

Submit 1 Copy To Appropriate District Office
District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised July 18, 2013

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO. 30-025-42060
5. Indicate Type of Lease STATE ☐ FEE ☒
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name GRAMMA RIDGE 14 24 34
8. Well Number #8H
9. OGRID Number 4323
10. Pool name or Wildcat RED HILLS; BONE SPRING NORTH
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3457' GL

SUNDRY NOTICES AND REPORTS ON WELLS NOV 14 2014
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐

2. Name of Operator
CHEVRON USA INC

3. Address of Operator
1616 W. BENDER BLVD HOBBS, NM 88240

4. Well Location
Unit Letter A : 330 feet from the NORTH line and 380 feet from the EAST line
Section 14 Township 24S Range 34E NMPM County LEA

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
3457' GL

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☐
CLOSED-LOOP SYSTEM ☐
OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐
OTHER: CHANGES TO ORIGINAL APD ☒

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

CHEVRON USA INC. HAS MADE CHANGES TO THE ORIGINAL APD APPROVED ON 08/24/2014. CHEVRON HAS CHANGED THE DRILLING PLAN TO INCLUDE A PILOT HOLE.
PLEASE FIND ATTACHED A NEW DRILLING PLAN; NEW WELLBORE DIAGRAM AND NEW DRILLING REPORT.

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Cindy Herrera-Murillo TITLE PERMITTING SPECIALIST DATE 11/11/2014

Type or print name CINDY HERRERA-MURILLO E-mail address: Cherreramurillo@chevron.com PHONE: 575-263-0431

For State Use Only

APPROVED BY: [Signature] TITLE Petroleum Engineer DATE 11/14/14

Conditions of Approval (if any):

NOV 14 2014

[Signature]

Type	Hole Size (in)	Casing Size (in)	Casing Weight (#s)	Setting Depth (ft)	Estimated TOC (ft)	Bottom of Cemented Interval (ft)	Sacks of Cement (sx)
Surface	17.5	13.375	54.5	1200	0 (Surface)	1200	1250
Intermediate	12.25	9.625	43.5	9100	0 (Surface)	9100	2995
Note: Intermediate Casing will be cemented in 2 stages, with a DV tool and external casing packer set at ~5200'.							
Pilot Hole	8.5	N/A	N/A	12263	See below	12263	175
Note: A pilot hole will be drilled to 12,200' . An open hole cemented whipstock will be utilized with 2-7/8" tail pipe to plug the pilot hole after evaluation. Tail pipe will be cemented in place from Pilot hole TD of ~12,156' to 50' above determined KOP							
Production	8.5	5.5	17	16533	8750	16533	1785



HOBBS OCD

NOV 14 2014

Project: Lea County, NM (NAD27 NME)
Site: Gramma Ridge 14 24 34
Well: 8H
Wellbore: WB2 Job #1412203
Design: Plan 1 07-25-14
Rig: Ensign 153

