

Phoenix Technology Services SURVEY DATA CERTIFICATION



PHOENIX JOB NUMBER

1610092

OPERATOR

Chevron

WELL NAME

SD EA 19FED P6 7H - OH

COUNTY & STATE

Lea County, NM

API WELL NUMBER

30-025-42799

PROPOSED DIRECTION

171.01

TIE-IN DATA

MEASURED DEPTH	VERTICAL DEPTH	INCLIN	AZIMUTH	N-S COORD	E-W COORD	DATA SOURCE
850.01 ft	849.86 ft	0.9°	72.4°	9.23 N	9.17 E	Well Benders

FIRST SURVEY DATE	FIRST SURVEY DEPTH	INCLIN	AZIMUTH
4-Feb	1,050 ft	0.3°	135.3°

SURVEY INSTRUMENT

TYPE

Phoenix MWD

LAST SURVEY DATE	LAST SURVEY DEPTH	INCLIN	AZIMUTH
11-Feb-16	9,296 ft	51.5°	176.9°

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

PROJECTED TD SURVEY DATE	PROJECTED TD SURVEY DEPTH	INCLIN	AZIMUTH
11-Feb-16	9,348 ft	56.1°	176.9°

Robert Brewer

PRINT YOUR NAME ABOVE

Robert Brewer

SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	6.60°
DECLINATION OR GRID	GRID

2/11/2016

TODAY'S DATE

MWD SUPERVISOR 1

Robert Brewer

DIRECTIONAL DRILLER 1

Casey Tubbe

MWD SUPERVISOR 2

Michael Johnson

DIRECTIONAL DRILLER 2

Brennan Duke

12329 Cutten Rd., Houston, Texas 77066 (713)337-0600 (Voice), (713)337-0599 (Fax)



Chevron

Lea County, NM (NAD27 NME)

SD EA 19 Fed

P6 7H

OH / Job 1610092

Survey: Phoenix MWD Surveys

Standard Survey Report

20 February, 2016





Phoenix Technology Services Survey Report



Company: Chevron
Project: Lea County, NM (NAD27 NME)
Site: SD EA 19 Fed
Well: P6 7H
Wellbore: OH / Job 1610092
Design: Surveys (Pace X30)

Local Co-ordinate Reference: Well P6 7H
TVD Reference: RKB @ 3233.00usft (Pace X30)
MD Reference: RKB @ 3233.00usft (Pace X30)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Compass 5000 GCR

Project Lea 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 SD EA 19 Fed

Site Position: Northing: 377,402.00 usft Latitude: 32° 2' 7.86475 N
From: Map Easting: 724,767.00 usft Longitude: 103° 36' 28.78145 W
Position Uncertainty: 0.00 usft Slot Radius: 13-3/16 " Grid Convergence: 0.38 "

Well P6 7H

Well Position +N-S 0.00 usft Northing: 377,442.00 usft Latitude: 32° 2' 8.25853 N
+E-W 0.00 usft Easting: 724,798.00 usft Longitude: 103° 36' 28.41821 W
Position Uncertainty 0.00 usft Wellhead Elevation: 0.00 usft Ground Level: 3,206.00 usft

Wellbore OH / Job 1610092

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	1/27/2016	6.98	59.77	48,056

Design Surveys (Pace X30)

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	171.01

Survey Program Date 2/18/2016

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
183.00	850.00	Wellbenders MWD Surveys (OH / Job 161	MWD	MWD - Standard
1,050.00	9,348.00	Phoenix MWD Surveys (OH / Job 1610092	PHX+MWD+HDGM	PHX+OWSG MWD + HDGM

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)
850.00	0.90	72.40	849.85	9.23	9.17	-7.69	0.00	0.00	0.00
850.01	0.90	72.40	849.86	9.23	9.17	-7.69	0.00	0.00	0.00
Tie-in to Wellbenders Surveys									
1,050.00	0.30	135.30	1,049.84	9.34	11.04	-7.50	0.40	-0.30	31.45
First Phoenix Survey									
1,232.00	0.40	163.40	1,231.84	8.39	11.55	-6.48	0.11	0.05	15.44
1,409.00	0.30	148.30	1,408.84	7.40	11.97	-5.44	0.08	-0.06	-8.53
1,587.00	0.30	137.80	1,586.83	6.66	12.53	-4.62	0.03	0.00	-5.90
1,764.00	0.40	137.90	1,763.83	5.86	13.26	-3.72	0.06	0.06	0.06



