

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
NM OIL CONSERVATION
CONSERVATION DIVISION
ARTESIA DISTRICT
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

FEB 10 2016

☒ AMENDED REPORT

RECEIVED
WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-015-43417		2 Pool Code 97565		3 Pool Name N. Seven-Rivers- Glorieta Yeso					
4 Property Code 315130		5 Property Name BONE YARD 11 FEE						6 Well Number 11H	
7 GRID NO 229137		8 Operator Name COG OPERATING, LLC						9 Elevation 3391'	
10 Surface Location									
UL or lot no. D	Section 11	Township 20S	Range 25E	Lot Idn	Feet from the 120	North/South line NORTH	Feet From the 170	East/West line WEST	County EDDY
11 Bottom Hole Location If Different From Surface									
UL or lot no. M	Section 11	Township 20S	Range 25E	Lot Idn	Feet from the 330	North/South line SOUTH	Feet from the 330	East/West line WEST	County EDDY
12 Dedicated Acres 160		13 Joint or Infill		14 Consolidation Code		15 Order No.			

No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

17 OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or an undivided 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 a mineral or working interest or to a voluntary pooling agreement or a compulsory pooling order, as determined by the division.

Signature: Kelly J. Holly Date: 2-10-16
Printed Name: Kelly J. Holly
E-mail Address: kholly@concho.com

18 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.

Date of Survey: 11-3-2015
Signature and Seal of Professional Surveyor: Robert M. Howett
Certificate Number: 19680

GEODETIC DATA
NAD 27 GRID - NM EAST

SURFACE LOCATION
N: 580155.4 - E: 460056.3
LAT: 32.59488569° N
LONG: 104.46303059° W

BOTTOM HOLE LOCATION
N: 575238.6 - E: 460175.8
LAT: 32.58137073° N
LONG: 104.46262292° W

CORNER DATA
NAD 27 GRID - NM EAST

A: FOUND BRASS CAP "1947"
N 574906.7 - E 459843.2

B: FOUND BRASS CAP "1947"
N 577592.0 - E 459864.9

C: FOUND BRASS CAP "1947"
N 580276.9 - E 459887.3

D: FOUND BRASS CAP "1947"
N 580253.1 - E 462532.6

E: FOUND BRASS CAP "1947"
N 580229.1 - E 465177.8

F: FOUND BRASS CAP "1947"
N 577584.2 - E 465171.8

G: CALCULATED CORNER
N 574939.6 - E 465164.4

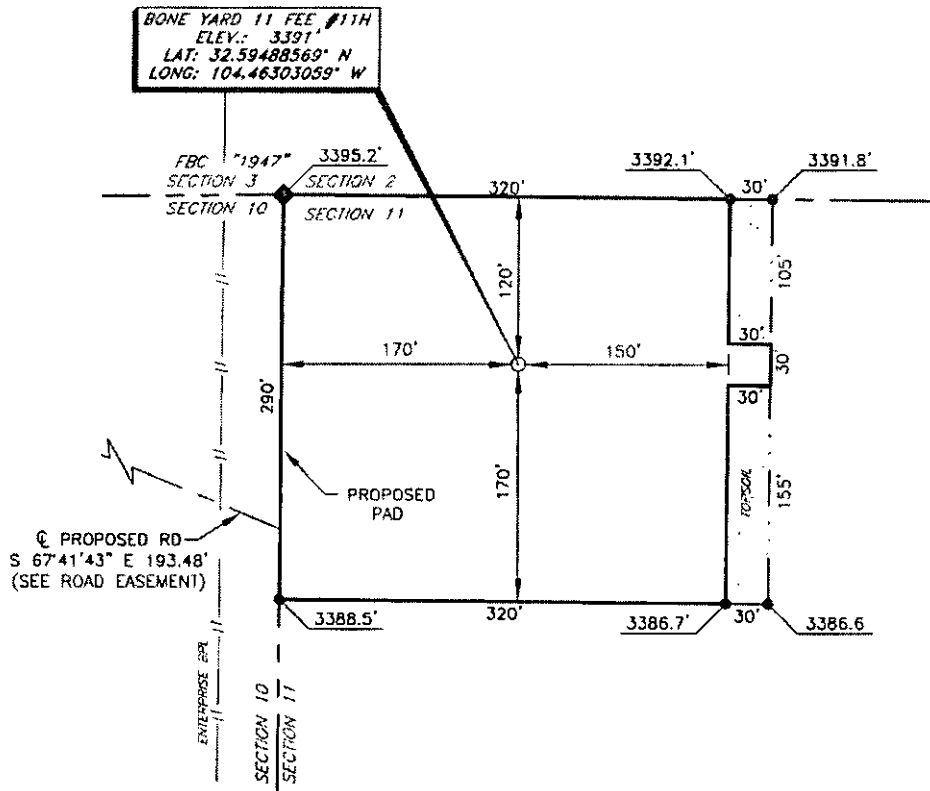
H: FOUND BRASS CAP "1947"
N 574922.5 - E 462503.3

