00	0.00	0.00
14,000.00	90.12	179.33	7,792.38	-6,204.81	386.70	6,215.60	0.00	0.00	0.00
14,100.00	90.12	179.33	7,792.17	-6,304.80	387.88	6,315.56	0.00	0.00	0.00
14,200.00	90.12	179.33	7,791.97	-6,404.79	389.05	6,415.51	0.00	0.00	0.00
14,300.00	90.12	179.33	7,791.76	-6,504.78	390.23	6,515.46	0.00	0.00	0.00
14,400.00	90.12	179.33	7,791.56	-6,604.78	391.41	6,615.42	0.00	0.00	0.00
14,500.00	90.12	179.33	7,791.35	-6,704.77	392.59	6,715.37	0.00	0.00	0.00
14,600.00	90.12	179.33	7,791.15	-6,804.76	393.76	6,815.32	0.00	0.00	0.00
14,700.00	90.12	179.33	7,790.94	-6,904.76	394.94	6,915.28	0.00	0.00	0.00
14,800.00	90.12	179.33	7,790.73	-7,004.75	396.12	7,015.23	0.00	0.00	0.00
14,900.00	90.12	179.33	7,790.53	-7,104.74	397.30	7,115.18	0.00	0.00	0.00
15,000.00	90.12	179.33	7,790.32	-7,204.73	398.47	7,215.14	0.00	0.00	0.00
15,100.00	90.12	179.33	7,790.12	-7,304.73	399.65	7,315.09	0.00	0.00	0.00
15,200.00	90.12	179.33	7,789.91	-7,404.72	400.83	7,415.04	0.00	0.00	0.00
15,300.00	90.12	179.33	7,789.71	-7,504.71	402.01	7,515.00	0.00	0.00	0.00
15,400.00	90.12	179.33	7,789.50	-7,604.71	403.18	7,614.95	0.00	0.00	0.00
15,500.00	90.12	179.33	7,789.30	-7,704.70	404.36	7,714.90	0.00	0.00	0.00
15,600.00	90.12	179.33	7,789.09	-7,804.69	405.54	7,814.86	0.00	0.00	0.00
15,700.00	90.12	179.33	7,788.88	-7,904.68	406.72	7,914.81	0.00	0.00	0.00
15,800.00	90.12	179.33	7,788.68	-8,004.68	407.90	8,014.76	0.00	0.00	0.00
15,900.00	90.12	179.33	7,788.47	-8,104.67	409.07	8,114.72	0.00	0.00	0.00
16,000.00	90.12	179.33	7,788.27	-8,204.66	410.25	8,214.67	0.00	0.00	0.00
16,100.00	90.12	179.33	7,788.06	-8,304.66	411.43	8,314.62	0.00	0.00	0.00
16,200.00	90.12	179.33	7,787.86	-8,404.65	412.61	8,414.58	0.00	0.00	0.00
16,300.00	90.12	179.33	7,787.65	-8,504.64	413.78	8,514.53	0.00	0.00	0.00
16,400.00	90.12	179.33	7,787.45	-8,604.63	414.96	8,614.48	0.00	0.00	0.00
16,500.00	90.12	179.33	7,787.24	-8,704.63	416.14	8,714.44	0.00	0.00	0.00
16,600.00	90.12	179.33	7,787.03	-8,804.62	417.32	8,814.39	0.00	0.00	0.00
16,700.00	90.12	179.33	7,786.83	-8,904.61	418.49	8,914.34	0.00	0.00	0.00
16,800.00	90.12	179.33	7,786.62	-9,004.61	419.67	9,014.30	0.00	0.00	0.00
16,900.00	90.12	179.33	7,786.42	-9,104.60	420.85	9,114.25	0.00	0.00	0.00
17,000.00	90.12	179.33	7,786.21	-9,204.59	422.03	9,214.20	0.00	0.00	0.00
17,100.00	90.12	179.33	7,786.01	-9,304.58	423.20	9,314.16	0.00	0.00	0.00
17,200.00	90.12	179.33	7,785.80	-9,404.58	424.38	9,414.11	0.00	0.00	0.00
17,300.00	90.12	179.33	7,785.60	-9,504.57	425.56	9,514.06	0.00	0.00	0.00
17,400.00	90.12	179.33	7,785.39	-9,604.56	426.74	9,614.02	0.00	0.00	0.00
17,500.00	90.12	179.33	7,785.18	-9,704.56	427.91	9,713.97	0.00	0.00	0.00

Company:	COG Operating L L C	Local Co-ordinate Reference:	Well Daisy State Com #504H
Project:	Eddy County, NM (NAD 27 NME)	TVD Reference:	KB=26' @ 3083.20usft (Scandriil Freedom)
Site:	Sec. 24, T 25S., R 27 E	MD Reference:	KB=26' @ 3083.20usft (Scandriil Freedom)
Well:	Daisy State Com #504H	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)
17,600.00	90.12	179.33	7,784.98	-9,804.55	429.09	9,813.92	0.00	0.00	0.00
17,700.00	90.12	179.33	7,784.77	-9,904.54	430.27	9,913.88	0.00	0.00	0.00
17,800.00	90.12	179.33	7,784.57	-10,004.53	431.45	10,013.83	0.00	0.00	0.00
17,900.00	90.12	179.33	7,784.36	-10,104.53	432.63	10,113.78	0.00	0.00	0.00
18,000.00	90.12	179.33	7,784.16	-10,204.52	433.80	10,213.74	0.00	0.00	0.00
18,076.19	90.12	179.33	7,784.00	-10,280.70	434.70	10,289.89	0.00	0.00	0.00
TD at 18076.19									

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 #504	0.00	0.00	0.00	175.60	79.70	408,260.60	558,247.30	32.12229	-104.14519
- plan misses target center by 192.84usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Point									
Daisy State Com #504	0.00	0.00	7,784.00	-10,280.70	434.70	397,804.30	558,602.30	32.09354	-104.14410
- plan hits target center									
- Point									
Daisy State Com #504	0.00	0.00	7,784.10	-10,230.70	434.10	397,854.30	558,601.70	32.09368	-104.14410
- plan misses target center by 26.18usft at 18000.00usft MD (7784.16 TVD, -10204.52 N, 433.80 E)									
- Point									

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
580.20	580.20	TOS		0.00		
2,022.20	2,022.20	BOS (Fletcher)		0.00		
2,216.20	2,216.20	LMAR (Top Delaware)		0.00		
2,252.20	2,252.20	BLCN		0.00		
3,069.20	3,069.20	CYCN		0.00		
4,265.20	4,265.20	BYCN				
5,883.66	5,883.20	Bone Sprg (BSGL)				
6,182.06	6,179.20	U Avalon Sh				
6,420.11	6,415.20	L Avalon Sh				
6,755.00	6,747.20	B Avalon Sh				
6,809.47	6,801.20	FBSG_sand				
7,380.59	7,367.20	SBSG_sand				

Company:	COG Operating L L C	Local Co-ordinate Reference:	Well Daisy State Com #504H
Project:	Eddy County, NM (NAD 27 NME)	TVD Reference:	KB=26' @ 3083.20usft (Scandriil Freedom)
Site:	Sec. 24, T 25S. , R 27 E	MD Reference:	KB=26' @ 3083.20usft (Scandriil Freedom)
Well:	Daisy State Com #504H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	EDM 5000.1

