

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTJUL 28 2009
OCD-ARTESIAFORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007

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.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. LC-029420A
2. Name of Operator COG Operating LLC Agent		6. If Indian, Allottee or Tribe Name
3a. Address 550 W. Texas, Suite 1300 Midland, TX 79701	3b. Phone No. (include area code) 432-685-4340	7. If Unit or CA/Agreement, Name and/or No NM 71030C
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) SHL 1380 FNL & 1890 FWL Section 15, T17S R31E, UL F BHL 1650 FNL & 1650 FWL Section 15, T17S R31E, UL F		8. Well Name and No. SKELLY UNIT 638
		9. API Well No. 30-015-37084
		10. Field and Pool, or Exploratory Area FREN; Glorieta-Yeso 26770
		11. County or Parish, State EDDY, 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 Surface
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Location
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

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 permission to change the SHL to:

1310 FNL & 1865 FWL Section 15, T17S R31E, UL C

BHL would remain the same at: 1650 FNL & 1650 FWL Section 15, T17S R31E, UL F

This request is made to accomodate proper pad size.

Revised plat and directional plan are attached.

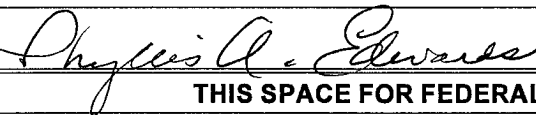
Returned -
replaced by sundry
dated 7/13/09
WHR 7/23/09

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Phyllis A. Edwards

Title Regulatory Analyst

Signature



Date

07/10/2009

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

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.

Title

Date

Office

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.

(Instructions on page 2)



DISTRICT I
1625 N. FRENCH DR., BOBBS, NM 88240

DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-015-37084	Pool Code 26770	Pool Name FREN; GLORIETA-YESO
Property Code 305607	Property Name SKELLY UNIT	Well Number 638
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3878'

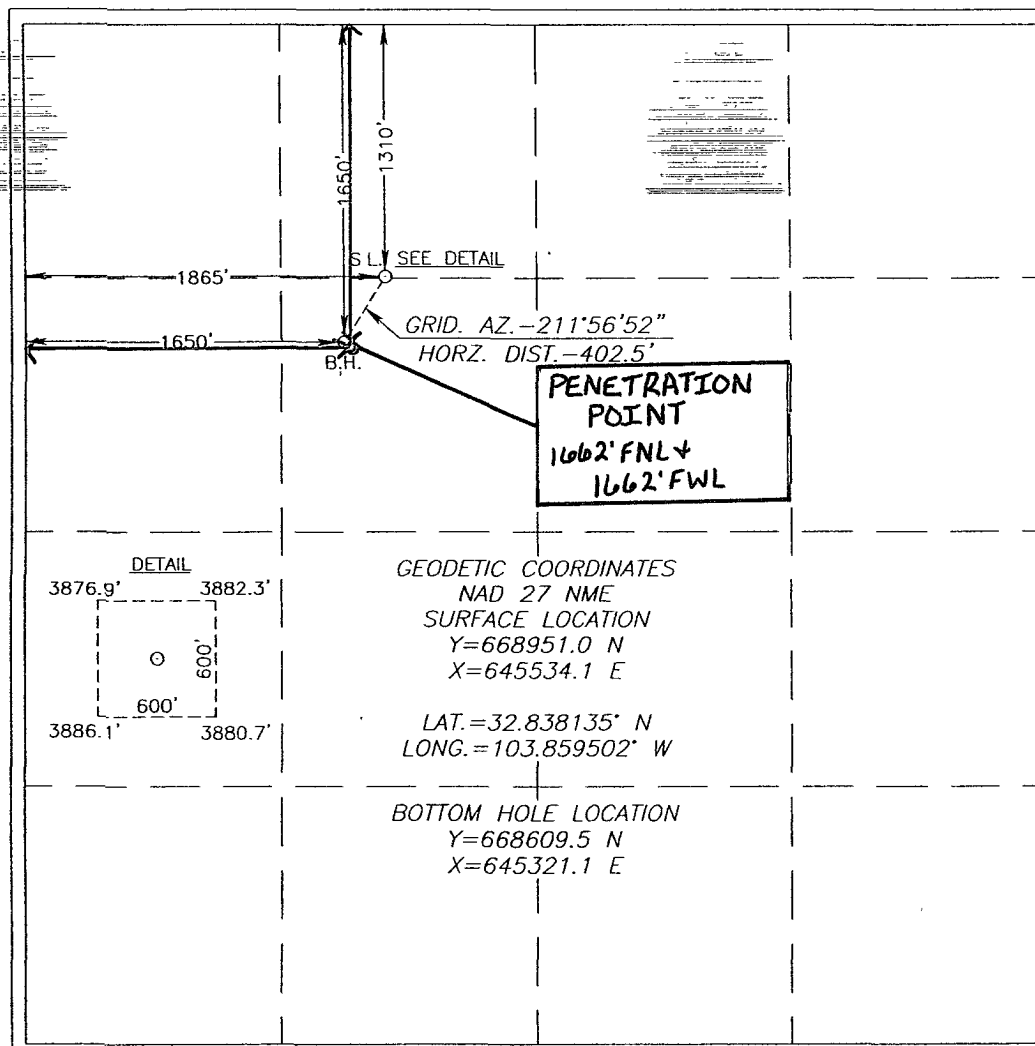
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	15	17-S	31-E		1310	NORTH	1865	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
F	15	17-S	31-E		1650	NORTH	1650	WEST	EDDY
Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.						