1: CALCULATED CORNER
N 580265.0 - E 461209.9

2: CALCULATED CORNER
N 574914.6 - E 461173.3

RRC - Firm No.: TX 10193838 NM 4655451 - Job No.: LS1511597

COG OPERATING, LLC
BONE YARD 11 FEE #11H
(120' FNL & 170' FWL)
SECTION 11, T20S, R25E
N. M. P. M., EDDY CO., NEW MEXICO



DIRECTIONS TO LOCATION

From the intersection of CR-23 (Rock Daisy) and U.S. Hwy 285;
Go West on CR-23 approx. 3.1 miles to lease road on left;
Turn left and go South approx. 1.5 miles;
Turn right and go West approx. 0.4 miles;
Turn left and go South approx. 0.5 miles;
Turn left and go East approx. 0.2 miles to the Northeast corner of the Quick Draw #2H and beginning of proposed road;
Follow proposed road East approx. 0.1 miles, location is on the left.

SCALE: 1" = 100'
0 50 100

BEARINGS ARE
NAD 27 GRID - NM EAST
DISTANCES ARE
GROUND.

Firm No.: TX 10193838 NM 4655451

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NO.	REVISION	DATE
JOB NO.:	LS1511597	
DWG. NO.:	1511597PAD	

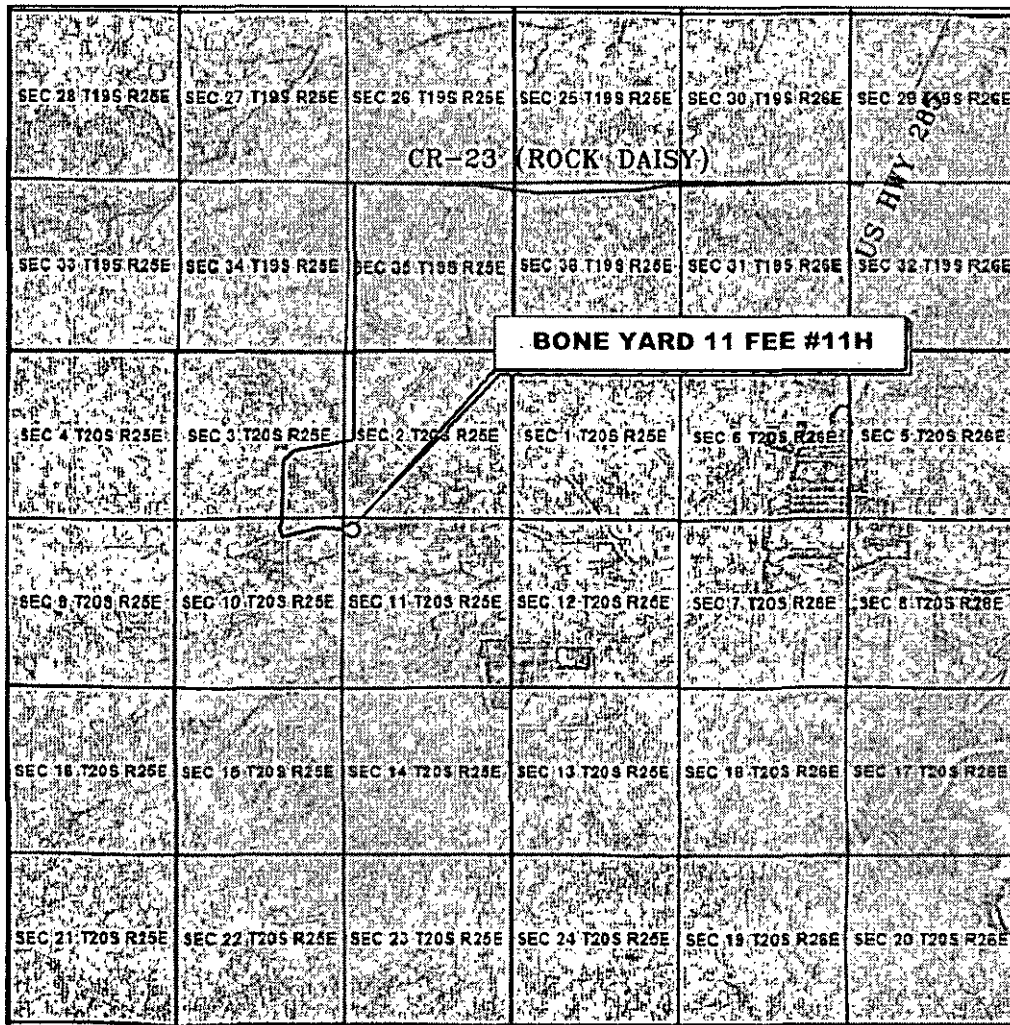
RRC

308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 100'
DATE: 11-03-2015
SURVEYED BY: BC/HD
DRAWN BY: JC
APPROVED BY: RMH
SHEET : 1 OF 1

VICINITY MAP

NOT TO SCALE



SECTION 11, TWP. 20 SOUTH, RGE. 25 EAST,
N. M. P. M., EDDY CO., NEW MEXICO

OPERATOR: COG Operating, LLC

LOCATION: 120' FNL & 170' FWL

LEASE: Bone Yard 11 Fee

ELEVATION: 3391'

WELL NO.: 11H

Firm No.: TX 10193838 NM 4655451

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NO.	REVISION	DATE
JOB NO.: LS1511597		
DWG. NO.: 1511597VM		

