

HOBBS OGD

JUN 16 2011

RECEIVED

CONOCOPHILLIPS

Lea County, NM (NAD27 NME)
EAST VACUUM UNIT
EVGSAU 3315-507

Wellbore #1

Plan: 4 degree per 100 plan

Standard Planning Report

06 June, 2011

JUN 16 2011



Scientific Drilling
Directional Drilling Operations

Project: Lea County, NM (NAD27 NME)

Site: EAST VACUUM UNIT

Well: EVGSAU 3315-507

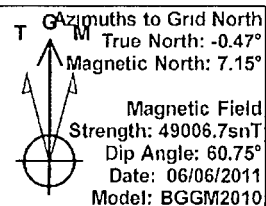
Wellbore: Wellbore #1

Plan: 4 degree per 100 plan (EVGSAU 3315-507/Wellbore #1)

ConocoPhillips

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
3000.0	0.00	0.00	3000.0	0.0	0.0	0.00	0.00	0.0	
3616.4	24.66	125.14	3597.6	-75.2	106.8	4.00	125.14	130.6	
5055.0	24.66	125.14	4905.0	-420.6	597.6	0.00	0.00	730.8	TARGET @ 4905'TVD
5187.1	24.66	125.14	5025.0	-452.3	642.6	0.00	0.00	785.9	



DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
TARGET @ 4905'TVD	4905.0	-420.6	597.6	652369.00	768803.00	32° 47' 25.433 N	103° 27' 31.103 W	Circle (Radius: 100.0)

