

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 August 1, 2011

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

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-015-40416
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐		5. Indicate Type of Lease STATE ☒ FEE ☐
2. Name of Operator COG Operating LLC		6. State Oil & Gas Lease No.
3. Address of Operator One Concho Center - 600 W Illinois Ave Midland, TX 79701		7. Lease Name or Unit Agreement Name Ouimet State Com
4. Well Location Unit Letter <u>A</u> : <u>330</u> feet from the <u>NORTH</u> line and <u>330</u> feet from the <u>EAST</u> line Section <u>2</u> Township <u>17S</u> Range <u>29E</u> NMPM County <u>EDDY</u>		8. Well Number 1H
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3660'		9. OGRID Number 229137
		10. Pool name or Wildcat Empire; Glorieta Yeso, East 96610

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
OTHER: Change SHL ☒		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 submitted APD for this well at this location:

SHL: 330' FNL 330' FEL, Unit A

BHL: 330' FNL 330' FWL, Unit D

COG Operating LLC respectfully requests permission to change the SHL to:

SHL: 210' FNL 175' FEL, Lot 1

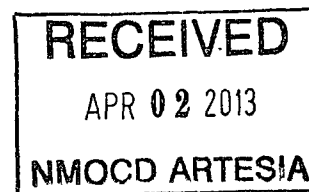
BHL: 330' FNL 330' FWL, Lot 4

Reason for changing the SHL is to capture as many reserves as possible.

A revised C-102 and directional plan are attached for your review.

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 [Signature] TITLE Permitting Tech DATE 03/28/2013

Type or print name Kelly J. Holly E-mail address: kholly@concho.com PHONE: 432-685-4384

For State Use Only

APPROVED BY: T.C. Shepard TITLE Poolgist DATE 4/3/2013

Conditions of Approval (if any):

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

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

RECEIVED
APR 02 2013
NMOCD ARTESIA

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-40416	² Pool Code 96610	³ Pool Name Empire; Glorieta Yeso East
⁴ Property Code	⁵ Property Name OUIMET STATE COM.	⁶ Well Number 1H
⁷ OGRID No. 229137	⁸ Operator Name COG OPERATING, LLC	⁹ Elevation 3660'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	2	17-S	29-E		210	NORTH	175	EAST	EDDY