RRC

308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

SCALE: NTS

DATE: 11-3-2015

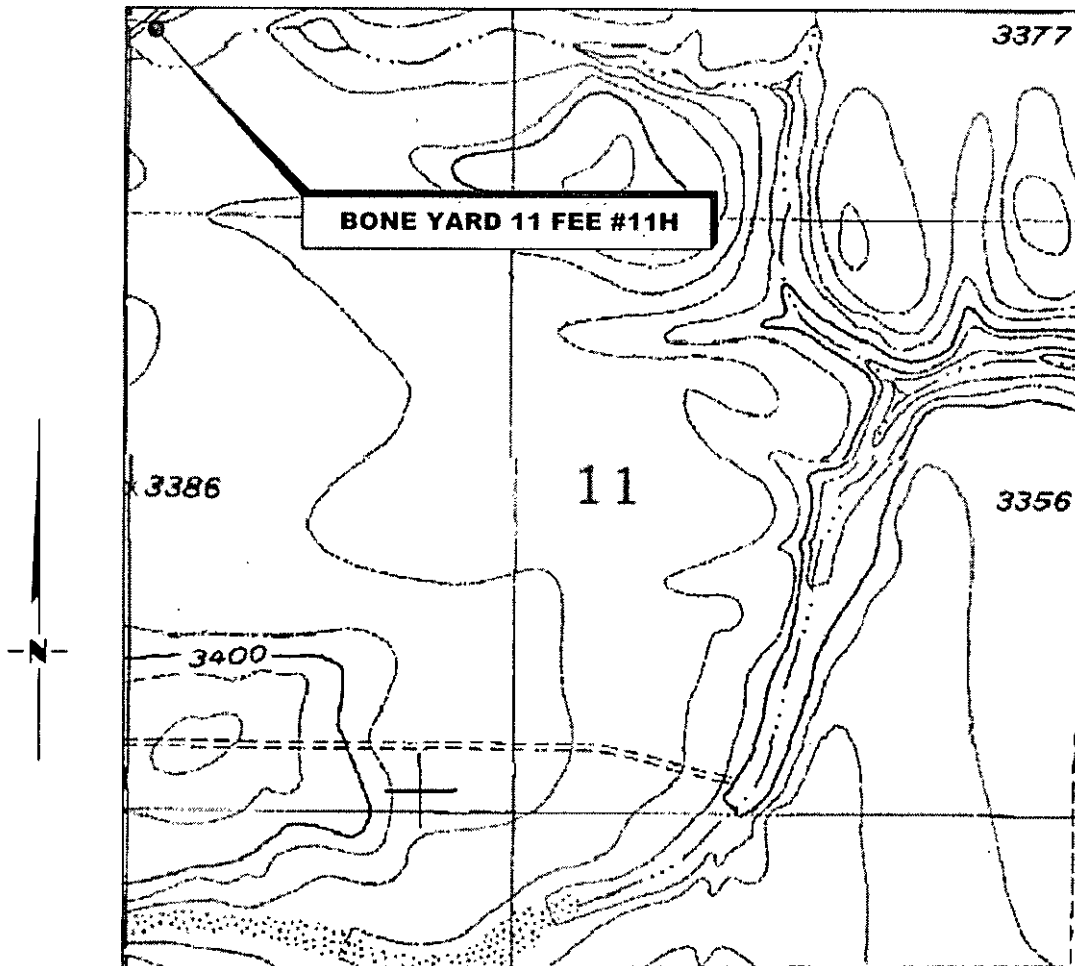
SURVEYED BY: BC/HD

DRAWN BY: JC

APPROVED BY: RMH

SHEET : 1 OF 1

LOCATION VERIFICATION MAP



SECTION 11, TWP. 20 SOUTH, RGE. 25 EAST,
N. M. P. M., EDDY CO., NEW MEXICO

OPERATOR: COG Operating, LLC