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
5977	5975	24	7	Start 1204.55 hold at 5976.54 MD
7181	7170	176	50	Start DLS 10.00 TFO 146.88
8144	7804	-356	260	Start DLS 4.00 TFO 89.58
8552	7804	-758	323	Start 9523.77 hold at 8552.42 MD
18,076	7784	-10,281	435	TD at 18076.19

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 #504H
Wellbore: Wellbore #1
Plan: Plan #2 (Daisy State Com #504H/Wellbore #1)
Scandriil Freedom

WELL DETAILS: Daisy State Com #504H

Ground Elevation: 3057.20
RKB Elevation: KB=26' @ 3083.20usft (Scandriil Freedom)
Rig Name: Scandriil Freedom

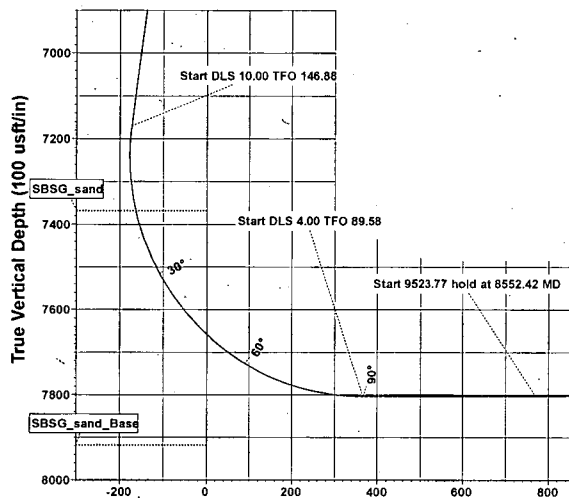
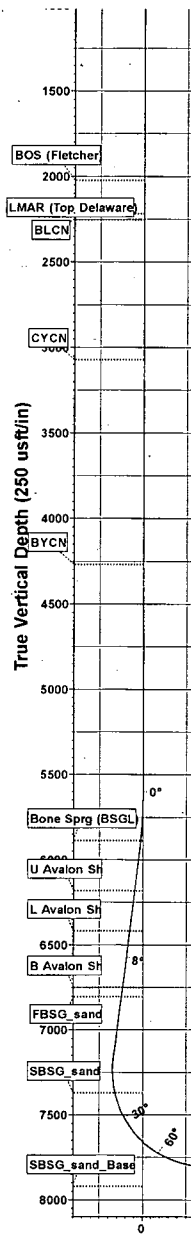
Northing	Easting	Latitude	Longitude
408085.00	558167.60	32.12180	-104.14544

Planned Section Details

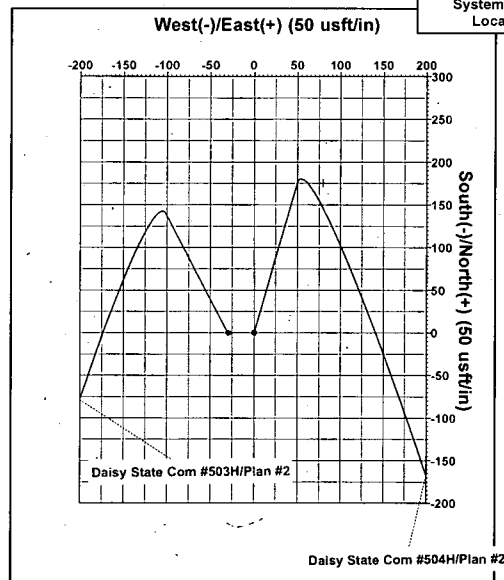
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	5600.00	0.00	0.00	5600.00	0.00	0.00	0.00	0.00	0.00
3	5976.54	7.53	15.89	5976.46	23.77	6.77	2.00	15.89	-23.46
4	7181.09	7.53	15.89	7169.62	175.60	50.00	0.00	0.00	-173.33
5	8144.27	90.00	163.00	7804.00	-355.68	260.05	10.00	146.88	366.35
6	8552.42	90.12	179.33	7803.58	-757.61	322.55	4.00	89.58	770.56
7	18076.19	90.12	179.33	7784.00	-10280.70	434.70	0.00	0.00	10289.89

Annotation

Start Build 2.00
Start 1204.55 hold at 5976.54 MD
Start DLS 10.00 TFO 146.88
Start DLS 4.00 TFO 89.58
Start 9523.77 hold at 8552.42 MD
TD at 18076.19

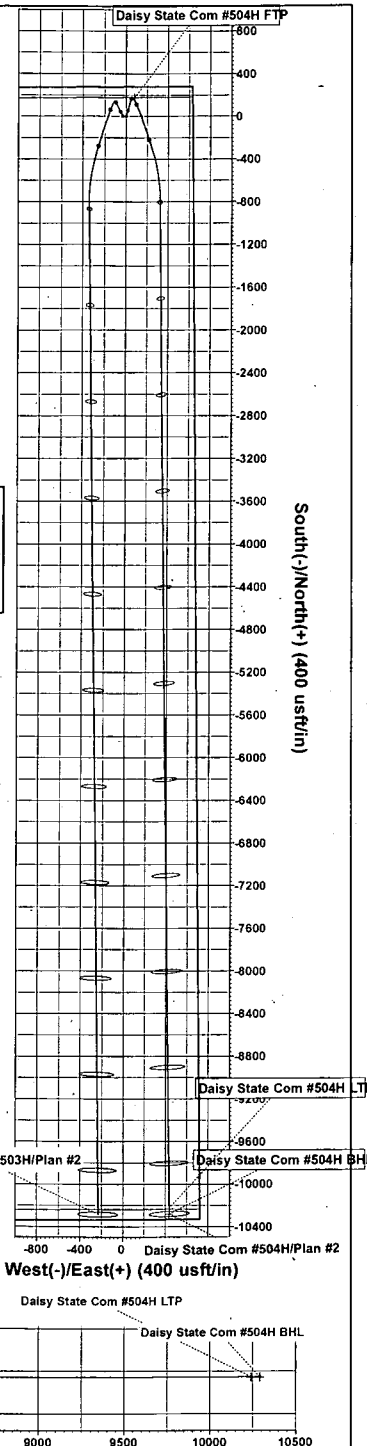
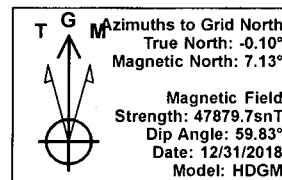


Vertical Section at 177.58° (100 usft/in)

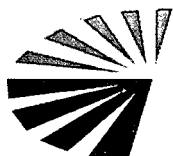


Daisy State Com #504H/Plan #2

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



Vertical Section at 177.58° (250 usft/in)



C O N C H O

COG Operating L L C

Eddy County, NM (NAD 27 NME)