¹¹ Bottom Hole Location If Different From Surface

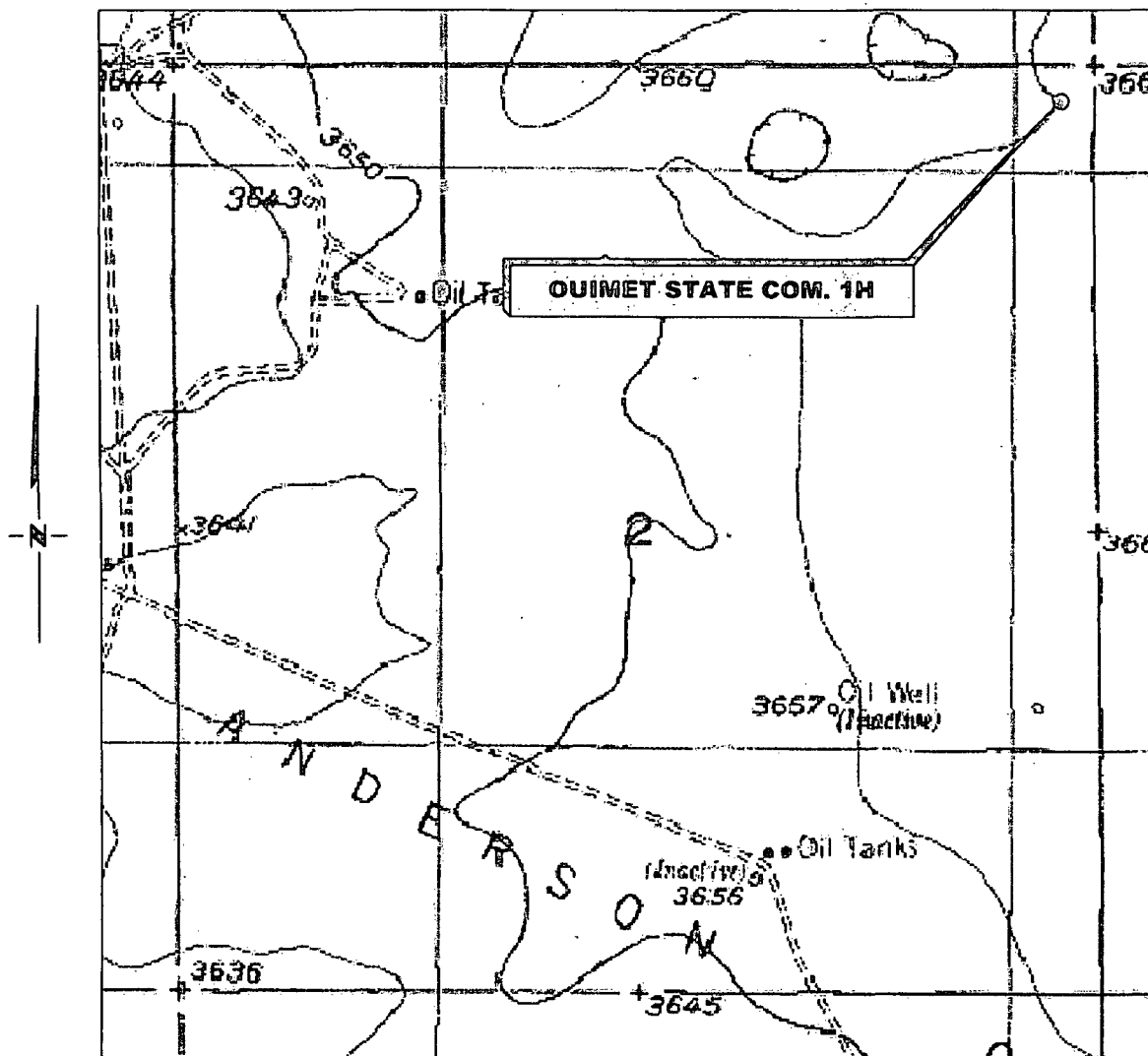
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	2	17-S	29-E		330	NORTH	330	WEST	EDDY

¹² Dedicated Acres 160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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.

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 hereby entered by the division. Signature: <i>Kelly J. Holly</i> Date: 3-28-13 Printed Name: Kelly J. Holly Email 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. 2/18/13 Date of Survey Signature and Seal of Professional Surveyor: <i>Robert M. Howett</i> 19680 Certificate Number
CORNER DATA NAD 27 GRID - NM EAST A: FND 1/2" REBAR N 675329.9 - E 585912.5 B: BRASS CAP "1914" N 677971.0 - E 585901.6 C: BRASS CAP "1914" N 680600.2 - E 585904.0 D: BRASS CAP "1914" N 680599.8 - E 588550.2 E: BRASS CAP "1916" N 680599.9 - E 591196.5 F: BRASS CAP "1914" N 677961.6 - E 591198.9 G: BRASS CAP "1914" N 675322.5 - E 591200.4 H: BRASS CAP "1914" N 675322.9 - E 588553.7 GEODETIC DATA NAD 27 GRID - NM EAST SURFACE LOCATION N 680390.0 - E 591021.7 LAT: 32.87012° N LONG: 104.03688° W BOTTOM LOCATION N 680270.2 - E 586233.7	

LOCATION VERIFICATION MAP



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.: 1H
ELEVATION: 3660'

LOCATION: 210' FNL & 175' FEL
CONTOUR INTERVAL: 10'
USGS TOPO. SOURCE MAP:
Red Lake SE, NM (1955)

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NO.	REVISION	DATE
JOB NO.:	LS130068	
DWG. NO.:	130068LVM	