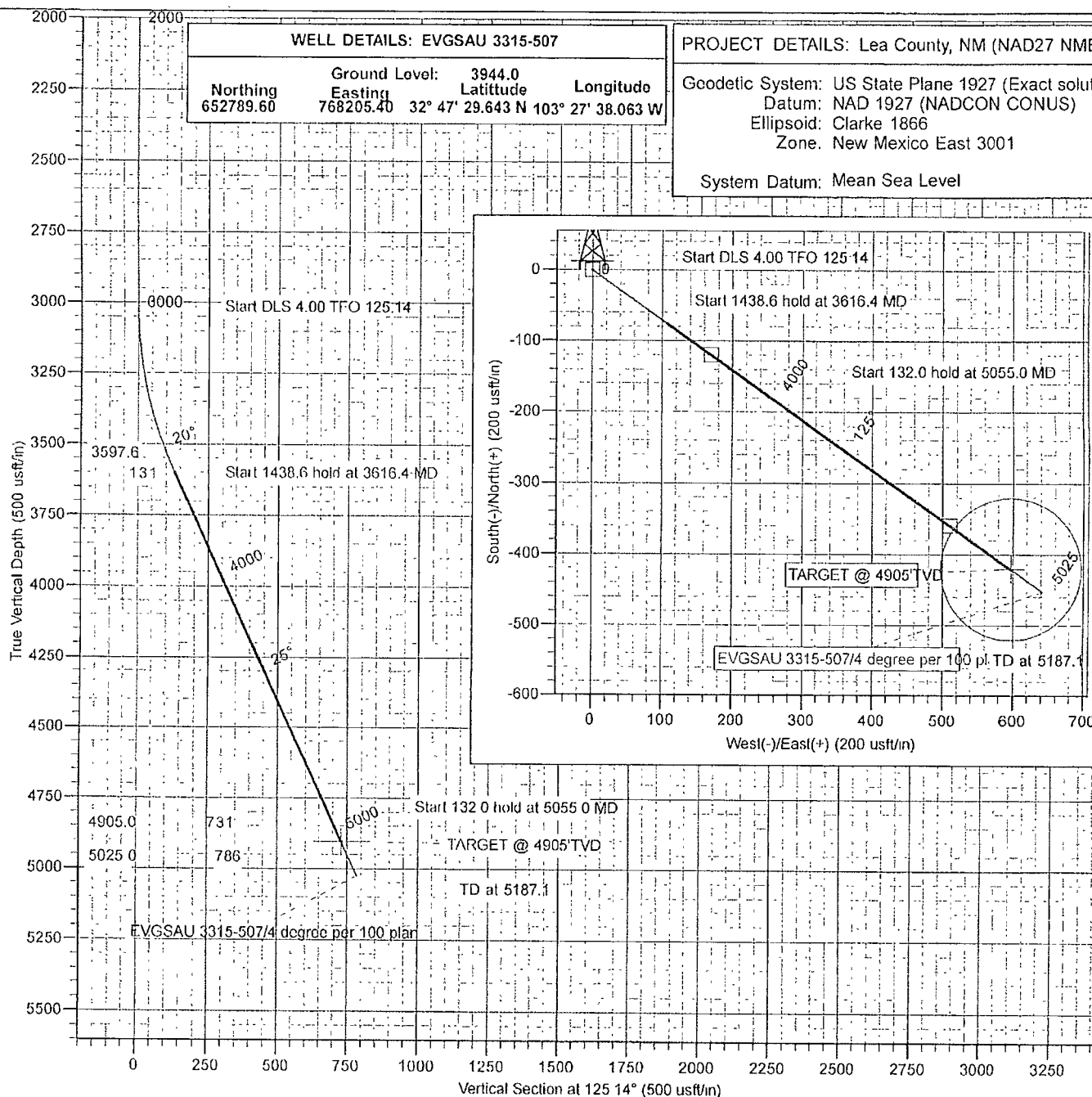
WELL DETAILS: EVGSAU 3315-507

Ground Level:	3944.0
Northing	652789.60
Easting	768205.40
Latitude	32° 47' 29.643 N
Longitude	103° 27' 38.063 W

PROJECT DETAILS: Lea County, NM (NAD27 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



Scientific Drilling International

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well EVGSAU 3315-507
Company:	CONOCOPHILLIPS	TVD Reference:	WELL @ 3966.0usft (Original Well Elev)
Project:	Lea County, NM (NAD27 NME)	MD Reference:	WELL @ 3966.0usft (Original Well Elev)
Site:	EAST VACUUM UNIT	North Reference:	Grid
Well:	EVGSAU 3315-507	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	4 degree per 100 plan		

Project	Lea County, NM (NAD27 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	EAST VACUUM UNIT		
Site Position:	From: Map	Northings:	651,854.60 usft
		Easting:	768,132.80 usft
Position Uncertainty:	0 0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 47' 20.398 N
		Longitude:	103° 27' 39.003 W
		Grid Convergence:	0 47 °

Well	EVGSAU 3315-507		
Well Position	+N/-S	935.0 usft	Northings:
	+E/-W	72.6 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	3,966.0 usft
		Latitude:	32° 47' 29.643 N
		Longitude:	103° 27' 38.063 W
		Ground Level:	3,944.0 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
	BGGM2010	06/06/11	7.63
		Dip Angle	60.75
		Field Strength	49,007
		(nT)	

Design	4 degree per 100 plan		
Audit Notes:			
Version:	Phase	PLAN	Tie On Depth:
			0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0 0	0 0	0.0
			Direction
			125.14

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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,616.4	24.66	125.14	3,597.6	-75.2	106.8	4.00	4.00	20.30	125.14	
5,055.0	24.65	125.14	4,905.0	-420.6	597.6	0.00	0.00	0.00	0.00	TARGET @ 4905' TVI
5,187.1	24.65	125.14	5,025.0	-452.3	642.6	0.00	0.00	0.00	0.00	

Scientific Drilling International

Planning Report

Database: EDM 5000.1 Single User Db
 Company: CONOCOPHILLIPS
 Project: Lea County, NM (NAD27 NME)
 Site: EAST VACUUM UNIT
 Well: EVGSAU 3315-507
 Wellbore: Wellbore #1
 Design: 4 degree per 100 plan

Local Co-ordinate Reference: Well EVGSAU 3315-507
 TVD Reference: WELL @ 3966.0usft (Original Well Elev)
 MD Reference: WELL @ 3966.0usft (Original Well Elev)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

