

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

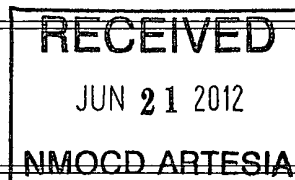
Instructions: Please submit one application (Form C-144 CLEZ) per individual closed-loop system request. For any application request other than for a closed-loop system that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure, please submit a Form C-144.

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: **HOGAN STATE COM #1H**
API Number: **30-015-40413** OCD Permit Number: **213107**
U/L or Qtr/Qtr **UL I** Section **2** Township **17S** Range **29E** 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



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 identify 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): **Kacie Connally** Title: **PERMITTING TECH**
Signature: *Kacie Connally* Date: **4-17-2012**
e-mail address: **kconnally@concho.com** Telephone: **432-221-0336**

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

OCD Representative Signature: RDade

Approval Date: 6/25/2012

Title: Dist. H. Supervisor

OCD Permit Number: 213107

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: _____

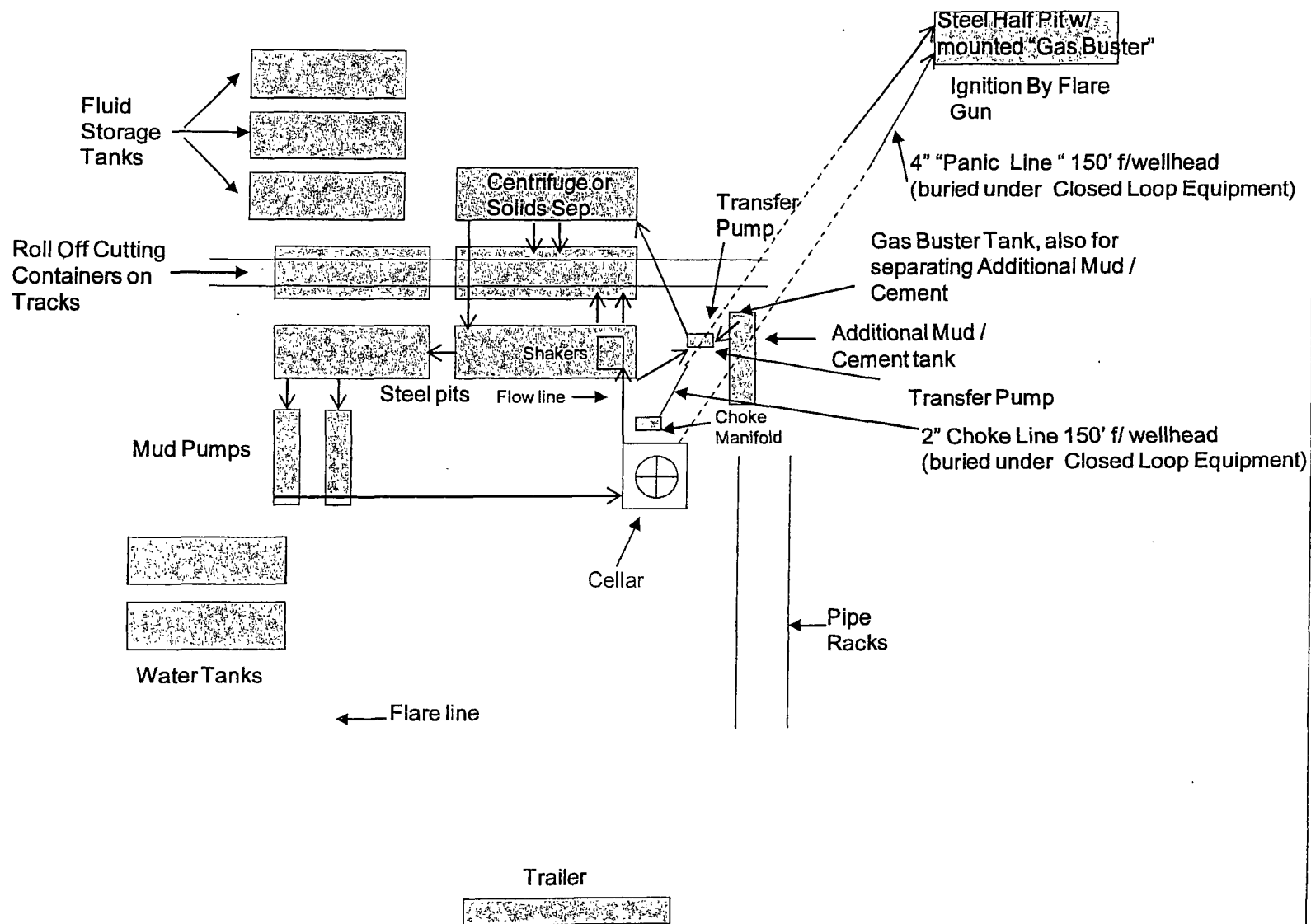
Date: _____

e-mail address: _____

Telephone: _____

COG Operating LLC

Closed Loop Equipment Diagram





COG Operating LLC

Eddy County, NM (NAN27 NME)

