

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 TARPAN "33" FEE #2H
API Number 30-015-90057 OCD Permit Number 212674
U/L or Qtr/Qtr UL M Section 33 Township 18S Range 26E 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

MAR 16 2011

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 _____

NMOCD 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: [Signature] **Approval Date:** 03/16/12
Title: Dist. Supervisor **OCD Permit Number:** 212674

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 identify 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)

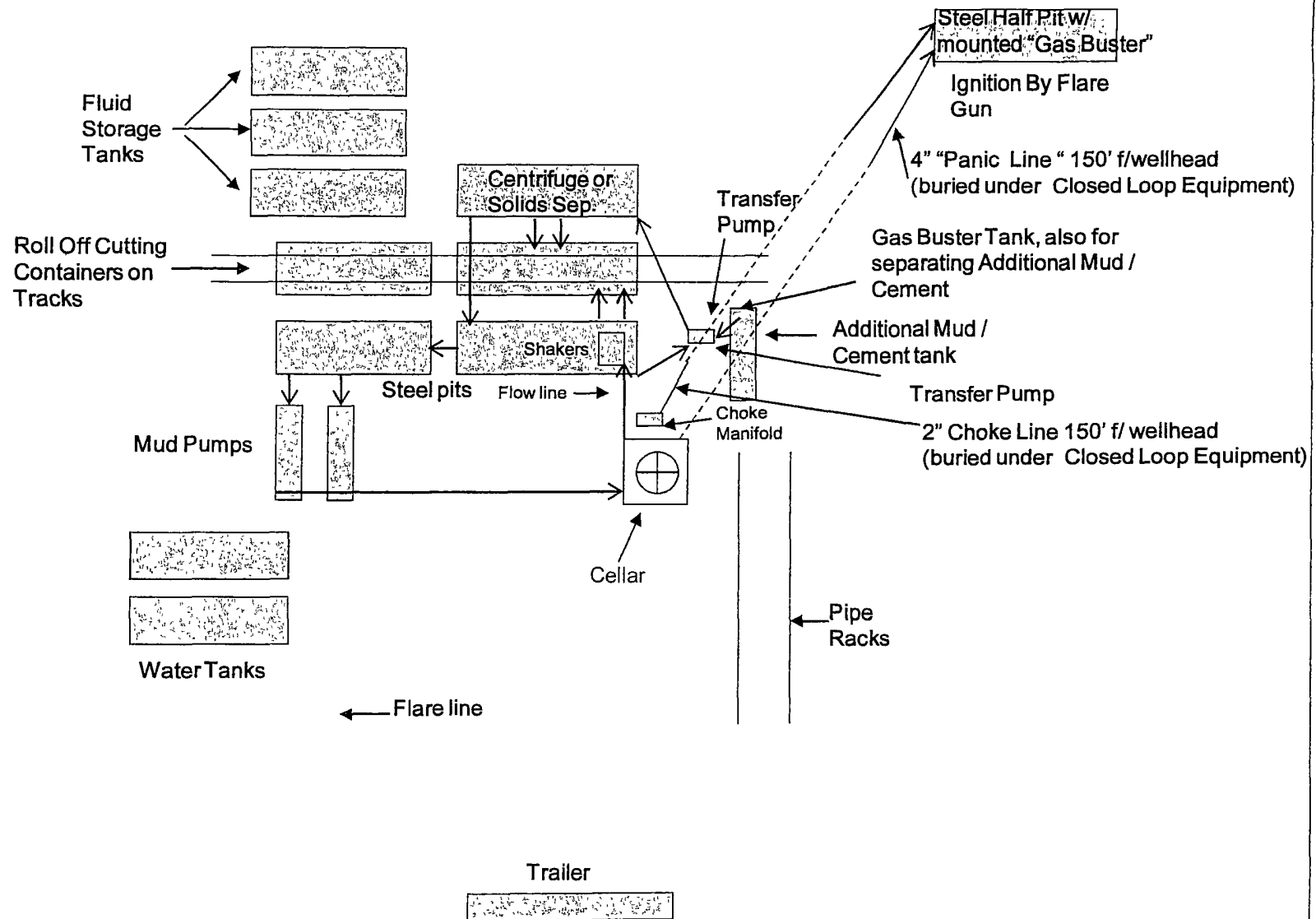
or

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)