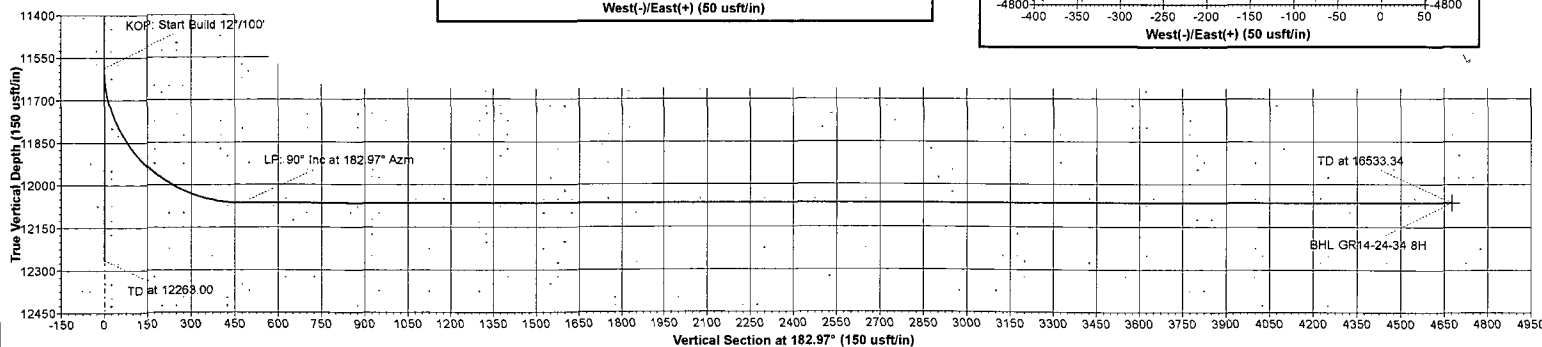
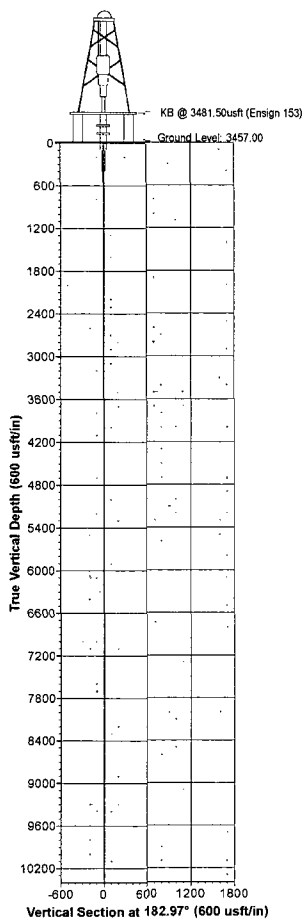


PHOENIX
TECHNOLOGY SERVICES



Azimuths to Grid North
True North: -0.48°
Magnetic North: 6.79°

Magnetic Field
Strength: 48251.35nT
Dip Angle: 60.12°
Date: 11/04/2014
Model: BGGM2014



RECEIVED

WELL DETAILS											
-N/-S			+E/-W			Northing			Ground Level: Easting		
0.00			0.00			446283.00			3457.00		
									Latitude		
									Longitude		
									103° 25' 58.64493 W		

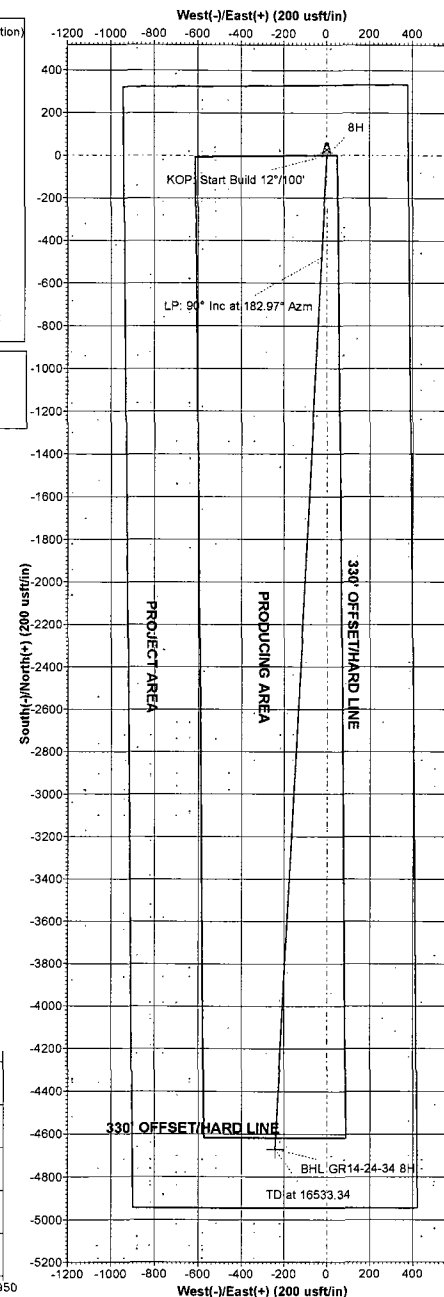
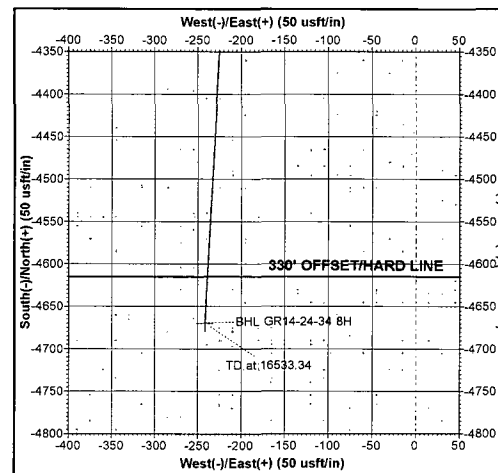
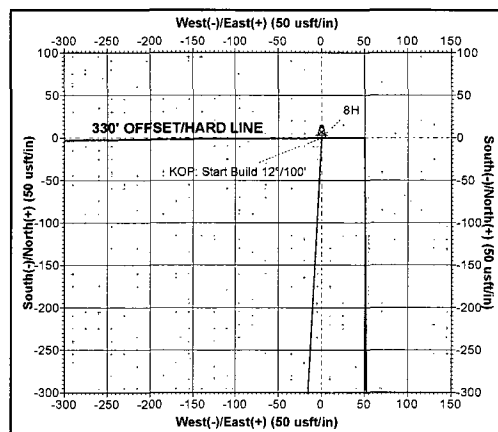
PILOT SECTION DETAILS											
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	12263.00	0.00	0.00	12263.00	0.00	0.00	0.00	0.00	0.00	0.00	TD at 12263.00