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

Daisy State Com #504H

Wellbore #1

Plan #2

Anticollision Report

11 March, 2019





Anticollision Report



Company:	COG Operating L L C	Local Co-ordinate Reference:	Well Daisy State Com #504H
Project:	Eddy County, NM (NAD 27 NME)	TVD Reference:	KB=26' @ 3083.20usft (Scandril, Freedom)
Reference Site:	Sec. 24, T 25S., R 27 E	MD Reference:	KB=26' @ 3083.20usft (Scandril, Freedom)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Daisy State Com #504H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Reference	Plan #2		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 19,999.96 u	Error Surface:	Circular Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date 3/11/2019		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	18,075.61	Plan #2 (Wellbore #1)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Sec. 24, T 25S., R 27 E						
Daisy State Com #503H - Wellbore #1 - Plan #2	5,600.00	5,599.80	29.90	5.01	1.201	Level 2, CC, ES, SF

Offset Design	Sec. 24, T 25S., R 27 E - Daisy State Com #503H - Wellbore #1 - Plan #2										Offset Site Error:	0.00 usft
Survey Program:	0-MWD										Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	-90.38	-0.20	-29.90	29.90			
100.00	100.00	99.80	99.80	0.08	0.08	-90.38	-0.20	-29.90	29.90	29.73	0.17	179.950
200.00	200.00	199.80	199.80	0.31	0.31	-90.38	-0.20	-29.90	29.90	29.29	0.62	48.587
300.00	300.00	299.80	299.80	0.53	0.53	-90.38	-0.20	-29.90	29.90	28.84	1.06	28.077
400.00	400.00	399.80	399.80	0.76	0.76	-90.38	-0.20	-29.90	29.90	28.39	1.51	19.743
500.00	500.00	499.80	499.80	0.98	0.98	-90.38	-0.20	-29.90	29.90	27.94	1.96	15.224
600.00	600.00	599.80	599.80	1.21	1.21	-90.38	-0.20	-29.90	29.90	27.49	2.41	12.389
700.00	700.00	699.80	699.80	1.43	1.43	-90.38	-0.20	-29.90	29.90	27.04	2.86	10.444
800.00	800.00	799.80	799.80	1.66	1.66	-90.38	-0.20	-29.90	29.90	26.59	3.31	9.026
900.00	900.00	899.80	899.80	1.88	1.88	-90.38	-0.20	-29.90	29.90	26.14	3.76	7.948
1,000.00	1,000.00	999.80	999.80	2.11	2.11	-90.38	-0.20	-29.90	29.90	25.69	4.21	7.099
1,100.00	1,100.00	1,099.80	1,099.80	2.33	2.33	-90.38	-0.20	-29.90	29.90	25.24	4.66	6.415
1,200.00	1,200.00	1,199.80	1,199.80	2.56	2.56	-90.38	-0.20	-29.90	29.90	24.79	5.11	5.851
1,300.00	1,300.00	1,299.80	1,299.80	2.78	2.78	-90.38	-0.20	-29.90	29.90	24.34	5.56	5.378
1,400.00	1,400.00	1,399.80	1,399.80	3.01	3.00	-90.38	-0.20	-29.90	29.90	23.89	6.01	4.975
1,500.00	1,500.00	1,499.80	1,499.80	3.23	3.23	-90.38	-0.20	-29.90	29.90	23.44	6.46	4.629
1,600.00	1,600.00	1,599.80	1,599.80	3.45	3.45	-90.38	-0.20	-29.90	29.90	22.99	6.91	4.328
1,700.00	1,700.00	1,699.80	1,699.80	3.68	3.68	-90.38	-0.20	-29.90	29.90	22.54	7.36	4.063
1,800.00	1,800.00	1,799.80	1,799.80	3.90	3.90	-90.38	-0.20	-29.90	29.90	22.09	7.81	3.830
1,900.00	1,900.00	1,899.80	1,899.80	4.13	4.13	-90.38	-0.20	-29.90	29.90	21.64	8.26	3.621
2,000.00	2,000.00	1,999.80	1,999.80	4.35	4.35	-90.38	-0.20	-29.90	29.90	21.19	8.71	3.434
2,100.00	2,100.00	2,099.80	2,099.80	4.58	4.58	-90.38	-0.20	-29.90	29.90	20.74	9.16	3.266
2,200.00	2,200.00	2,199.80	2,199.80	4.80	4.80	-90.38	-0.20	-29.90	29.90	20.29	9.61	3.113
2,300.00	2,300.00	2,299.80	2,299.80	5.03	5.03	-90.38	-0.20	-29.90	29.90	19.85	10.06	2.974
2,400.00	2,400.00	2,399.80	2,399.80	5.25	5.25	-90.38	-0.20	-29.90	29.90	19.40	10.51	2.846
2,500.00	2,500.00	2,499.80	2,499.80	5.48	5.48	-90.38	-0.20	-29.90	29.90	18.95	10.95	2.729

