

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

FORM APPROVED
OMB NO 1004-0135
Expires July 31, 2010**SUNDRY NOTICES AND REPORTS ON WELLS****Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.**5. Lease Serial No
NMNM114979

6. If Indian, Allottee or Tribe Name

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

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other8. Well Name and No
CANVASBACK 13 FEDERAL 1H

2. Name of Operator

OGX RESOURCES LLC

Contact: DEBORA WILBOURN

E-Mail: dwilbourn@concho.com

9. API Well No
30-015-39191-00-X1

3a. Address

MIDLAND, TX 79702

3b. Phone No (include area code)

Ph: 575-748-6958

10. Field and Pool, or Exploratory
COTTON DRAW

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

Sec 13 T24S R31E SWSW Lot D 330FNL 480FWL

11. County or Parish, and State

EDDY COUNTY, NM

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

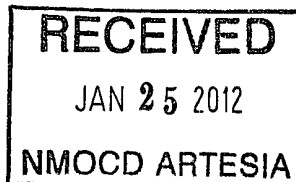
TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans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

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

COG OPERATING, LLC, RESPECTFULLY REQUESTS TO MAKE THE FOLLOWING CHGS TO THE ORIGINAL APD:

TD MD @12757'

TD TVD @ 8330'

Accepted for record
NMOCD

TOS 1/25/2012

14. I hereby certify that the foregoing is true and correct.	
Electronic Submission #128013 verified by the BLM Well Information System For OGX RESOURCES LLC, sent to the Carlsbad Committed to AFMSS for processing by KURT SIMMONS on 01/17/2012 (12KMS0694SE)	
Name (Printed/Typed) DEBORA WILBOURN	Title OPERATIONS ASSISTANT - NM
Signature (Electronic Submission)	Date 01/12/2012

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By TED MORGAN	Title PETROLEUM ENGINEER	Date 01/20/2012
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon		Office Carlsbad

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

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



Pathfinder
Pathfinder X & Y Report

PATHFINDER
A Schlumberger Company

Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County(NAD27)	TVD Reference:	KB = 18' @ 3587.0usft (Original Well Elev)
Site:	Canvasback 13 Federal	MD Reference:	KB = 18' @ 3587.0usft (Original Well Elev)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	EDM 5000.1 Single User Db

Project	Eddy County(NAD27)		
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	Canvasback 13 Federal		
Site Position:		Northing:	445,577.000 usft
From:	Map	Easting:	684,092.600 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 13' 24.983 N
		Longitude:	103° 44' 16.913 W
		Grid Convergence:	0.32 °

Well	#1H		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 13' 24.983 N
		Longitude:	103° 44' 16.913 W
		Ground Level:	3,569.0 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010	12/2/2011	7.61
			Dip Angle
			(°)
			60.15
			Field Strength
			(nT)
			48,550

Design	Plan #2		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			179.67

Survey Tool Program	Date: 12/28/2011		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		Description
0.0	12,756.2	Plan #2 (OH)	MWD
			MWD - Standard



Pathfinder
Pathfinder X & Y Report

PATHFINDER
A Schlumberger Company

Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County(NAD27)	TVD Reference:	KB = 18' @ 3587.0usft.(Original Well Elev)
Site:	Canvasback 13 Federal	MD Reference:	KB = 18' @ 3587.0usft (Original Well Elev)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	EDM 5000.1 Single User.Db

