

NM OIL CONSERVATION

ARTESIA DISTRICT

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

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

SEP 28 2015

Form C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

RECEIVED

☐ AMENDED REPORT

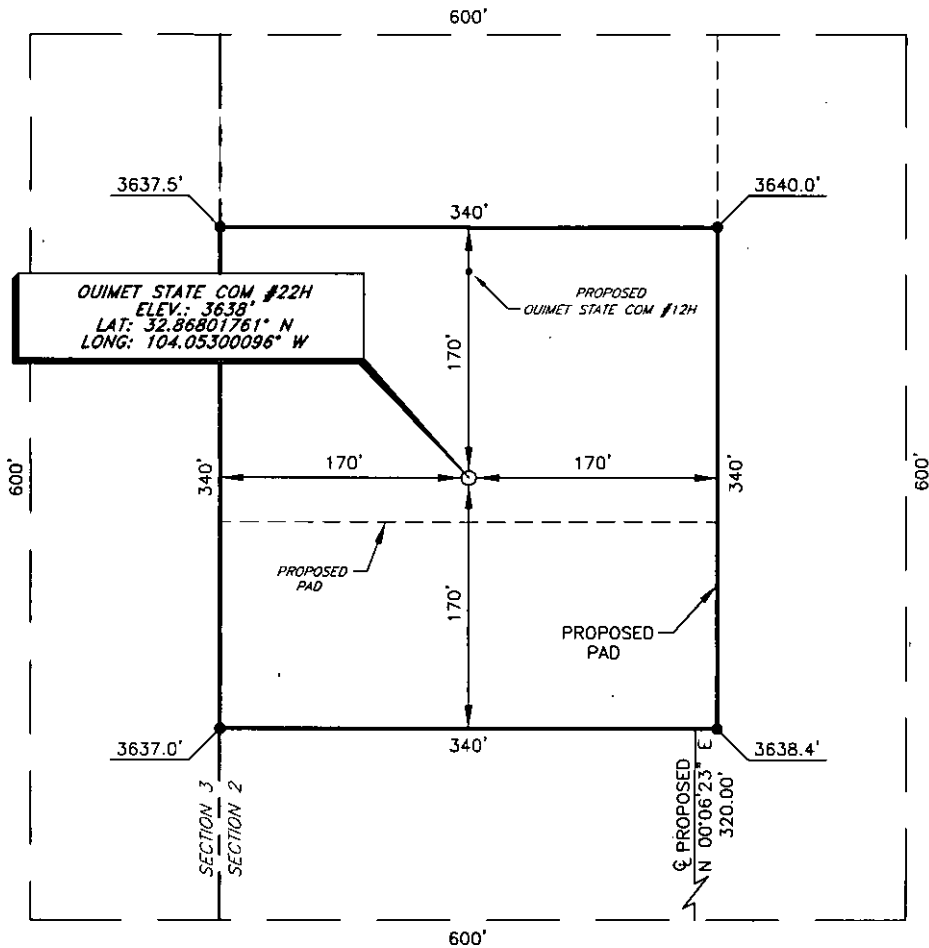
WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-015- 43393		2 Pool Code 96610		3 Pool Name Empire; Glorieta Yeso East					
4 Property Code 39292		5 Property Name OUIMET STATE COM						6 Well Number 22H	
7 GRID NO. 229137		8 Operator Name COG OPERATING, LLC						9 Elevation 3638'	
10 Surface Location									
UL or lot no. 4	Section 2	Township 17S	Range 29E	Lot Idn	Feet from the 990	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. 1	Section 2	Township 17S	Range 29E	Lot Idn	Feet from the 988	North/South line NORTH	Feet from the 330	East/West line EAST	County EDDY
12 Dedicated Acres 160.08		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.