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	COG Operating L L C	Local Co-ordinate Reference:	Well Daisy State Com #504H
Project:	Eddy County, NM (NAD 27 NME)	TVD Reference:	KB=26' @ 3083.20usft (Scandrift Freedom)
Reference Site:	Sec. 24, T 25S., R 27 E	MD Reference:	KB=26' @ 3083.20usft (Scandrift Freedom)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Daisy State Com #504H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Sec. 24, T 25S., R 27 E - Daisy State Com #503H - Wellbore #1 - Plan #2													Offset Well Error:	0.00 usft
Survey Program: 0-MWD														
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
2,600.00	2,600.00	2,599.80	2,599.80	5.70	5.70	-90.38	-0.20	-29.90	29.90	18.50	11.40	2.622		
2,700.00	2,700.00	2,699.80	2,699.80	5.93	5.93	-90.38	-0.20	-29.90	29.90	18.05	11.85	2.522		
2,800.00	2,800.00	2,799.80	2,799.80	6.15	6.15	-90.38	-0.20	-29.90	29.90	17.60	12.30	2.430		
2,900.00	2,900.00	2,899.80	2,899.80	6.38	6.38	-90.38	-0.20	-29.90	29.90	17.15	12.75	2.345		
3,000.00	3,000.00	2,999.80	2,999.80	6.60	6.60	-90.38	-0.20	-29.90	29.90	16.70	13.20	2.265		
3,100.00	3,100.00	3,099.80	3,099.80	6.83	6.83	-90.38	-0.20	-29.90	29.90	16.25	13.65	2.190		
3,200.00	3,200.00	3,199.80	3,199.80	7.05	7.05	-90.38	-0.20	-29.90	29.90	15.80	14.10	2.120		
3,300.00	3,300.00	3,299.80	3,299.80	7.28	7.28	-90.38	-0.20	-29.90	29.90	15.35	14.55	2.055		
3,400.00	3,400.00	3,399.80	3,399.80	7.50	7.50	-90.38	-0.20	-29.90	29.90	14.90	15.00	1.993		
3,500.00	3,500.00	3,499.80	3,499.80	7.73	7.72	-90.38	-0.20	-29.90	29.90	14.45	15.45	1.935		
3,600.00	3,600.00	3,599.80	3,599.80	7.95	7.95	-90.38	-0.20	-29.90	29.90	14.00	15.90	1.881		
3,700.00	3,700.00	3,699.80	3,699.80	8.17	8.17	-90.38	-0.20	-29.90	29.90	13.55	16.35	1.829		
3,800.00	3,800.00	3,799.80	3,799.80	8.40	8.40	-90.38	-0.20	-29.90	29.90	13.10	16.80	1.780		
3,900.00	3,900.00	3,899.80	3,899.80	8.62	8.62	-90.38	-0.20	-29.90	29.90	12.65	17.25	1.734		
4,000.00	4,000.00	3,999.80	3,999.80	8.85	8.85	-90.38	-0.20	-29.90	29.90	12.20	17.70	1.690		
4,100.00	4,100.00	4,099.80	4,099.80	9.07	9.07	-90.38	-0.20	-29.90	29.90	11.75	18.15	1.648		
4,200.00	4,200.00	4,199.80	4,199.80	9.30	9.30	-90.38	-0.20	-29.90	29.90	11.30	18.60	1.608		
4,300.00	4,300.00	4,299.80	4,299.80	9.52	9.52	-90.38	-0.20	-29.90	29.90	10.85	19.05	1.570		
4,400.00	4,400.00	4,399.80	4,399.80	9.75	9.75	-90.38	-0.20	-29.90	29.90	10.40	19.50	1.534		
4,500.00	4,500.00	4,499.80	4,499.80	9.97	9.97	-90.38	-0.20	-29.90	29.90	9.96	19.95	1.499 Level 3		
4,600.00	4,600.00	4,599.80	4,599.80	10.20	10.20	-90.38	-0.20	-29.90	29.90	9.51	20.39	1.466 Level 3		
4,700.00	4,700.00	4,699.80	4,699.80	10.42	10.42	-90.38	-0.20	-29.90	29.90	9.06	20.84	1.434 Level 3		
4,800.00	4,800.00	4,799.80	4,799.80	10.65	10.65	-90.38	-0.20	-29.90	29.90	8.61	21.29	1.404 Level 3		
4,900.00	4,900.00	4,899.80	4,899.80	10.87	10.87	-90.38	-0.20	-29.90	29.90	8.16	21.74	1.375 Level 3		
5,000.00	5,000.00	4,999.80	4,999.80	11.10	11.10	-90.38	-0.20	-29.90	29.90	7.71	22.19	1.347 Level 3		
5,100.00	5,100.00	5,099.80	5,099.80	11.32	11.32	-90.38	-0.20	-29.90	29.90	7.26	22.64	1.321 Level 3		
5,200.00	5,200.00	5,199.80	5,199.80	11.55	11.55	-90.38	-0.20	-29.90	29.90	6.81	23.09	1.295 Level 3		
5,300.00	5,300.00	5,299.80	5,299.80	11.77	11.77	-90.38	-0.20	-29.90	29.90	6.36	23.54	1.270 Level 3		
5,400.00	5,400.00	5,399.80	5,399.80	12.00	12.00	-90.38	-0.20	-29.90	29.90	5.91	23.99	1.246 Level 2		
5,500.00	5,500.00	5,499.80	5,499.80	12.22	12.22	-90.38	-0.20	-29.90	29.90	5.46	24.44	1.223 Level 2		
5,600.00	5,600.00	5,599.80	5,599.80	12.45	12.44	-90.38	-0.20	-29.90	29.90	5.01	24.89	1.201 Level 2, CC, ES, SF		
5,700.00	5,699.98	5,699.32	5,699.30	12.67	12.67	-106.49	1.33	-30.69	31.17	5.83	25.34	1.230 Level 2		
5,800.00	5,799.84	5,798.73	5,798.58	12.89	12.89	-107.02	5.93	-33.05	34.99	9.21	25.78	1.357 Level 3		
5,900.00	5,899.45	5,897.96	5,897.42	13.12	13.11	-107.67	13.57	-36.98	41.35	15.12	26.23	1.576		
5,976.54	5,975.46	5,974.11	5,973.11	13.29	13.28	-108.73	21.01	-40.81	47.70	21.13	26.57	1.795		
6,000.00	5,998.71	5,997.46	5,996.32	13.34	13.33	-109.36	23.31	-41.99	49.77	23.09	26.67	1.866		
6,100.00	6,097.85	6,097.05	6,095.30	13.57	13.56	-111.52	33.13	-47.04	58.62	31.49	27.12	2.161		
6,200.00	6,196.99	6,196.64	6,194.27	13.79	13.79	-113.11	42.95	-52.09	67.52	39.94	27.58	2.448		
6,300.00	6,296.13	6,296.23	6,293.24	14.03	14.02	-114.33	52.76	-57.14	76.47	48.43	28.04	2.727		
6,400.00	6,395.26	6,395.81	6,392.22	14.26	14.25	-115.29	62.58	-62.19	85.45	56.94	28.51	2.997		
6,500.00	6,494.40	6,495.40	6,491.19	14.50	14.48	-116.07	72.40	-67.24	94.45	65.46	28.99	3.258		
6,600.00	6,593.54	6,594.99	6,590.16	14.75	14.72	-116.72	82.21	-72.28	103.46	73.99	29.47	3.511		
6,700.00	6,692.68	6,694.57	6,689.14	14.99	14.96	-117.26	92.03	-77.33	112.48	82.52	29.95	3.755		
6,800.00	6,791.81	6,794.16	6,788.11	15.24	15.20	-117.72	101.85	-82.38	121.51	91.06	30.45	3.991		
6,900.00	6,890.95	6,893.75	6,887.08	15.49	15.45	-118.12	111.66	-87.43	130.54	99.60	30.94	4.219		
7,000.00	6,990.09	6,993.34	6,986.06	15.75	15.69	-118.46	121.48	-92.48	139.59	108.15	31.44	4.440		
7,100.00	7,089.23	7,092.92	7,085.03	16.00	15.94	-118.77	131.30	-97.53	148.63	116.69	31.94	4.653		
7,181.09	7,169.62	7,173.68	7,165.29	16.21	16.14	-118.99	139.26	-101.62	155.97	123.62	32.36	4.821		
7,200.00	7,188.39	7,190.96	7,182.47	16.26	16.18	-128.95	140.85	-102.53	157.77	125.33	32.44	4.864		
7,250.00	7,238.22	7,234.72	7,226.08	16.35	16.26	-175.71	142.68	-105.42	163.95	131.34	32.62	5.026		
7,300.00	7,288.01	7,278.04	7,269.22	16.44	16.34	-129.84	141.32	-109.13	172.20	139.42	32.78	5.253		
7,350.00	7,337.37	7,320.86	7,311.55	16.51	16.41	-114.50	136.87	-113.61	182.44	149.52	32.92	5.541		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	COG Operating L L C	Local Co-ordinate Reference:	Well Daisy State Com #504H