Phoenix Technology Services

Survey Report



Company: Chevron
 Project: Lea County, NM (NAD27 NME)
 Site: SD EA 19 Fed
 Well: P6 7H
 Wellbore: OH / Job 1610092
 Design: Surveys (Pace X30)

Local Co-ordinate Reference: Well P6 7H
 TVD Reference: RKB @ 3233.00usft (Pace X30)
 MD Reference: RKB @ 3233.00usft (Pace X30)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: Compass 5000 GCR

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)
1,941.00	0.30	113.20	1,940.83	5.22	14.10	-2.95	0.10	-0.06	-13.95
2,118.00	0.50	104.70	2,117.82	4.84	15.27	-2.39	0.12	0.11	-4.80
2,296.00	0.30	120.50	2,295.82	4.41	16.42	-1.79	0.13	-0.11	8.88
2,473.00	2.60	100.30	2,472.75	3.45	20.77	-0.16	1.31	1.30	-11.41
2,650.00	7.50	92.00	2,649.01	2.33	36.28	3.37	2.79	2.77	-4.69
2,827.00	6.90	92.90	2,824.61	1.39	58.44	7.76	0.34	-0.34	0.51
3,005.00	6.60	89.60	3,001.38	0.92	79.35	11.49	0.28	-0.17	-1.85
3,182.00	6.60	87.30	3,177.21	1.47	99.68	14.12	0.15	0.00	-1.30
3,359.00	7.60	87.00	3,352.85	2.56	121.53	16.46	0.57	0.56	-0.17
3,536.00	8.40	91.90	3,528.13	2.75	146.14	20.12	0.59	0.45	2.77
3,713.00	8.40	93.60	3,703.23	1.51	171.96	25.38	0.14	0.00	0.96
3,891.00	6.90	99.80	3,879.64	-1.13	195.48	31.66	0.96	-0.84	3.48
4,068.00	4.80	104.20	4,055.71	-4.76	213.14	38.00	1.21	-1.19	2.49
4,246.00	5.50	104.20	4,232.99	-8.68	228.63	44.30	0.39	0.39	0.00
4,423.00	6.80	104.30	4,408.97	-13.35	247.00	51.78	0.73	0.73	0.06
4,601.00	5.40	107.20	4,585.96	-18.43	265.22	59.64	0.81	-0.79	1.63
4,650.00	4.80	104.90	4,634.76	-19.63	269.40	61.49	1.29	-1.22	-4.69
4,793.00	4.20	103.70	4,777.32	-22.41	280.27	65.93	0.42	-0.42	-0.84
4,971.00	3.30	85.40	4,954.94	-23.55	291.71	68.84	0.84	-0.51	-10.28
5,149.00	3.30	86.80	5,132.65	-22.85	301.93	69.75	0.05	0.00	0.79
5,327.00	4.60	87.20	5,310.22	-22.21	314.18	71.04	0.73	0.73	0.22
5,505.00	5.60	84.40	5,487.52	-21.02	329.95	72.32	0.58	0.56	-1.57
5,684.00	5.70	81.10	5,665.65	-18.79	347.42	72.85	0.19	0.06	-1.84
5,862.00	4.80	80.30	5,842.90	-16.17	363.50	72.77	0.51	-0.51	-0.45
6,040.00	5.90	82.40	6,020.12	-13.70	379.91	72.90	0.63	0.62	1.18
6,219.00	5.50	79.70	6,198.24	-10.95	397.47	72.93	0.27	-0.22	-1.51
6,397.00	6.00	93.10	6,375.35	-9.93	415.15	74.68	0.80	0.28	7.53
6,574.00	6.10	95.10	6,551.36	-11.27	433.76	78.91	0.13	0.06	1.13
6,752.00	5.60	92.40	6,728.43	-12.47	451.85	82.93	0.32	-0.28	-1.52
6,929.00	6.20	90.50	6,904.50	-12.92	470.04	86.21	0.36	0.34	-1.07
7,106.00	5.70	94.90	7,080.54	-13.75	488.35	89.89	0.38	-0.28	2.49
7,283.00	5.50	96.40	7,256.70	-15.45	505.54	94.25	0.14	-0.11	0.85
7,461.00	6.60	88.60	7,433.71	-16.15	524.25	97.87	0.77	0.62	-4.38
7,638.00	5.60	88.80	7,609.70	-15.72	543.05	100.38	0.57	-0.56	0.11
7,816.00	5.40	88.70	7,786.88	-15.35	560.11	102.68	0.11	-0.11	-0.06
7,993.00	5.90	90.40	7,963.02	-15.22	577.53	105.28	0.30	0.28	0.96
8,170.00	6.10	97.60	8,139.06	-16.53	595.95	109.45	0.44	0.11	4.07
8,348.00	5.20	94.50	8,316.19	-18.41	613.36	114.03	0.53	-0.51	-1.74
8,526.00	6.80	86.80	8,493.21	-18.46	631.93	116.98	1.00	0.90	-4.33
8,722.00	5.80	82.40	8,688.03	-16.50	653.33	118.39	0.57	-0.51	-2.24
8,763.00	5.50	84.20	8,728.83	-16.03	657.34	118.55	0.85	-0.73	4.39
8,807.00	7.30	113.40	8,772.56	-16.92	662.01	120.16	8.32	4.09	66.36
8,852.00	11.40	135.80	8,816.97	-21.25	667.73	125.33	12.02	9.11	49.78



