

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 NMOC 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: **PINTO "36" FEE #2H**
API Number: **30-015- 39969** OCD Permit Number: **212579**
U/L or Qtr/Qtr **UL N** Section **36** Township **18S** Range **25E** 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

FEB 24 2012

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: _____

CO ARTESIA

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: **12/09/2011**
e-mail address: **kconnally@concho.com** Telephone: **432-685-4304**

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

OCD Representative Signature: RDade Approval Date: 03/05/2012

Title: Dist R Supervisor OCD Permit Number: 212579

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: _____

Closed Loop Operation & Maintenance Procedure

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)

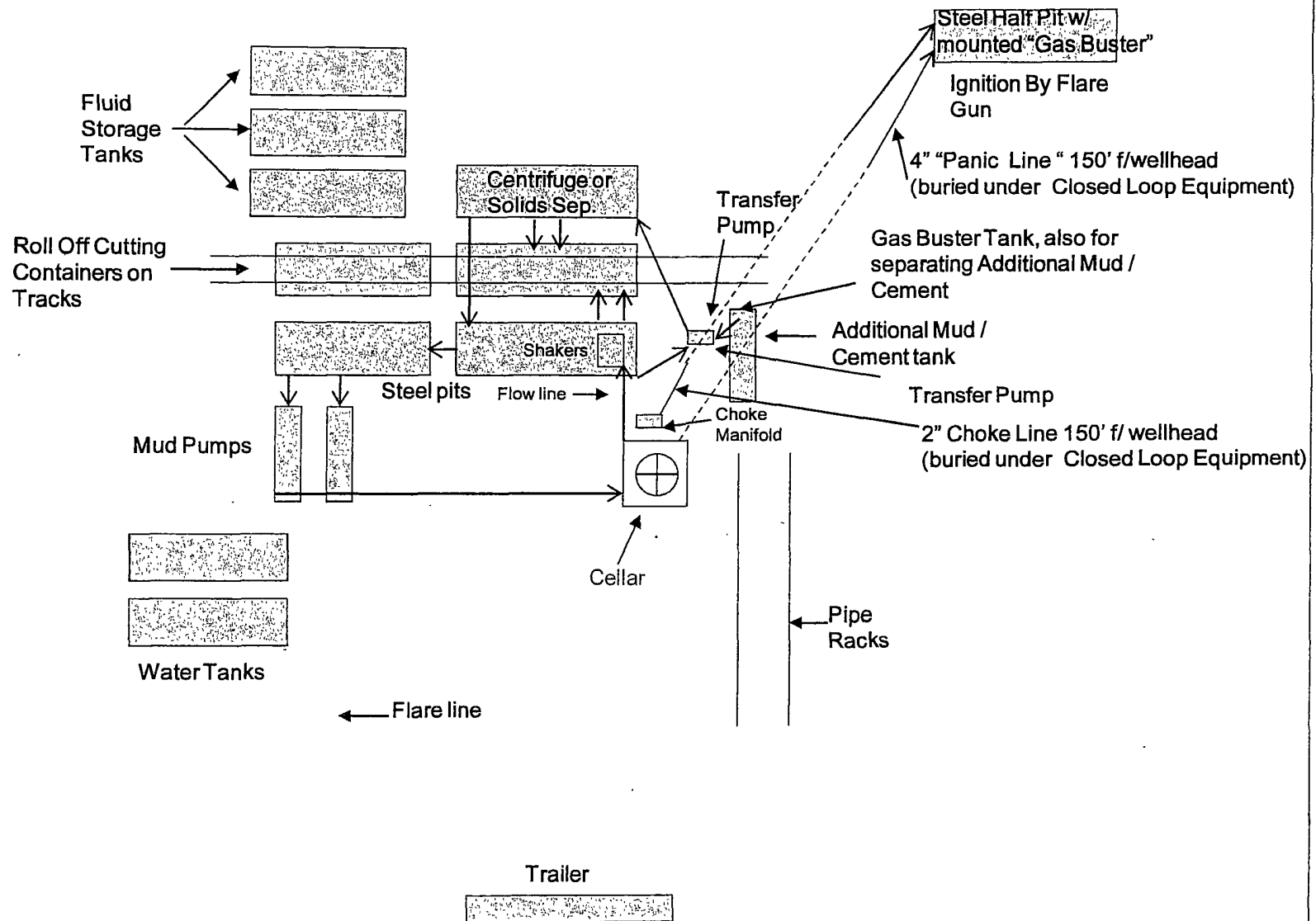
or

GMI (permit number 711-019-001)

dependent upon which rig is available to drill this well.