Tarpan 33 Fee #2H

Tarpan 33 Fee #2H

OH

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

SHL = 150' FSL & 1040' FWL

PP = 330' FSL & 1040' FWL

BHL = 330' FNL & 1040' FWL

Standard Planning Report

09 March, 2012





SDI
Planning Report



Database:	EDM 5000-1 Single User Db	Local Co-ordinate Reference:	Site Tarpan 33 Fee #2H
Company:	COG Operating LLC	TVD Reference:	GL @ 3378 00usft
Project:	Eddy County, NM (NAN27-NME)	MD Reference:	GL @ 3378 00usft
Site:	Tarpan 33 Fee #2H	North Reference:	Grid
Well:	Tarpan 33 Fee #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:	Tarpan 33 Fee #2H		
Site Position:	Northings	617,389 40 usft	Latitude: 32° 41' 50 237 N
From:	Map	Easting: 482,013 10 usft	Longitude: 104° 23' 30 492 W
Position Uncertainty	0 00 usft	Slot Radius: 13-3/16 "	Grid Convergence: -0 03 °

Well:	Tarpan 33 Fee #2H		
Well Position	+N/-S	0 00 usft	Northings: 617,389 40 usft
	+E/-W	0 00 usft	Easting: 482,013 10 usft
Position Uncertainty	0 00 usft	Wellhead Elevation:	Ground Level: 3,378 00 usft

Wellbore:	OH		
Magnetics:	Model Name	Sample Date	Declination
			(°)
	IGRF2010	02/24/12	7 91
			Dip Angle: 60 47
			Field Strength: 48,740
			(nT)

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: 359 90
			(°)

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	
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	359 90	2,750 00	477 46	-0 81	12 00	12 00	0 00	359 90	
7,385 98	90 00	359 90	2,750 00	4,840 90	-8 20	0 00	0 00	0 00	0 00	PBHL-Tarpan 33 Fee



