District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, 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, NM 87505

Form C-144 CLEZ
July 21, 2008

For closed-loop systems *that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure*, submit to the appropriate NMOCD District Office.

Closed-Loop System Permit or Closure Plan Application

(that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)

Type of action: ☒ Permit ☐ Closure

Instructions: Please submit one application (Form C-144 CLEZ) per individual closed-loop system request. For any application request other than for a closed-loop system that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure, please submit a Form C-144.

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.
Operator: COG OPERATING LLC OGRID #: 229137
Address: 550 WEST TEXAS, SUITE 100 MIDLAND, TX 79701
Facility or well name: KIOWA STATE #8
API Number: 30-015- 39956 OCD Permit Number: 212549
U/L or Qtr/Qtr UL G Section 36 Township 17S Range 27E County: Eddy
Center of Proposed Design: Latitude N/A Longitude N/A NAD: ☐1927 ☐ 1983
Surface Owner: ☐ Federal ☒ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.
☒ **Closed-loop System:** Subsection H of 19.15.17.11 NMAC
Operation: ☒ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent) ☐ P&A
☐ Above Ground Steel Tanks or ☒ Haul-off Bins

3.
Signs: Subsection C of 19.15.17.11 NMAC
☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers
☒ Signed in compliance with 19.15.3.103 NMAC

RECEIVED
DEC 14 2011
NMOCD ARTESIA

4.
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.
☒ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☒ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☒ Closure Plan (Please complete Box 5) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
☐ Previously Approved Design (attach copy of design) API Number: _____
☐ Previously Approved Operating and Maintenance Plan API Number: _____

5.
Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC)
Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.
Disposal Facility Name: CRI Disposal Facility Permit Number: R1966
Disposal Facility Name: GM INC Disposal Facility Permit Number: 711-019-001
Will any of the proposed closed-loop system operations and associated activities occur on or in areas that *will not* be used for future service and operations?
☐ Yes (If yes, please provide the information below) ☒ No

Required for impacted areas which will not be used for future service and operations:
☐ Soil Backfill and Cover Design Specifications - - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

Operator Application Certification:
I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.
Name (Print): KELLY J. HOLLY Title: PERMITTING TECH
Signature: Date: 10/27/2011
e-mail address: kholly@concho.com Telephone: 432-685-4384

7.
OCD Approval: ☒ Permit Application (including closure plan) ☐ Closure Plan (only)

OCD Representative Signature: A Dade **Approval Date:** 02/17/2012

Title: Dist Supv **OCD Permit Number:** 212549

8.
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☐ **Closure Completion Date:** _____

9.
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:

Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No

Required for impacted areas which will not be used for future service and operations:

☐ Site Reclamation (Photo Documentation)
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique

10.
Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): _____ Title: _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

All drilling fluid circulated over shaker(s) with cuttings discharged into roll off container.

Fluid and fines below shaker(s) are circulated with transfer pump through centrifuge(s) or solids separator with cuttings and fines discharged into roll off container.

Fluid is continuously re-circulated through equipment with polymer added to aid separation of cutting fines.

Roll off containers are lined and de-watered with fluids re-circulated into system.

Additional tank is used to capture unused drilling fluid or cement returns from casing jobs.

This equipment will be maintained 24 hrs./day by solids control personnel and or rig crews that stay on location.