Planned Survey											
MD (usft)	Inc (")	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
0.0	0.00	0.00	0.0	-3,587.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
100.0	0.00	0.00	100.0	-3,487.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
200.0	0.00	0.00	200.0	-3,387.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
300.0	0.00	0.00	300.0	-3,287.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
400.0	0.00	0.00	400.0	-3,187.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
500.0	0.00	0.00	500.0	-3,087.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
600.0	0.00	0.00	600.0	-2,987.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
700.0	0.00	0.00	700.0	-2,887.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
800.0	0.00	0.00	800.0	-2,787.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
900.0	0.00	0.00	900.0	-2,687.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
1,000.0	0.00	0.00	1,000.0	-2,587.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
1,100.0	0.00	0.00	1,100.0	-2,487.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
1,200.0	0.00	0.00	1,200.0	-2,387.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
1,300.0	0.00	0.00	1,300.0	-2,287.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
1,400.0	0.00	0.00	1,400.0	-2,187.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
1,500.0	0.00	0.00	1,500.0	-2,087.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
1,600.0	0.00	0.00	1,600.0	-1,987.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
1,700.0	0.00	0.00	1,700.0	-1,887.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
1,800.0	0.00	0.00	1,800.0	-1,787.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
1,900.0	0.00	0.00	1,900.0	-1,687.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
2,000.0	0.00	0.00	2,000.0	-1,587.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
2,100.0	0.00	0.00	2,100.0	-1,487.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
2,200.0	0.00	0.00	2,200.0	-1,387.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
2,300.0	0.00	0.00	2,300.0	-1,287.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
2,400.0	0.00	0.00	2,400.0	-1,187.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
2,500.0	0.00	0.00	2,500.0	-1,087.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
2,600.0	0.00	0.00	2,600.0	-987.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	



Pathfinder
Pathfinder X & Y Report

PATHFINDER
A Schlumberger Company

Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County(NAD27)	TVD Reference:	KB = 18' @ 3587.0usft (Original Well Elev)
Site:	Canvasback 13 Federal	MD Reference:	KB = 18' @ 3587.0usft (Original Well Elev)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	EDM 5000.1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
2,700.0	0.00	0.00	2,700.0	-887.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
2,800.0	0.00	0.00	2,800.0	-787.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
2,900.0	0.00	0.00	2,900.0	-687.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
3,000.0	0.00	0.00	3,000.0	-587.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
3,100.0	0.00	0.00	3,100.0	-487.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
3,200.0	0.00	0.00	3,200.0	-387.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
3,300.0	0.00	0.00	3,300.0	-287.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
3,400.0	0.00	0.00	3,400.0	-187.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
3,500.0	0.00	0.00	3,500.0	-87.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
3,600.0	0.00	0.00	3,600.0	13.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
3,700.0	0.00	0.00	3,700.0	113.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
3,800.0	0.00	0.00	3,800.0	213.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
3,900.0	0.00	0.00	3,900.0	313.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
4,000.0	0.00	0.00	4,000.0	413.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
4,100.0	0.00	0.00	4,100.0	513.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
4,200.0	0.00	0.00	4,200.0	613.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
4,300.0	0.00	0.00	4,300.0	713.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
4,400.0	0.00	0.00	4,400.0	813.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
4,500.0	0.00	0.00	4,500.0	913.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
4,600.0	0.00	0.00	4,600.0	1,013.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
4,700.0	0.00	0.00	4,700.0	1,113.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
4,800.0	0.00	0.00	4,800.0	1,213.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
4,900.0	0.00	0.00	4,900.0	1,313.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
5,000.0	0.00	0.00	5,000.0	1,413.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
5,100.0	0.00	0.00	5,100.0	1,513.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
5,200.0	0.00	0.00	5,200.0	1,613.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
5,300.0	0.00	0.00	5,300.0	1,713.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	



Pathfinder
Pathfinder X & Y Report

PATHFINDER
A Schlumberger Company

Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #1H:
Project:	Eddy County(NAD27)	TVD Reference:	KB = 18' @ 3587.0usft (Original Well Elev)
Site:	Canvasback-13 Federal	MD Reference:	KB = 18' @ 3587.0usft (Original Well Elev)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	EDM-5000.1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northings (usft)	Easting (usft)	
5,400.0	0.00	0.00	5,400.0	1,813.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
5,500.0	0.00	0.00	5,500.0	1,913.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
5,600.0	0.00	0.00	5,600.0	2,013.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
5,700.0	0.00	0.00	5,700.0	2,113.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
5,800.0	0.00	0.00	5,800.0	2,213.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
5,900.0	0.00	0.00	5,900.0	2,313.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
6,000.0	0.00	0.00	6,000.0	2,413.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
6,100.0	0.00	0.00	6,100.0	2,513.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
6,200.0	0.00	0.00	6,200.0	2,613.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
6,300.0	0.00	0.00	6,300.0	2,713.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
6,400.0	0.00	0.00	6,400.0	2,813.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
6,500.0	0.00	0.00	6,500.0	2,913.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
6,600.0	0.00	0.00	6,600.0	3,013.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
6,700.0	0.00	0.00	6,700.0	3,113.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
6,800.0	0.00	0.00	6,800.0	3,213.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
6,900.0	0.00	0.00	6,900.0	3,313.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
7,000.0	0.00	0.00	7,000.0	3,413.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
7,100.0	0.00	0.00	7,100.0	3,513.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
7,200.0	0.00	0.00	7,200.0	3,613.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
7,300.0	0.00	0.00	7,300.0	3,713.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
7,400.0	0.00	0.00	7,400.0	3,813.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
7,500.0	0.00	0.00	7,500.0	3,913.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
7,600.0	0.00	0.00	7,600.0	4,013.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
7,700.0	0.00	0.00	7,700.0	4,113.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
7,800.0	0.00	0.00	7,800.0	4,213.0	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
7,862.5	0.00	0.00	7,862.5	4,275.5	0.0	0.0	0.0	0.00	445,577.00	684,092.60	
7,875.0	1.50	179.67	7,875.0	4,288.0	-0.2	0.0	0.2	12.00	445,576.84	684,092.60	