Hogan State Com #1H

OH

Plan: Plan #1 - 8-3/4" Hole

SHL = 2035' FSL & 330' FEL

BHL = 2310' FSL & 330' FWL

Standard Planning Report

30 May, 2012





Scientific Drilling International, Inc.
Planning Report



Database:	EDM 5000 1 Single User Db	Local Co-ordinate Reference:	Site Hogan State Com #1H
Company:	COG Operating LLC	TVD Reference:	GL @ 3665 00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL @ 3665 00usft
Site:	Hogan State Com #1H	North Reference:	Grid
Well:	Hogan State Com #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 - 8-3/4" 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	Hogan State Com #1H		
Site Position:		Northing:	677,356 90 usft
From:	Map	Easting:	590,869 30 usft
Position Uncertainty:	0 00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 51' 42 435 N
		Longitude:	104° 2' 14 643 W
		Grid Convergence:	0 16 "

Well	Hogan State Com #1H		
Well Position	+N/-S	0 00 usft	Northing:
	+E/-W	0 00 usft	Easting:
Position Uncertainty	0 00 usft		Wellhead Elevation:
			Ground Level:

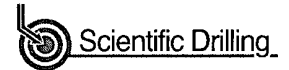
Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010	05/30/12	7 73
			Dip Angle
			60 67
			Field Strength
			48,851

Design	Plan #1 - 8-3/4" Hole		
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
			Direction
			273 47

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	
3,822 61	0 00	0 00	3,822 61	0 00	0 00	0 00	0 00	0 00	0 00	
4,580 94	91 00	273 47	4,300 00	29 44	-484 90	12 00	12 00	0 00	273 47	
8,740 92	91 00	273 47	4,227 40	281 50	-4,636 60	0 00	0 00	0 00	0 00	PBHL-Hogan State #