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



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.

Signature: Robyn Odom
Date: 7/10/2009
Printed Name: Robyn Odom

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 Surveyed: 7-23-2009
Signature & Seal of Professional Surveyor: Ronald J. Eidson
Certificate No. GARY EIDSON 12641
RONALD J. EIDSON 3239



COG Operating LLC

Eddy County, NM (NAN27 NME)

Skelly Unit #638

Skelly Unit #638

OH

Plan: Plan #2 - 7-7/8" Hole

SHL = 1310' FNL & 1865' FWL

BHL = 1660' FNL & 1660' FWL

Top of Paddock 5075' TVD = 1660' FNL & 1660' FWL

Standard Planning Report

10 July, 2009



Scientific Drilling



Scientific Drilling
Planning Report



Database:	EDM 5000 1.Single User Db	Local Co-ordinate Reference:	Site Skelly Unit #638
Company:	COG Operating LLC	TVD Reference:	Grond Elev. @ 3878 00ft (Rig ?)
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	Grond Elev @ 3878 00ft (Rig ?)
Site:	Skelly Unit #638	North Reference:	Grid
Well:	Skelly Unit #638	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2- 7-7/8" Hole		

Project	Eddy County, NM (NAN27 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	Skelly Unit #638		
Site Position:		Northing:	668,951 00 ft
From:	Map	Easting:	645,534 10 ft
Position Uncertainty:	0 00 ft	Slot Radius:	0 "
		Latitude:	32° 50' 17 286 N
		Longitude:	103° 51' 34 207 W
		Grid Convergence:	0 26 °

Well	Skelly Unit #638		
Well Position	+N/-S	0.00 ft	Northing: 668,951.00 ft
	+E/-W	0 00 ft	Easting: 645,534 10 ft
Position Uncertainty	0 00 ft	Wellhead Elevation:	Ground Level: 3,878 00 ft
		Latitude:	32° 50' 17 286 N
		Longitude:	103° 51' 34 207 W

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
	IGRF200510	2009/07/10	(°)
			- 7 99
			Dip Angle
			(°)
			60.77
			Field Strength
			(nT)
			49,174

Design	Plan #2- 7-7/8" Hole		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth: 0 00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0 00	0 00	0 00
			Direction
			(°)
			210.01