Estimated Completed Interval: 977 FNL 330 FNL	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 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 a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore approved by the division. Signature: <i>[Signature]</i> Date: 9-25-15 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: 6-23-2015 Signature and Seal of Professional Surveyor: <i>[Signature]</i> 19680 Certificate Number	
	GEODETIC DATA NAD 27 GRID - NM EAST SURFACE LOCATION N 679610.4 - E 586073.1 LAT: 32.86801761° N LONG: 104.05300096° W BOTTOM HOLE N 679611.8 - E 590867.5	
	CORNER DATA NAD 27 GRID - NM EAST A: FOUND 1/2" REBAR N 675329.9 - E 585912.5 B: FOUND BRASS CAP "1914" N 677971.0 - E 585901.6 C: FOUND BRASS CAP "1914" N 680600.2 - E 585904.0 D: FOUND BRASS CAP "1914" N 680599.8 - E 588550.2 E: FOUND BRASS CAP "1916" N 680599.9 - E 591196.5 F: FOUND BRASS CAP "1914" N 677961.6 - E 591198.9 G: FOUND BRASS CAP "1914" N 675322.5 - E 591200.4 H: FOUND BRASS CAP "1914" N 675322.9 - E 588553.7 1: CALCULATED CORNER N 679290.7 - E 585902.8 2: CALCULATED CORNER N 679281.3 - E 591197.7	

COG OPERATING, LLC
 OUIMET STATE COM #22H
 (990' FNL & 170' FWL)
 SECTION 2, T17S, R29E
 N. M. P. M., EDDY CO., NEW MEXICO



DIRECTIONS TO LOCATION

From the intersection of CR-215 (Kewanee Road) and US Hwy. 82;
 Go North on CR-215 approx. 3.0 miles to a two track road on the left;
 Turn left stay left and go Southwest approx. 0.6 miles;
 Turn right and continue Northwest on two tract road approx. 0.5 miles
 to proposed road on right;
 Turn right and follow proposed road North approx. 0.4 miles;
 Location is approx. 160 feet 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.:	LS1505269	
DWG. NO.:	1505269PAD	

RRC

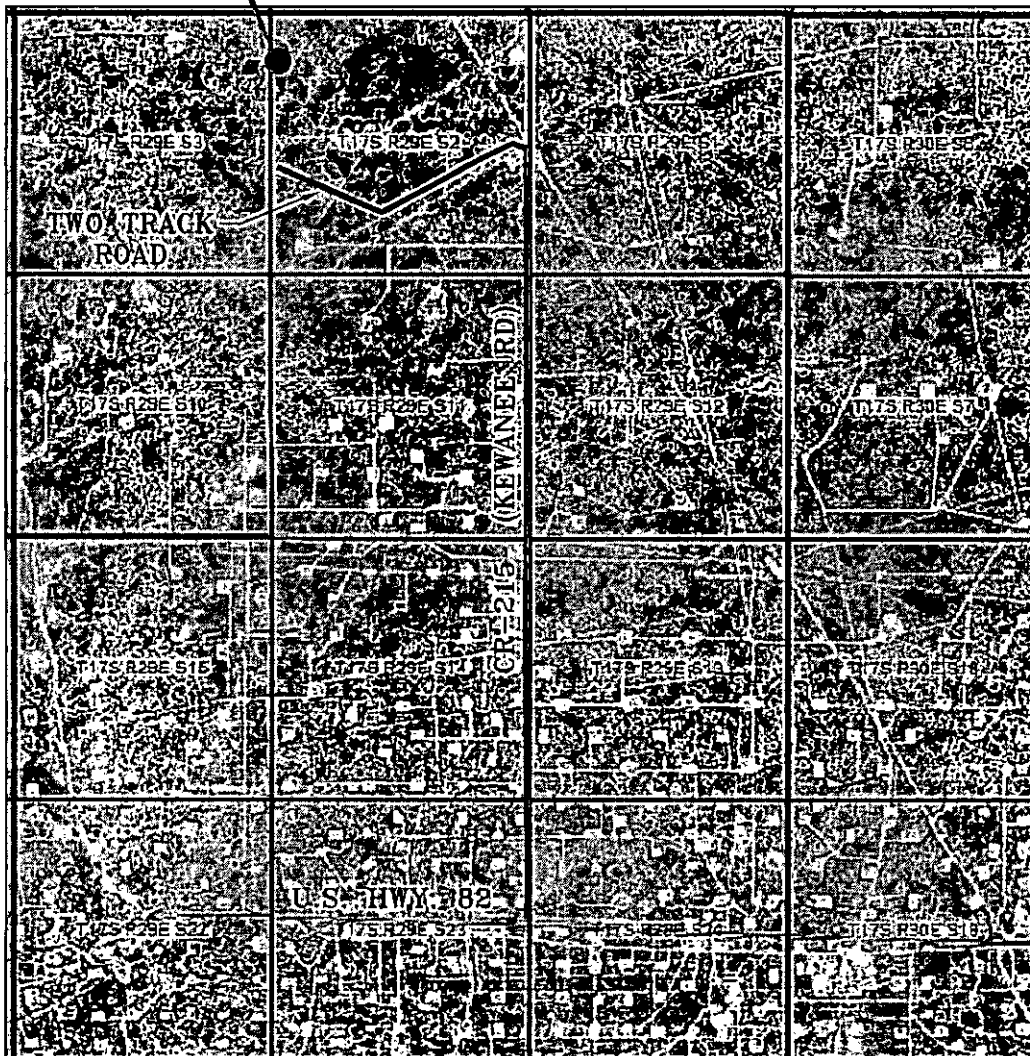
308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 100'
DATE: 6-23-15
SURVEYED BY: BC/ER
DRAWN BY: JC
APPROVED BY: RMH
SHEET : 1 OF 1