PROSPERITY CONSULTANTS, LLC



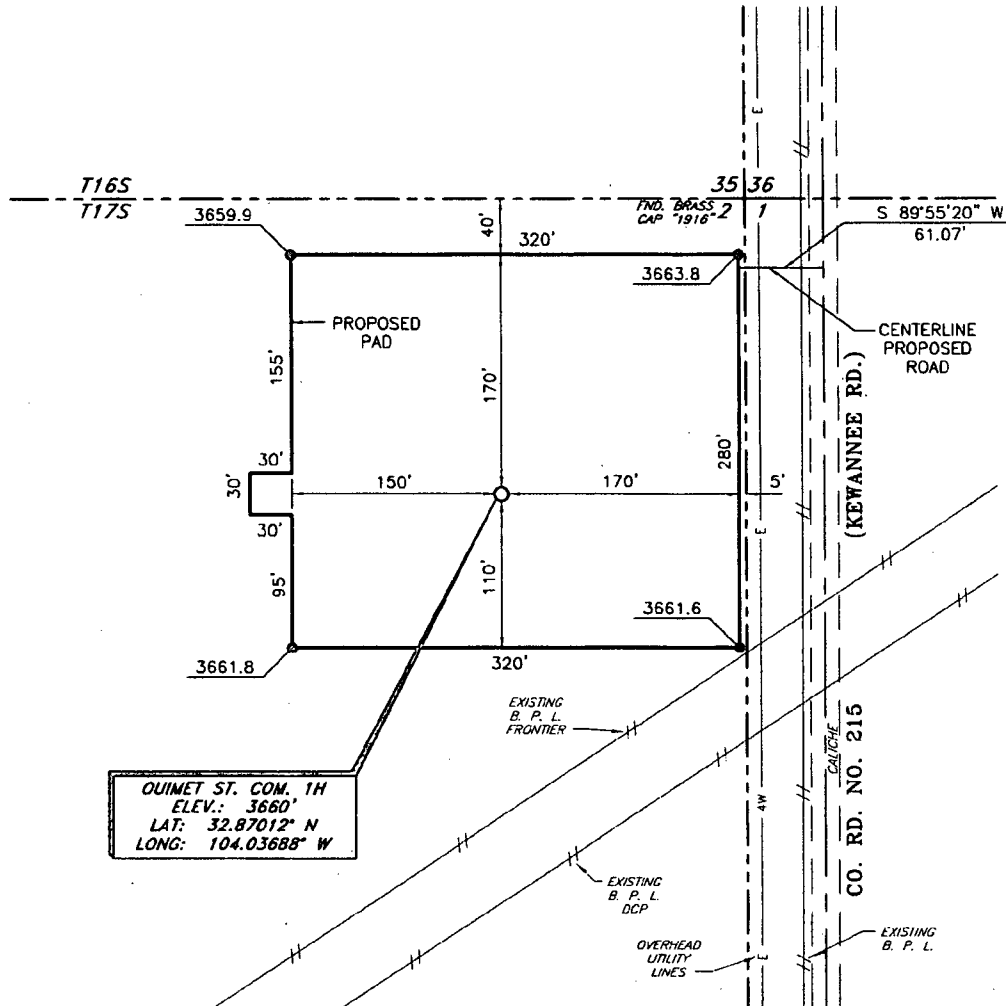
2251 Double Creek Drive, Suite 602, Round Rock, Texas 78664

o (512) 992-2087 f (512) 251-2518

SCALE: 1" = 1000'
DATE: 2/18/13
SURVEYED BY: GB/SM
DRAWN BY: LWB
APPROVED BY: LWB
SHEET : 1 OF 1

COG OPERATING, LLC

Ouimet State Com. 1H
(210' FNL & 175' FEL)
Section 2, T-17-S, R-29-E,
N. M. P. M., Eddy Co., New Mexico



DIRECTIONS TO LOCATION

From the intersection of U. S. Hwy. No. 82 and
County Road No. 215 (Kewanee):

Go North on County Road No. 215 approx 3.4 miles;

Location is approx. 240' West of Co. Rd. No. 215.

SCALE: 1" = 100'
0 50 100

BEARINGS ARE
MAG 27° - NW EAST
DISTANCES ARE
GROUND.