COG Operating LLC

Closed Loop Equipment Diagram





COG Operating LLC

Eddy County, NM (NAN27 NME)

Pinto 36 State Com #2H

Pinto 36 State Com #2H

OH

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

SHL = 150' FSL & 1700' FWL

PP = 330' FSL & 1700' FWL

BHL = 330' FNL & 1700' FWL

Standard Planning Report

20 February, 2012



Scientific Drilling
Directional Drilling Operations



Database:	EDM 5000 1 Single User.Db	Local Co-ordinate Reference:	Site Pinto 36 State Com #2H
Company:	COG Operating LLC	TVD Reference:	GL @ 3490 00usft
Project:	Eddy County NM (NAN27 NME)	MD Reference:	GL @ 3490 00usft
Site:	Pinto 36 State Com #2H	North Reference:	Grid
Well:	Pinto 36 State Com #2H	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	Pinto 36 State Com #2H		
Site Position:		Northing:	617,446.60 usft
From:	Map	Easting:	466,889.40 usft
Position Uncertainty:	0 00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 41' 50.686 N
		Longitude:	104° 26' 27.478 W
		Grid Convergence:	-0 06 °

Well	Pinto 36 State Com #2H		
Well Position	+N/-S	0 00 usft	Northing: 617,446.60 usft
	+E/-W	0 00 usft	Easting: 466,889.40 usft
Position Uncertainty	0 00 usft	Wellhead Elevation:	Ground Level: 3,490.00 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010	02/20/12	7 94
			Dip Angle
			(°)
			60 46
			Field Strength
			(nT)
			48,735

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
			(°)
			1 08

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	
2,272.54	0 00	0 00	2,272.54	0 00	0 00	0 00	0 00	0 00	0 00	
3,022.54	90 00	1 08	2,750.00	477.38	8.99	12.00	12.00	0 00	1 08	
7,331.02	90 00	1 08	2,750.00	4,785.10	90 10	0 00	0 00	0 00	0 00	PBHL-Pinto 36 #2H