CURVE & LATERAL SECTION DETAILS											
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target	Annotation
1	11585.54	0.00	0.00	11565.54	0.00	0.00	0.00	0.00	0.00	0.00	KOP: Start Build 12°/100'
2	12335.54	90.00	182.97	12063.00	-476.83	-24.71	12.00	182.97	477.47		LP: 90° Inc at 182.97° Azm
3	16533.34	90.00	182.97	12063.00	-4669.00	-242.00	0.00	0.00	4675.27	BHL GR14-24-34 8H	TD at 16533.34

DESIGN TARGET DETAILS											
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude				
BHL GR14-24-34 8H	12063.00	-4669.00	-242.00	441614.00	778195.00	32° 12' 39.29069 N	103° 26' 1.91871 W				

LEGEND

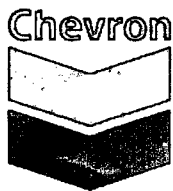
- 8H, WB1 Job #1412203, Plan 2 11-04-14 VO
- Plan 1 07-25-14



Map System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1858
Zone Name: New Mexico East 3001
Local Origin: Well 8H, Grid North
Latitude: 32° 13' 25.47118 N
Longitude: 103° 25' 58.64493 W
Grid East: 778437.00
Grid North: 446283.00
Scale Factor: 1.000
Geomagnetic Model: BGGM2014
Sample Date: 04-Nov-14
Magnetic Declination: 7.27°
Dip Angle from Horizontal: 60.12°
Magnetic Field Strength: 48251
To convert a Magnetic Direction to a Grid Direction, Add 6.79°
To convert a Magnetic Direction to a True Direction, Add 7.27° East
To convert a True Direction to a Grid Direction, Subtract 0.48°

FORMATION TOP DETAILS

No formation data is available



HOBBS OCD

NOV 14 2014

RECEIVED

Chevron

Lea County, NM (NAD27 NME)

Gramma Ridge 14 24 34

8H

WB2 Job #1412203

Plan: Plan 1 07-25-14

Standard Planning Report

04 November, 2014



PHOENIX
TECHNOLOGY SERVICES



Phoenix Technology Services Planning Report



Database:	Compass 5000 GCR epdm	Local Co-ordinate Reference:	Well 8H
Company:	Chevron	TVD Reference:	KB @ 3481.50usft (Ensign 153)
Project:	Lea County, NM (NAD27 NME)	MD Reference:	KB @ 3481.50usft (Ensign 153)
Site:	Gramma Ridge 14 24 34	North Reference:	Grid
Well:	8H	Survey Calculation Method:	Minimum Curvature
Wellbore:	WB2 Job #1412203		
Design:	Plan 1 07-25-14		