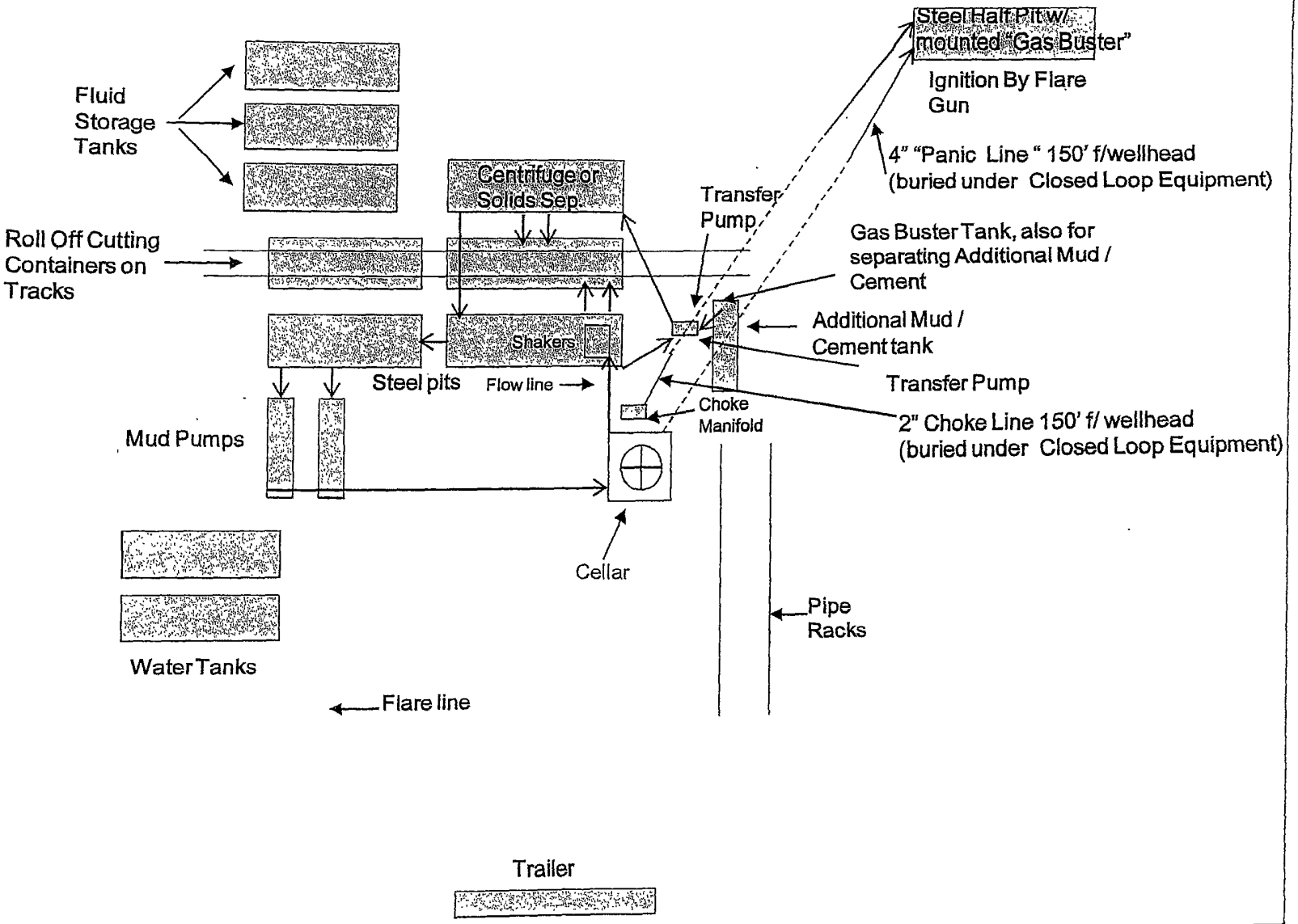
Cuttings will be hauled to either:

CRI (permit number R9166)
or
GMI (permit number 711-019-001)

dependent upon which rig is available to drill this well.

COG Operating LLC

Closed Loop Equipment Diagram



CONCHO

COG Operating LLC

Eddy County, NM (NAN27 NME)
Kiowa State #8
Kiowa State #8

OH

Plan: Plan #1 7-7/8" Hole
SHL = 2176' FNL & 1858' FEL
BHL = 2300' FNL & 1660' FEL
Paddock Top = 71' S of Surface & 113' E of Surface @ 3200' TVD

Standard Planning Report

18 November, 2011

Scientific Drilling
Directional Drilling Operations

Database:	EDM-Julio	**Local Co-ordinate Reference:**	Site Kiowa State #8
Company:	COG Operating LLC	**TVD Reference:**	GL Elev @ 3651 00usft
Project:	Eddy County, NM (NAN27 NME)	**MD Reference:**	GL Elev @ 3651 00usft
Site:	Kiowa State #8	**North Reference:**	Grid
Well:	Kiowa State #8	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 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 Kiowa State #8

