

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

DISTRICT II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-41462	Pool Code 3250	Pool Name Atoka;Glorieta Yeso
Property Code 39962	Property Name BRAGG 10 FEE	
OGRID No. 229137	Operator Name COG OPERATING, LLC	Well Number 1H
		Elevation 3335'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	10	19-S	26-E		150	SOUTH	330	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
D	10	19-S	26-E		330	NORTH	330	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

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

CORNER COORDINATES TABLE

A - Y=612008.6 N, X=486253.0 E
 B - Y=611997.9 N, X=487588.9 E
 C - Y=606633.0 N, X=487722.8 E
 D - Y=606638.7 N, X=486400.3 E

GEODETC COORDINATES
NAD 27 NME

SURFACE LOCATION
Y=606787.3 N
X=486726.3 E

LAT.=32.668151° N
LONG.=104.376468° W

BOTTOM HOLE LOCATION
Y=611676.0 N
X=486592.1 E

Estimated Completed Interval:
330 FSL +
330 FWL

DETAIL

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

6-17-13
 Date

Kelly J. Holly
 Printed Name

kholly@concho.com
 E-mail Address

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.

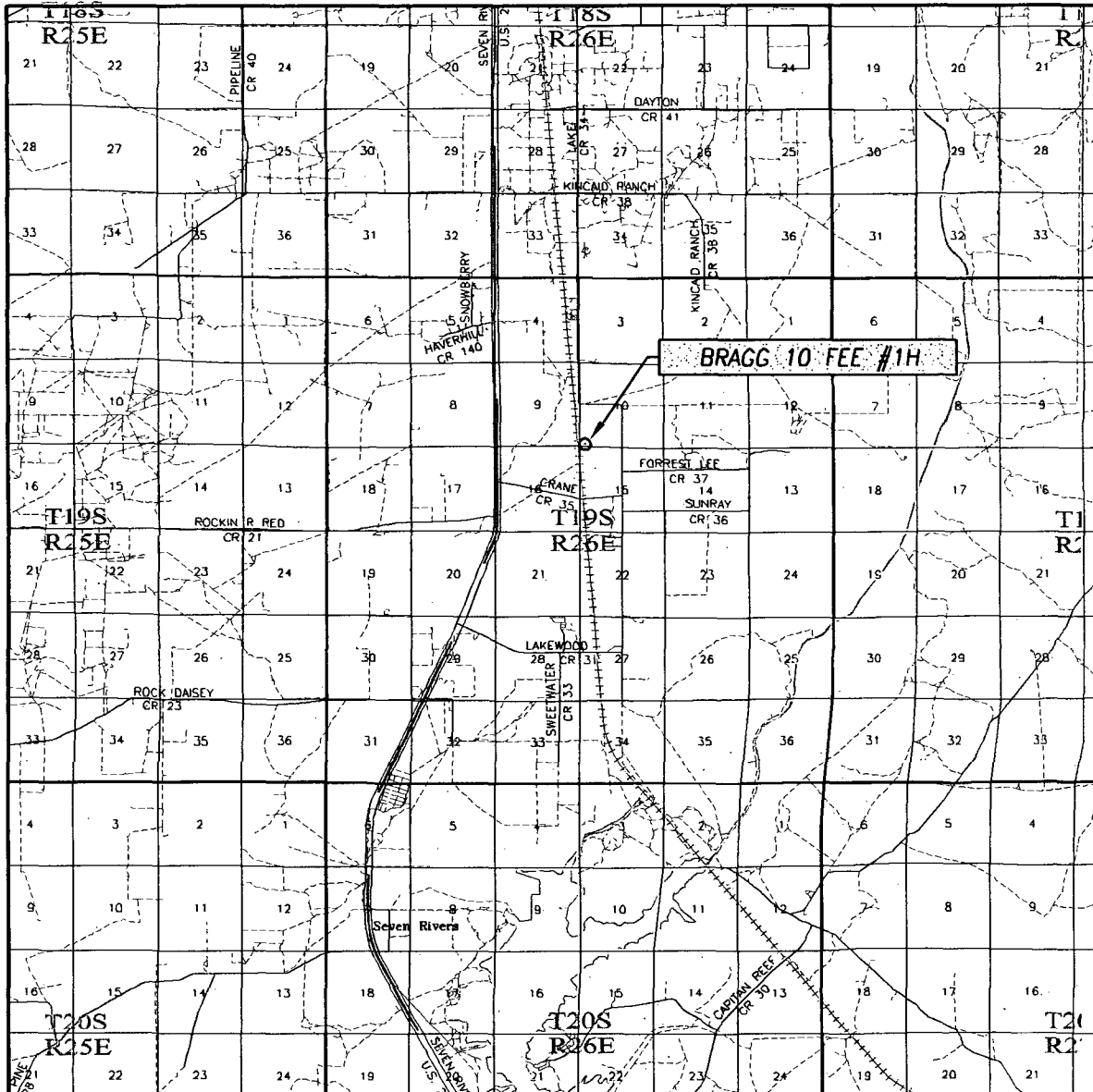
FEBRUARY 7, 2013

Date of Survey

Signature & Seal of Professional Surveyor:

Certificate Number	Gary G. Eidson	12641
	Ronald J. Eidson	3239
ACR	JWSC W.O.: 12.11.1560	

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 10 TWP. 19-S RGE. 26-E

SURVEY N.M.P.M.

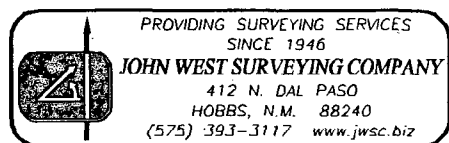
COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 150' FSL & 330' FWL

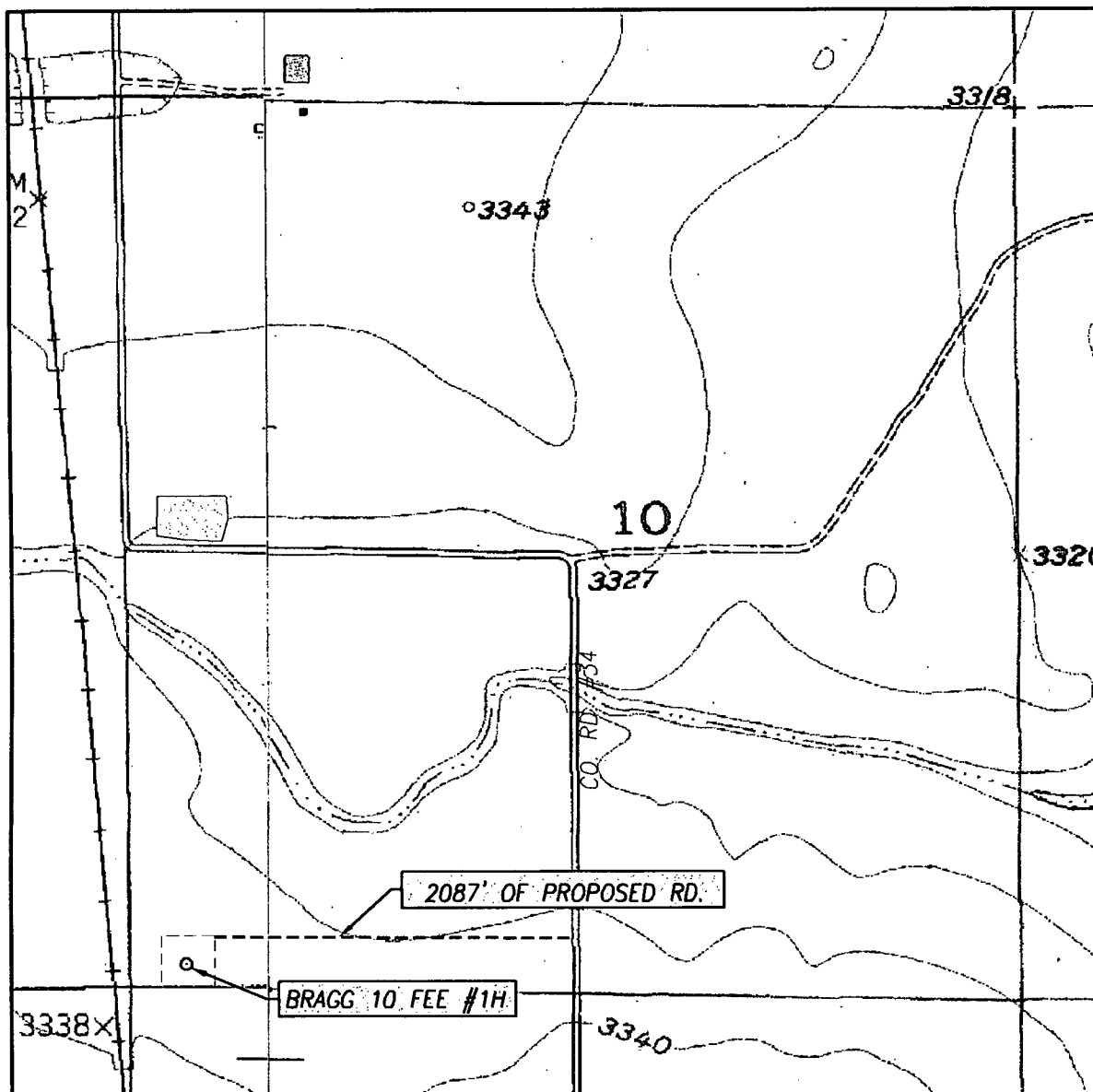
ELEVATION 3335'