LEASE: Bone Yard 11 Fee

WELL NO.: 11H

ELEVATION: 3391'

LOCATION: 120' FNL & 170' FWL

CONTOUR INTERVAL: 10'

USGS TOPO. SOURCE MAP:

Seven Rivers, NM (1954)

Firm No.: TX 10193838 NM 4655451

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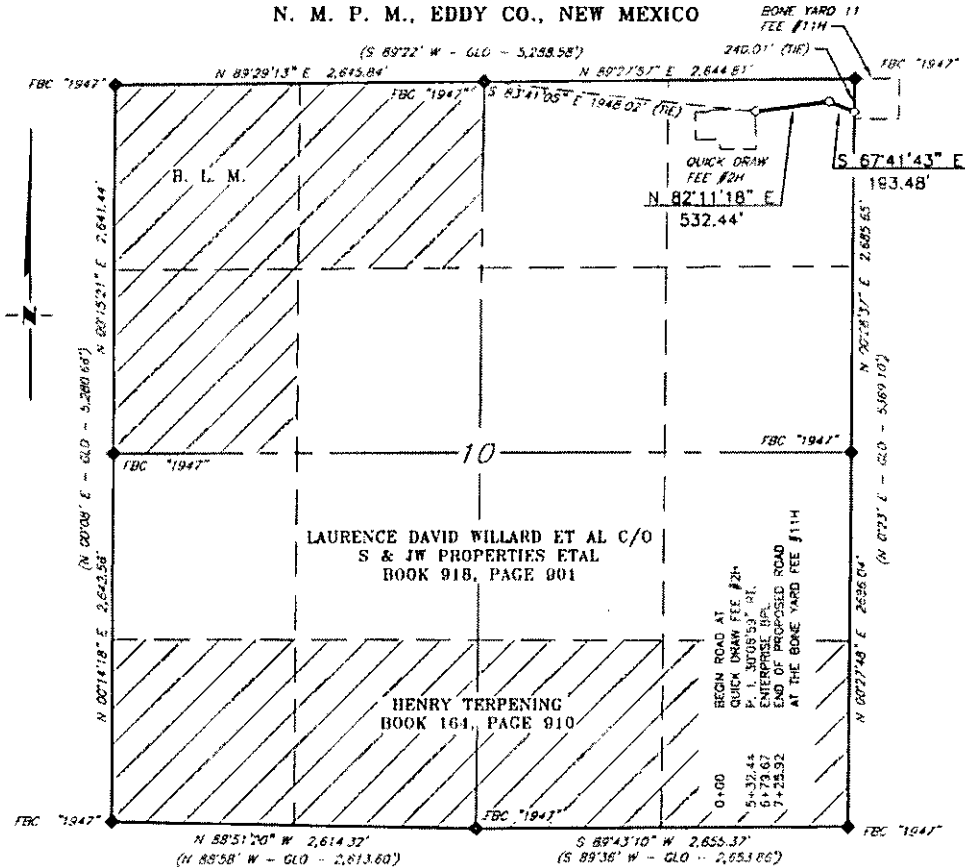
NO.	REVISION	DATE
JOB NO.:	LS1511597	
DWG. NO.:	1511597LVM	