Scientific Drilling International, Inc.
Planning Report



Database:	EDM 5000 1 Single User Db	Local Co-ordinate Reference:	Site Hogan State Com #1H
Company:	COG Operating, LLC	TVD Reference:	GL @ 3665.00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL @ 3665 00usft
Site:	Hogan State Com #1H	North Reference:	Grid
Well:	Hogan State Com #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 - 8-3/4" 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
3,822 61	0 00	0 00	3,822 61	0 00	0 00	0 00	0 00	0 00	0 00
KOP Start Build 12.00°/100'									
3,900 00	9 29	273 47	3,899 66	0 38	-6 25	6 26	12 00	12 00	0 00
4,000 00	21 29	273 47	3,995 95	1 97	-32 52	32 58	12 00	12 00	0 00
4,100 00	33 29	273 47	4,084 66	4 75	-78 19	78 34	12 00	12 00	0 00
4,200 00	45 29	273 47	4,161 91	8 58	-141 28	141 54	12 00	12 00	0 00
4,300 00	57 29	273 47	4,224 34	13 30	-219 02	219 43	12 00	12 00	0 00
4,400 00	69 29	273 47	4,269 21	18 70	-308 02	308 59	12 00	12 00	0 00
4,500 00	81 29	273 47	4,294 56	24 55	-404 39	405 13	12 00	12 00	0 00
4,580 94	91 00	273 47	4,300 00	29 44	-484 90	485 79	12 00	12 00	0 00
Land hold 91.00°									
4,600 00	91 00	273 47	4,299 67	30 59	-503 92	504 85	0 00	0 00	0 00
4,700 00	91 00	273 47	4,297 92	36 65	-603 73	604 84	0 00	0 00	0 00
4,800 00	91 00	273 47	4,296 18	42 71	-703 53	704 82	0 00	0 00	0 00
4,900 00	91 00	273 47	4,294 43	48 77	-803 33	804 81	0 00	0 00	0 00
5,000 00	91 00	273 47	4,292 69	54 83	-903 13	904 79	0 00	0 00	0 00
5,100 00	91 00	273 47	4,290 94	60 89	-1,002 93	1,004 78	0 00	0 00	0 00
5,200 00	91 00	273 47	4,289 20	66 95	-1,102 73	1,104 76	0 00	0 00	0 00
5,300 00	91 00	273 47	4,287 45	73 01	-1,202 53	1,204 75	0 00	0 00	0 00
5,400 00	91 00	273 47	4,285 71	79 07	-1,302 33	1,304 73	0 00	0 00	0 00
5,500 00	91 00	273 47	4,283 96	85 13	-1,402 13	1,404 72	0 00	0 00	0 00
5,600 00	91 00	273 47	4,282 22	91 19	-1,501 93	1,504 70	0 00	0 00	0 00
5,700 00	91 00	273 47	4,280 47	97 25	-1,601 74	1,604 68	0 00	0 00	0 00
5,800 00	91 00	273 47	4,278 73	103 30	-1,701 54	1,704 67	0 00	0 00	0 00
5,900 00	91 00	273 47	4,276 98	109 36	-1,801 34	1,804 65	0 00	0 00	0 00
6,000 00	91 00	273 47	4,275 24	115 42	-1,901 14	1,904 64	0 00	0 00	0 00
6,100 00	91 00	273 47	4,273 49	121 48	-2,000 94	2,004 62	0 00	0 00	0 00
6,200 00	91 00	273 47	4,271 75	127 54	-2,100 74	2,104 61	0 00	0 00	0 00
6,300 00	91 00	273 47	4,270 00	133 60	-2,200 54	2,204 59	0 00	0 00	0 00
6,400 00	91 00	273 47	4,268 25	139 66	-2,300 34	2,304 58	0 00	0 00	0 00
6,500 00	91 00	273 47	4,266 51	145 72	-2,400 14	2,404 56	0 00	0 00	0 00
6,600 00	91 00	273 47	4,264 76	151 78	-2,499 94	2,504 55	0 00	0 00	0 00
6,700 00	91 00	273 47	4,263 02	157 84	-2,599 75	2,604 53	0 00	0 00	0 00
6,800 00	91 00	273 47	4,261 27	163 90	-2,699 55	2,704 52	0 00	0 00	0 00
6,900 00	91 00	273 47	4,259 53	169 96	-2,799 35	2,804 50	0 00	0 00	0 00
7,000 00	91 00	273 47	4,257 78	176 01	-2,899 15	2,904 49	0 00	0 00	0 00
7,100 00	91 00	273 47	4,256 04	182 07	-2,998 95	3,004 47	0 00	0 00	0 00
7,200 00	91 00	273 47	4,254 29	188 13	-3,098 75	3,104 46	0 00	0 00	0 00
7,300 00	91 00	273 47	4,252 55	194 19	-3,198 55	3,204 44	0 00	0 00	0 00
7,400 00	91 00	273 47	4,250 80	200 25	-3,298 35	3,304 43	0 00	0 00	0 00
7,500 00	91 00	273 47	4,249 06	206 31	-3,398 15	3,404 41	0 00	0 00	0 00
7,600 00	91 00	273 47	4,247 31	212 37	-3,497 95	3,504 40	0 00	0 00	0 00
7,700 00	91 00	273 47	4,245 57	218 43	-3,597 76	3,604 38	0 00	0 00	0 00
7,800 00	91 00	273 47	4,243 82	224 49	-3,697 56	3,704 36	0 00	0 00	0 00
7,900 00	91 00	273 47	4,242 08	230 55	-3,797 36	3,804 35	0 00	0 00	0 00
8,000 00	91 00	273 47	4,240 33	236 61	-3,897 16	3,904 33	0 00	0 00	0 00
8,100 00	91 00	273 47	4,238 59	242 67	-3,996 96	4,004 32	0 00	0 00	0 00
8,200 00	91 00	273 47	4,236 84	248 72	-4,096 76	4,104 30	0 00	0 00	0 00
8,300 00	91 00	273 47	4,235 10	254 78	-4,196 56	4,204 29	0 00	0 00	0 00
8,400 00	91 00	273 47	4,233 35	260 84	-4,296 36	4,304 27	0 00	0 00	0 00
8,500 00	91 00	273 47	4,231 60	266 90	-4,396 16	4,404 26	0 00	0 00	0 00
8,600 00	91 00	273 47	4,229 86	272 96	-4,495 96	4,504 24	0 00	0 00	0 00
8,700 00	91 00	273 47	4,228 11	279 02	-4,595 77	4,604 23	0 00	0 00	0 00