Site Position:		**Northing:**	651,758 00 usft	**Latitude:**	32° 47' 30 227 N
From:	Map	**Easting:**	532,034 80 usft	**Longitude:**	104° 13' 44 716 W
Position Uncertainty:	0 00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0 06 °

Well Kiowa State #8

Well Position	**+N/-S**	0 00 usft	**Northing:**	651,758 00 usft	**Latitude:**	32° 47' 30 227 N
	+E/-W	0 00 usft	**Easting:**	532,034 80 usft	**Longitude:**	104° 13' 44 716 W
Position Uncertainty		0 00 usft	**Wellhead Elevation:**		**Ground Level:**	3,651 00 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2011/11/18	7 88	60 59	48,840

Design Plan #1 7-7/8" Hole

Audit Notes:					
Version:		**Phase:**	PLAN	**Tie On Depth:**	0 00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0 00	0 00	0 00	122 23

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	
950 00	0 00	0 00	950 00	0 00	0 00	0 00	0 00	0 00	0 00	
1,126 49	3 53	122 23	1,126 38	-2 90	4 60	2 00	2 00	69 25	122 23	
4,857 19	3 53	122 23	4,850 00	-125 40	198 90	0 00	0 00	0 00	0 00	PBHL-Kiowa #8

Database:	EDM-Julio	**Local Co-ordinate Reference:**	Site Kiowa State #8
Company:	COG Operating LLC	**TVD Reference:**	GL Elev @ 3651 00usft
Project:	Eddy County, NM (NAN27 NME)	**MD Reference:**	GL Elev @ 3651 00usft
Site:	Kiowa State #8	**North Reference:**	Grid
Well:	Kiowa State #8	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 7-7/8" Hole		