RRC

308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1"=1000'
DATE: 11-3-2015
SURVEYED BY: BC/HD
DRAWN BY: JC
APPROVED BY: RMH
SHEET : 1 OF 1

COG OPERATING, LLC
PROPOSED ACCESS ROAD FROM THE QUICK DRAW FEE #2H
TO THE BONE YARD 11 FEE #11H
SECTION 10, T20S, R25E
N. M. P. M., EDDY CO., NEW MEXICO



DESCRIPTION

A strip of land 20 feet wide, being 725.92 feet or 43.995 rods in length lying in Sections 10, Township 20 South, Range 25 East, N. M. P. M., Eddy County, New Mexico, being 10 feet left and 10 feet right of the following described survey of a centerline across the lands of Laurence David Willard, ET AL, C/O, S & JW Properties, ET AL, according to a deed filed for record in Book 918, Page 901, of the Deed Records of Eddy County, New Mexico:

BEGINNING at Engr. Sta. 0+00, a point which bears S 83°41'05" E, 1,948.02 feet from a brass cap, stamped "1947", found for the North quarter corner of Section 10;

Thence N 82°11'18" E, 532.44 feet, to Engr. Sta. 5+32.44, a P. I. of 30°06'59" right;

Thence S 67°41'43" E, 193.48 feet, to Engr. Sta. 7+25.92, the End of Survey, a point on the East line of Section 10 which bears S 00°28'37" E, 240.01 feet from a brass cap, stamped "1947", found for the Northeast corner of Section 10.

Said strip of land contains 0.333 acres, more or less, and is allocated by forties as follows:

SCALE: 1" = 1000' NE 1/4 NE 1/4 43.995 Rods 0.333 Acres

BEARINGS ARE GRID MAG 27
 DISTANCES ARE HORIZ. GROUND.

LEGEND

- () RECORD DATA - GLO
- ◆ FOUND MONUMENT AS NOTED
- PROPOSED ROAD

I, R. M. Howett, a N. M. Professional Surveyor, hereby certify that I prepared this plat from an actual survey made on the ground under my direct supervision, said survey and plat meet the Min. Stds. for Land Surveying in the State of N. M. and are true and correct to the best of my knowledge and belief.

Robert M. Howett
 Robert M. Howett NM PS 19680



Firm No.: TX 10193838 NM 4655451

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NO.	REVISION	DATE
J09 NO.: LS1511597		
DWG. NO.: 1511597RD1		

RRC

308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 1000'
DATE: 11-3-2015
SURVEYED BY: BC/HD
DRAWN BY: JC
APPROVED BY: RMH
SHEET: 1 OF 1



COG Operating LLC

Eddy County, NM (NAD-27 2015)

Bone Yard 11 Fee #11H

SHL: 120' FNL, 170' FWL, Sec 11, T20S, R25E, Unit D

PP: 558.7' FNL, 330' FWL, Sec 11, T20S, R25E, Unit D

BHL: 330' FSL, 330' FWL, Sec 11, T20S, R25E, Unit M

Plan: Design #1

Standard Planning Report

11 December, 2015





Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Bone Yard 11 Fee #11H
Company:	COG Operating LLC	TVD Reference:	KB @ 3409.00usft (Silver Oak 3)
Project:	Eddy County, NM (NAD-27 2015)	MD Reference:	KB @ 3409.00usft (Silver Oak 3)
Site:	Bone Yard 11 Fee #11H	North Reference:	Grid
Well:	SHL: 120' FNL, 170' FWL, Sec 11, T20S, R25E, Unit D	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL, 330' FWL, Sec 11, T20S, R25E, Unit M		
Design:	Design #1		