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	Gramma Ridge 14 24 34		
Site Position:		Northing:	446,243.20 usft
From:	Map	Easting:	773,870.90 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 13' 25.45288 N
		Longitude:	103° 26' 51.79837 W
		Grid Convergence:	0.47 °

Well	8H		
Well Position	+N/-S	39.80 usft	Northing:
	+E/-W	4,566.10 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	
		Latitude:	32° 13' 25.47118 N
		Longitude:	103° 25' 58.64493 W
		Ground Level:	3,457.00 usft

Wellbore	WB2 Job #1412203				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	BGGM2014	11/04/14	7.27	60.12	48,251

Design	Plan 1 07-25-14			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	11,585.54
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	182.97

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)		
11,585.54	0.00	0.00	11,585.54	0.00	0.00	0.00	0.00	0.00	0.00	
12,335.54	90.00	182.97	12,063.01	-476.83	-24.71	12.00	12.00	-23.60	182.97	
16,533.34	90.00	182.97	12,063.00	-4,669.00	-242.00	0.00	0.00	0.00	0.00	BHL GR14-24-34 8H



Phoenix Technology Services

Planning Report



Database: Compass 5000 GCR epdm
Company: Chevron
Project: Lea County, NM (NAD27 NME)
Site: Gramma Ridge 14 24 34
Well: 8H
Wellbore: WB2 Job #1412203
Design: Plan 1 07-25-14

Local Co-ordinate Reference: Well 8H
TVD Reference: KB @ 3481.50usft (Ensign 153)
MD Reference: KB @ 3481.50usft (Ensign 153)
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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00



Phoenix Technology Services Planning Report



Database: Compass 5000 GCR epdm
Company: Chevron
Project: Lea County, NM (NAD27 NME)
Site: Gramma Ridge 14 24 34
Well: 8H
Wellbore: WB2 Job #1412203
Design: Plan 1 07-25-14

Local Co-ordinate Reference: Well 8H
TVD Reference: KB @ 3481.50usft (Ensign 153)
MD Reference: KB @ 3481.50usft (Ensign 153)
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)
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	0.00	0.00
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.00	0.00	0.00
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.00	0.00	0.00
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.00	0.00	0.00
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.00	0.00	0.00
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.00	0.00	0.00
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.00	0.00	0.00
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	0.00	0.00
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.00	0.00	0.00
8,700.00	0.00	0.00	8,700.00	0.00	0.00	0.00	0.00	0.00	0.00
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.00	0.00	0.00
8,900.00	0.00	0.00	8,900.00	0.00	0.00	0.00	0.00	0.00	0.00
9,000.00	0.00	0.00	9,000.00	0.00	0.00	0.00	0.00	0.00	0.00
9,100.00	0.00	0.00	9,100.00	0.00	0.00	0.00	0.00	0.00	0.00
9,200.00	0.00	0.00	9,200.00	0.00	0.00	0.00	0.00	0.00	0.00
9,300.00	0.00	0.00	9,300.00	0.00	0.00	0.00	0.00	0.00	0.00
9,400.00	0.00	0.00	9,400.00	0.00	0.00	0.00	0.00	0.00	0.00
9,500.00	0.00	0.00	9,500.00	0.00	0.00	0.00	0.00	0.00	0.00
9,600.00	0.00	0.00	9,600.00	0.00	0.00	0.00	0.00	0.00	0.00
9,700.00	0.00	0.00	9,700.00	0.00	0.00	0.00	0.00	0.00	0.00
9,800.00	0.00	0.00	9,800.00	0.00	0.00	0.00	0.00	0.00	0.00
9,900.00	0.00	0.00	9,900.00	0.00	0.00	0.00	0.00	0.00	0.00
10,000.00	0.00	0.00	10,000.00	0.00	0.00	0.00	0.00	0.00	0.00
10,100.00	0.00	0.00	10,100.00	0.00	0.00	0.00	0.00	0.00	0.00
10,200.00	0.00	0.00	10,200.00	0.00	0.00	0.00	0.00	0.00	0.00
10,300.00	0.00	0.00	10,300.00	0.00	0.00	0.00	0.00	0.00	0.00
10,400.00	0.00	0.00	10,400.00	0.00	0.00	0.00	0.00	0.00	0.00
10,500.00	0.00	0.00	10,500.00	0.00	0.00	0.00	0.00	0.00	0.00
10,600.00	0.00	0.00	10,600.00	0.00	0.00	0.00	0.00	0.00	0.00
10,700.00	0.00	0.00	10,700.00	0.00	0.00	0.00	0.00	0.00	0.00