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)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00	
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
Start DLS 4.00 TFO 125.14										
3,100.0	4.00	125.14	3,099.9	-2.0	2.9	3.5	4.00	4.00	0.00	
3,200.0	8.00	125.14	3,199.4	-8.0	11.4	13.9	4.00	4.00	0.00	
3,300.0	12.00	125.14	3,297.8	-18.0	25.6	31.3	4.00	4.00	0.00	
3,400.0	16.00	125.14	3,394.8	-31.9	45.4	55.5	4.00	4.00	0.00	
3,500.0	20.00	125.14	3,489.9	-49.7	70.6	86.4	4.00	4.00	0.00	
3,600.0	24.00	125.14	3,582.6	-71.3	101.3	123.8	4.00	4.00	0.00	
3,616.4	24.66	125.14	3,597.6	-75.2	106.8	130.6	4.00	4.00	0.00	
Start 1438.6 hold at 3616.4 MD										
3,700.0	24.66	125.14	3,673.5	-95.2	135.3	165.5	0.00	0.00	0.00	
3,800.0	24.66	125.14	3,764.4	-119.2	169.4	207.2	0.00	0.00	0.00	
3,900.0	24.66	125.14	3,855.3	-143.3	203.5	248.9	0.00	0.00	0.00	
4,000.0	24.66	125.14	3,946.2	-167.3	237.7	290.6	0.00	0.00	0.00	
4,100.0	24.66	125.14	4,037.1	-191.3	271.8	332.3	0.00	0.00	0.00	
4,200.0	24.66	125.14	4,127.9	-215.3	305.9	374.1	0.00	0.00	0.00	
4,300.0	24.66	125.14	4,218.8	-239.3	340.0	415.8	0.00	0.00	0.00	
4,400.0	24.66	125.14	4,309.7	-263.3	374.1	457.5	0.00	0.00	0.00	
4,500.0	24.66	125.14	4,400.6	-287.3	408.2	499.2	0.00	0.00	0.00	
4,600.0	24.66	125.14	4,491.5	-311.3	442.4	540.9	0.00	0.00	0.00	
4,700.0	24.66	125.14	4,582.3	-335.4	476.5	582.7	0.00	0.00	0.00	
4,800.0	24.66	125.14	4,673.2	-359.4	510.6	624.4	0.00	0.00	0.00	
4,900.0	24.66	125.14	4,764.1	-383.4	544.7	666.1	0.00	0.00	0.00	
4,946.0	24.66	125.14	4,805.9	-394.4	560.4	685.3	0.00	0.00	0.00	

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Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well EVGSAU 3315-507
Company:	CONOCOPHILLIPS	TVD Reference:	WELL @ 3966.0usft (Original Well Elev)
Project:	Lea County, NM (NAD27 NME)	MD Reference:	WELL @ 3966.0usft (Original Well Elev)
Site:	EAST VACUUM UNIT	North Reference:	Grid
Well:	EVGSAU 3315-507	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	4 degree per 100 plan		

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)
PBHL SCENARIO 3									
5,000.0	24.66	125.14	4,855.0	-407.4	578.8	707.8	0.00	0.00	0.00
5,055.0	24.66	125.14	4,905.0	-420.6	597.6	730.8	0.00	0.00	0.00
Start 132.0 hold at 5055.0 MD - TARGET @ 4905 TVD									
5,100.0	24.66	125.14	4,945.9	-431.4	612.9	749.5	0.00	0.00	0.00
5,164.1	24.66	125.14	5,004.1	-446.8	634.8	776.3	0.00	0.00	0.00
PBHL SCENARIO 1									
5,187.1	24.66	125.14	5,025.0	-452.3	642.6	785.9	0.00	0.00	0.00
TD at 5187.1									

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									
TARGET @ 4905 TVD	0.00	0.00	4,905.0	-420.6	597.6	652,369.00	768,803.00	32° 47' 25.433 N	103° 27' 31.103 W
- plan hits target center									
- Circle (radius 100.0)									

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
3,000.0	3,000.0	0.0	0.0	Start DLS 4.00 TFO 125.14
3,616.4	3,597.6	-75.2	106.8	Start 1438.6 hold at 3616.4 MD
5,055.0	4,905.0	-420.6	597.6	Start 132.0 hold at 5055.0 MD
5,187.1	5,025.0	-452.3	642.6	TD at 5187.1