OPERATOR COG OPERATING, LLC

LEASE BRAGG 10 FEE



LOCATION VERIFICATION MAP



SCALE: 1" = 1000'

CONTOUR INTERVAL:
DAYTON, N.M. - 10'
LAKE MCMILLIAN NORTH, N.M. - 10'

SEC. 10 TWP. 19-S RGE. 26-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

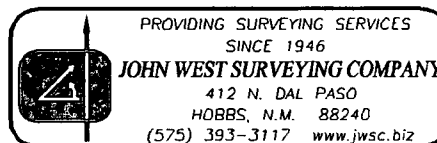
DESCRIPTION 150' FSL & 330' FWL

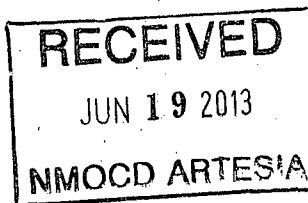
ELEVATION 3335'

OPERATOR COG OPERATING, LLC

LEASE BRAGG 10 FEE

U.S.G.S. TOPOGRAPHIC MAP
DAYTON, N.M.





COG Operating LLC

Eddy County, New Mexico (NAD 27 NME)

Bragg 10 Fee

#1H

OH

Plan: Plan #1 06-11-13

Surface: 150' FSL, 330' FWL, Sec 10, T19S, R26E, Unit M

PP: 330' FSL, 330' FWL, Sec 10, T19S, R26E, Unit M

BHL: 330' FNL, 330' FWL, Sec 10, T19S, R26E, Unit D

Standard Survey Report

11 June, 2013





Phoenix Technology Services
Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County, New Mexico (NAD 27 NME)	TVD Reference:	GL @ 3335.00usft
Site:	Bragg 10 Fee	MD Reference:	GL @ 3335.00usft
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1-06-11-13	Database:	GCR DB

Project	Eddy County, New Mexico (NAD 27 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	Bragg 10 Fee		
Site Position:	Northing:	606,787.30 usft	Latitude: 32° 40' 5.344963 N
From: Map	Easting:	486,726.30 usft	Longitude: 104° 22' 35.285403 W
Position Uncertainty:	Slot Radius:	13-3/16 "	Grid Convergence: -0.02 °

Well	#1H		
Well Position	+N/-S	0.00 usft	Northing: 606,787.30 usft
	+E/-W	0.00 usft	Easting: 486,726.30 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Ground Level:	3,335.00 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010_14	06/11/13	7.75
			Dip Angle
			(°)
			Field Strength
			(nT)
			48,596

Design	Plan #1-06-11-13		
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
			(°)
			358.43

Survey Tool Program	Date 06/11/13		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
0.00	7,858.52	Plan #1 06-11-13 (OH)	MWD
			Description
			MWD - Standard

Planned Survey										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Turn	
Depth	(°)	(°)	Depth	(usft)	(usft)	Section	Rate	Rate	Rate	
(usft)			(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	
2,670.00	0.00	0.00	2,670.00	0.00	0.00	0.00	0.00	0.00	0.00	
KOP Start Build 11.00										
2,700.00	3.30	358.43	2,699.98	0.86	-0.02	0.86	11.00	11.00	0.00	
2,800.00	14.30	358.43	2,798.65	16.13	-0.44	16.14	11.00	11.00	0.00	
2,900.00	25.30	358.43	2,892.60	49.94	-1.37	49.96	11.00	11.00	0.00	
3,000.00	36.30	358.43	2,978.36	101.05	-2.77	101.08	11.00	11.00	0.00	
3,100.00	47.30	358.43	3,052.80	167.57	-4.60	167.64	11.00	11.00	0.00	
3,116.65	49.13	358.43	3,063.89	179.98	-4.94	180.05	11.00	11.00	0.00	
PP: Bragg 10 Fee #1H										