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
East HL-Kiowa #8 - South HL-Kiowa #8									
850 00	0 00	0 00	850 00	0 00	0 00	0 00	0 00	0 00	0 00
8-5/8" Casing									
950 00	0 00	0 00	950 00	0 00	0 00	0 00	0 00	0 00	0 00
KOP Start Build 2.00°/100'									
1,000 00	1 00	122 23	1,000 00	-0 23	0 37	0 44	2 00	2 00	0 00
1,100 00	3 00	122 23	1,099 93	-2 09	3 32	3 93	2 00	2 00	0 00
1,126 49	3 53	122 23	1,126 38	-2 90	4 60	5 43	2 00	2 00	0 00
EOC hold 3.53°									
1,200 00	3 53	122 23	1,199 75	-5 31	8 43	9 96	0 00	0 00	0 00
1,300 00	3 53	122 23	1,299 56	-8 60	13 63	16 12	0 00	0 00	0 00
1,400 00	3 53	122 23	1,399 37	-11 88	18 84	22 27	0 00	0 00	0 00
1,500 00	3 53	122 23	1,499 18	-15 16	24 05	28 43	0 00	0 00	0 00
1,600 00	3 53	122 23	1,598 99	-18 45	29 26	34 59	0 00	0 00	0 00
1,700 00	3 53	122 23	1,698 80	-21 73	34 47	40 75	0 00	0 00	0 00
1,800 00	3 53	122 23	1,798 61	-25 01	39 68	46 90	0 00	0 00	0 00
1,900 00	3 53	122 23	1,898 42	-28 30	44 88	53 06	0 00	0 00	0 00
2,000 00	3 53	122 23	1,998 23	-31 58	50 09	59.22	0 00	0 00	0 00
2,100 00	3 53	122 23	2,098 04	-34 86	55 30	65 37	0 00	0 00	0 00
2,200 00	3 53	122 23	2,197 85	-38 15	60 51	71 53	0 00	0 00	0 00
2,300 00	3 53	122 23	2,297 66	-41 43	65 72	77 69	0 00	0 00	0 00
2,400 00	3 53	122 23	2,397 47	-44 72	70 92	83 84	0 00	0 00	0 00
2,500 00	3 53	122 23	2,497 28	-48 00	76 13	90 00	0 00	0 00	0 00
2,600 00	3 53	122 23	2,597.09	-51 28	81 34	96 16	0 00	0 00	0 00
2,700 00	3 53	122 23	2,696 90	-54.57	86 55	102 31	0 00	0 00	0 00
2,800 00	3 53	122 23	2,796 71	-57 85	91 76	108 47	0 00	0 00	0 00
2,900 00	3 53	122 23	2,896 52	-61 13	96 97	114 63	0 00	0 00	0 00
3,000 00	3 53	122 23	2,996 33	-64 42	102 17	120 79	0 00	0 00	0 00
3,100 00	3 53	122 23	3,096 14	-67 70	107 38	126 94	0 00	0 00	0 00
3,200 00	3 53	122 23	3,195 95	-70 98	112 59	133 10	0 00	0 00	0 00
3,204 05	3 53	122 23	3,200 00	-71 12	112 80	133 35	0 00	0 00	0 00
Top of Paddock									
3,300 00	3 53	122 23	3,295 76	-74 27	117 80	139 26	0 00	0 00	0 00
3,400 00	3 53	122 23	3,395 58	-77 55	123 01	145 41	0 00	0 00	0 00
3,500 00	3 53	122 23	3,495 39	-80 84	128 21	151 57	0 00	0 00	0 00
3,600 00	3 53	122 23	3,595 20	-84.12	133 42	157 73	0 00	0 00	0 00
3,700 00	3 53	122 23	3,695 01	-87 40	138 63	163 88	0 00	0 00	0 00
3,800 00	3 53	122 23	3,794 82	-90 69	143 84	170 04	0 00	0 00	0 00
3,900 00	3 53	122 23	3,894 63	-93 97	149 05	176 20	0 00	0 00	0 00
4,000 00	3 53	122 23	3,994 44	-97 25	154 26	182 35	0 00	0 00	0 00
4,100 00	3 53	122 23	4,094 25	-100 54	159 46	188 51	0 00	0 00	0 00
4,200 00	3 53	122 23	4,194 06	-103 82	164 67	194 67	0 00	0 00	0 00
4,300 00	3 53	122 23	4,293 87	-107 10	169 88	200 82	0 00	0 00	0 00
4,400 00	3 53	122 23	4,393 68	-110 39	175 09	206 98	0 00	0 00	0 00
4,500 00	3 53	122 23	4,493 49	-113 67	180 30	213 14	0 00	0 00	0 00
4,600 00	3 53	122 23	4,593 30	-116 95	185 51	219 30	0 00	0 00	0 00
4,700 00	3 53	122 23	4,693 11	-120 24	190 71	225 45	0 00	0 00	0 00
4,800 00	3 53	122 23	4,792 92	-123 52	195 92	231 61	0 00	0 00	0 00
4,857 19	3 53	122 23	4,850 00	-125 40	198.90	235 13	0 00	0 00	0 00
PBHL-Kiowa #8									

Database:	EDM-Julio	**Local Co-ordinate Reference:**	Site Kiowa State #8
Company:	COG Operating LLC	**TVD Reference:**	GL Elev @ 3651 00usft
Project:	Eddy County, NM (NAN27 NME)	**MD Reference:**	GL Elev @ 3651 00usft
Site:	Kiowa State #8	**North Reference:**	Grid
Well:	Kiowa State #8	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 7-7/8" Hole		

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
East HL-Kiowa #8	0 00	0 00	0 00	-135 40	208 90	651,622 60	532,243 70	32° 47' 28 885 N	104° 13' 42 271 W
- plan misses target center by 248 94usft at 0 00usft MD (0 00 TVD, 0 00 N, 0 00 E)									
- Rectangle (sides W0 00 H100 00 D0 00)									
South HL-Kiowa #8	0 00	0 00	0 00	-135 40	208 90	651,622 60	532,243 70	32° 47' 28 885 N	104° 13' 42 271 W
- plan misses target center by 248 94usft at 0 00usft MD (0 00 TVD, 0 00 N, 0 00 E)									
- Rectangle (sides W100 00 H0 00 D0 00)									
PBHL-Kiowa #8	0 00	0 01	4,850 00	-125 40	198 90	651,632.60	532,233 70	32° 47' 28.984 N	104° 13' 42 388 W
- plan hits target center									
- Circle (radius 10 00)									