Database:	EDM 5000 1 Single User Db	Local/Co-ordinate Reference:	Site Tarpan 33 Fee #2H
Company:	COG Operating LLC	TVD Reference:	GL @ 3378 00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL @ 3378 00usft
Site:	Tarpan 33 Fee #2H	North Reference:	Grid
Well:	Tarpan 33 Fee #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	359 90	2,299 98	0 79	0 00	0 79	12 00	12 00	0 00
2,400 00	15 30	359 90	2,398 49	16 91	-0 03	16 91	12 00	12 00	0 00
2,500 00	27 30	359 90	2,491 49	53 17	-0 09	53 17	12 00	12 00	0 00
2,600 00	39 30	359 90	2,574 93	107 96	-0 18	107 96	12 00	12 00	0 00
2,700 00	51 30	359 90	2,645 14	178 91	-0 30	178 91	12 00	12 00	0 00
2,701 40	51 46	359 90	2,646 01	180 00	-0 30	180 00	12 00	12 00	0 00
PP=330' FSL Tarpan 33 Fee #2H									
2,800 00	63 30	359 90	2,699 07	262 90	-0 45	262 90	12 00	12 00	0 00
2,900 00	75 30	359 90	2,734 36	356 27	-0 60	356 27	12 00	12 00	0 00
3,000 00	87 30	359 90	2,749 47	454 94	-0 77	454 94	12 00	12 00	0 00
3,022 54	90 00	359 90	2,750 00	477 47	-0 81	477 47	12 00	12 00	0 00
Land EOC hold 90.00°									
3,100 00	90 00	359 90	2,750 00	554 93	-0 94	554 93	0 00	0 00	0 00
3,200 00	90 00	359 90	2,750 00	654 93	-1 11	654 93	0 00	0 00	0 00
3,300 00	90 00	359 90	2,750 00	754 93	-1 28	754 93	0 00	0 00	0 00
3,400 00	90 00	359 90	2,750 00	854 93	-1 45	854 93	0 00	0 00	0 00
3,500 00	90 00	359 90	2,750 00	954 93	-1 62	954 93	0 00	0 00	0 00
3,600 00	90 00	359 90	2,750 00	1,054 93	-1 79	1,054 93	0 00	0 00	0 00
3,700 00	90 00	359 90	2,750 00	1,154 93	-1 96	1,154 93	0 00	0 00	0 00
3,800 00	90 00	359 90	2,750 00	1,254 93	-2 13	1,254 93	0 00	0 00	0 00
3,900 00	90 00	359 90	2,750 00	1,354 93	-2 30	1,354 93	0 00	0 00	0 00
4,000 00	90 00	359 90	2,750 00	1,454 93	-2 46	1,454 93	0 00	0 00	0 00
4,100 00	90 00	359 90	2,750 00	1,554 93	-2 63	1,554 93	0 00	0 00	0 00
4,200 00	90 00	359 90	2,750 00	1,654 93	-2 80	1,654 93	0 00	0 00	0 00
4,300 00	90 00	359 90	2,750 00	1,754 93	-2 97	1,754 93	0 00	0 00	0 00
4,400 00	90 00	359 90	2,750 00	1,854 93	-3 14	1,854 93	0 00	0 00	0 00
4,500 00	90 00	359 90	2,750 00	1,954 93	-3 31	1,954 93	0 00	0 00	0 00
4,600 00	90 00	359 90	2,750 00	2,054 93	-3 48	2,054 93	0 00	0 00	0 00
4,700 00	90 00	359 90	2,750 00	2,154 93	-3 65	2,154 93	0 00	0 00	0 00
4,800 00	90 00	359 90	2,750 00	2,254 93	-3 82	2,254 93	0 00	0 00	0 00
4,900 00	90 00	359 90	2,750 00	2,354 93	-3 99	2,354 93	0 00	0 00	0 00
5,000 00	90 00	359 90	2,750 00	2,454 93	-4 16	2,454 93	0 00	0 00	0 00
5,100 00	90 00	359 90	2,750 00	2,554 93	-4 33	2,554 93	0 00	0 00	0 00
5,200 00	90 00	359 90	2,750 00	2,654 93	-4 50	2,654 93	0 00	0 00	0 00
5,300 00	90 00	359 90	2,750 00	2,754 93	-4 67	2,754 93	0 00	0 00	0 00
5,400 00	90 00	359 90	2,750 00	2,854 93	-4 84	2,854 93	0 00	0 00	0 00
5,500 00	90 00	359 90	2,750 00	2,954 93	-5 01	2,954 93	0 00	0 00	0 00
5,600 00	90 00	359 90	2,750 00	3,054 93	-5 17	3,054 93	0 00	0 00	0 00
5,700 00	90 00	359 90	2,750 00	3,154 93	-5 34	3,154 93	0 00	0 00	0 00
5,800 00	90 00	359 90	2,750 00	3,254 93	-5 51	3,254 93	0 00	0 00	0 00
5,900 00	90 00	359 90	2,750 00	3,354 92	-5 68	3,354 93	0 00	0 00	0 00
6,000 00	90 00	359 90	2,750 00	3,454 92	-5 85	3,454 93	0 00	0 00	0 00
6,100 00	90 00	359 90	2,750 00	3,554 92	-6 02	3,554 93	0 00	0 00	0 00
6,200 00	90 00	359 90	2,750 00	3,654 92	-6 19	3,654 93	0 00	0 00	0 00
6,300 00	90 00	359 90	2,750 00	3,754 92	-6 36	3,754 93	0 00	0 00	0 00
6,400 00	90 00	359 90	2,750 00	3,854 92	-6 53	3,854 93	0 00	0 00	0 00
6,500 00	90 00	359 90	2,750 00	3,954 92	-6 70	3,954 93	0 00	0 00	0 00
6,600 00	90 00	359 90	2,750 00	4,054 92	-6 87	4,054 93	0 00	0 00	0 00
6,700 00	90 00	359 90	2,750 00	4,154 92	-7 04	4,154 93	0 00	0 00	0 00
6,800 00	90 00	359 90	2,750 00	4,254 92	-7 21	4,254 93	0 00	0 00	0 00



Database:	EDM 5000 1.Single User Db	Local Co-ordinate Reference:	Site Tarpan 33 Fee #2H
Company:	COG Operating LLC	TVD Reference:	GL @ 3378 00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL @ 3378 00usft
Site:	Tarpan 33 Fee #2H	North Reference:	Grd
Well:	Tarpan 33 Fee #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	359 90	2,750 00	4,354 92	-7 38	4,354 93	0 00	0 00	0 00	
7,000 00	90 00	359 90	2,750 00	4,454 92	-7 55	4,454 93	0 00	0 00	0 00	
7,100 00	90 00	359 90	2,750 00	4,554 92	-7 72	4,554 93	0 00	0 00	0 00	
7,200 00	90 00	359 90	2,750 00	4,654 92	-7 88	4,654 93	0 00	0 00	0 00	
7,300 00	90 00	359 90	2,750 00	4,754 92	-8 05	4,754 93	0 00	0 00	0 00	
7,385 98	90 00	359 90	2,750 00	4,840 90	-8 20	4,840 91	0 00	0 00	0 00	
PBHL-Tarpan 33 Fee #2H - PP=330' FNL, Puckett 13 #5H										