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NO.	REVISION	DATE
JOB NO.:	LS130068	
DWG. NO.:	130068PAD	

PROSPERITY CONSULTANTS, LLC



2251 Double Creek Drive, Suite 602, Round Rock, Texas 78664

o (512) 992-2087 f (512) 251-2518

SCALE: 1" = 100'
DATE: 2/18/13
SURVEYED BY: GB/SM
DRAWN BY: LWB
APPROVED BY: LWB
SHEET : 1 OF 1



Plan Proposal

FOR

COG Operating, LLC
Ouimet State Com #1H
Eddy Co., NM

Design #3

Presented By:

Aaron Boger
Account Manager

Bret Wolford
Well Planner

SHL
210' FNL & 175' FEL
Penetration Point
330' FNL & 656' FEL
PBHL
330' FNL & 330' FWL
Sec 2-T17S-R29E

ARTESIA



COG Operating, LLC

Eddy County(NM27E)

Sec.2-T17S-R29E

Ouimet State Com #1H

Wellbore #1

Plan: Design #3

Standard Planning Report

22 March, 2013

Archer

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Ouimet State Com #1H
Company:	GOG Operating, LLC	TVD Reference:	WELL @ 3675.00usft (Original Well Elev)
Project:	Eddy County (NM27E)	MD Reference:	WELL @ 3675.00usft (Original Well Elev)
Site:	Sec.2-T17S-R29E	North Reference:	Grid
Well:	Ouimet State Com #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #3		

Project:	Eddy County (NM27E)		
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.2-T17S-R29E			
Site Position:		Northing:	678,180.600 usft	Latitude:	32° 51' 50.585 N
From:	Map	Easting:	590,868.800 usft	Longitude:	104° 2' 14.622 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.16 °

Well:	Ouimet State Com #1H					
Well Position	+N-S	2,209.41 usft	Northing:	680,390.010 usft	Latitude:	32° 52' 12.444 N
	+E-W	153.16 usft	Easting:	591,021.960 usft	Longitude:	104° 2' 12.753 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,661.00 usft

Wellbore					
Wellbore #1					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	03/22/13	7.63	60.66	48,775

Design: Design: #3				
Audit Notes:				
Version:		Phase:	PLAN	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	5,225.25	0.00	0.00	268.57

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,779.21	0.00	0.00	4,779.21	0.00	0.00	0.00	0.00	0.00	0.00	
5,606.48	91.00	256.00	5,300.00	-128.21	-514.22	11.00	11.00	0.00	256.00	
6,105.93	91.00	270.99	5,291.23	-184.64	-1,008.96	3.00	0.00	3.00	89.87	Ouimet State Com #1
9,886.46	91.00	270.99	5,225.25	-119.61	-4,788.36	0.00	0.00	0.00	0.00	Ouimet State Com #1



Archer
Planning Report



Database:	EDM\5000.1 Single User Db	Local Co-ordinate Reference:	Well Ouimet State Com #1H
Company:	COG Operating, LLC	TVD Reference:	WELL @ 3675.00usft (Original Well Elev)
Project:	Eddy County (NM27E)	MD Reference:	WELL @ 3675.00usft (Original Well Elev)
Site:	Sec2-T17S-R29E	North Reference:	Grid
Well:	Ouimet State Com #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #3		

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
2,400.00	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
KOP / Start Build 11.00°									
4,779.21	0.00	0.00	4,779.21	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	2.29	256.00	4,799.99	-0.10	-0.40	0.40	11.00	11.00	0.00
4,850.00	7.79	256.00	4,849.78	-1.16	-4.66	4.69	11.00	11.00	0.00
4,900.00	13.29	256.00	4,898.92	-3.37	-13.53	13.61	11.00	11.00	0.00
4,950.00	18.79	256.00	4,946.96	-6.71	-26.93	27.09	11.00	11.00	0.00