Phoenix Technology Services
Survey Report



Company: Chevron
Project: Lea County, NM (NAD27 NME)
Site: SD EA 19 Fed
Well: P6 7H
Wellbore: OH / Job 1610092
Design: Surveys (Pace X30)

Local Co-ordinate Reference: Well P6 7H
TVD Reference: RKB @ 3233.00usft (Pace X30)
MD Reference: RKB @ 3233.00usft (Pace X30)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Compass 5000 GCR

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)
8,896.00	16.60	143.60	8,859.65	-29.43	674.50	134.47	12.55	11.82	17.73
8,940.00	21.70	147.00	8,901.20	-41.32	682.67	147.49	11.86	11.59	7.73
8,985.00	25.80	154.60	8,942.39	-57.16	691.40	164.50	11.35	9.11	16.89
9,029.00	28.20	158.90	8,981.60	-75.51	699.25	183.85	7.03	5.45	9.77
9,074.00	30.90	165.40	9,020.75	-96.62	706.00	205.75	9.31	6.00	14.44
9,118.00	33.80	168.00	9,057.92	-119.53	711.39	229.23	7.31	6.59	5.91
9,163.00	38.10	170.30	9,094.34	-145.47	716.34	255.62	10.01	9.56	5.11
9,207.00	42.60	172.80	9,127.87	-173.64	720.49	284.10	10.87	10.23	5.68
9,251.00	47.80	174.90	9,158.86	-204.67	723.81	315.26	12.29	11.82	4.77
9,296.00	51.50	176.90	9,188.00	-238.87	726.24	349.42	8.89	8.22	4.44
9,348.00	56.10	176.90	9,218.70	-280.76	728.51	391.15	8.85	8.85	0.00

Projection to TD - OH

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
850.01	849.86	9.23	9.17	Tie-in to Wellbenders Surveys
1,050.00	1,049.84	9.34	11.04	First Phoenix Survey
9,348.00	9,218.70	-280.76	728.51	Projection to TD - OH

Checked By: _____ Approved By: _____ Date: _____

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (505) 393-6161 Fax: (505) 393-0770
District II
811 S. First St., Artesia, NM 88210
Phone: (505) 748-1283 Fax: (505) 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

SEP 21 2015

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-026-42799		Lease Number 97955		Well Name UNC-026 G-06 5263319P; AS	
Property Code 315270		Property Name SD EA 19 FED P6		7H	
GRID No. 4323		Operator Name CHEVRON U.S.A. INC.		Elevation 3206'	

" 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	19	26 SOUTH	33 EAST, N.M.P.M.		188'	NORTH	1716'	EAST	LEA

" 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
P	19	26 SOUTH	33 EAST, N.M.P.M.		180'	SOUTH	979'	EAST	LEA

Dedicated Acres 1600	Joint or Infill	Consolidation Code	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.