VICINITY MAP

NOT TO SCALE

OUIMET STATE COM #22H



*SECTION 2, TWP. 17 SOUTH, RGE. 29 EAST,
N. M. P. M., EDDY COUNTY, NEW MEXICO*

OPERATOR: COG Operating, LLC
LEASE: Ouimet State Com
WELL NO.: 22H

LOCATION: 990' FNL & 170' FWL
ELEVATION: 3638'

Firm No.: TX 10193838 NM 4655451

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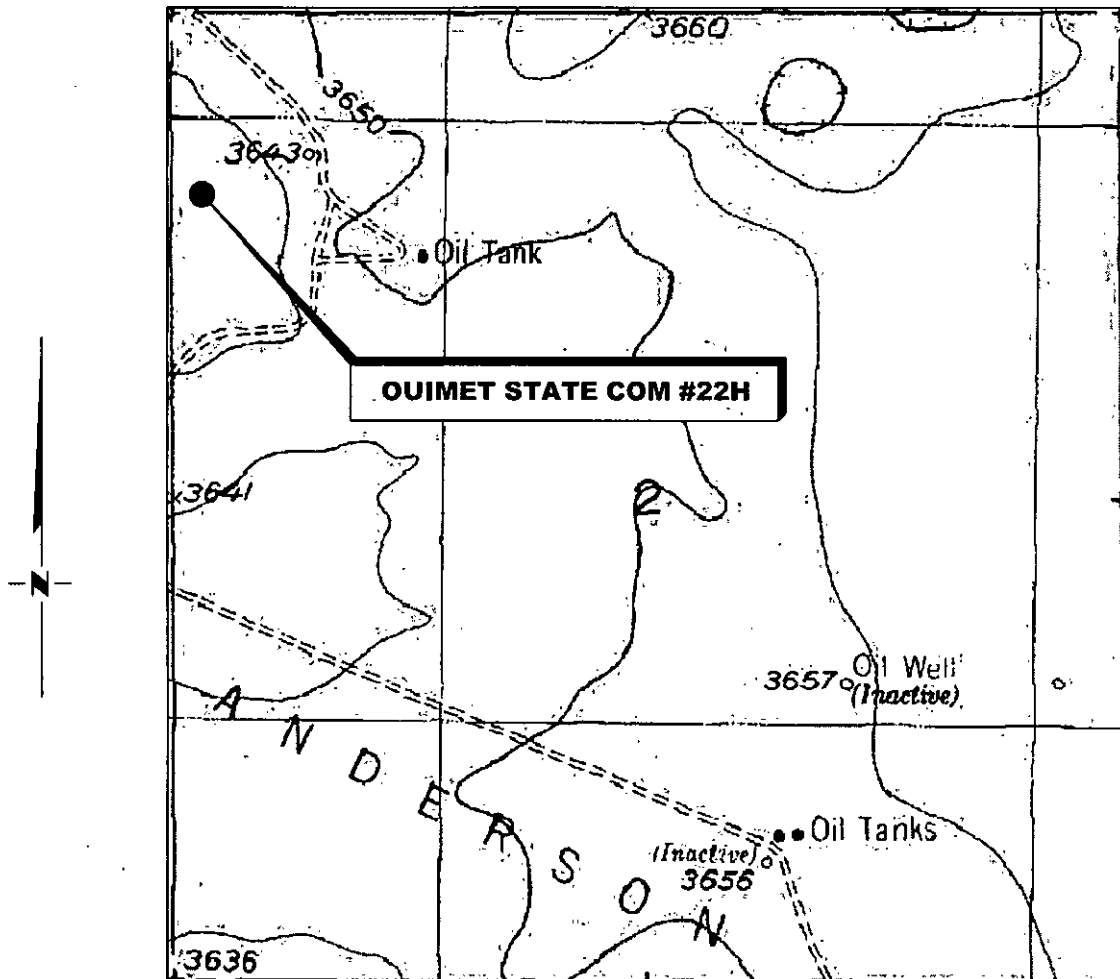
NO.	REVISION	DATE
JOB NO.: LS1505269		
DWG. NO.: 1505269VM		