Database:	EDM-5000.1 Single User Db	Local Co-ordinate Reference:	Well Ouimet State Com #1H
Company:	COG Operating LLC	TVD Reference:	WELL @ 3675.00usft (Original Well Elev)
Project:	Eddy County(NM27E)	MD Reference:	WELL @ 3675.00usft (Original Well Elev)
Site:	Sec.2-T17S-R29E	North Reference:	Grid
Well:	Ouimet State Com #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design#3		

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)
5,000.00	24.29	256.00	4,993.45	-11.15	-44.73	44.99	11.00	11.00	0.00
5,050.00	29.79	256.00	5,037.97	-16.65	-66.77	67.17	11.00	11.00	0.00
5,100.00	35.29	256.00	5,080.10	-23.15	-92.86	93.41	11.00	11.00	0.00
5,150.00	40.79	256.00	5,119.47	-30.60	-122.74	123.47	11.00	11.00	0.00
5,200.00	46.29	256.00	5,155.70	-38.93	-156.15	157.07	11.00	11.00	0.00
5,250.00	51.79	256.00	5,188.47	-48.06	-192.77	193.91	11.00	11.00	0.00
5,300.00	57.29	256.00	5,217.46	-57.91	-232.27	233.64	11.00	11.00	0.00
5,350.00	62.79	256.00	5,242.43	-68.39	-274.28	275.90	11.00	11.00	0.00
5,400.00	68.29	256.00	5,263.12	-79.39	-318.42	320.31	11.00	11.00	0.00
5,450.00	73.79	256.00	5,279.36	-90.83	-364.29	366.44	11.00	11.00	0.00
5,500.00	79.29	256.00	5,291.00	-102.59	-411.45	413.88	11.00	11.00	0.00
5,550.00	84.79	256.00	5,297.92	-114.56	-459.48	462.20	11.00	11.00	0.00
PP @ 5573' MD									
5,573.00	87.32	256.00	5,299.51	-120.11	-481.74	484.59	11.00	11.00	0.00
5,600.00	90.29	256.00	5,300.07	-126.64	-507.93	510.93	11.00	11.00	0.00
EOC / Start DLS 3.00° TFO 89.87									
5,606.48	91.00	256.00	5,300.00	-128.21	-514.22	517.26	11.00	11.00	0.00
5,700.00	91.01	258.81	5,298.36	-148.60	-605.46	608.99	3.00	0.01	3.00
5,800.00	91.01	261.81	5,296.61	-165.43	-704.01	707.92	3.00	0.00	3.00
5,900.00	91.01	264.81	5,294.85	-177.09	-803.30	807.47	3.00	0.00	3.00
6,000.00	91.01	267.81	5,293.09	-183.52	-903.07	907.37	3.00	0.00	3.00
EOT / Start 3780.53; hold at 6105.93 MD									
6,105.93	91.00	270.99	5,291.23	-184.64	-1,008.96	1,013.26	3.00	-0.01	3.00
6,200.00	91.00	270.99	5,289.59	-183.02	-1,103.00	1,107.23	0.00	0.00	0.00
6,300.00	91.00	270.99	5,287.85	-181.30	-1,202.97	1,207.12	0.00	0.00	0.00
6,400.00	91.00	270.99	5,286.10	-179.58	-1,302.94	1,307.02	0.00	0.00	0.00
6,500.00	91.00	270.99	5,284.36	-177.86	-1,402.91	1,406.92	0.00	0.00	0.00
6,600.00	91.00	270.99	5,282.61	-176.14	-1,502.88	1,506.81	0.00	0.00	0.00
6,700.00	91.00	270.99	5,280.87	-174.42	-1,602.85	1,606.71	0.00	0.00	0.00
6,800.00	91.00	270.99	5,279.12	-172.70	-1,702.82	1,706.60	0.00	0.00	0.00
6,900.00	91.00	270.99	5,277.37	-170.98	-1,802.79	1,806.50	0.00	0.00	0.00
7,000.00	91.00	270.99	5,275.63	-169.26	-1,902.76	1,906.40	0.00	0.00	0.00
7,100.00	91.00	270.99	5,273.88	-167.54	-2,002.73	2,006.29	0.00	0.00	0.00
7,200.00	91.00	270.99	5,272.14	-165.82	-2,102.70	2,106.19	0.00	0.00	0.00
7,300.00	91.00	270.99	5,270.39	-164.10	-2,202.67	2,206.08	0.00	0.00	0.00
7,400.00	91.00	270.99	5,268.65	-162.38	-2,302.64	2,305.98	0.00	0.00	0.00
7,500.00	91.00	270.99	5,266.90	-160.66	-2,402.61	2,405.87	0.00	0.00	0.00
7,600.00	91.00	270.99	5,265.16	-158.94	-2,502.58	2,505.77	0.00	0.00	0.00
7,700.00	91.00	270.99	5,263.41	-157.22	-2,602.55	2,605.67	0.00	0.00	0.00
7,800.00	91.00	270.99	5,261.67	-155.50	-2,702.52	2,705.56	0.00	0.00	0.00
7,900.00	91.00	270.99	5,259.92	-153.78	-2,802.49	2,805.46	0.00	0.00	0.00
8,000.00	91.00	270.99	5,258.18	-152.06	-2,902.46	2,905.35	0.00	0.00	0.00
8,100.00	91.00	270.99	5,256.43	-150.34	-3,002.43	3,005.25	0.00	0.00	0.00
8,200.00	91.00	270.99	5,254.69	-148.62	-3,102.40	3,105.15	0.00	0.00	0.00
8,300.00	91.00	270.99	5,252.94	-146.90	-3,202.37	3,205.04	0.00	0.00	0.00
8,400.00	91.00	270.99	5,251.20	-145.18	-3,302.34	3,304.94	0.00	0.00	0.00
8,500.00	91.00	270.99	5,249.45	-143.46	-3,402.31	3,404.83	0.00	0.00	0.00
8,600.00	91.00	270.99	5,247.71	-141.74	-3,502.28	3,504.73	0.00	0.00	0.00
8,700.00	91.00	270.99	5,245.96	-140.02	-3,602.25	3,604.62	0.00	0.00	0.00
8,800.00	91.00	270.99	5,244.22	-138.30	-3,702.22	3,704.52	0.00	0.00	0.00
8,900.00	91.00	270.99	5,242.47	-136.58	-3,802.19	3,804.42	0.00	0.00	0.00
9,000.00	91.00	270.99	5,240.72	-134.86	-3,902.16	3,904.31	0.00	0.00	0.00
9,100.00	91.00	270.99	5,238.98	-133.14	-4,002.13	4,004.21	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Ouimet State Com #1H
Company:	COG Operating, LLC	TVD Reference:	WELL @ 3675.00usft (Original Well Elev)
Project:	Eddy County (NM27E)	MD Reference:	WELL @ 3675.00usft (Original Well Elev)
Site:	Sec.2-T17S-R29E	North Reference:	Grid
Well:	Ouimet State Com #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #3		

