



PHOENIX
TECHNOLOGY SERVICES

RECEIVED

MAY 05 2014

NMOCD ARTESIA

April 30, 2014

Oil Conservation Division
State of New Mexico
811 S. First St.
Artesia, New Mexico 88210

Dear District 2 - Artesia

Re: Chevron North America Exploration and Production Mid-Continent Business Unit
Hayhurst 18 State 2H
Eddy, NM
API #30-015-41121
Job No. 1410534

Enclosed please find the Survey Data Certification, and the original Plat and one copy of the Survey Report performed on the above referenced Well by Phoenix Technology Services, Inc. (P-5 No. 606018). Other information required by your office is as follows:

Name & Title of Surveyor	Drainhole Number	Surveyed Depths		Dates Performed		Type of Survey
		From	To	Start	End	
Zach Barnstein	2H	5,771	7,882	04/04/14	04/10/14	MWD

A certified plat on which the bottom hole location is oriented both to the surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Best Regards,

Dana Robinson

Dana Robinson
Operations Administrator

Certified mail receipt number: 7011 1570 0001 4365 1851

Phoenix Technology Services SURVEY DATA CERTIFICATION



PHOENIX JOB NUMBER 1410534

OPERATOR Chevron

WELL NAME Hayhurst 16 State 2H

COUNTY & STATE Eddy, NM

API WELL NUMBER 30-015-41121

PROPOSED DIRECTION 0

TIE-IN DATA						
MEASURED	VERTICAL			N-S	E-W	DATA
DEPTH	DEPTH	INCLIN	AZIMUTH	COORD	COORD	SOURCE
5687 ft	5686.85 ft	6 ft	248 ft	.78 ft	3.88 ft	Gyro

FIRST	FIRST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
4-Apr-14	5,771 ft	0.5	233.6

SURVEY INSTRUMENT
TYPE
Phoenix MWD

LAST	LAST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
10-Apr-14	7,882 ft	2.4	292.6

TO THE BEST OF MY KNOWLEDGE I
CERTIFY THIS SURVEY DATA TO BE
TRUE AND CORRECT.

PROJECTED	PROJECTED		
TD SURVEY	TD SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
10-Apr-14	7,940 ft	2.4	292.6

Zach Bartenstein

PRINT YOUR NAME ABOVE

Zach Bartenstein

SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	
7.52	
DECLINATION OR GRID	DECLINATION

4/10/2014

TODAY'S DATE

MWD SUPERVISOR 1 Zach Bartenstein
MWD SUPERVISOR 2 Conley Norris

DIRECTIONAL DRILLER 1 Carl Oetken
DIRECTIONAL DRILLER 2 0

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, NM 87505

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

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-015-41121	2. Pool Code 97816	3. Pool Name WILDCAT G-02 S2527 15A, BONE SPRING
4. Property Code 39726	5. Property Name HAYHURST 16 25 27 STATE	6. Well Number 2H
7. COORD. No. 4323	8. Operator Name CHEVRON U.S.A. INC.	9. Elevation 3200'

10. Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	16	25 SOUTH	27 EAST, N.M.P.M.		175'	NORTH	1733'	EAST	EDDY

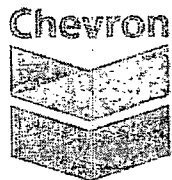
11. Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	16	25 SOUTH	27 EAST, N.M.P.M.		250'	SOUTH	1733'	EAST	EDDY

12. Dedicated Acres 2.60	13. Joint or Infill	14. Consolidation Code	15. Order No.
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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.

HAYHURST 16 25 27 STATE 2H WELL X= 543,787 NAD 27 Y= 413,517 LAT. 32.136797 LONG. 104.191871 X= 584,971 NAD 83 Y= 413,575 LAT. 32.136918 LONG. 104.192366 ELEVATION 3200' NAVD 88	Proposed Penetration Point 330' FNL & 1733' FEL	17. OPERATOR CERTIFICATION
PROPOSED BOTTOM HOLE LOCATION X= 543,810 NAD 27 Y= 408,654 LAT. 32.123427 LONG. 104.191818 X= 504,893 NAD 83 Y= 408,712 LAT. 32.123549 LONG. 104.192313	Project Area Producing Area	I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided 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 a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the state. <i>Bryan Arrant</i> 4/14/2013 Signature Date Bryan Arrant (Agent for Chevron) Printed Name bryan.arrant@che.com E-mail Address
		18. 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. 4-18-13 Date of Survey <i>Wm J. Daniel III</i> Signature and Seal of a Professional Surveyor WM J. DANIEL III NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR 15078 15078 Certificate Number



Chevron

Eddy County NM (NAD27 NME)

Hayhurst 16-25-27 State

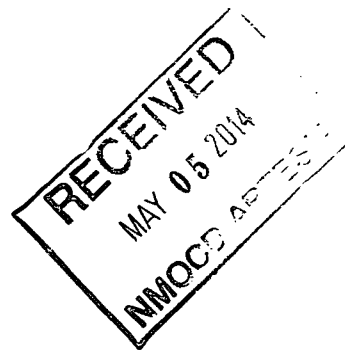
#2H

WB1/Job #1410534

Survey: Phoenix MWD Surveys

Survey Report

24 April, 2014



PHOENIX
TECHNOLOGY SERVICES



Survey Report



Company: Chevron
Project: Eddy County NM (NAD27 NME)
Site: Hayhurst 16-25-27 State
Well: #2H
Wellbore: WB1/Job #1410534
Design: Surveys (Ensign 767)