Pathfinder
Pathfinder X & Y Report

PATHFINDER
A Schlumberger Company

Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County(NAD27)	TVD Reference:	KB = 18' @ 3587.0usft (Original Well Elev)
Site:	Canvasback 13-Federal	MD Reference:	KB = 18' @ 3587.0usft (Original Well Elev)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	EDM 5000.1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
7,900.0	4.50	179.67	7,900.0	4,313.0	-1.5	0.0	1.5	12.00	445,575.53	684,092.61	
7,925.0	7.50	179.67	7,924.8	4,337.8	-4.1	0.0	4.1	12.00	445,572.92	684,092.62	
7,950.0	10.50	179.67	7,949.5	4,362.5	-8.0	0.0	8.0	12.00	445,569.00	684,092.65	
7,975.0	13.50	179.67	7,974.0	4,387.0	-13.2	0.1	13.2	12.00	445,563.81	684,092.68	
8,000.0	16.50	179.67	7,998.1	4,411.1	-19.7	0.1	19.7	12.00	445,557.34	684,092.71	
8,025.0	19.50	179.67	8,021.9	4,434.9	-27.4	0.2	27.4	12.00	445,549.61	684,092.76	
8,050.0	22.50	179.67	8,045.2	4,458.2	-36.3	0.2	36.3	12.00	445,540.66	684,092.81	
8,075.0	25.50	179.67	8,068.1	4,481.1	-46.5	0.3	46.5	12.00	445,530.49	684,092.86	
8,100.0	28.50	179.67	8,090.3	4,503.3	-57.9	0.3	57.9	12.00	445,519.14	684,092.93	
8,125.0	31.50	179.67	8,112.0	4,525.0	-70.4	0.4	70.4	12.00	445,506.64	684,093.00	
8,150.0	34.50	179.67	8,132.9	4,545.9	-84.0	0.5	84.0	12.00	445,493.03	684,093.08	
8,175.0	37.50	179.67	8,153.2	4,566.2	-98.7	0.6	98.7	12.00	445,478.34	684,093.16	
8,200.0	40.50	179.67	8,172.6	4,585.6	-114.4	0.7	114.4	12.00	445,462.60	684,093.25	
8,225.0	43.50	179.67	8,191.2	4,604.2	-131.1	0.7	131.1	12.00	445,445.88	684,093.35	
8,250.0	46.50	179.67	8,208.8	4,621.8	-148.8	0.8	148.8	12.00	445,428.20	684,093.45	
8,275.0	49.50	179.67	8,225.6	4,638.6	-167.4	1.0	167.4	12.00	445,409.63	684,093.55	
8,300.0	52.50	179.67	8,241.3	4,654.3	-186.8	1.1	186.8	12.00	445,390.20	684,093.66	
8,325.0	55.50	179.67	8,256.0	4,669.0	-207.0	1.2	207.0	12.00	445,369.98	684,093.78	
8,350.0	58.50	179.67	8,269.6	4,682.6	-228.0	1.3	228.0	12.00	445,349.01	684,093.90	
8,375.0	61.50	179.67	8,282.1	4,695.1	-249.6	1.4	249.6	12.00	445,327.37	684,094.02	
8,400.0	64.50	179.67	8,293.5	4,706.5	-271.9	1.5	271.9	12.00	445,305.09	684,094.15	
8,425.0	67.50	179.67	8,303.6	4,716.6	-294.7	1.7	294.7	12.00	445,282.26	684,094.28	
8,450.0	70.50	179.67	8,312.6	4,725.6	-318.1	1.8	318.1	12.00	445,258.92	684,094.41	
8,475.0	73.50	179.67	8,320.3	4,733.3	-341.9	1.9	341.9	12.00	445,235.15	684,094.55	
8,500.0	76.50	179.67	8,326.8	4,739.8	-366.0	2.1	366.0	12.00	445,211.00	684,094.68	
8,525.0	79.50	179.67	8,332.0	4,745.0	-390.4	2.2	390.5	12.00	445,186.55	684,094.82	
8,550.0	82.50	179.67	8,335.9	4,748.9	-415.1	2.4	415.1	12.00	445,161.86	684,094.96	