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)	
9,200.00	91.00	270.99	5,237.23	-131.42	-4,102.10	4,104.10	0.00	0.00	0.00	
9,300.00	91.00	270.99	5,235.49	-129.70	-4,202.07	4,204.00	0.00	0.00	0.00	
9,400.00	91.00	270.99	5,233.74	-127.98	-4,302.04	4,303.90	0.00	0.00	0.00	
9,500.00	91.00	270.99	5,232.00	-126.26	-4,402.01	4,403.79	0.00	0.00	0.00	
9,600.00	91.00	270.99	5,230.25	-124.54	-4,501.98	4,503.69	0.00	0.00	0.00	
9,700.00	91.00	270.99	5,228.51	-122.82	-4,601.95	4,603.58	0.00	0.00	0.00	
9,800.00	91.00	270.99	5,226.76	-121.10	-4,701.92	4,703.48	0.00	0.00	0.00	
TD at 9886.46 - Ouimet State Com #1H/PBHL										
9,886.46	91.00	270.99	5,225.25	-119.61	-4,788.36	4,789.85	0.00	0.00	0.00	

Design Targets										
Target Name	hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Ouimet State Com #1H	- plan hits target center	0.00	0.00	5,225.25	-119.61	-4,788.36	680,270.400	586,233.600	32° 52' 11.390 N	104° 3' 8.901 W
- Point										