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 Tarpan 33	0 00	0 00	2,646 02	180 00	-0 30	617,569 40	482,012 80	32° 41' 52 019 N	104° 23' 30 497 W	
- plan hits target center										
- Point										
PBHL-Tarpan 33 Fee #2	0 00	0 00	2,750 00	4,840 90	-8 20	622,230 30	482,004 90	32° 42' 38 141 N	104° 23' 30 619 W	
- plan hits target center										
- Point										

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
2,272 54	2,272 54	0 00	0 00	KOP Start Build 12 00°/100'	
3,022 54	2,750 00	477 47	-0 81	Land EOC hold 90 00°	



Azimuths to Grid North
True North 0 03
Magnetic North 7 95
Grid North 7 92
Strength 48739 5mT
Dip Angle 60 47°
Date 02/24/2012
Model IGRF2010

To convert Magnetic North to Grid Add 7 94
To convert True North to Grid Add 0 03

Tarpan 33 Fee #2H
Eddy County, NM (NAN27 NME)
Northing (Y) 617389 40
Easting (X) 482013 10
Plan #1 8-3/4" Hole

WELL DETAILS Tarpan 33 Fee #2H									
			Ground Level	3378 00					
+N/S	+E/W	North	East	Lat	Long	Slot			
0 00	0 00	617389 40	482013 10	32 41 50 237 N	104° 23 30 492 W				