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)	(°)	
0 00	0 00	0 00	0 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	
2,319 04	8 38	210 01	2,317 54	-26.49	-15 30	2 00	2.00	0.00	210 01	
4,684 21	8 38	210 01	4,657 46	-325.01	-187 70	0 00	0 00	0 00	0 00	
5,103 24	0 00	0 01	5,075 00	-351 50	-203 00	2 00	-2 00	0 00	180 00	PP-SU #638
7,028 24	0 00	0 01	7,000 00	-351 50	-203 00	0 00	0 00	0 00	0 01	PBHL-SU #638



Scientific Drilling
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Skelly Unit #638
Company:	COG Operating LLC	TVD Reference:	Grond Elev. @ 3878.00ft (Rig ?)
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	Grond Elev. @ 3878.00ft (Rig ?)
Site:	Skelly Unit #638	North Reference:	Grid
Well:	Skelly Unit #638	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2 - 7-7/8" Hole		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
West HL-SU #638 - North HL-SU #638									
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
8 5/8" Casing									
1,898.00	0.00	0.00	1,898.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP Start Build 2.00°/100'									
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	2.00	210.01	1,999.98	-1.51	-0.87	1.75	2.00	2.00	0.00
2,100.00	4.00	210.01	2,099.84	-6.04	-3.49	6.98	2.00	2.00	0.00
2,200.00	6.00	210.01	2,199.45	-13.59	-7.85	15.69	2.00	2.00	0.00
2,266.17	7.32	210.01	2,265.18	-20.24	-11.69	23.37	2.00	2.00	0.00
EOC hold 7.36°									
2,300.00	8.00	210.01	2,298.70	-24.14	-13.94	27.88	2.00	2.00	0.00
2,319.04	8.38	210.01	2,317.54	-26.49	-15.30	30.59	2.00	2.00	0.00
2,400.00	8.38	210.01	2,397.64	-36.71	-21.20	42.39	0.00	0.00	0.00
2,500.00	8.38	210.01	2,496.57	-49.33	-28.49	56.97	0.00	0.00	0.00
2,600.00	8.38	210.01	2,595.51	-61.95	-35.78	71.54	0.00	0.00	0.00
2,700.00	8.38	210.01	2,694.44	-74.57	-43.07	86.12	0.00	0.00	0.00
2,800.00	8.38	210.01	2,793.37	-87.20	-50.36	100.69	0.00	0.00	0.00
2,900.00	8.38	210.01	2,892.30	-99.82	-57.65	115.27	0.00	0.00	0.00
3,000.00	8.38	210.01	2,991.24	-112.44	-64.94	129.84	0.00	0.00	0.00
3,100.00	8.38	210.01	3,090.17	-125.06	-72.23	144.42	0.00	0.00	0.00
3,200.00	8.38	210.01	3,189.10	-137.68	-79.51	158.99	0.00	0.00	0.00
3,300.00	8.38	210.01	3,288.03	-150.30	-86.80	173.57	0.00	0.00	0.00
3,400.00	8.38	210.01	3,386.96	-162.92	-94.09	188.14	0.00	0.00	0.00
3,500.00	8.38	210.01	3,485.90	-175.55	-101.38	202.72	0.00	0.00	0.00
3,600.00	8.38	210.01	3,584.83	-188.17	-108.67	217.29	0.00	0.00	0.00
3,700.00	8.38	210.01	3,683.76	-200.79	-115.96	231.87	0.00	0.00	0.00
3,800.00	8.38	210.01	3,782.69	-213.41	-123.25	246.44	0.00	0.00	0.00
3,900.00	8.38	210.01	3,881.62	-226.03	-130.54	261.02	0.00	0.00	0.00
4,000.00	8.38	210.01	3,980.56	-238.65	-137.83	275.59	0.00	0.00	0.00
4,100.00	8.38	210.01	4,079.49	-251.27	-145.12	290.17	0.00	0.00	0.00
4,200.00	8.38	210.01	4,178.42	-263.90	-152.41	304.74	0.00	0.00	0.00
4,300.00	8.38	210.01	4,277.35	-276.52	-159.70	319.32	0.00	0.00	0.00
4,400.00	8.38	210.01	4,376.29	-289.14	-166.98	333.89	0.00	0.00	0.00
4,500.00	8.38	210.01	4,475.22	-301.76	-174.27	348.47	0.00	0.00	0.00
4,600.00	8.38	210.01	4,574.15	-314.38	-181.56	363.04	0.00	0.00	0.00
4,684.21	8.38	210.01	4,657.46	-325.01	-187.70	375.32	0.00	0.00	0.00
4,700.00	8.06	210.01	4,673.09	-326.96	-188.83	377.57	2.00	-2.00	0.00
4,727.15	7.52	210.01	4,699.98	-330.15	-190.67	381.26	2.00	-2.00	0.00
Start Drop 2.00°/100'									
4,800.00	6.06	210.01	4,772.32	-337.61	-194.98	389.87	2.00	-2.00	0.00
4,900.00	4.06	210.01	4,871.93	-345.26	-199.40	398.70	2.00	-2.00	0.00
5,000.00	2.06	210.01	4,971.78	-349.89	-202.07	404.05	2.00	-2.00	0.00
5,095.32	0.16	210.01	5,067.08	-351.49	-202.99	405.90	2.00	-2.00	0.00
EOC hold 0.00°									
5,100.00	0.06	210.01	5,071.76	-351.50	-203.00	405.91	2.00	-2.00	0.00
5,103.24	0.00	0.01	5,075.00	-351.50	-203.00	405.91	2.00	-2.00	0.00
PP-SU #638									
7,028.24	0.00	0.01	7,000.00	-351.50	-203.00	405.91	0.00	0.00	0.00
PBHL-SU #638									