Project: Eddy County, NM (NAD-27 2015)			
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		Bone Yard 11 Fee #11H			
Site Position:		Northing:	580,155.40 usft	Latitude:	32° 35' 41.588 N
From:	Map	Easting:	460,056.30 usft	Longitude:	104° 27' 46.910 W
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	-0.07 °

Well	SHL: 120' FNL, 170' FWL, Sec 11, T20S, R25E, Unit D					
Well Position	+N/-S	0.00 usft	Northing:	580,155.40 usft	Latitude:	32° 35' 41.588 N
	+E/-W	0.00 usft	Easting:	460,056.30 usft	Longitude:	104° 27' 46.910 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,391.00 usft

Wellbore	BHL: 330' FSL, 330' FWL, Sec 11, T20S, R25E, Unit M				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	12/11/2015	7.55	60.27	48,217

Design		Design #1	
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD)	+N-S	+E-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			178.61

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(usft)			(usft)			(°/100usft)	(°/100usft)	(°/100usft)		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,354.70	0.00	0.00	2,354.70	0.00	0.00	0.00	0.00	0.00	0.00	
3,177.43	90.50	160.44	2,875.55	-495.10	175.91	11.00	11.00	0.00	160.44	
3,914.43	90.50	182.55	2,869.07	-1,219.45	284.22	3.00	0.00	3.00	89.91	
7,615.58	90.50	182.55	2,837.08	-4,916.80	119.50	0.00	0.00	0.00	0.00	BHL (BY11F #11H/L1)



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Bone Yard 11 Fee #11H
Company:	COG Operating LLC	TVD Reference:	KB @ 3409.00usft (Silver Oak 3)
Project:	Eddy County, NM (NAD-27 2015)	MD Reference:	KB @ 3409.00usft (Silver Oak 3)
Site:	Bone Yard 11 Fee #11H	North Reference:	Grid
Well:	SHL: 120' FNL, 170' FWL, Sec 11, T20S, R25E, Unit D	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL, 330' FWL, Sec 11, T20S, R25E, Unit M		
Design:	Design #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)
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
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
2,354.70	0.00	0.00	2,354.70	0.00	0.00	0.00	0.00	0.00	0.00
KOP - Start Build 11.00									
2,400.00	4.98	160.44	2,399.94	-1.86	0.66	1.87	11.00	11.00	0.00
2,450.00	10.48	160.44	2,449.47	-8.19	2.91	8.26	11.00	11.00	0.00
2,500.00	15.98	160.44	2,498.12	-18.97	6.74	19.13	11.00	11.00	0.00
2,550.00	21.48	160.44	2,545.46	-34.10	12.12	34.38	11.00	11.00	0.00
2,600.00	26.98	160.44	2,591.03	-53.43	18.98	53.87	11.00	11.00	0.00
2,650.00	32.48	160.44	2,634.43	-78.79	27.28	77.43	11.00	11.00	0.00
2,700.00	37.98	160.44	2,675.26	-103.96	36.94	104.82	11.00	11.00	0.00
2,750.00	43.48	160.44	2,713.13	-134.69	47.85	135.81	11.00	11.00	0.00
2,800.00	48.98	160.44	2,747.70	-168.70	59.94	170.11	11.00	11.00	0.00
2,850.00	54.48	160.44	2,778.66	-205.68	73.08	207.39	11.00	11.00	0.00
2,900.00	59.98	160.44	2,805.71	-245.28	87.15	247.32	11.00	11.00	0.00
2,950.00	65.48	160.44	2,828.61	-287.14	102.02	289.54	11.00	11.00	0.00
3,000.00	70.98	160.44	2,847.14	-330.88	117.56	333.64	11.00	11.00	0.00
3,050.00	76.48	160.44	2,861.14	-376.09	133.62	379.23	11.00	11.00	0.00
3,100.00	81.98	160.44	2,870.48	-422.36	150.06	425.88	11.00	11.00	0.00
3,150.00	87.48	160.44	2,875.07	-469.26	166.73	473.17	11.00	11.00	0.00
3,177.43	90.50	160.44	2,875.55	-495.10	175.91	499.22	11.00	11.00	0.00
EOC/TURN - Start DLS 3.00 TFO 89.91									
3,200.00	90.50	161.12	2,875.35	-516.41	183.34	520.71	3.00	0.00	3.00
3,300.00	90.50	164.12	2,874.48	-611.83	213.21	616.82	3.00	0.00	3.00
3,400.00	90.51	167.12	2,873.59	-708.68	238.04	714.25	3.00	0.00	3.00
3,500.00	90.51	170.12	2,872.71	-806.70	257.78	812.72	3.00	0.00	3.00
3,600.00	90.51	173.12	2,871.82	-905.61	272.35	911.98	3.00	0.00	3.00
3,700.00	90.50	176.12	2,870.94	-1,005.16	281.73	1,011.70	3.00	0.00	3.00
3,800.00	90.50	179.12	2,870.06	-1,105.05	285.89	1,111.67	3.00	0.00	3.00
3,900.00	90.50	182.12	2,869.19	-1,205.03	284.81	1,211.60	3.00	0.00	3.00