RRC

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

SCALE: N.T.S.
DATE: 6-23-15
SURVEYED BY: ER/BC
DRAWN BY: JC
APPROVED BY: RMH
SHEET : 1 OF 1

LOCATION VERIFICATION MAP



SECTION 2, TWP. 17 SOUTH, RGE. 29 EAST,
N. M. P. M., EDDY COUNTY, NEW MEXICO

OPERATOR: COG Operating, LLC
LEASE: Quimet State Com
WELL NO.: 22H
ELEVATION: 3638'

LOCATION: 990' FNL & 170' FWL
CONTOUR INTERVAL: 10'
USGS TOPO. SOURCE MAP:
Red Lake SE, NM (1955)

Firm No.: TX 10193838 NM 4655451

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NO.	REVISION	DATE
JOB NO.:	LS1505269	
DWG. NO.:	1505269LVM	

RRC

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

SCALE: 1" = 1000'
DATE: 6-23-15
SURVEYED BY: ER/BC
DRAWN BY: JC
APPROVED BY: RMH
SHEET : 1 OF 1



NM OIL CONSERVATION

ARTESIA DISTRICT

SEP 28 2015

RECEIVED

COG Operating LLC

Eddy County, NM

Ouimet State Com #22H

SHL: 990' FNL, 170' FWL, Sec 2, T17S, R29E, Lot 4

PP: 977.2' FNL, 330' FWL, Sec 2, T17S, R29E, Lot 4

EOC: 947.7' FNL, 698.3' FWL, Sec 2, T17S, R29E, Lot 4

BHL: 988' FNL, 330' FEL, Sec 2, T17S, R29E, Lot 1

Plan: Plan #1

Standard Planning Report

14 July, 2015





TDS
Planning Report



Database:	EDM 5000.1-Single User Db	Local Co-ordinate Reference:	Site Ouimet State Com #22H
Company:	COG Operating LLC	TVD Reference:	KB @ 3650.0usft (United 43)
Project:	Eddy County, NM	MD Reference:	KB @ 3650.0usft (United 43)
Site:	Ouimet State Com #22H	North Reference:	Grid
Well:	SHL: 990' FNL, 170' FWL, Sec 2, T17S, R29E, Lot 4	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 988' FNL, 330' FEL, Sec 2, T17S, R29E, Lot 1		
Design:	Plan #1		

Project	Eddy County, NM		
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	Ouimet State Com #22H		
Site Position:	Map	Northings:	679,610.40 usft
From:		Easting:	586,073.10 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 52' 4.863 N
		Longitude:	104° 3' 10.803 W
		Grid Convergence:	0.15 °