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
850 00	850 00	8-5/8" Casing	8-5/8	12-1/4

Formations

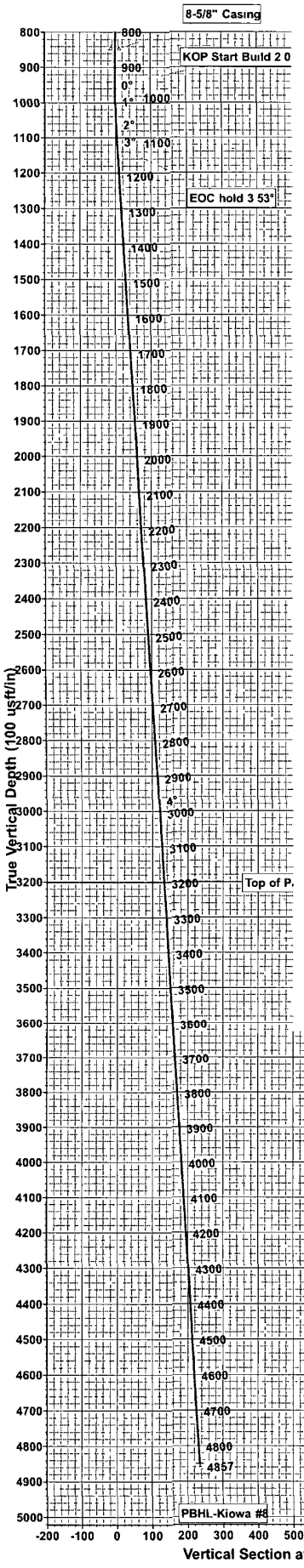
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,204 05	3,200 00	Top of Paddock		0 00	