Database:	EDM 5000 1-Single User Db	Local Co-ordinate Reference:	Site Hogan State Com #1H'
Company:	COG Operating LLC.	TVD Reference:	GL @ 3665 00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL @ 3665 00usft
Site:	Hogan State Com #1H	North Reference:	Grd
Well:	Hogan State Com #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 - 8-3/4" Hole		

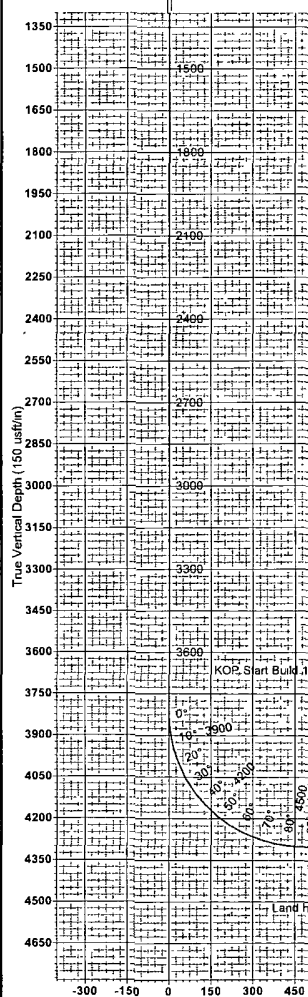
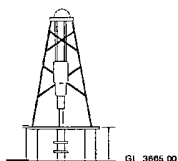
Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,740.92	91.00	273.47	4,227.40	281.50	-4,636.60	4,645.14	0.00	0.00	0.00
PBHL-Hogan State #1H									

Design Targets									
Target Name	Dip/Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
hit/miss target									
Shape									
PBHL-Hogan State #1H	0.00	0.01	4,227.40	281.50	-4,636.60	677,638.40	586,232.70	32° 51' 45.345 N	104° 3' 8.993 W
- plan hits target center									
- Point									

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
3,822.61	3,822.61	0.00	0.00	KOP Start Build 12.00°/100'	
4,580.94	4,300.00	29.44	-484.90	Land hold 91.00°	



Hogan State Com #1H
Eddy County, NM (NAN27 NME)
Northing (Y) 677356.90
Easting (X) 590869.30
Plan #1 - 8-3/4" Hole



WELL DETAILS

Hogan State Com #1H

+N-S	+E-W	Northing	Ground Level	3665 00	Latitude	Longitude	Slot
0 00	0 00	677356 90	Easting	590869 30	32° 51' 42 435 N	104° 2' 14 643 W	

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	3822 81	0 00	0 00	3822 81	0 00	0 00	0 00	0 00	0 00	
3	4580 84	91 00	273 47	4300 00	29 44	-484 90	12 00	273 47	485 80	
4	6740 92	91 00	273 47	4227 40	281 50	-4636 60	0 00	0 00	4645 14	PBHL-Hogan State #1H

DESIGN TARGET DETAILS

Name	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude	Shape
PBHL-Hogan State #1H	4227 40	281 50	-4636 60	677638 40	585232 70	32° 51' 45 345 N	104° 3' 8 993 W	Point
- plan has target center								