Project:	Eddy County, NM (NAD 27 NME).	TVD Reference:	KB=26' @ 3083.20usft (Scandill Freedom)
Reference Site:	Sec. 24, T 25S, R 27 E	MD Reference:	KB=26' @ 3083.20usft (Scandill Freedom)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Daisy State Com #504H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Sec. 24, T 25S, R 27 E - Daisy State Com #503H - Wellbore #1 - Plan #2													Offset Well Error:	0.00 usft
Survey Program: 0-MWD														
Reference		Offset		Semi-Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N-S (usft)	+E-W (usft)				Between Centres (usft)	Between Ellipses (usft)	
7,400.00	7,385.93	7,363.09	7,352.81	16.58	16.48	107.87	129.49	-118.79	194.59	161.54	33.05	5.887		
7,450.00	7,433.33	7,404.71	7,392.74	16.63	16.54	104.18	119.35	-124.61	208.56	175.39	33.17	6.287		
7,500.00	7,479.20	7,445.70	7,431.16	16.69	16.60	101.74	106.62	-131.00	224.25	190.97	33.28	6.738		
7,550.00	7,523.19	7,486.04	7,467.92	16.74	16.65	99.90	91.51	-137.90	241.54	208.15	33.39	7.234		
7,600.00	7,564.96	7,525.76	7,502.89	16.80	16.70	98.38	74.21	-145.25	260.32	226.82	33.50	7.770		
7,650.00	7,604.21	7,564.89	7,536.01	16.86	16.76	97.00	54.87	-153.00	280.46	246.84	33.62	8.342		
7,700.00	7,640.63	7,603.49	7,567.23	16.94	16.82	95.69	33.68	-161.10	301.83	268.07	33.76	8.941		
7,750.00	7,673.94	7,641.62	7,596.51	17.04	16.87	94.40	10.76	-169.51	324.29	290.37	33.92	9.561		
7,800.00	7,703.90	7,679.37	7,623.84	17.18	16.94	93.11	-13.77	-178.20	347.71	313.59	34.12	10.191		
7,850.00	7,730.26	7,716.84	7,649.23	17.36	17.01	91.80	-39.82	-187.16	371.95	337.57	34.37	10.821		
7,900.00	7,752.84	7,754.14	7,672.68	17.59	17.10	90.47	-67.34	-196.35	396.86	362.18	34.69	11.441		
7,950.00	7,771.46	7,791.41	7,694.17	17.86	17.20	89.15	-96.27	-205.77	422.33	387.26	35.06	12.045		
8,000.00	7,785.98	7,828.78	7,713.71	18.18	17.33	87.82	-126.63	-215.42	448.20	412.69	35.51	12.622		
8,050.00	7,796.28	7,866.43	7,731.26	18.54	17.48	86.52	-158.44	-225.30	474.34	438.32	36.02	13.168		
8,100.00	7,802.29	7,904.55	7,746.76	18.94	17.66	85.26	-191.74	-235.43	500.61	464.01	36.60	13.678		
8,144.27	7,804.00	7,938.84	7,758.71	19.33	17.83	84.20	-222.55	-244.61	523.87	486.71	37.17	14.095		
8,200.00	7,803.99	7,984.22	7,771.54	19.83	18.10	86.13	-264.32	-256.80	552.44	514.51	37.92	14.567		
8,300.00	7,803.94	8,073.81	7,786.61	20.74	18.71	88.16	-349.24	-280.72	599.45	560.01	39.45	15.197		
8,400.00	7,803.83	8,201.47	7,788.99	21.73	19.71	88.59	-472.91	-312.00	638.76	597.32	41.44	15.415		
8,500.00	7,803.68	8,379.77	7,788.83	22.77	21.28	88.71	-649.17	-338.11	661.62	617.58	44.04	15.022		
8,552.42	7,803.58	8,477.11	7,788.68	23.33	22.23	88.73	-746.36	-343.05	665.86	620.30	45.56	14.615		
8,600.00	7,803.48	8,543.82	7,788.54	23.86	22.93	88.73	-813.07	-342.85	666.17	619.38	46.79	14.238		
8,700.00	7,803.27	8,643.82	7,788.34	25.05	24.06	88.73	-913.06	-341.67	666.16	617.05	49.11	13.565		
8,800.00	7,803.07	8,743.82	7,788.13	26.31	25.27	88.73	-1,013.05	-340.48	666.15	614.57	51.58	12.915		
8,900.00	7,802.86	8,843.82	7,787.92	27.64	26.55	88.73	-1,113.05	-339.29	666.14	611.95	54.19	12.293		
9,000.00	7,802.66	8,943.82	7,787.72	29.02	27.89	88.73	-1,213.04	-338.10	666.13	609.22	56.91	11.705		
9,100.00	7,802.45	9,043.82	7,787.51	30.45	29.28	88.73	-1,313.03	-336.92	666.12	606.39	59.73	11.152		
9,200.00	7,802.25	9,143.82	7,787.30	31.92	30.72	88.73	-1,413.03	-335.73	666.11	603.47	62.64	10.634		
9,300.00	7,802.04	9,243.82	7,787.10	33.42	32.20	88.73	-1,513.02	-334.54	666.10	600.48	65.62	10.150		
9,400.00	7,801.83	9,343.82	7,786.89	34.96	33.72	88.73	-1,613.01	-333.35	666.09	597.42	68.67	9.700		
9,500.00	7,801.63	9,443.82	7,786.69	36.52	35.26	88.73	-1,713.00	-332.17	666.08	594.30	71.78	9.280		
9,600.00	7,801.42	9,543.82	7,786.48	38.10	36.83	88.73	-1,813.00	-330.98	666.07	591.14	74.94	8.889		
9,700.00	7,801.22	9,643.82	7,786.27	39.71	38.43	88.73	-1,912.99	-329.79	666.06	587.93	78.14	8.524		
9,800.00	7,801.01	9,743.82	7,786.07	41.34	40.04	88.73	-2,012.98	-328.61	666.05	584.68	81.38	8.185		
9,900.00	7,800.81	9,843.82	7,785.86	42.98	41.67	88.73	-2,112.97	-327.42	666.04	581.39	84.65	7.868		
10,000.00	7,800.60	9,943.82	7,785.65	44.64	43.32	88.73	-2,212.97	-326.23	666.03	578.08	87.96	7.572		
10,100.00	7,800.40	10,043.82	7,785.45	46.31	44.98	88.73	-2,312.96	-325.04	666.02	574.73	91.29	7.296		
10,200.00	7,800.19	10,143.82	7,785.24	47.99	46.66	88.73	-2,412.95	-323.86	666.01	571.37	94.65	7.037		
10,300.00	7,799.98	10,243.82	7,785.03	49.68	48.34	88.73	-2,512.95	-322.67	666.00	567.98	98.02	6.794		
10,400.00	7,799.78	10,343.82	7,784.83	51.39	50.04	88.73	-2,612.94	-321.48	665.99	564.57	101.42	6.566		
10,500.00	7,799.57	10,443.82	7,784.62	53.10	51.74	88.73	-2,712.93	-320.29	665.98	561.15	104.84	6.352		
10,600.00	7,799.37	10,543.82	7,784.42	54.81	53.46	88.73	-2,812.92	-319.11	665.98	557.70	108.27	6.151		
10,700.00	7,799.16	10,643.82	7,784.21	56.54	55.18	88.73	-2,912.92	-317.92	665.97	554.25	111.72	5.961		
10,800.00	7,798.96	10,743.82	7,784.00	58.27	56.91	88.73	-3,012.91	-316.73	665.96	550.78	115.18	5.782		
10,900.00	7,798.75	10,843.82	7,783.80	60.01	58.64	88.73	-3,112.90	-315.54	665.95	547.29	118.65	5.613		
11,000.00	7,798.55	10,943.82	7,783.59	61.75	60.38	88.73	-3,212.89	-314.36	665.94	543.80	122.14	5.452		
11,100.00	7,798.34	11,043.82	7,783.38	63.50	62.13	88.73	-3,312.89	-313.17	665.93	540.30	125.63	5.301		
11,200.00	7,798.13	11,143.82	7,783.18	65.26	63.88	88.73	-3,412.88	-311.98	665.92	536.78	129.13	5.157		
11,300.00	7,797.93	11,243.82	7,782.97	67.01	65.63	88.73	-3,512.87	-310.80	665.91	533.26	132.65	5.020		
11,400.00	7,797.72	11,343.82	7,782.76	68.77	67.39	88.73	-3,612.87	-309.61	665.90	529.73	136.17	4.890		
11,500.00	7,797.52	11,443.82	7,782.56	70.54	69.15	88.73	-3,712.86	-308.42	665.89	526.20	139.69	4.767		
11,600.00	7,797.31	11,543.82	7,782.35	72.31	70.92	88.73	-3,812.85	-307.23	665.88	522.65	143.23	4.649		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