Local Co-ordinate Reference: Well #2H
TVD Reference: KB @ 3231.00usft (Ensign 767)
MD Reference: KB @ 3231.00usft (Ensign 767)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: GCR DB v5000

Project: Eddy County NM (NAD27 NME)

Map System: US State Plane 1927 (Exact solution)
Geo Datum: NAD 1927 (NADCON CONUS)
Map Zone: New Mexico East 3001

System Datum: Mean Sea Level

Site: Hayhurst 16-25-27 State

Site Position:	From:	Map	Northing:	413,517.00 usft	Latitude:	32° 8' 12.46493 N
			Easting:	543,787.00 usft	Longitude:	104° 11' 30.73979 W
Position Uncertainty:		0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.08 °

Well: #2H, 175' FNL & 1733' FNL

Well Position	+N-S	0.00 usft	Northing:	413,517.00 usft	Latitude:	32° 8' 12.46493 N
	+E-W	0.00 usft	Easting:	543,787.00 usft	Longitude:	104° 11' 30.73979 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,200.00 usft

Wellbore: WB1/Job #1410534

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010_14	03/29/14	7.52	59.93	48,219

Design: Surveys (Ensign 767)

Audit Notes:

Version: 1.0 Phase: ACTUAL Tie On Depth: 0.00

Vertical Section:	Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (°)
	0.00	0.00	0.00	0.00

Survey Program Date 04/24/14

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
5,771.00	7,940.00	Phoenix MWD Surveys (WB1/Job #14105	MWD	MWD - Standard



Survey Report



Company: Chevron
Project: Eddy County NM (NAD27 NME)
Site: Hayhurst 16-25-27 State
Well: #2H
Wellbore: WB1/Job #1410534
Design: Surveys (Ensign 767)

Local Co-ordinate Reference: Well #2H
TVD Reference: KB @ 3231.00usft (Ensign 767)
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North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: GCR DB v5000

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
5,687.00	0.60	248.00	2,455.85	5,686.85	0.78	3.88	0.78	0.00	413,517.78	543,790.88	
Tie In to MultiShot											
5,771.00	0.50	233.60	2,539.85	5,770.85	0.40	3.18	0.40	0.20	413,517.40	543,790.18	
First Phoenix MWD Survey											
5,898.00	0.90	197.90	2,666.84	5,897.84	-0.88	2.42	-0.88	0.45	413,516.12	543,789.42	
6,087.00	1.70	242.10	2,855.79	6,086.79	-3.60	-0.51	-3.60	0.65	413,513.40	543,786.49	
6,277.00	1.80	328.80	3,045.73	6,276.73	-2.37	-4.55	-2.37	1.26	413,514.63	543,782.45	
6,467.00	1.70	313.60	3,235.64	6,466.64	2.13	-8.13	2.13	0.25	413,519.13	543,778.87	
6,657.00	2.30	286.00	3,425.53	6,656.53	5.12	-13.84	5.12	0.59	413,522.12	543,773.16	
6,683.00	2.80	290.00	3,451.50	6,682.50	5.48	-14.94	5.48	2.04	413,522.48	543,772.06	
6,845.00	2.30	318.70	3,613.35	6,844.35	9.28	-20.80	9.28	0.84	413,526.28	543,766.20	
7,038.00	0.90	338.30	3,806.27	7,037.27	13.59	-23.92	13.59	0.77	413,530.59	543,763.08	
7,229.00	0.40	166.90	3,997.27	7,228.27	14.34	-24.32	14.34	0.68	413,531.34	543,762.68	
7,419.00	1.00	349.00	4,187.26	7,418.26	15.32	-24.49	15.32	0.74	413,532.32	543,762.51	
7,609.00	1.10	354.90	4,377.23	7,608.23	18.76	-24.97	18.76	0.08	413,535.76	543,762.03	
7,799.00	2.30	299.40	4,567.15	7,798.15	22.45	-28.45	22.45	1.00	413,539.45	543,758.55	
7,882.00	2.40	292.60	4,650.08	7,881.08	23.94	-31.51	23.94	0.36	413,540.94	543,755.49	
Final Phoenix MWD Survey											
7,940.00	2.40	292.60	4,708.03	7,939.03	24.87	-33.75	24.87	0.00	413,541.87	543,753.25	
Projection to TD											



Survey Report



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Wellbore: WB1/Job #1410534
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MD Reference: KB @ 3231.00usft (Ensign 767)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: GCR DB v5000

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Comment
5,687.00	5,686.85	0.78	3.88	Tie In to MultiShot
5,771.00	5,770.85	0.40	3.18	First Phoenix MWD Survey
7,882.00	7,881.08	23.94	-31.51	Final Phoenix MWD Survey
7,940.00	7,939.03	24.87	-33.75	Projection to TD