Phoenix Technology Services

Planning Report



Database: Compass 5000 GCR epdm
 Company: Chevron
 Project: Lea County, NM (NAD27 NME)
 Site: Gramma Ridge 14 24 34
 Well: 8H
 Wellbore: WB2 Job #1412203
 Design: Plan 1 07-25-14

Local Co-ordinate Reference: Well 8H
 TVD Reference: KB @ 3481.50usft (Ensign 153)
 MD Reference: KB @ 3481.50usft (Ensign 153)
 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)
10,800.00	0.00	0.00	10,800.00	0.00	0.00	0.00	0.00	0.00	0.00
10,900.00	0.00	0.00	10,900.00	0.00	0.00	0.00	0.00	0.00	0.00
11,000.00	0.00	0.00	11,000.00	0.00	0.00	0.00	0.00	0.00	0.00
11,100.00	0.00	0.00	11,100.00	0.00	0.00	0.00	0.00	0.00	0.00
11,200.00	0.00	0.00	11,200.00	0.00	0.00	0.00	0.00	0.00	0.00
11,300.00	0.00	0.00	11,300.00	0.00	0.00	0.00	0.00	0.00	0.00
11,400.00	0.00	0.00	11,400.00	0.00	0.00	0.00	0.00	0.00	0.00
11,500.00	0.00	0.00	11,500.00	0.00	0.00	0.00	0.00	0.00	0.00
11,585.54	0.00	0.00	11,585.54	0.00	0.00	0.00	0.00	0.00	0.00
KOP: Start Build 12°/100'									
11,600.00	1.74	182.97	11,600.00	-0.22	-0.01	0.22	12.00	12.00	0.00
11,625.00	4.74	182.97	11,624.96	-1.63	-0.08	1.63	12.00	12.00	0.00
11,650.00	7.74	182.97	11,649.80	-4.34	-0.22	4.34	12.00	12.00	0.00
11,675.00	10.74	182.97	11,674.48	-8.35	-0.43	8.36	12.00	12.00	0.00
11,700.00	13.74	182.97	11,698.91	-13.64	-0.71	13.65	12.00	12.00	0.00
11,725.00	16.74	182.97	11,723.03	-20.20	-1.05	20.22	12.00	12.00	0.00
11,750.00	19.74	182.97	11,746.77	-28.01	-1.45	28.04	12.00	12.00	0.00
11,775.00	22.74	182.97	11,770.07	-37.05	-1.92	37.10	12.00	12.00	0.00
11,800.00	25.74	182.97	11,792.86	-47.30	-2.45	47.36	12.00	12.00	0.00
11,825.00	28.74	182.97	11,815.09	-58.72	-3.04	58.80	12.00	12.00	0.00
11,850.00	31.74	182.97	11,836.68	-71.29	-3.70	71.39	12.00	12.00	0.00
11,875.00	34.74	182.97	11,857.59	-84.97	-4.40	85.09	12.00	12.00	0.00
11,900.00	37.74	182.97	11,877.75	-99.73	-5.17	99.86	12.00	12.00	0.00
11,925.00	40.74	182.97	11,897.12	-115.52	-5.99	115.67	12.00	12.00	0.00
11,950.00	43.74	182.97	11,915.62	-132.30	-6.86	132.48	12.00	12.00	0.00
11,975.00	46.74	182.97	11,933.23	-150.02	-7.78	150.22	12.00	12.00	0.00
12,000.00	49.74	182.97	11,949.88	-168.64	-8.74	168.87	12.00	12.00	0.00