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Bone Yard 11 Fee #11H
Company:	COG Operating LLC	TVD Reference:	KB @ 3409.00usft (Silver Oak 3)
Project:	Eddy County, NM (NAD-27 2015)	MD Reference:	KB @ 3409.00usft (Silver Oak 3)
Site:	Bone Yard 11 Fee #11H	North Reference:	Grid
Well:	SHL: 120' FNL, 170' FWL, Sec 11, T20S, R25E, Unit D	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL, 330' FWL, Sec 11, T20S, R25E, Unit M		
Design:	Design #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)
3,914.43	90.50	182.55	2,869.07	-1,219.45	284.22	1,225.99	3.00	-0.01	3.00
END TURN - Start 3701.16 hold at 3914.43 MD									
4,000.00	90.50	182.55	2,868.33	-1,304.93	280.41	1,311.36	0.00	0.00	0.00
4,100.00	90.50	182.55	2,867.47	-1,404.83	275.96	1,411.12	0.00	0.00	0.00
4,200.00	90.50	182.55	2,866.60	-1,504.73	271.51	1,510.88	0.00	0.00	0.00
4,300.00	90.50	182.55	2,865.74	-1,604.62	267.06	1,610.64	0.00	0.00	0.00
4,400.00	90.50	182.55	2,864.87	-1,704.52	262.61	1,710.40	0.00	0.00	0.00
4,500.00	90.50	182.55	2,864.01	-1,804.42	258.16	1,810.16	0.00	0.00	0.00
4,600.00	90.50	182.55	2,863.14	-1,904.32	253.71	1,909.92	0.00	0.00	0.00
4,700.00	90.50	182.55	2,862.28	-2,004.21	249.26	2,009.68	0.00	0.00	0.00
4,800.00	90.50	182.55	2,861.42	-2,104.11	244.81	2,109.44	0.00	0.00	0.00
4,900.00	90.50	182.55	2,860.55	-2,204.01	240.36	2,209.20	0.00	0.00	0.00
5,000.00	90.50	182.55	2,859.69	-2,303.91	235.91	2,308.95	0.00	0.00	0.00
5,100.00	90.50	182.55	2,858.82	-2,403.80	231.46	2,408.71	0.00	0.00	0.00
5,200.00	90.50	182.55	2,857.96	-2,503.70	227.01	2,508.47	0.00	0.00	0.00
5,300.00	90.50	182.55	2,857.09	-2,603.60	222.56	2,608.23	0.00	0.00	0.00
5,400.00	90.50	182.55	2,856.23	-2,703.49	218.10	2,707.99	0.00	0.00	0.00
5,500.00	90.50	182.55	2,855.36	-2,803.39	213.65	2,807.75	0.00	0.00	0.00
5,600.00	90.50	182.55	2,854.50	-2,903.29	209.20	2,907.51	0.00	0.00	0.00
5,700.00	90.50	182.55	2,853.64	-3,003.19	204.75	3,007.27	0.00	0.00	0.00
5,800.00	90.50	182.55	2,852.77	-3,103.08	200.30	3,107.03	0.00	0.00	0.00
5,900.00	90.50	182.55	2,851.91	-3,202.98	195.85	3,206.79	0.00	0.00	0.00
6,000.00	90.50	182.55	2,851.04	-3,302.88	191.40	3,306.55	0.00	0.00	0.00
6,100.00	90.50	182.55	2,850.18	-3,402.77	186.95	3,406.31	0.00	0.00	0.00
6,200.00	90.50	182.55	2,849.31	-3,502.67	182.50	3,506.07	0.00	0.00	0.00
6,300.00	90.50	182.55	2,848.45	-3,602.57	178.05	3,605.83	0.00	0.00	0.00
6,400.00	90.50	182.55	2,847.59	-3,702.47	173.60	3,705.59	0.00	0.00	0.00
6,500.00	90.50	182.55	2,846.72	-3,802.36	169.15	3,805.35	0.00	0.00	0.00
6,600.00	90.50	182.55	2,845.86	-3,902.26	164.70	3,905.11	0.00	0.00	0.00
6,700.00	90.50	182.55	2,844.99	-4,002.16	160.25	4,004.87	0.00	0.00	0.00
6,800.00	90.50	182.55	2,844.13	-4,102.05	155.80	4,104.63	0.00	0.00	0.00
6,900.00	90.50	182.55	2,843.26	-4,201.95	151.35	4,204.39	0.00	0.00	0.00
7,000.00	90.50	182.55	2,842.40	-4,301.85	146.90	4,304.15	0.00	0.00	0.00
7,100.00	90.50	182.55	2,841.54	-4,401.75	142.45	4,403.91	0.00	0.00	0.00
7,200.00	90.50	182.55	2,840.67	-4,501.64	138.00	4,503.67	0.00	0.00	0.00
7,300.00	90.50	182.55	2,839.81	-4,601.54	133.55	4,603.43	0.00	0.00	0.00
7,400.00	90.50	182.55	2,838.94	-4,701.44	129.09	4,703.19	0.00	0.00	0.00
7,500.00	90.50	182.55	2,838.08	-4,801.33	124.64	4,802.95	0.00	0.00	0.00
7,600.00	90.50	182.55	2,837.21	-4,901.23	120.19	4,902.71	0.00	0.00	0.00
7,615.58	90.50	182.55	2,837.08	-4,916.80	119.50	4,918.25	0.00	0.00	0.00
TD at 7615.58									