Phoenix Technology Services

Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County, New Mexico (NAD 27 NME)	TVD Reference:	GL @ 3335.00usft
Site:	Bragg 10' Fee	MD Reference:	GL @ 3335.00usft
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1 06-11-13	Database:	GCR DB

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)	
3,200.00	58.30	358.43	3,113.16	247.07	-6.78	247.17	11.00	11.00	0.00	
3,300.00	69.30	358.43	3,157.25	336.63	-9.24	336.75	11.00	11.00	0.00	
3,400.00	80.30	358.43	3,183.43	432.94	-11.88	433.11	11.00	11.00	0.00	
3,490.78	90.29	358.43	3,190.87	523.27	-14.36	523.47	11.00	11.00	0.00	
TL 3200' TVD @ 0 VZ, 91.0° Inc										
3,497.28	91.00	358.43	3,190.79	529.76	-14.54	529.96	11.00	11.00	0.00	
LP Start 4361.24 hold at 3497.28 MD										
3,500.00	91.00	358.43	3,190.75	532.48	-14.62	532.69	0.00	0.00	0.00	
3,600.00	91.00	358.43	3,189.00	632.43	-17.36	632.67	0.00	0.00	0.00	
3,700.00	91.00	358.43	3,187.26	732.38	-20.10	732.65	0.00	0.00	0.00	
3,800.00	91.00	358.43	3,185.51	832.33	-22.85	832.64	0.00	0.00	0.00	
3,900.00	91.00	358.43	3,183.77	932.27	-25.59	932.62	0.00	0.00	0.00	
4,000.00	91.00	358.43	3,182.02	1,032.22	-28.34	1,032.61	0.00	0.00	0.00	
4,100.00	91.00	358.43	3,180.28	1,132.17	-31.08	1,132.59	0.00	0.00	0.00	
4,200.00	91.00	358.43	3,178.53	1,232.11	-33.82	1,232.58	0.00	0.00	0.00	
4,300.00	91.00	358.43	3,176.78	1,332.06	-36.57	1,332.56	0.00	0.00	0.00	
4,400.00	91.00	358.43	3,175.04	1,432.01	-39.31	1,432.55	0.00	0.00	0.00	
4,500.00	91.00	358.43	3,173.29	1,531.96	-42.05	1,532.53	0.00	0.00	0.00	
4,600.00	91.00	358.43	3,171.55	1,631.90	-44.80	1,632.52	0.00	0.00	0.00	
4,700.00	91.00	358.43	3,169.80	1,731.85	-47.54	1,732.50	0.00	0.00	0.00	
4,800.00	91.00	358.43	3,168.06	1,831.80	-50.28	1,832.49	0.00	0.00	0.00	
4,900.00	91.00	358.43	3,166.31	1,931.74	-53.03	1,932.47	0.00	0.00	0.00	
5,000.00	91.00	358.43	3,164.57	2,031.69	-55.77	2,032.46	0.00	0.00	0.00	
5,100.00	91.00	358.43	3,162.82	2,131.64	-58.52	2,132.44	0.00	0.00	0.00	
5,200.00	91.00	358.43	3,161.08	2,231.59	-61.26	2,232.43	0.00	0.00	0.00	
5,300.00	91.00	358.43	3,159.33	2,331.53	-64.00	2,332.41	0.00	0.00	0.00	
5,400.00	91.00	358.43	3,157.59	2,431.48	-66.75	2,432.40	0.00	0.00	0.00	
5,500.00	91.00	358.43	3,155.84	2,531.43	-69.49	2,532.38	0.00	0.00	0.00	
5,600.00	91.00	358.43	3,154.10	2,631.37	-72.23	2,632.37	0.00	0.00	0.00	
5,700.00	91.00	358.43	3,152.35	2,731.32	-74.98	2,732.35	0.00	0.00	0.00	
5,800.00	91.00	358.43	3,150.61	2,831.27	-77.72	2,832.33	0.00	0.00	0.00	
5,900.00	91.00	358.43	3,148.86	2,931.22	-80.46	2,932.32	0.00	0.00	0.00	
6,000.00	91.00	358.43	3,147.12	3,031.16	-83.21	3,032.30	0.00	0.00	0.00	
6,100.00	91.00	358.43	3,145.37	3,131.11	-85.95	3,132.29	0.00	0.00	0.00	
6,200.00	91.00	358.43	3,143.63	3,231.06	-88.70	3,232.27	0.00	0.00	0.00	
6,300.00	91.00	358.43	3,141.88	3,331.00	-91.44	3,332.26	0.00	0.00	0.00	
6,400.00	91.00	358.43	3,140.13	3,430.95	-94.18	3,432.24	0.00	0.00	0.00	
6,500.00	91.00	358.43	3,138.39	3,530.90	-96.93	3,532.23	0.00	0.00	0.00	
6,600.00	91.00	358.43	3,136.64	3,630.85	-99.67	3,632.21	0.00	0.00	0.00	
6,700.00	91.00	358.43	3,134.90	3,730.79	-102.41	3,732.20	0.00	0.00	0.00	
6,800.00	91.00	358.43	3,133.15	3,830.74	-105.16	3,832.18	0.00	0.00	0.00	
6,900.00	91.00	358.43	3,131.41	3,930.69	-107.90	3,932.17	0.00	0.00	0.00	
7,000.00	91.00	358.43	3,129.66	4,030.63	-110.65	4,032.15	0.00	0.00	0.00	
7,100.00	91.00	358.43	3,127.92	4,130.58	-113.39	4,132.14	0.00	0.00	0.00	