12,025.00	52.74	182.97	11,965.53	-188.11	-9.75	188.36	12.00	12.00	0.00
12,050.00	55.74	182.97	11,980.14	-208.36	-10.80	208.64	12.00	12.00	0.00
12,075.00	58.74	182.97	11,993.67	-229.36	-11.89	229.66	12.00	12.00	0.00
12,100.00	61.74	182.97	12,006.08	-251.03	-13.01	251.36	12.00	12.00	0.00
12,125.00	64.74	182.97	12,017.33	-273.31	-14.17	273.68	12.00	12.00	0.00
12,150.00	67.74	182.97	12,027.41	-296.16	-15.35	296.56	12.00	12.00	0.00
12,175.00	70.74	182.97	12,036.27	-319.50	-16.56	319.93	12.00	12.00	0.00
12,200.00	73.74	182.97	12,043.90	-343.28	-17.79	343.74	12.00	12.00	0.00
12,225.00	76.74	182.97	12,050.27	-367.42	-19.04	367.91	12.00	12.00	0.00
12,250.00	79.74	182.97	12,055.36	-391.86	-20.31	392.38	12.00	12.00	0.00
12,275.00	82.74	182.97	12,059.17	-416.53	-21.59	417.09	12.00	12.00	0.00
12,300.00	85.74	182.97	12,061.68	-441.37	-22.88	441.96	12.00	12.00	0.00
12,325.00	88.74	182.97	12,062.89	-466.30	-24.17	466.93	12.00	12.00	0.00
12,335.54	90.00	182.97	12,063.01	-476.83	-24.71	477.47	12.00	12.00	0.00
LP: 90° Inc at 182.97° Azm									
12,400.00	90.00	182.97	12,063.01	-541.20	-28.05	541.92	0.00	0.00	0.00
12,500.00	90.00	182.97	12,063.00	-641.06	-33.23	641.92	0.00	0.00	0.00
12,600.00	90.00	182.97	12,063.00	-740.93	-38.40	741.92	0.00	0.00	0.00
12,700.00	90.00	182.97	12,063.00	-840.80	-43.58	841.92	0.00	0.00	0.00
12,800.00	90.00	182.97	12,063.00	-940.66	-48.76	941.92	0.00	0.00	0.00
12,900.00	90.00	182.97	12,063.00	-1,040.53	-53.93	1,041.92	0.00	0.00	0.00
13,000.00	90.00	182.97	12,063.00	-1,140.39	-59.11	1,141.92	0.00	0.00	0.00
13,100.00	90.00	182.97	12,063.00	-1,240.26	-64.28	1,241.92	0.00	0.00	0.00
13,200.00	90.00	182.97	12,063.00	-1,340.13	-69.46	1,341.92	0.00	0.00	0.00
13,300.00	90.00	182.97	12,063.00	-1,439.99	-74.64	1,441.92	0.00	0.00	0.00
13,400.00	90.00	182.97	12,063.00	-1,539.86	-79.81	1,541.92	0.00	0.00	0.00
13,500.00	90.00	182.97	12,063.00	-1,639.72	-84.99	1,641.92	0.00	0.00	0.00



Phoenix Technology Services

Planning Report



Database: Compass 5000 GCR epdm
 Company: Chevron
 Project: Lea County, NM (NAD27 NME)
 Site: Gramma Ridge 14 24 34
 Well: 8H
 Wellbore: WB2 Job #1412203
 Design: Plan 1 07-25-14