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
4,779.21	4,779.21	0.00	0.00	KOP / Start Build 11.00°	
5,573.00	5,299.51	-120.11	-481.74	PP @ 5573' MD	
5,606.48	5,300.00	-128.21	-514.22	EOC / Start DLS 3.00° TFO 89.87	
6,105.93	5,291.23	-184.64	-1,008.96	EOT / Start 3780.53' hold at 6105.93 MD	
9,886.46	5,225.25	-119.61	-4,788.36	TD at 9886.46	



Project: Eddy County(NM27E)
Site: Sec.2-T17S-R29E
Well: Ouimet State Com #1H
Wellbore: Wellbore #1
Design: Design #3
Lat: 32° 52' 12.444 N
Long: 104° 2' 12.753 W
GL: 3661.00
KB: WELL @ 3675.00usft (Original Well Elev)

Archer



Azimuths to Grid North
True North: -0.16°
Magnetic North: 7.47°

Magnetic Field
Strength: 48774.9snT
Dip Angle: 60.66°
Date: 03/22/2013
Model: IGRF2010

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4779.21	0.00	0.00	4779.21	0.00	0.00	0.00	0.00	0.00	KOP / Start Build 11.00°
5606.48	91.00	256.00	5300.00	-128.21	-514.22	11.00	256.00	517.26	EOC / Start DLS 3.00° TFO 89.87
6105.93	91.00	270.99	5291.23	-184.64	-1008.96	3.00	89.87	1013.26	EOT / Start 3780.53° hold at 6105.93 MD
9886.46	91.00	270.99	5225.25	-119.61	-4788.36	0.00	0.00	4789.85	TD at 9886.46

WELL DETAILS: Ouimet State Com #1H

+N/-S	+E/-W	Northing	Ground Level: Easting	3661.00 Latitude	Longitude	Slot
0.00	0.00	680390.010	591021.960	32° 52' 12.444 N	104° 2' 12.753 W	

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Ouimet State Com #1H PBHL	5225.25	-119.61	-4788.36	32° 52' 11.390 N	104° 3' 8.901 W	Point