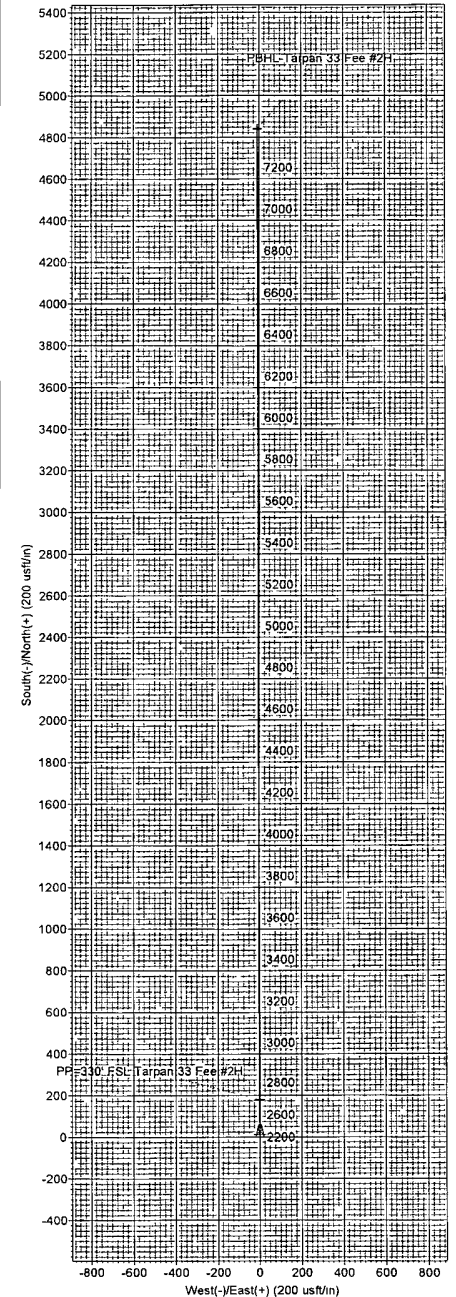
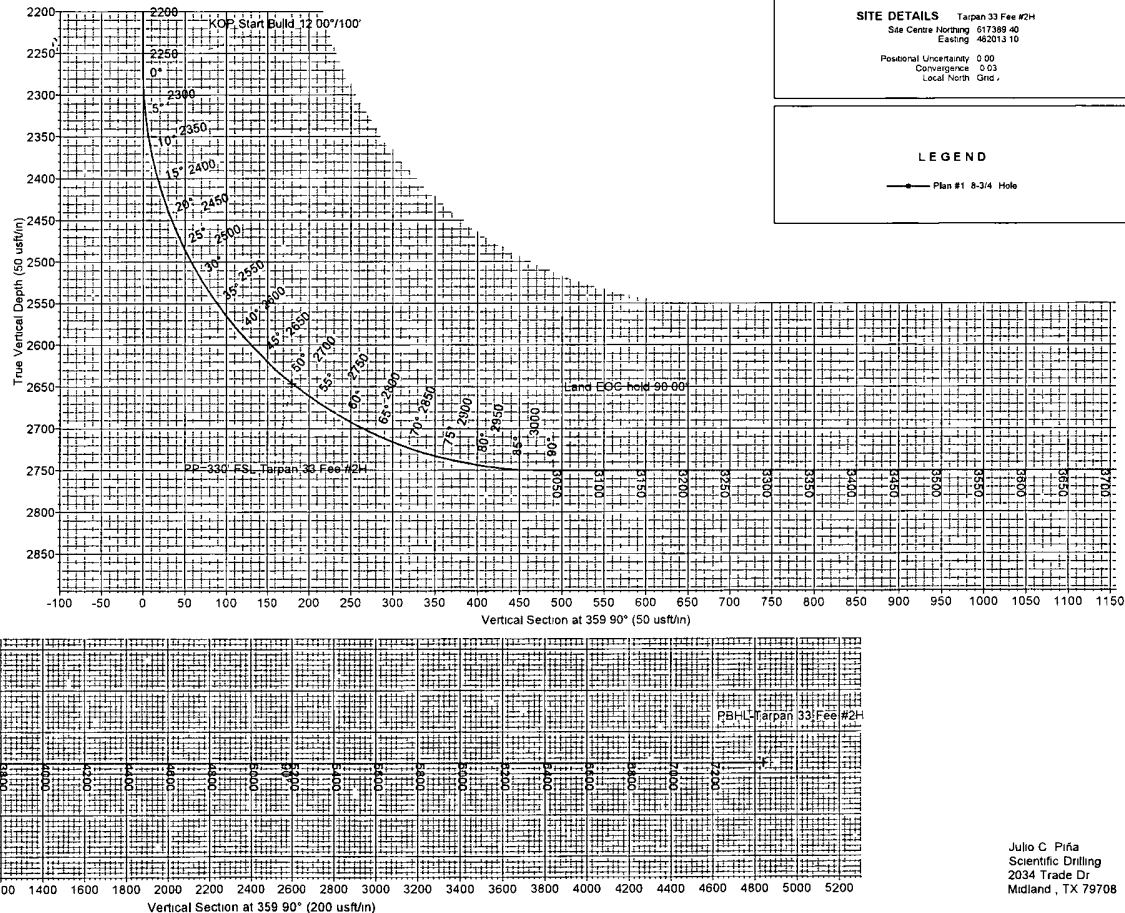
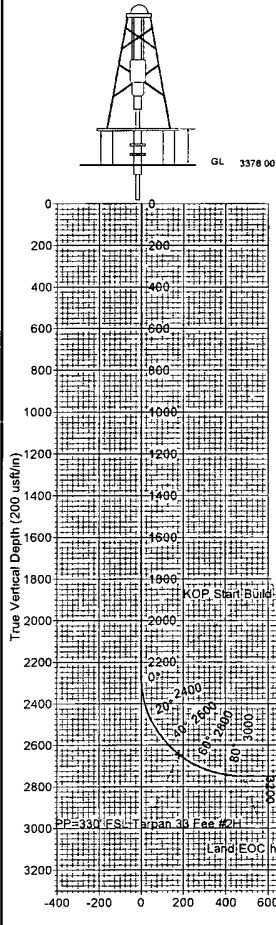
SECTION DETAILS									
Sec	MD	Inc	Azi	TVD	+N/S	+E/W	Oleg	TFace	V Sect Target
1	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00
2	2272 54	0 00	0 00	2272 54	0 00	0 00	0 00	0 00	0 00
3	3022 54	90 00	359 90	2750 00	477 48	-0 81	12 00	359 90	477 48
4	7365 98	90 00	359 90	2750 00	4840 90	8 20	0 00	0 00	4840 91 PBHL-Tarpan 33 Fee #2H

DESIGN TARGET DETAILS									
Name	TVD	+N/S	+E/W	North	East	Lat	Long	Shape	
PP=330 FSL Tarpan 33 Fee #2H	180 00	0 00	-0 30	617569 40	482012 80	32° 41 52 019 M04	23 30 497 W	Point	
PBHL-Tarpan 33 Fee #2H	2750 00	4840 90	8 20	622230 30	482004 90	32° 42 38 141 M04	23 30 619 W	Point	

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

SITE DETAILS Tarpan 33 Fee #2H									
Site Centre Northing 617389 40									
Easting 482013 10									
Positional Uncertainty 0 00									
Convergence 0 03									
Local North Grid									

LEGEND									
● Plan #1 8-3/4" Hole									



Julio C. Pira
Scientific Drilling
2034 Trade Dr
Midland, TX 79708