Local Co-ordinate Reference: Well 8H
 TVD Reference: KB @ 3481.50usft (Ensign 153)
 MD Reference: KB @ 3481.50usft (Ensign 153)
 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)
13,600.00	90.00	182.97	12,063.00	-1,739.59	-90.17	1,741.92	0.00	0.00	0.00
13,700.00	90.00	182.97	12,063.00	-1,839.46	-95.34	1,841.92	0.00	0.00	0.00
13,800.00	90.00	182.97	12,063.00	-1,939.32	-100.52	1,941.92	0.00	0.00	0.00
13,900.00	90.00	182.97	12,063.00	-2,039.19	-105.69	2,041.92	0.00	0.00	0.00
14,000.00	90.00	182.97	12,063.00	-2,139.05	-110.87	2,141.92	0.00	0.00	0.00
14,100.00	90.00	182.97	12,063.00	-2,238.92	-116.05	2,241.92	0.00	0.00	0.00
14,200.00	90.00	182.97	12,063.00	-2,338.79	-121.22	2,341.92	0.00	0.00	0.00
14,300.00	90.00	182.97	12,063.00	-2,438.65	-126.40	2,441.92	0.00	0.00	0.00
14,400.00	90.00	182.97	12,063.00	-2,538.52	-131.57	2,541.92	0.00	0.00	0.00
14,500.00	90.00	182.97	12,063.00	-2,638.38	-136.75	2,641.92	0.00	0.00	0.00
14,600.00	90.00	182.97	12,063.00	-2,738.25	-141.93	2,741.92	0.00	0.00	0.00
14,700.00	90.00	182.97	12,063.00	-2,838.12	-147.10	2,841.92	0.00	0.00	0.00
14,800.00	90.00	182.97	12,063.00	-2,937.98	-152.28	2,941.92	0.00	0.00	0.00
14,900.00	90.00	182.97	12,063.00	-3,037.85	-157.46	3,041.92	0.00	0.00	0.00
15,000.00	90.00	182.97	12,063.00	-3,137.71	-162.63	3,141.92	0.00	0.00	0.00
15,100.00	90.00	182.97	12,063.00	-3,237.58	-167.81	3,241.92	0.00	0.00	0.00
15,200.00	90.00	182.97	12,063.00	-3,337.44	-172.98	3,341.92	0.00	0.00	0.00
15,300.00	90.00	182.97	12,063.00	-3,437.31	-178.16	3,441.92	0.00	0.00	0.00
15,400.00	90.00	182.97	12,063.00	-3,537.18	-183.34	3,541.92	0.00	0.00	0.00
15,500.00	90.00	182.97	12,063.00	-3,637.04	-188.51	3,641.92	0.00	0.00	0.00
15,600.00	90.00	182.97	12,063.00	-3,736.91	-193.69	3,741.92	0.00	0.00	0.00
15,700.00	90.00	182.97	12,063.00	-3,836.77	-198.86	3,841.92	0.00	0.00	0.00
15,800.00	90.00	182.97	12,063.00	-3,936.64	-204.04	3,941.92	0.00	0.00	0.00
15,900.00	90.00	182.97	12,063.00	-4,036.51	-209.22	4,041.92	0.00	0.00	0.00
16,000.00	90.00	182.97	12,063.00	-4,136.37	-214.39	4,141.92	0.00	0.00	0.00
16,100.00	90.00	182.97	12,063.00	-4,236.24	-219.57	4,241.92	0.00	0.00	0.00
16,200.00	90.00	182.97	12,063.00	-4,336.10	-224.75	4,341.92	0.00	0.00	0.00
16,300.00	90.00	182.97	12,063.00	-4,435.97	-229.92	4,441.92	0.00	0.00	0.00
16,400.00	90.00	182.97	12,063.00	-4,535.84	-235.10	4,541.92	0.00	0.00	0.00
16,500.00	90.00	182.97	12,063.00	-4,635.70	-240.27	4,641.92	0.00	0.00	0.00
16,533.34	90.00	182.97	12,063.00	-4,669.00	-242.00	4,675.27	0.00	0.00	0.00

TD at 16533.34

Design Targets

Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
BHL GR14-24-34 8H - plan hits target center - Point	0.00	0.01	12,063.00	-4,669.00	-242.00	441,614.00	778,195.00	32° 12' 39.29089 N	103° 26' 1.91671 W

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
11,585.54	11,585.54	0.00	0.00	KOP: Start Build 12°/100'
12,335.54	12,063.01	-476.83	-24.71	LP: 90° Inc at 182.97° Azm
16,533.34	12,063.00	-4,669.00	-242.00	TD at 16533.34