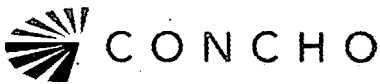
Anticollision Report



Company:	COG Operating L L C	Local Co-ordinate Reference:	Well Daisy State Com #504H
Project:	Eddy County, NM (NAD 27 NME)	TVD Reference:	KB=26' @ 3083.20usft (Scandrell Freedom)
Reference Site:	Sec. 24, T 25S., R 27 E	MD Reference:	KB=26' @ 3083.20usft (Scandrell Freedom)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Daisy State Com #504H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 usft
Sec. 24, T 25S., R 27 E - Daisy State Com #503H - Wellbore #1 - Plan #2												Offset Well Error:	0.00 usft
Survey Program: 0-MWVD													
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,700.00	7,797.11	11,643.82	7,782.15	74.08	72.69	88.73	-3,912.84	-306.05	665.87	519.10	146.77	4.537	
11,800.00	7,796.90	11,743.82	7,781.94	75.85	74.46	88.73	-4,012.84	-304.86	665.86	515.55	150.31	4.430	
11,900.00	7,796.70	11,843.82	7,781.73	77.63	76.24	88.73	-4,112.83	-303.67	665.85	511.98	153.86	4.327	
12,000.00	7,796.49	11,943.82	7,781.53	79.41	78.02	88.73	-4,212.82	-302.48	665.84	508.42	157.42	4.230	
12,100.00	7,796.28	12,043.82	7,781.32	81.19	79.80	88.73	-4,312.81	-301.30	665.83	504.85	160.98	4.136	
12,200.00	7,796.08	12,143.82	7,781.11	82.97	81.58	88.73	-4,412.81	-300.11	665.82	501.27	164.55	4.046	
12,300.00	7,795.87	12,243.82	7,780.91	84.76	83.36	88.73	-4,512.80	-298.92	665.81	497.69	168.12	3.960	
12,400.00	7,795.67	12,343.82	7,780.70	86.54	85.15	88.73	-4,612.79	-297.73	665.80	494.11	171.69	3.878	
12,500.00	7,795.46	12,443.82	7,780.50	88.33	86.94	88.73	-4,712.79	-296.55	665.79	490.52	175.27	3.799	
12,600.00	7,795.26	12,543.82	7,780.29	90.12	88.73	88.73	-4,812.78	-295.36	665.78	486.93	178.85	3.723	
12,700.00	7,795.05	12,643.82	7,780.08	91.92	90.52	88.73	-4,912.77	-294.17	665.77	483.34	182.44	3.649	
12,800.00	7,794.85	12,743.82	7,779.88	93.71	92.31	88.73	-5,012.76	-292.99	665.76	479.74	186.02	3.579	
12,900.00	7,794.64	12,843.82	7,779.67	95.51	94.11	88.73	-5,112.76	-291.80	665.75	476.14	189.61	3.511	
13,000.00	7,794.43	12,943.82	7,779.46	97.30	95.90	88.73	-5,212.75	-290.61	665.74	472.54	193.21	3.446	
13,100.00	7,794.23	13,043.82	7,779.26	99.10	97.70	88.73	-5,312.74	-289.42	665.73	468.93	196.80	3.383	
13,200.00	7,794.02	13,143.82	7,779.05	100.90	99.50	88.73	-5,412.73	-288.24	665.72	465.32	200.40	3.322	
13,300.00	7,793.82	13,243.82	7,778.84	102.70	101.30	88.73	-5,512.73	-287.05	665.71	461.71	204.00	3.263	
13,400.00	7,793.61	13,343.82	7,778.64	104.50	103.10	88.73	-5,612.72	-285.86	665.70	458.10	207.60	3.207	
13,500.00	7,793.41	13,443.82	7,778.43	106.31	104.90	88.73	-5,712.71	-284.67	665.69	454.49	211.21	3.152	
13,600.00	7,793.20	13,543.82	7,778.23	108.11	106.71	88.73	-5,812.71	-283.49	665.69	450.87	214.82	3.099	
13,700.00	7,793.00	13,643.82	7,778.02	109.91	108.51	88.73	-5,912.70	-282.30	665.68	447.25	218.42	3.048	
13,800.00	7,792.79	13,743.82	7,777.81	111.72	110.32	88.73	-6,012.69	-281.11	665.67	443.63	222.03	2.998	
13,900.00	7,792.58	13,843.82	7,777.61	113.52	112.12	88.73	-6,112.68	-279.93	665.66	440.01	225.65	2.950	
14,000.00	7,792.38	13,943.82	7,777.40	115.33	113.93	88.73	-6,212.68	-278.74	665.65	436.39	229.26	2.903	
14,100.00	7,792.17	14,043.82	7,777.19	117.14	115.74	88.73	-6,312.67	-277.55	665.64	432.76	232.87	2.858	
14,200.00	7,791.97	14,143.82	7,776.99	118.95	117.54	88.73	-6,412.66	-276.36	665.63	429.14	236.49	2.815	
14,300.00	7,791.76	14,243.82	7,776.78	120.76	119.35	88.73	-6,512.65	-275.18	665.62	425.51	240.11	2.772	
14,400.00	7,791.56	14,343.82	7,776.57	122.57	121.16	88.73	-6,612.65	-273.99	665.61	421.88	243.73	2.731	
14,500.00	7,791.35	14,443.82	7,776.37	124.38	122.97	88.73	-6,712.64	-272.80	665.60	418.25	247.35	2.691	
14,600.00	7,791.15	14,543.82	7,776.16	126.19	124.78	88.73	-6,812.63	-271.61	665.59	414.62	250.97	2.652	
14,700.00	7,790.94	14,643.82	7,775.96	128.00	126.59	88.73	-6,912.63	-270.43	665.58	410.99	254.59	2.614	
14,800.00	7,790.73	14,743.82	7,775.75	129.81	128.41	88.73	-7,012.62	-269.24	665.57	407.35	258.22	2.578	
14,900.00	7,790.53	14,843.82	7,775.54	131.62	130.22	88.73	-7,112.61	-268.05	665.56	403.72	261.84	2.542	
15,000.00	7,790.32	14,943.82	7,775.34	133.44	132.03	88.73	-7,212.60	-266.86	665.55	400.08	265.47	2.507	
15,100.00	7,790.12	15,043.82	7,775.13	135.25	133.85	88.73	-7,312.60	-265.68	665.54	396.44	269.10	2.473	
15,200.00	7,789.91	15,143.82	7,774.92	137.06	135.66	88.73	-7,412.59	-264.49	665.53	392.81	272.72	2.440	
15,300.00	7,789.71	15,243.82	7,774.72	138.88	137.47	88.73	-7,512.58	-263.30	665.52	389.17	276.35	2.408	
15,400.00	7,789.50	15,343.82	7,774.51	140.69	139.29	88.73	-7,612.57	-262.12	665.51	385.53	279.98	2.377	
15,500.00	7,789.30	15,443.82	7,774.31	142.51	141.10	88.73	-7,712.57	-260.93	665.50	381.89	283.61	2.347	
15,600.00	7,789.09	15,543.82	7,774.10	144.33	142.92	88.73	-7,812.56	-259.74	665.49	378.25	287.25	2.317	
15,700.00	7,788.88	15,643.82	7,773.89	146.14	144.74	88.73	-7,912.55	-258.55	665.48	374.60	290.88	2.288	
15,800.00	7,788.68	15,743.82	7,773.69	147.96	146.55	88.73	-8,012.55	-257.37	665.47	370.96	294.51	2.260	
15,900.00	7,788.47	15,843.82	7,773.48	149.78	148.37	88.73	-8,112.54	-256.18	665.46	367.32	298.14	2.232	
16,000.00	7,788.27	15,943.82	7,773.27	151.59	150.19	88.73	-8,212.53	-254.99	665.45	363.67	301.78	2.205	
16,100.00	7,788.06	16,043.82	7,773.07	153.41	152.00	88.73	-8,312.52	-253.80	665.44	360.03	305.41	2.179	
16,200.00	7,787.86	16,143.82	7,772.86	155.23	153.82	88.73	-8,412.52	-252.62	665.43	356.38	309.05	2.153	
16,300.00	7,787.65	16,243.82	7,772.65	157.05	155.64	88.73	-8,512.51	-251.43	665.42	352.74	312.69	2.128	
16,400.00	7,787.45	16,343.82	7,772.45	158.86	157.46	88.73	-8,612.50	-250.24	665.41	349.09	316.32	2.104	
16,500.00	7,787.24	16,443.82	7,772.24	160.68	159.28	88.73	-8,712.50	-249.06	665.40	345.44	319.96	2.080	
16,600.00	7,787.03	16,543.82	7,772.04	162.50	161.10	88.73	-8,812.49	-247.87	665.40	341.80	323.60	2.056	
16,700.00	7,786.83	16,643.82	7,771.83	164.32	162.92	88.73	-8,912.48	-246.68	665.39	338.15	327.24	2.033	
16,800.00	7,786.62	16,743.82	7,771.62	166.14	164.74	88.73	-9,012.47	-245.49	665.38	334.50	330.88	2.011	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