Pathfinder
Pathfinder X & Y Report

PATHFINDER
A Schlumberger Company

Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County(NAD27)	TVD Reference:	KB = 18' @ 3587.0usft. (Original Well Elev)
Site:	Canvasback 13 Federal	MD Reference:	KB = 18' @ 3587.0usft (Original Well Elev)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	EDM 5000 1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
8,575.0	85.50	179.67	8,338.5	4,751.5	-440.0	2.5	440.0	12.00	445,137.00	684,095.10	
8,600.0	88.50	179.67	8,339.8	4,752.8	-465.0	2.6	465.0	12.00	445,112.04	684,095.25	
8,613.6	90.14	179.67	8,340.0	4,753.0	-478.6	2.7	478.6	12.00	445,098.39	684,095.32	
8,700.0	90.14	179.67	8,339.8	4,752.8	-565.0	3.2	565.0	0.00	445,012.04	684,095.82	
8,800.0	90.14	179.67	8,339.5	4,752.5	-665.0	3.8	665.0	0.00	444,912.05	684,096.38	
8,900.0	90.14	179.67	8,339.3	4,752.3	-765.0	4.4	765.0	0.00	444,812.05	684,096.95	
9,000.0	90.14	179.67	8,339.0	4,752.0	-864.9	4.9	865.0	0.00	444,712.05	684,097.52	
9,100.0	90.14	179.67	8,338.8	4,751.8	-964.9	5.5	965.0	0.00	444,612.05	684,098.09	
9,200.0	90.14	179.67	8,338.6	4,751.6	-1,064.9	6.1	1,065.0	0.00	444,512.05	684,098.66	
9,300.0	90.14	179.67	8,338.3	4,751.3	-1,164.9	6.6	1,165.0	0.00	444,412.06	684,099.23	
9,400.0	90.14	179.67	8,338.1	4,751.1	-1,264.9	7.2	1,265.0	0.00	444,312.06	684,099.80	
9,500.0	90.14	179.67	8,337.8	4,750.8	-1,364.9	7.8	1,365.0	0.00	444,212.06	684,100.37	
9,600.0	90.14	179.67	8,337.6	4,750.6	-1,464.9	8.3	1,465.0	0.00	444,112.06	684,100.94	
9,700.0	90.14	179.67	8,337.4	4,750.4	-1,564.9	8.9	1,565.0	0.00	444,012.06	684,101.51	
9,800.0	90.14	179.67	8,337.1	4,750.1	-1,664.9	9.5	1,665.0	0.00	443,912.07	684,102.08	
9,900.0	90.14	179.67	8,336.9	4,749.9	-1,764.9	10.0	1,765.0	0.00	443,812.07	684,102.64	
10,000.0	90.14	179.67	8,336.6	4,749.6	-1,864.9	10.6	1,865.0	0.00	443,712.07	684,103.21	
10,100.0	90.14	179.67	8,336.4	4,749.4	-1,964.9	11.2	1,965.0	0.00	443,612.07	684,103.78	
10,200.0	90.14	179.67	8,336.1	4,749.1	-2,064.9	11.8	2,065.0	0.00	443,512.07	684,104.35	
10,300.0	90.14	179.67	8,335.9	4,748.9	-2,164.9	12.3	2,165.0	0.00	443,412.08	684,104.92	
10,400.0	90.14	179.67	8,335.7	4,748.7	-2,264.9	12.9	2,265.0	0.00	443,312.08	684,105.49	
10,500.0	90.14	179.67	8,335.4	4,748.4	-2,364.9	13.5	2,365.0	0.00	443,212.08	684,106.06	
10,600.0	90.14	179.67	8,335.2	4,748.2	-2,464.9	14.0	2,465.0	0.00	443,112.08	684,106.63	
10,700.0	90.14	179.67	8,334.9	4,747.9	-2,564.9	14.6	2,565.0	0.00	443,012.08	684,107.20	
10,800.0	90.14	179.67	8,334.7	4,747.7	-2,664.9	15.2	2,665.0	0.00	442,912.08	684,107.77	
10,900.0	90.14	179.67	8,334.5	4,747.5	-2,764.9	15.7	2,765.0	0.00	442,812.09	684,108.34	
11,000.0	90.14	179.67	8,334.2	4,747.2	-2,864.9	16.3	2,865.0	0.00	442,712.09	684,108.91	