Well	SHL: 990' FNL, 170' FWL, Sec 2, T17S, R29E, Lot 4					
Well Position	+N/-S	0.0 usft	Northings:	679,610.40 usft	Latitude:	32° 52' 4.863 N
	+E/-W	0.0 usft	Easting:	586,073.10 usft	Longitude:	104° 3' 10.803 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	3,638.0 usft

Wellbore		BHL: 988' FNL, 330' FEL, Sec 2, T17S, R29E, Lot 1			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	7/13/2015	7.43	60.60	48,467

Design		Plan #1		
Audit Notes:				
Version:		Phase:	PLAN	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	89.98

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,379.2	0.00	0.00	4,379.2	0.0	0.0	0.00	0.00	0.00	0.00	
5,206.5	91.00	85.43	4,900.0	42.3	528.3	11.00	11.00	0.00	85.43	
5,380.8	91.00	90.66	4,896.9	48.2	702.4	3.00	0.00	3.00	89.96	
9,473.7	91.00	90.66	4,825.6	1.4	4,794.4	0.00	0.00	0.00	0.00	PBHL (OSC #22H/OH)



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Quimet State Com #22H
Company:	COG Operating LLC	TVD Reference:	KB @ 3650.0usft (United 43)
Project:	Eddy County, NM	MD Reference:	KB @ 3650.0usft (United 43)
Site:	Quimet State Com #22H	North Reference:	Grid
Well:	SHL: 990' FNL, 170' FWL, Sec 2, T17S, R29E, Lot 4	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 988' FNL, 330' FEL, Sec 2, T17S, R29E, Lot 1		
Design:	Plan #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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,379.2	0.00	0.00	4,379.2	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 11.00									
4,400.0	2.29	85.43	4,400.0	0.0	0.4	0.4	11.00	11.00	0.00
4,450.0	7.79	85.43	4,449.8	0.4	4.8	4.8	11.00	11.00	0.00
4,500.0	13.29	85.43	4,498.9	1.1	13.9	13.9	11.00	11.00	0.00
4,550.0	18.79	85.43	4,547.0	2.2	27.7	27.7	11.00	11.00	0.00
4,600.0	24.29	85.43	4,593.4	3.7	46.0	46.0	11.00	11.00	0.00
4,650.0	29.79	85.43	4,638.0	5.5	68.6	68.6	11.00	11.00	0.00