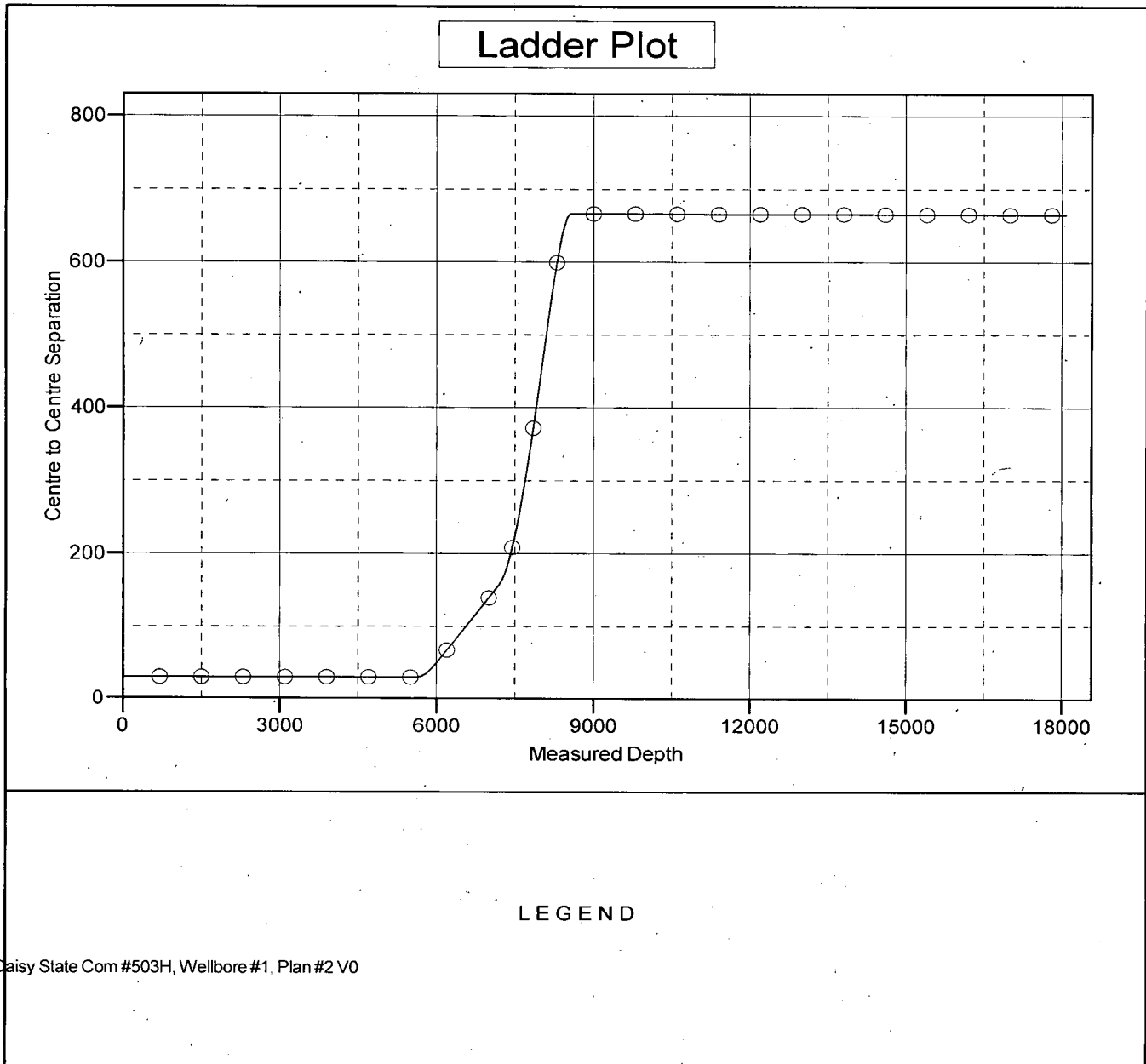


Company:	COG Operating L L C	Local Co-ordinate Reference:	Well Daisy State Com #504H
Project:	Eddy County, NM (NAD 27 NME)	TVD Reference:	KB=26' @ 3083.20usft (Scandrell Freedom)
Reference Site:	Sec. 24, T 25S., R 27 E	MD Reference:	KB=26' @ 3083.20usft (Scandrell Freedom)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Daisy State Com #504H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Sec. 24, T 25S., R 27 E - Daisy State Com #503H - Wellbore #1 - Plan #2														Offset Site Error:	0.00 usft
Survey Program: 0-MWVD														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
16,900.00	7,786.42	16,843.82	7,771.42	167.96	166.56	88.73	-9,112.47	-244.31	665.37	330.85	334.52	1.989			
17,000.00	7,786.21	16,943.82	7,771.21	169.78	168.38	88.73	-9,212.46	-243.12	665.36	327.20	338.16	1.968			
17,100.00	7,786.01	17,043.82	7,771.00	171.60	170.20	88.73	-9,312.45	-241.93	665.35	323.55	341.80	1.947			
17,200.00	7,785.80	17,143.82	7,770.80	173.42	172.02	88.73	-9,412.44	-240.74	665.34	319.90	345.44	1.926			
17,300.00	7,785.60	17,243.82	7,770.59	175.24	173.84	88.73	-9,512.44	-239.56	665.33	316.25	349.08	1.906			
17,400.00	7,785.39	17,343.82	7,770.39	177.06	175.66	88.72	-9,612.43	-238.37	665.32	312.59	352.72	1.886			
17,500.00	7,785.18	17,443.82	7,770.18	178.89	177.48	88.72	-9,712.42	-237.18	665.31	308.94	356.37	1.867			
17,600.00	7,784.98	17,543.82	7,769.97	180.71	179.30	88.72	-9,812.42	-235.99	665.30	305.29	360.01	1.848			
17,700.00	7,784.77	17,643.82	7,769.77	182.53	181.12	88.72	-9,912.41	-234.81	665.29	301.64	363.65	1.829			
17,800.00	7,784.57	17,743.82	7,769.56	184.35	182.94	88.72	-10,012.40	-233.62	665.28	297.98	367.30	1.811			
17,900.00	7,784.36	17,843.82	7,769.35	186.17	184.77	88.72	-10,112.39	-232.43	665.27	294.33	370.94	1.793			