Database:	EDM:5000.1.Single User-Db	Local Co-ordinate Reference:	Site: Pinto 36 State Corn #2H
Company:	COG Operating LLC	TVD Reference:	GL @ 3490.00usft
Project:	Eddy County NM (NAN27 NME)	MD Reference:	GL @ 3490.00usft
Site:	Pinto 36 State Corn #2H	North Reference:	Grid
Well:	Pinto 36 State Corn #2H	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
2,272 54	0 00	0 00	2,272 54	0 00	0 00	0 00	0 00	0 00	0 00
KOP Start Build 12.00°/100'									
2,300 00	3 30	1 08	2,299 98	0 79	0 01	0 79	12 00	12 00	0 00
2,400 00	15 30	1 08	2,398 49	16 91	0 32	16 91	12 00	12 00	0 00
2,500 00	27 30	1 08	2,491 49	53 16	1 00	53 17	12 00	12 00	0 00
2,600 00	39 30	1 08	2,574 93	107 94	2 03	107 96	12 00	12 00	0 00
2,700 00	51 30	1 08	2,645 14	178 87	3 37	178 91	12 00	12 00	0 00
2,701 44	51 47	1 08	2,646 04	180 00	3 39	180 03	12 00	12 00	0 00
PP=330° FSL Pinto 36 #2H									
2,800 00	63 30	1 08	2,699 07	262 85	4 95	262 90	12 00	12 00	0 00
2,900 00	75 30	1 08	2,734 36	356 21	6 71	356 27	12 00	12 00	0 00
3,000 00	87 30	1 08	2,749 47	454 86	8 56	454 94	12 00	12 00	0 00
3,022 54	90 00	1 08	2,750 00	477 39	8 99	477 47	12 00	12 00	0 00
Land EOC hold 90.00°									
3,100 00	90 00	1 08	2,750 00	554 83	10 45	554 93	0 00	0 00	0 00
3,200 00	90 00	1 08	2,750 00	654 81	12 33	654 93	0 00	0 00	0 00
3,300 00	90 00	1 08	2,750 00	754 80	14 21	754 93	0 00	0 00	0 00
3,400 00	90 00	1 08	2,750 00	854.78	16 09	854 93	0 00	0 00	0 00
3,500 00	90 00	1 08	2,750 00	954 76	17 98	954 93	0 00	0 00	0 00
3,600 00	90 00	1 08	2,750 00	1,054 74	19 86	1,054 93	0 00	0 00	0 00
3,700 00	90 00	1 08	2,750 00	1,154 73	21 74	1,154 93	0 00	0 00	0 00
3,800 00	90 00	1 08	2,750 00	1,254 71	23 63	1,254 93	0 00	0 00	0 00
3,900 00	90 00	1 08	2,750 00	1,354 69	25 51	1,354 93	0 00	0 00	0 00
4,000 00	90 00	1 08	2,750 00	1,454 67	27 39	1,454 93	0 00	0 00	0 00
4,100 00	90 00	1 08	2,750 00	1,554 65	29 27	1,554 93	0 00	0 00	0 00
4,200 00	90 00	1 08	2,750 00	1,654 64	31 16	1,654 93	0 00	0 00	0 00
4,300 00	90 00	1 08	2,750 00	1,754 62	33 04	1,754 93	0 00	0 00	0 00
4,400 00	90 00	1 08	2,750 00	1,854 60	34 92	1,854 93	0 00	0 00	0 00
4,500 00	90 00	1 08	2,750 00	1,954 58	36 80	1,954 93	0 00	0 00	0 00
4,600 00	90 00	1 08	2,750 00	2,054 57	38 69	2,054 93	0 00	0 00	0 00
4,700 00	90 00	1 08	2,750 00	2,154 55	40 57	2,154 93	0 00	0 00	0 00
4,800 00	90 00	1 08	2,750 00	2,254 53	42 45	2,254.93	0 00	0 00	0 00
4,900 00	90 00	1 08	2,750 00	2,354 51	44 33	2,354 93	0 00	0 00	0 00
5,000 00	90 00	1 08	2,750 00	2,454 49	46 22	2,454 93	0 00	0 00	0 00
5,100 00	90 00	1 08	2,750 00	2,554 48	48 10	2,554 93	0 00	0 00	0 00
5,200 00	90 00	1 08	2,750 00	2,654 46	49 98	2,654 93	0 00	0 00	0 00
5,300 00	90 00	1 08	2,750 00	2,754 44	51 86	2,754.93	0 00	0 00	0 00
5,400 00	90 00	1 08	2,750 00	2,854 42	53 75	2,854 93	0 00	0 00	0 00
5,500 00	90 00	1 08	2,750 00	2,954 41	55 63	2,954 93	0 00	0 00	0 00
5,600 00	90 00	1 08	2,750 00	3,054 39	57 51	3,054.93	0 00	0 00	0 00
5,700 00	90 00	1 08	2,750 00	3,154 37	59 39	3,154 93	0 00	0 00	0 00
5,800 00	90 00	1 08	2,750 00	3,254 35	61.28	3,254 93	0 00	0 00	0 00
5,900 00	90 00	1 08	2,750 00	3,354 34	63 16	3,354 93	0 00	0 00	0 00
6,000 00	90 00	1 08	2,750.00	3,454 32	65 04	3,454 93	0 00	0 00	0 00
6,100 00	90 00	1 08	2,750 00	3,554 30	66 92	3,554.93	0 00	0 00	0 00
6,200 00	90 00	1 08	2,750 00	3,654 28	68 81	3,654 93	0 00	0 00	0 00
6,300 00	90 00	1 08	2,750 00	3,754 26	70 69	3,754 93	0 00	0 00	0 00
6,400 00	90 00	1 08	2,750 00	3,854 25	72 57	3,854 93	0 00	0 00	0 00
6,500 00	90 00	1 08	2,750 00	3,954 23	74 46	3,954 93	0 00	0 00	0 00
6,600 00	90 00	1 08	2,750 00	4,054 21	76 34	4,054 93	0 00	0 00	0 00
6,700 00	90 00	1 08	2,750 00	4,154.19	78 22	4,154 93	0 00	0 00	0 00
6,800 00	90 00	1 08	2,750 00	4,254.18	80 10	4,254 93	0 00	0 00	0 00