Phoenix Technology Services
Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County, New Mexico (NAD 27-NME)	TVD Reference:	GL @ 3335.00usft
Site:	Bragg 10 Fee	MD Reference:	GL @ 3335.00usft
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1 06-11-13	Database:	GCR DB

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)
7,200.00	91.00	358.43	3,126.17	4,230.53	-116.13	4,232.12	0.00	0.00	0.00
7,300.00	91.00	358.43	3,124.43	4,330.48	-118.88	4,332.11	0.00	0.00	0.00
7,400.00	91.00	358.43	3,122.68	4,430.42	-121.62	4,432.09	0.00	0.00	0.00
7,500.00	91.00	358.43	3,120.94	4,530.37	-124.36	4,532.08	0.00	0.00	0.00
7,600.00	91.00	358.43	3,119.19	4,630.32	-127.11	4,632.06	0.00	0.00	0.00
7,700.00	91.00	358.43	3,117.45	4,730.26	-129.85	4,732.05	0.00	0.00	0.00
7,800.00	91.00	358.43	3,115.70	4,830.21	-132.59	4,832.03	0.00	0.00	0.00
7,858.52	91.00	358.43	3,114.68	4,888.70	-134.20	4,890.54	0.00	0.00	0.00
TD at 7858.52 - PBHL-Bragg 10 Fee #1H									

Design Targets									
Target Name	hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	
PP-Bragg 10 Fee #1H	- plan hits target center - Point	0.00	0.00	3,063.91	180.00	-4.94	606,967.30	486,721.36	32° 40' 7.126165 N 104° 22' 35.344065 W
PBHL-Bragg 10 Fee #1H	- plan hits target center - Point	0.00	0.00	3,114.68	4,888.70	-134.20	611,676.00	486,592.10	32° 40' 53.721350 N 104° 22' 36.878855 W

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,490.78	3,190.87	TL, 3200' TVD @ 0 VZ, 91.0° Inc		-1.00	0.18	

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
2670	2670	0	0	KOP Start Build 11.00
3497	3191	530	-15	LP Start 4361.24 hold at 3497.28 MD
7859	3115	4889	-134	TD at 7858.52