Pathfinder
Pathfinder X & Y Report

PATHFINDER
A Schlumberger Company

Company:	COG Operating, LLC	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County (NAD27)	TVD Reference:	KB = 18' @ 3587.0usft (Original Well Elev)
Site:	Canvaaback-13 Federal	MD Reference:	KB = 18' @ 3587.0usft (Original Well Elev)
Well:	#1H	North Reference:	Gnd
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	EDM 5000.1: Single User.Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
11,100.0	90.14	179.67	8,334.0	4,747.0	-2,964.9	16.9	2,965.0	0.00	442,612.09	684,109.47	
11,200.0	90.14	179.67	8,333.7	4,746.7	-3,064.9	17.4	3,065.0	0.00	442,512.09	684,110.04	
11,300.0	90.14	179.67	8,333.5	4,746.5	-3,164.9	18.0	3,165.0	0.00	442,412.09	684,110.61	
11,400.0	90.14	179.67	8,333.3	4,746.3	-3,264.9	18.6	3,265.0	0.00	442,312.10	684,111.18	
11,500.0	90.14	179.67	8,333.0	4,746.0	-3,364.9	19.2	3,365.0	0.00	442,212.10	684,111.75	
11,600.0	90.14	179.67	8,332.8	4,745.8	-3,464.9	19.7	3,465.0	0.00	442,112.10	684,112.32	
11,700.0	90.14	179.67	8,332.5	4,745.5	-3,564.9	20.3	3,565.0	0.00	442,012.10	684,112.89	
11,800.0	90.14	179.67	8,332.3	4,745.3	-3,664.9	20.9	3,665.0	0.00	441,912.10	684,113.46	
11,900.0	90.14	179.67	8,332.1	4,745.1	-3,764.9	21.4	3,765.0	0.00	441,812.11	684,114.03	
12,000.0	90.14	179.67	8,331.8	4,744.8	-3,864.9	22.0	3,865.0	0.00	441,712.11	684,114.60	
12,100.0	90.14	179.67	8,331.6	4,744.6	-3,964.9	22.6	3,965.0	0.00	441,612.11	684,115.17	
12,200.0	90.14	179.67	8,331.3	4,744.3	-4,064.9	23.1	4,065.0	0.00	441,512.11	684,115.73	
12,300.0	90.14	179.67	8,331.1	4,744.1	-4,164.9	23.7	4,165.0	0.00	441,412.11	684,116.30	
12,400.0	90.14	179.67	8,330.9	4,743.9	-4,264.9	24.3	4,265.0	0.00	441,312.12	684,116.87	
12,500.0	90.14	179.67	8,330.6	4,743.6	-4,364.9	24.8	4,365.0	0.00	441,212.12	684,117.44	
12,600.0	90.14	179.67	8,330.4	4,743.4	-4,464.9	25.4	4,465.0	0.00	441,112.12	684,118.01	
12,700.0	90.14	179.67	8,330.1	4,743.1	-4,564.9	26.0	4,565.0	0.00	441,012.12	684,118.58	
12,756.2	90.14	179.67	8,330.0	4,743.0	-4,621.1	26.3	4,621.2	0.00	440,955.90	684,118.90	

Checked By: _____ Approved By: _____ Date: _____