Database:	EDM:5000 1 Single User Db	Local Co-ordinate Reference:	Site: Pinto 36 State Com #2H
Company:	COG Operating LLC	TVD Reference:	GL @ 3490' 00usft
Project:	Eddy County NM (NAN27 NME)	MD Reference:	GL @ 3490' 00usft
Site:	Pinto 36 State Com #2H	North Reference:	Grid
Well:	Pinto 36 State Com #2H	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)
6,900 00	90 00	1 08	2,750 00	4,354 16	81 99	4,354 93	0 00	0 00	0 00
7,000 00	90 00	1 08	2,750 00	4,454 14	83 87	4,454 93	0 00	0 00	0 00
7,100 00	90 00	1 08	2,750 00	4,554 12	85 75	4,554 93	0 00	0 00	0 00
7,200 00	90 00	1 08	2,750 00	4,654 10	87 63	4,654 93	0 00	0 00	0 00
7,300 00	90 00	1 08	2,750 00	4,754 09	89 52	4,754 93	0 00	0 00	0 00
7,331 02	90 00	1 08	2,750 00	4,785 10	90 10	4,785 95	0 00	0 00	0 00
PBHL-Pinto 36 #2H									

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									
PP=330' FSL Pinto 36 #	0 00	360 00	2,646 04	180 00	3 39	617,626 60	466,892 79	32° 41' 52 467 N	104° 26' 27 441 W
- plan hits target center									
- Point									
PBHL-Pinto 36 #2H	0 00	0 00	2,750 00	4,785 10	90 10	622,231 70	466,979 50	32° 42' 38 038 N	104° 26' 26 480 W
- plan hits target center									
- Point									

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/S (usft)	+E/W (usft)	
2,272 54	2,272 54	0 00	0 00	KOP Start Build 12 00°/100'
3,022 54	2,750 00	474 13	-56 39	Land EOC hold 90 00°



Azimuths to Grid North
True North 0.06°
Magnetic North 7.99°
Magnetic Field
Strength 48734.5nT
Dip Angle 60.46°
Date 02/20/2012
Model IGRF2010

Pinto 36 State Com #2H
Eddy County, NM (NAN27 NME)
Northing: (Y) 617446.60
Easting: (X) 466889.40
Plan #1 8-3/4" Hole

WELL DETAILS Pinto 36 State Com #2H										
+N-S	+E-W	Ground Level	3490.00							Slot
0.00	0.00	Northing	617446.60	Easting	466889.40	Latitude	32° 41' 50.686 N	Longitude	104° 26' 27.478 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	0.00
2	2272.54	0.00	0.00	2272.54	0.00	0.00	0.00	0.00	0.00	0.00
3	3022.54	90.00	1.08	2750.00	477.36	8.98	12.00	1.08	477.48	
4	7331.02	90.00	1.08	2750.00	4785.10	90.10	0.00	0.00	4785.95	PBHL-Pinto 36 #2H
DESIGN TARGET DETAILS										
Name	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude	Shape		
PP=330' FSL Pinto 36 #2H	2646.04	180.00	3.39	617626.60	466892.7532	41° 52' 46.7104"	26° 27' 44.1100"	Point		
plan hits target center										
PBHL-Pinto 36 #2H	2750.00	4785.10	90.10	622231.70	466979.5032	42° 38' 03.8104"	26° 26' 48.0100"	Point		
plan hits target center										

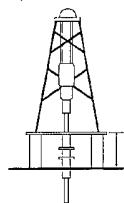
PROJECT DETAILS Eddy County, NM (NAN27 NME)
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

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 Pinto 36 State Com #2H Grid North
Latitude: 32° 41' 50.686 N
Longitude: 104° 26' 27.478 W
Grid East: 466889.40
Grid North: 617446.60
Scale Factor: 1.000
Geomagnetic Model: IGRF2010
Sample Date: 20-Feb-12
Magnetic Declination: 7.99°
Dip Angle from Horizontal: 60.46°
Magnetic Field Strength: 48735
To convert a Magnetic Direction to a Grid Direction, Add 7.99°
To convert a True Direction to a Grid Direction, Add 0.06°

SITE DETAILS Pinto 36 State Com #2H
Site Centre Northing: 617446.60
Easting: 466889.40
Positional Uncertainty: 0.00
Convergence: -0.06
Local North: Grid

LEGEND

—●— Pinto 36 State Com #2H OH Plan #1 8-3/4" Hole V0
—●— Plan #1 8-3/4" Hole



GL 3490.00