Checked By: _____ Approved By: _____ Date: _____



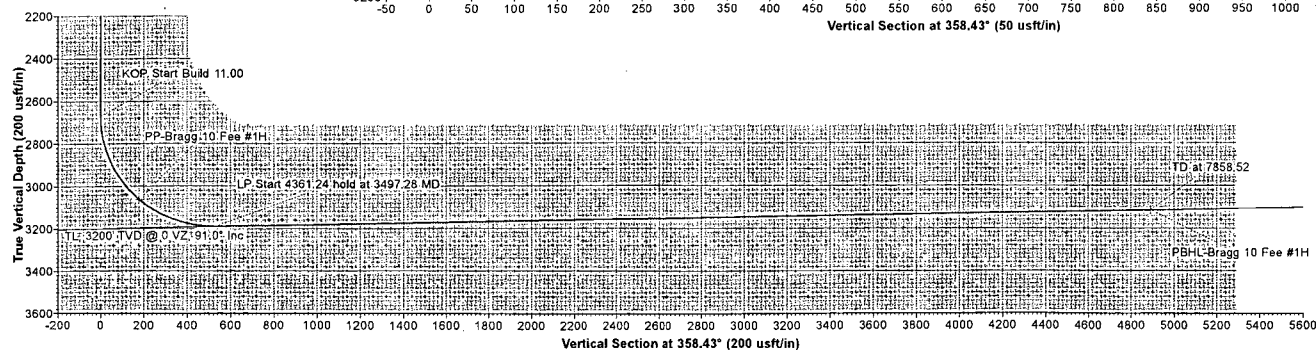
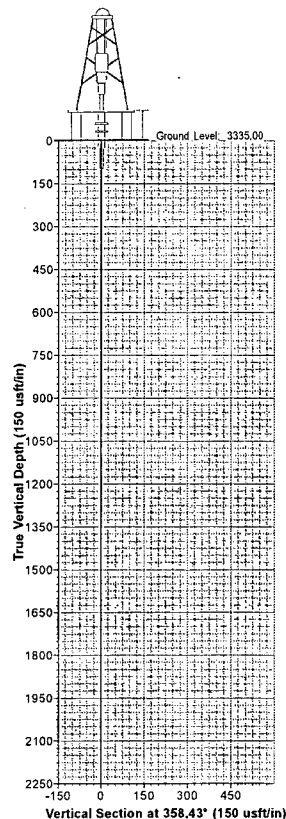
Project: Eddy County, New Mexico (NAD 27 NME)
Site: Bragg 10 Fee
Well: #1H
Wellbore: OH
Design: Plan #1 06-11-13
Rig:



PHOENIX
TECHNOLOGY SERVICES



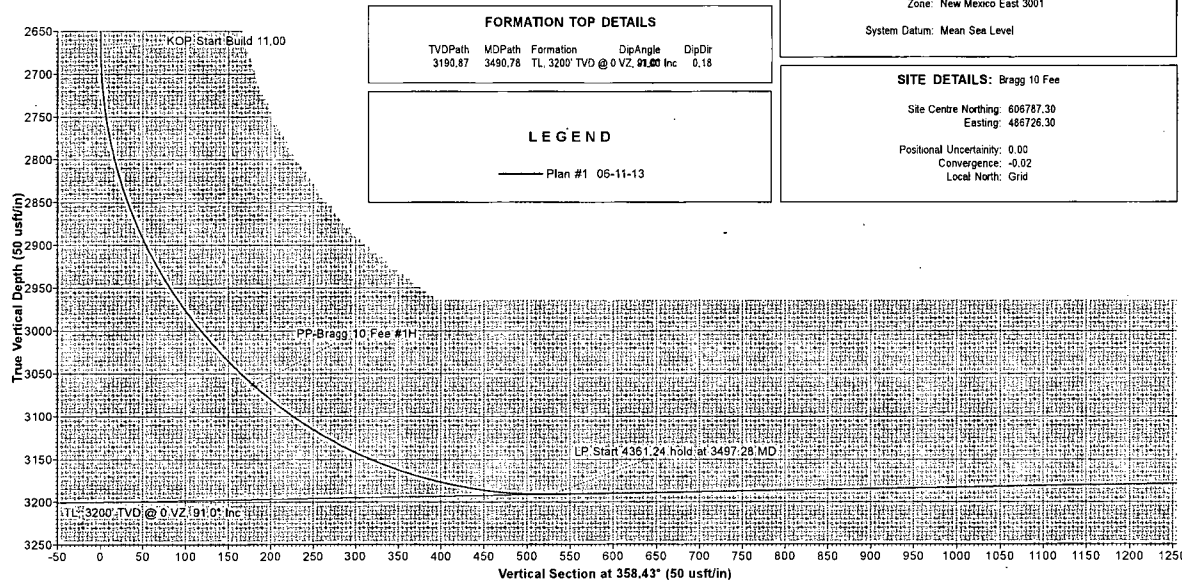
Azimuths to Grid North
True North: 0.02°
Magnetic North: 7.77°
Magnetic Field
Strength: 48595.95nT
Dip Angle: 60.41°
Date: 06/11/2013
Model: IGRF2010_14



WELL DETAILS									

SECTION DETAILS									

DESIGN TARGET DETAILS									



FORMATION TOP DETAILS									

LEGEND									