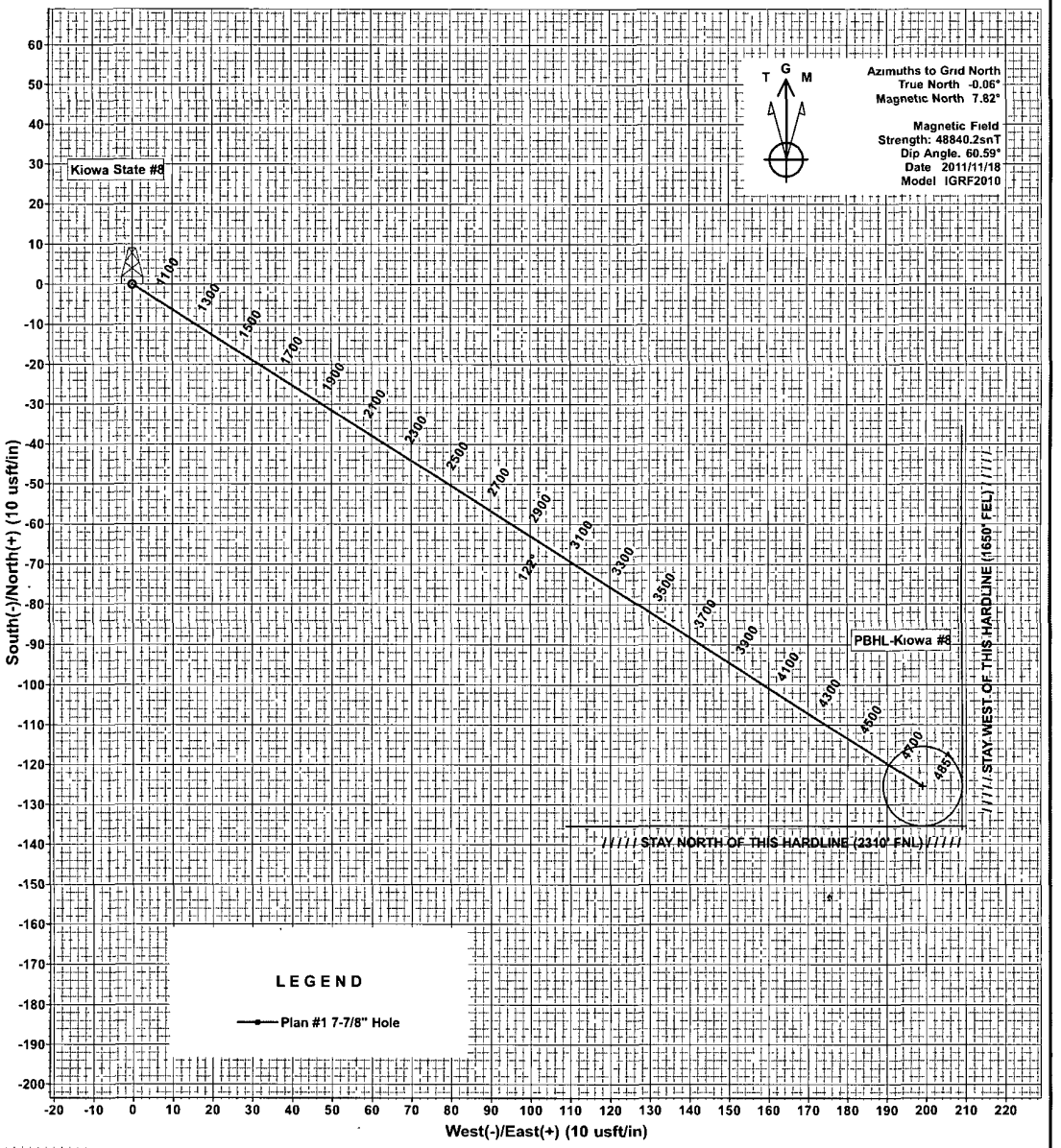
Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
950 00	950 00	0 00	0 00	KOP Start Build 2 00°/100'
1,126 49	1,126 38	-2 90	4 60	EOC hold 3 53°

Scientific Drilling for COG Operating LLC
Site: Eddy County, NM (NAN27 NME)
Well: Kiowa State #8
Wellbore: OH
Design: Plan #1 7-7/8" Hole

Scientific Drilling
Directional Drilling Operations





Azimuths to Grid North
True North -0.06°
Magnetic North 7.82°

Magnetic Field
Strength: 48840.2snT
Dip Angle. 60.59°
Date 2011/11/18
Model IGRF2010

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
East HL-Kiowa #8	0.00	-135 40	208.90	651622 60	532243.70	32°47' 28 885 N	104°13' 42.271 W	Rectangle (Sides: L100 00 W0 00)
South HL-Kiowa #8	0 00	-135 40	208 90	651622 60	532243 70	32°47' 28 885 N	104°13' 42.271 W	Rectangle (Sides: L0.00 W100 00)
PBHL-Kiowa #8	4850.00	-125 40	198 90	651632.60	532233 70	32°47' 28.984 N	104°13' 42.388 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	950.00	0 00	0 00	950.00	0 00	0.00	0.00	0.00	0.00	
3	1126 49	3.53	122.23	1126 38	-2.90	4.60	2.00	122.23	5 44	
4	4857.19	3.53	122 23	4850.00	-125 40	198 90	0.00	0 00	235.13	PBHL-Kiowa #8

WELL DETAILS: Kiowa State #8

Ground Level: 3651.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0 00	651758.00	532034 80	32°47' 30 227 N	104°13' 44.716 W	

PROJECT DETAILS: Eddy County, NM (NAN27 NME)

Plan: Plan #1 7-7/8" Hole (Kiowa State #8/OH)

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

Created By: Julio Pina Date: 18-Nov-11
Checked: _____ Date: _____
Reviewed: _____ Date: _____
Approved: _____ Date: _____