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Wellbore:	BHL: 988' FNL, 330' FEL, Sec 2, T17S, R29E, Lot 1		
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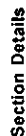
Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
4,700.0	35.29	85.43	4,680.1	7.6	95.4	95.4	11.00	11.00	0.00	
4,750.0	40.79	85.43	4,719.5	10.1	126.1	126.1	11.00	11.00	0.00	
4,800.0	46.29	85.43	4,755.7	12.8	160.4	160.4	11.00	11.00	0.00	
4,850.0	51.79	85.43	4,788.5	15.8	198.0	198.0	11.00	11.00	0.00	
4,900.0	57.29	85.43	4,817.5	19.1	238.6	238.6	11.00	11.00	0.00	
4,950.0	62.79	85.43	4,842.4	22.5	281.8	281.8	11.00	11.00	0.00	
5,000.0	68.29	85.43	4,863.1	26.2	327.1	327.1	11.00	11.00	0.00	
5,050.0	73.79	85.43	4,879.4	29.9	374.3	374.3	11.00	11.00	0.00	
5,100.0	79.29	85.43	4,891.0	33.8	422.7	422.7	11.00	11.00	0.00	
5,150.0	84.79	85.43	4,897.9	37.8	472.0	472.1	11.00	11.00	0.00	
5,200.0	90.29	85.43	4,900.1	41.7	521.8	521.8	11.00	11.00	0.00	
5,206.5	91.00	85.43	4,900.0	42.3	528.3	528.3	11.00	11.00	0.00	
EOC/TURN - Start DLS 3.00 TFO 89.96										
5,300.0	91.00	88.23	4,898.4	47.4	621.6	621.6	3.00	0.00	3.00	
5,380.8	91.00	90.66	4,896.9	48.2	702.4	702.4	3.00	0.00	3.00	
END TURN - Start 4092.9 hold at 5380.8 MD										
5,400.0	91.00	90.66	4,896.6	48.0	721.6	721.6	0.00	0.00	0.00	
5,500.0	91.00	90.66	4,894.9	46.9	821.6	821.6	0.00	0.00	0.00	
5,600.0	91.00	90.66	4,893.1	45.7	921.6	921.6	0.00	0.00	0.00	
5,700.0	91.00	90.66	4,891.4	44.6	1,021.5	1,021.6	0.00	0.00	0.00	
5,800.0	91.00	90.66	4,889.6	43.4	1,121.5	1,121.5	0.00	0.00	0.00	
5,900.0	91.00	90.66	4,887.9	42.3	1,221.5	1,221.5	0.00	0.00	0.00	
6,000.0	91.00	90.66	4,886.1	41.1	1,321.5	1,321.5	0.00	0.00	0.00	
6,100.0	91.00	90.66	4,884.4	40.0	1,421.5	1,421.5	0.00	0.00	0.00	
6,200.0	91.00	90.66	4,882.7	38.8	1,521.4	1,521.4	0.00	0.00	0.00	
6,300.0	91.00	90.66	4,880.9	37.7	1,621.4	1,621.4	0.00	0.00	0.00	
6,400.0	91.00	90.66	4,879.2	36.6	1,721.4	1,721.4	0.00	0.00	0.00	
6,500.0	91.00	90.66	4,877.4	35.4	1,821.4	1,821.4	0.00	0.00	0.00	
6,600.0	91.00	90.66	4,875.7	34.3	1,921.3	1,921.4	0.00	0.00	0.00	
6,700.0	91.00	90.66	4,873.9	33.1	2,021.3	2,021.3	0.00	0.00	0.00	
6,800.0	91.00	90.66	4,872.2	32.0	2,121.3	2,121.3	0.00	0.00	0.00	
6,900.0	91.00	90.66	4,870.5	30.8	2,221.3	2,221.3	0.00	0.00	0.00	
7,000.0	91.00	90.66	4,868.7	29.7	2,321.3	2,321.3	0.00	0.00	0.00	
7,100.0	91.00	90.66	4,867.0	28.6	2,421.2	2,421.2	0.00	0.00	0.00	
7,200.0	91.00	90.66	4,865.2	27.4	2,521.2	2,521.2	0.00	0.00	0.00	
7,300.0	91.00	90.66	4,863.5	26.3	2,621.2	2,621.2	0.00	0.00	0.00	
7,400.0	91.00	90.66	4,861.7	25.1	2,721.2	2,721.2	0.00	0.00	0.00	
7,500.0	91.00	90.66	4,860.0	24.0	2,821.2	2,821.2	0.00	0.00	0.00	
7,600.0	91.00	90.66	4,858.2	22.8	2,921.1	2,921.1	0.00	0.00	0.00	
7,700.0	91.00	90.66	4,856.5	21.7	3,021.1	3,021.1	0.00	0.00	0.00	
7,800.0	91.00	90.66	4,854.8	20.5	3,121.1	3,121.1	0.00	0.00	0.00	
7,900.0	91.00	90.66	4,853.0	19.4	3,221.1	3,221.1	0.00	0.00	0.00	
8,000.0	91.00	90.66	4,851.3	18.3	3,321.0	3,321.0	0.00	0.00	0.00	
8,100.0	91.00	90.66	4,849.5	17.1	3,421.0	3,421.0	0.00	0.00	0.00	
8,200.0	91.00	90.66	4,847.8	16.0	3,521.0	3,521.0	0.00	0.00	0.00	
8,300.0	91.00	90.66	4,846.0	14.8	3,621.0	3,621.0	0.00	0.00	0.00	
8,400.0	91.00	90.66	4,844.3	13.7	3,721.0	3,721.0	0.00	0.00	0.00	
8,500.0	91.00	90.66	4,842.5	12.5	3,820.9	3,820.9	0.00	0.00	0.00	
8,600.0	91.00	90.66	4,840.8	11.4	3,920.9	3,920.9	0.00	0.00	0.00	
8,700.0	91.00	90.66	4,839.1	10.3	4,020.9	4,020.9	0.00	0.00	0.00	
8,800.0	91.00	90.66	4,837.3	9.1	4,120.9	4,120.9	0.00	0.00	0.00	
8,900.0	91.00	90.66	4,835.6	8.0	4,220.8	4,220.8	0.00	0.00	0.00	