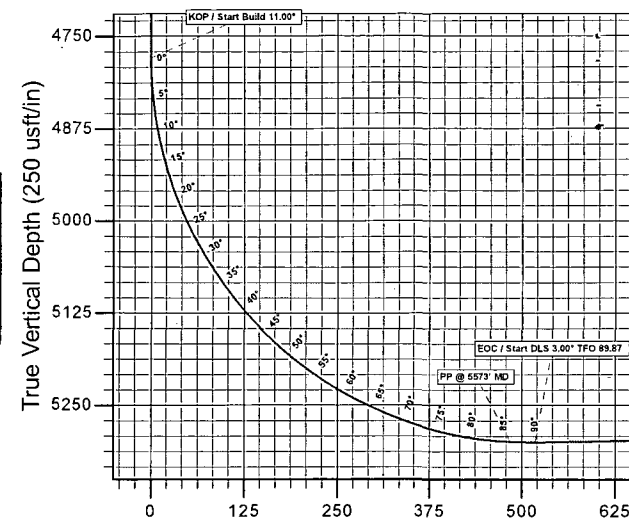
SITE DETAILS: Sec.2-T17S-R29E

Site Centre Latitude: 32° 51' 50.585 N
Longitude: 104° 2' 14.622 W

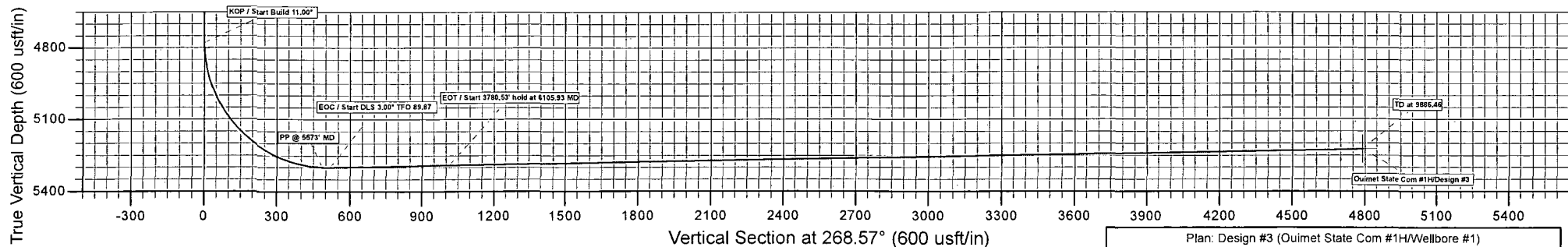
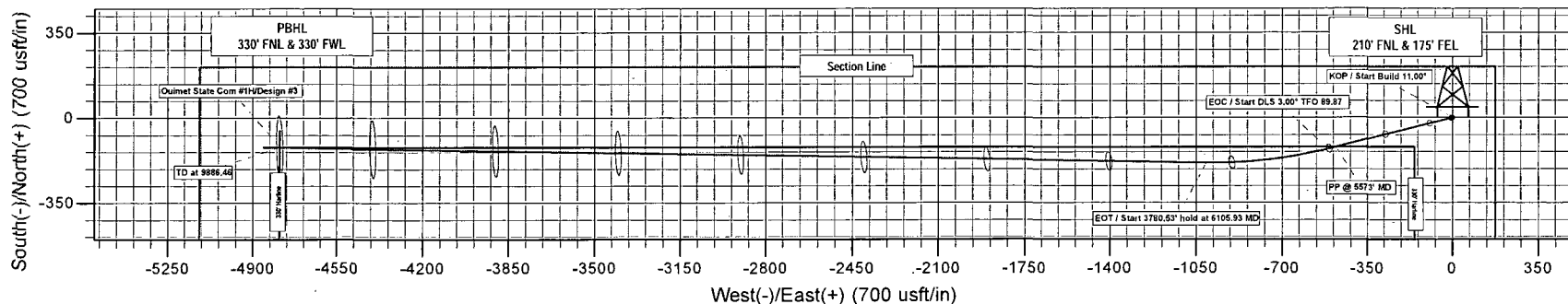
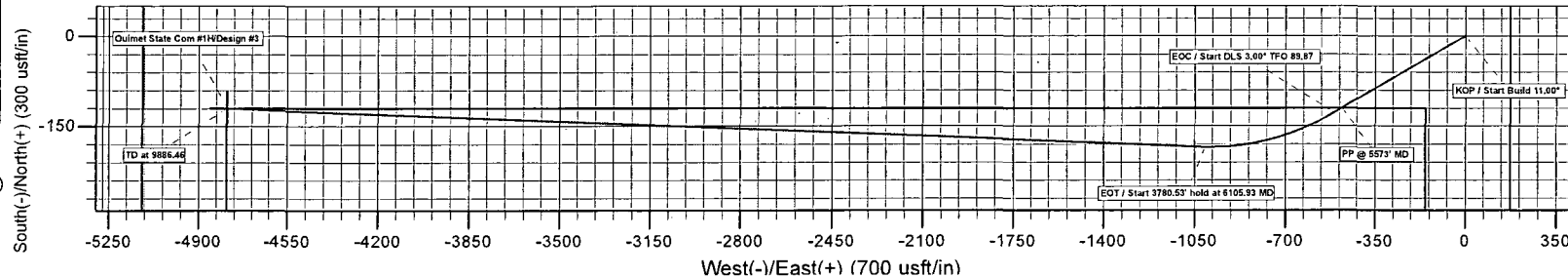
Positional Uncertainty: 0.00
Convergence: 0.16
Local North: Grid

PROJECT DETAILS: Eddy County(NM27E)

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



Vertical Section at 268.57° (250 usft/in)



Vertical Section at 268.57° (600 usft/in)

Plan: Design #3 (Ouimet State Com #1H/Wellbore #1)

Created By: Bret Wolford Date: 12:14, March 22 2013