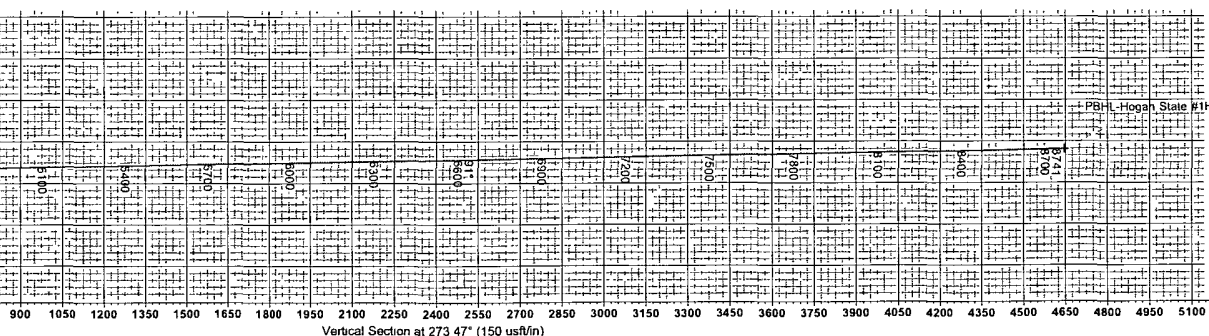
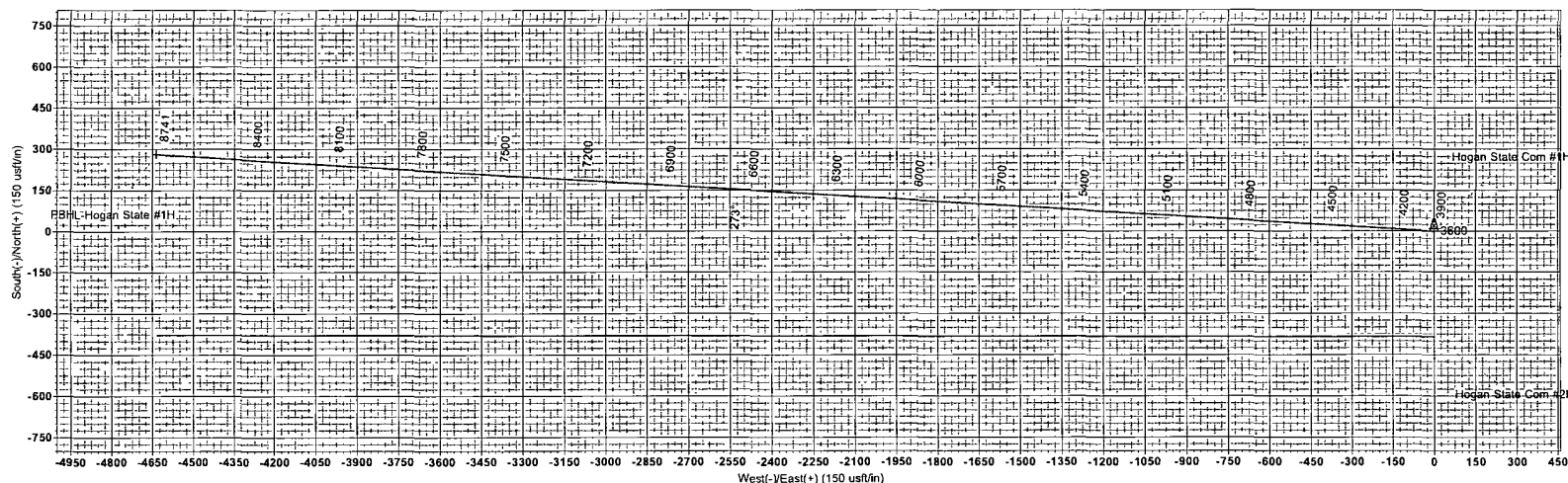
PROJECT DETAILS Hogan State Com #1H											
Geodetic System US State Plane 1927 (Exact solution)											
Datum NAD 1927 (NADCON CONUS)											
Ellipsoid Clarke 1866											
Zone New Mexico East 3001											
System Datum Mean Sea Level											

SITE DETAILS Hogan State Com #1H											
Site Centre Northing 677356 90											
Easting 590869 30											
Positional Uncertainty 0 00											
Convergence 0 16											
Local North Grid											

LEGEND

- Hogan State Com #2H OH Plan #1 - 8-3/4 Hole VO
- Plan #1 - 8-3/4 Hole

Map System US State Plane 1927 (Exact solution)											
Datum NAD 1927 (NADCON CONUS)											
Ellipsoid Clarke 1866											
Zone Name New Mexico East 3001											
Local Origin Site Hogan State Com #1H, Grid North											
Latitude 32° 51' 42 435 N											
Longitude 104° 2' 14 643 W											
Grid East 590869 30											
Grid North 677356 90											
Scale Factor 1 000											
Geographic Model IGRF2010											
Sample Date 30-May-12											
Magnetic Declination 7 73°											
Dip Angle from Horizontal 60 87°											
Magnetic Field Strength 45851											
To convert Magnetic North to Grid Add 7 57°											
To convert Magnetic North to True North Add 7 73° East											
To convert True North to Grid Subtract 0 16°											



Azimuths to Grid North
True North -0 16°
Magnetic North 7 57°
Magnetic Field
Strength 45851 Gauss
Dip Angle 60 87°
Date 05/30/2012
Model IGRF2010



To convert Magnetic North to Grid Add 7 57°
To convert True North to Grid Subtract 0 16°