18,000.00	7,784.16	17,943.82	7,769.15	188.00	186.59	88.72	-10,212.39	-231.25	665.26	290.68	374.58	1.776			
18,054.61	7,784.04	17,998.43	7,769.03	188.81	187.58	88.72	-10,266.99	-230.60	665.25	288.86	376.39	1.767			
18,076.19	7,784.00	18,015.04	7,769.00	189.13	187.84	88.72	-10,283.60	-230.40	665.27	288.31	376.97	1.765			

Company:	COG Operating L L C	Local Co-ordinate Reference:	Well Daisy State Com #504H
Project:	Eddy County, NM (NAD 27 NME)	TVD Reference:	KB=26' @ 3083.20usft (Scandriill Freedom)
Reference Site:	Sec. 24, T 25S. , R 27 E	MD Reference:	KB=26' @ 3083.20usft (Scandriill Freedom)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Daisy State Com #504H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB=26' @ 3083.20usft (Scandriill FreeCoordinates are relative to: Daisy State Com #504H
Offset Depths are relative to Offset Datum
Central Meridian is -104.33334
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Grid Convergence at Surface is: 0.10°



Company:	COG Operating L L C	Local Co-ordinate Reference:	Well Daisy State Com #504H
Project:	Eddy County, NM (NAD 27 NME)	TVD Reference:	KB=26' @ 3083.20usft (Scandrill Freedom)
Reference Site:	Sec. 24, T 25S. , R 27 E	MD Reference:	KB=26' @ 3083.20usft (Scandrill Freedom)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Daisy State Com #504H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB=26' @ 3083.20usft (Scandrill FreeCoordinates are relative to: Daisy State Com #504H

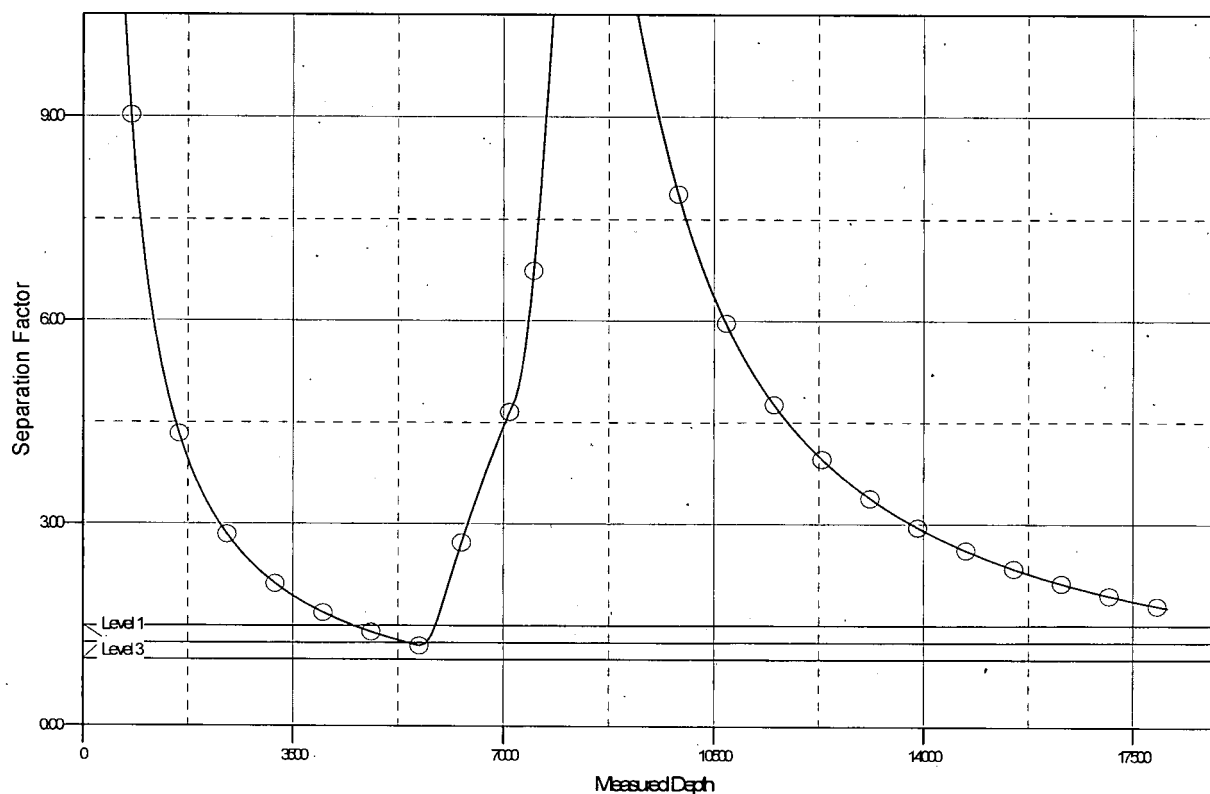
Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30

Central Meridian is -104.33334

Grid Convergence at Surface is: 0.10°

Separation Factor Plot



LEGEND

Daisy State Com #503H, Wellbore #1, Plan #2 V0