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Project:	Eddy County, NM (NAN27 NME)	MD Reference:	Grond Elev: @ 3878.00ft (Rig ?)
Site:	Skelly Unit #638	North Reference:	Grid
Well:	Skelly Unit #638	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2 - 7-7/8" Hole		

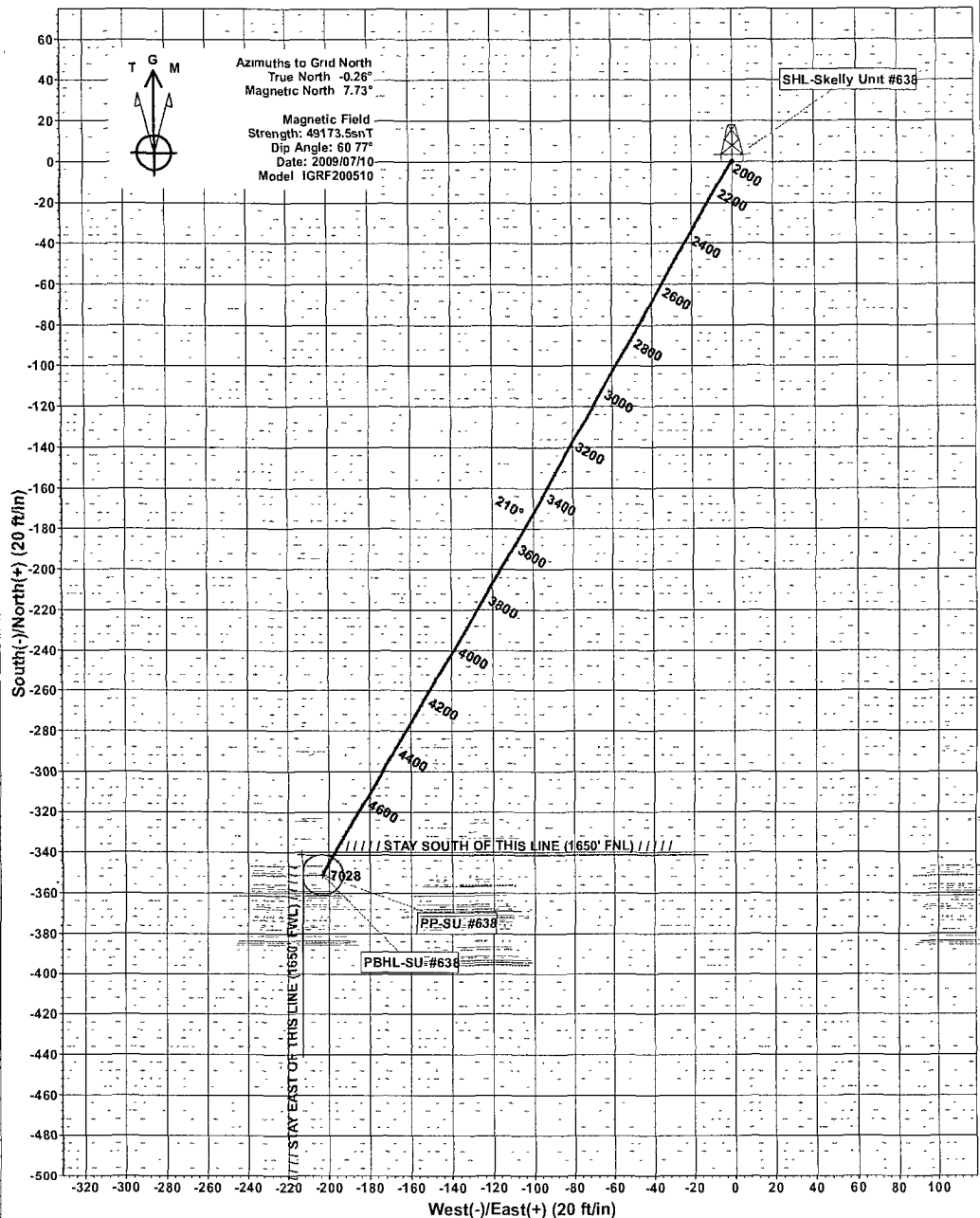
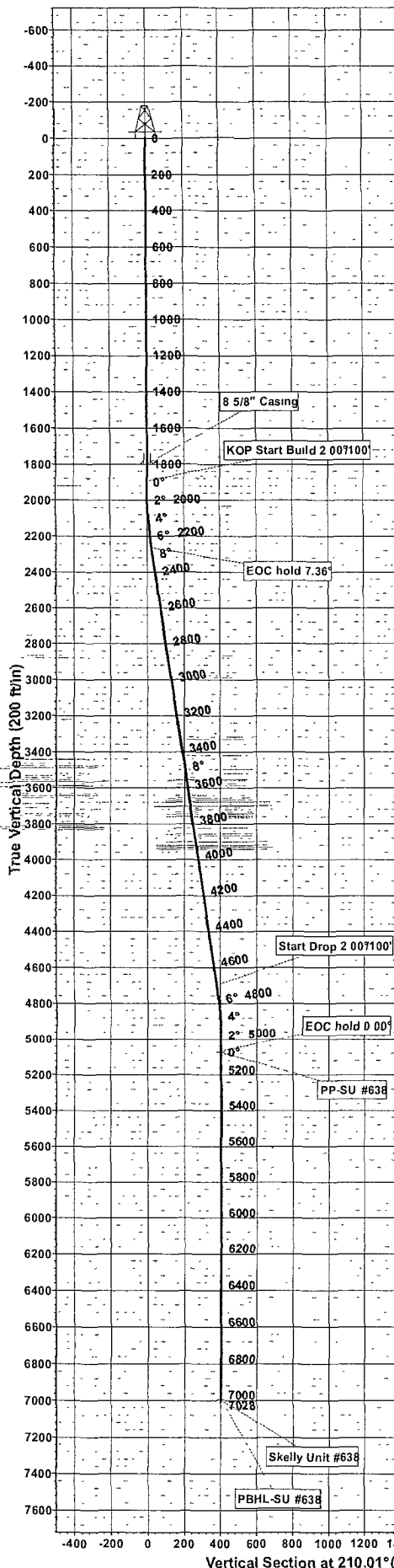
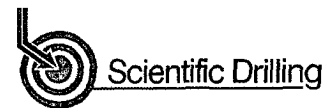
Design Targets									
Target Name	hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	
Shape		(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	
West HL-SU #638		0.00	0.00	0.00	-341.50	-213.00	668,609.50	645,321.10	
- plan misses target center by 402.48ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Rectangle (sides W0.00 H100.00 D0.00)									
North HL-SU #638		0.00	0.00	0.00	-341.50	-213.00	668,609.50	645,321.10	
- plan misses target center by 402.48ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Rectangle (sides W200.00 H0.00 D0.00)									
PP-SU #638		0.00	0.01	5,075.00	-351.50	-203.00	668,599.50	645,331.10	
- plan hits target center									
- Point									
PBHL-SU #638		0.00	0.01	7,000.00	-351.50	-203.00	668,599.50	645,331.10	
- plan hits target center									
- Circle (radius 10.00)									