Database:	EDM.5000.1 Single User Db	Local Co-ordinate Reference:	Site Ouimet State Com #22H
Company:	COG Operating LLC	TVD Reference:	KB @ 3650.0usft (United 43)
Project:	Eddy County, NM	MD Reference:	KB @ 3650.0usft (United 43)
Site:	Ouimet State Com #22H	North Reference:	Grid
Well:	SHL: 990' FNL, 170' FWL, Sec 2, T17S, R29E, Lot 4	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 988' FNL, 330' FEL, Sec 2, T17S, R29E, Lot 1		
Design:	Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
9,000.0	91.00	90.66	4,833.8	6.8	4,320.8	4,320.8	0.00	0.00	0.00	
9,100.0	91.00	90.66	4,832.1	5.7	4,420.8	4,420.8	0.00	0.00	0.00	
9,200.0	91.00	90.66	4,830.3	4.5	4,520.8	4,520.8	0.00	0.00	0.00	
9,300.0	91.00	90.66	4,828.6	3.4	4,620.8	4,620.8	0.00	0.00	0.00	
9,400.0	91.00	90.66	4,826.8	2.2	4,720.7	4,720.7	0.00	0.00	0.00	
9,473.7	91.00	90.66	4,825.6	1.4	4,794.4	4,794.4	0.00	0.00	0.00	
TD at 9473.7										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
PP (OSC #22H/OH Plan - hit/miss target - Shape - Point	0.00	0.00	4,755.3	12.8	160.0	679,623.20	586,233.10	32° 52' 4.986 N	104° 3' 8.927 W	
PBHL (OSC #22H/OH) - plan hits target center - Point	0.00	0.00	4,825.6	1.4	4,794.4	679,611.80	590,867.50	32° 52' 4.747 N	104° 2' 14.590 W	
EOC (OSC #22H/OH Pl - plan hits target center - Point	0.00	0.00	4,900.0	42.3	528.3	679,652.66	586,601.40	32° 52' 5.267 N	104° 3' 4.608 W	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
4,379.2	4,379.2	0.0	0.0	KOP - Start Build 11.00	
5,206.5	4,900.0	42.3	528.3	EOC/TURN - Start DLS 3.00 TFO 89.96	
5,380.8	4,896.9	48.2	702.4	END TURN - Start 4092.9 hold at 5380.8 MD	
9,473.7	4,825.6	1.4	4,794.4	TD at 9473.7	



Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSEct	Target
1	4379.2	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	4379.2	0.00	0.00	4379.2	0.0	0.0	0.00	0.00	0.0	
3	5206.5	91.00	85.43	4900.0	42.3	528.3	11.00	85.43	528.3	
4	5380.8	91.00	90.66	4896.9	48.2	702.4	3.00	89.96	702.4	
5	9473.7	91.00	90.66	4825.6	1.4	4794.4	0.00	0.00	4794.4	PBHL