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Bone Yard 11 Fee #11H
Company:	COG Operating LLC	TVD Reference:	KB @ 3409.00usft (Silver Oak 3)
Project:	Eddy County, NM (NAD-27 2015)	MD Reference:	KB @ 3409.00usft (Silver Oak 3)
Site:	Bone Yard 11 Fee #11H	North Reference:	Grid
Well:	SHL: 120' FNL, 170' FWL, Sec 11, T20S, R25E, Unit D	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL, 330' FWL, Sec 11, T20S, R25E, Unit M		
Design:	Design #1		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
BHL (BY11F #11H/L1) - plan hits target center - Point	0.00	360.00	2,837.08	-4,916.80	119.50	575,238.60	460,175.80	32° 34' 52.934 N	104° 27' 45.443 W
PP (BY11F #11H/L1 Des - plan hits target center - Point	0.00	0.00	2,872.78	-440.06	156.35	579,715.34	460,212.65	32° 35' 37.236 N	104° 27' 45.076 W
EOC (BY11F #11H/L1 D - plan hits target center - Point	0.00	0.00	2,875.55	-495.10	175.91	579,660.31	460,232.21	32° 35' 36.691 N	104° 27' 44.846 W

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,354.70	2,354.70	0.00	0.00	KOP - Start Build 11.00
3,177.43	2,875.55	-495.10	175.91	EOC/TURN - Start DLS 3.00 TFO 89.91
3,914.43	2,869.07	-1,219.45	284.22	END TURN - Start 3701.16 hold at 3914.43 MD
7,615.58	2,837.08	-4,916.80	119.50	TD at 7615.58