Casing Points				
Measured Depth	Vertical Depth	Name		
(ft)	(ft)		Casing Diameter	Hole Diameter
			(")	(")
1,800.00	1,800.00	8 5/8" Casing	8-5/8	12-1/4

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S	+E/-W	
		(ft)	(ft)	
1,898.00	1,898.00	0.00	0.00	KOP Start Build 2.00°/100'
2,266.17	2,265.18	-20.24	-11.69	EOC hold 7.36°
4,727.15	4,699.98	-330.15	-190.67	Start Drop 2.00°/100'
5,095.32	5,067.08	-351.49	-202.99	EOC hold 0.00°



Scientific Drilling for COG Operating LLC
Site: Eddy County, NM (NAN27 NME)
Well: Skelly Unit #638
Wellbore: OH
Design: Plan #2 - 7-7/8" Hole



WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
North HL-SU #638	0.00	-341.50	-213.00	668609.50	645321.10	32° 50' 13.916 N 103° 51' 36.722 W		Rectangle (Sides: L0 00 W200.00)
West HL-SU #638	0.00	-341.50	-213.00	668609.50	645321.10	32° 50' 13.916 N 103° 51' 36.722 W		Rectangle (Sides: L100 00 W0 00)
PP-SU #638	5075.00	-351.50	-203.00	668599.50	645331.10	32° 50' 13.817 N 103° 51' 36.605 W		Point
PBHL-SU #638	7000.00	-351.50	-203.00	668599.50	645331.10	32° 50' 13.817 N 103° 51' 36.605 W		Circle (Radius: 10 00)

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1900.00	0.00	0.00	1900.00	0.00	0.00	0.00	0.00	0.00	
3	2319.04	8.38	210.01	2317.54	-26.49	-15.30	2.00	210.01	30.59	
4	44684.21	8.38	210.01	4657.46	-325.01	-187.70	0.00	0.00	375.32	
5	5103.24	0.00	0.00	5075.00	-351.50	-203.00	2.00	180.00	405.91	PP-SU #638
6	7028.24	0.00	0.00	7000.00	-351.50	-203.00	0.00	0.00	405.91	PBHL-SU #638

WELL DETAILS: Skelly Unit #638

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	668951.00	645534.10	32° 50' 17.286 N 103° 51' 34.207 W		

PROJECT DETAILS Eddy County, NM (NAN27 NME)

Plan Plan #2 - 7-7/8" Hole (Skelly Unit #638/OH)

Geodetic System: US State Plane 1927 (Exact solution) Created By: Julio Pina Date: 10-Jul-09

Datum: NAD 1927 (NADCON CONUS)

Ellipsoid: Clarke 1866

Zone: New Mexico East 3001

System Datum: Mean Sea Level

Checked: _____ Date: _____

Reviewed: _____ Date: _____

Approved: _____ Date: _____