COG Operating LLC

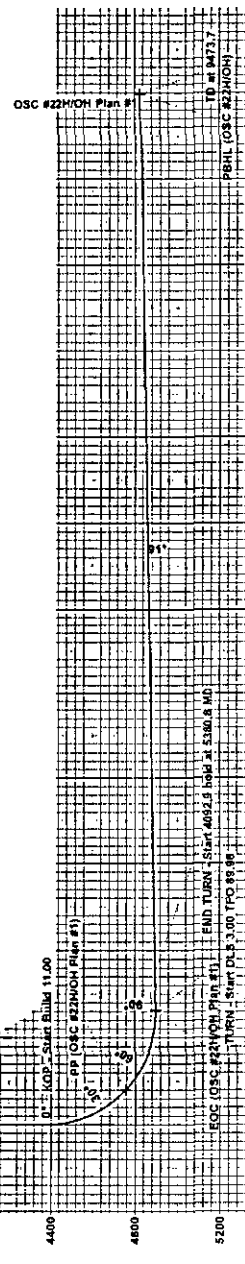
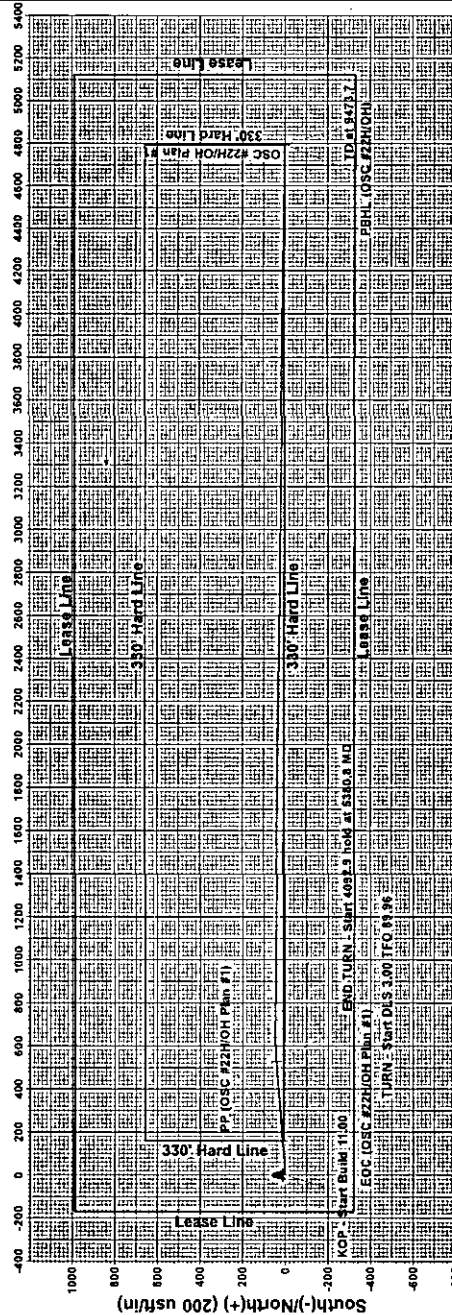
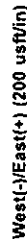
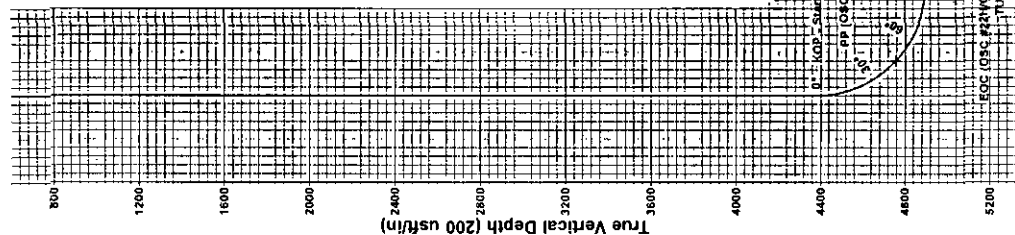
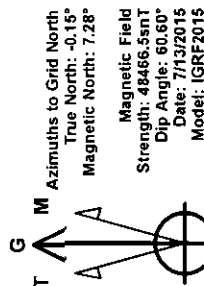
Project: Eddy County, NM

Site: Ouimet State Com #22H

Well: SHL: 990' FNL, 170' FWL, Sec 2, T17S, R29E, Lot 4

Wellbore: BHL: 988' FNL, 330' FEL, Sec 2, T17S, R29E, Lot 1

Plan: Plan #1 (SHL: 990' FNL, 170' FWL, Sec 2, T17S, R29E, Lot 4/BHL: 988' FNL, 330' FEL, Sec 2, T17S, R29E, Lot 1)



TPI
TAPER DIELECTRIC INSULATED CABLE

Vertical Section at 89.98° (200 usft/in)

Vertical section at 03:30 (200 m)

terra Directional Services LLC

3222 Spring Hill Drive, Suite A300. Spring, TX 77386

Phone: 432-425-7532

PROJECT DETAILS: Eddy County, NM
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 Month: Grid