SD EA 19 FED P6 7H WELL X= 724,798 NAD 27 Y= 377,442 LAT. 32.035627 LONG. 103.607894 X= 765,985 NAD83 Y= 377,499 LAT. 32.035762 LONG. 103.608362 ELEVATION = 3206' NAVD 83 CORNER COORDINATES TABLE (NAD 27) A - Y=377622.81, X=723880.19 B - Y=377632.53, X=725196.60 C - Y=377642.26, X=726513.00 D - Y=376303.00, X=723889.23 E - Y=376312.90, X=725206.17 F - Y=372354.00, X=725234.87 G - Y=372364.44, X=726553.40 PROPOSED BOTTOM HOLE LOCATION X= 725,574 NAD 27 Y= 372,537 LAT. 32.022129 LONG. 103.605498 X= 768,761 NAD83 Y= 372,594 LAT. 32.022254 LONG. 103.605965	Diagram showing well location and proposed producing interval. The diagram includes a grid with sections A, B, C, D, E, F, and G. The well is located in section B. The proposed producing interval is shown as a vertical line segment. The diagram also shows the proposed first and last take points. Proposed First Take Point 330' FNL, 977' FEL Proposed Last Take Point 330' FSL, 978' FEL	" OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and correct, 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 that 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 division. Signature: Cindy Herrera-Murillo Date: 5/21/15 Printed Name: Cindy Herrera-Murillo E-mail Address: Cherreramurillo@chevron.com " 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. APRIL 9 2015 Date of Survey Signature and Seal of Professional Surveyor: Certificate Number: #15078
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SEP 23 2015

Phoenix Technology Services SURVEY DATA CERTIFICATION



PHOENIX JOB NUMBER **1610092**

OPERATOR **Chevron**

WELL NAME **SD EA 19 Fed P6 7H - ST01**

COUNTY & STATE

Lea County, NM

API WELL NUMBER **30-025-42799**

PROPOSED DIRECTION **171.01**

TIE-IN DATA						
MEASURED	VERTICAL			N-S	E-W	DATA
DEPTH	DEPTH	INCLIN	AZIMUTH	COORD	COORD	SOURCE
8,526.00 ft	8,493.21 ft	6.8°	86.8°	18.46 S	631.93 E	Phoenix MWD

FIRST	FIRST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
13-Feb	8,718 ft	11.2°	134.4°

SURVEY INSTRUMENT
TYPE
Phoenix MWD

LAST	LAST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
18-Feb-16	13,790 ft	87.5°	177.4°

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
18-Feb-16	13,846 ft	87.5°	177.4°

Robert Brewer

PRINT YOUR NAME ABOVE

Robert Brewer

SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	6.60°
DECLINATION OR GRID	GRID

2/18/2016

TODAY'S DATE

MWD SUPERVISOR 1 **Robert Brewer**

DIRECTIONAL DRILLER 1

Casey Tubbe

MWD SUPERVISOR 2 **Lance Mosby**

DIRECTIONAL DRILLER 2

Brennan Duke

12329 Cutten Rd., Houston, Texas 77066 (713)337-0600 (Voice), (713)337-0599 (Fax)



Chevron

Lea County, NM (NAD27 NME)
SD EA 19 Fed
P6 7H

ST01 / Job 1610092

Survey: Phoenix MWD Surveys

Standard Survey Report

19 February, 2016





Phoenix Technology Services Survey Report



Company: Chevron
Project: Lea County, NM (NAD27 NME)
Site: SD EA 19 Fed
Well: P6 7H
Wellbore: ST01 / Job 1610092
Design: Surveys (Pace X30)

Local Co-ordinate Reference: Well P6 7H
TVD Reference: RKB @ 3233.00usft (Pace X30)
MD Reference: RKB @ 3233.00usft (Pace X30)
North Reference: Grid
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Database: Compass 5000 GCR

Project Lea 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 SD EA 19 Fed

Site Position: Northing: 377,402.00 usft Latitude: 32° 2' 7.86475 N
From: Map Easting: 724,767.00 usft Longitude: 103° 36' 28.78145 W
Position Uncertainty: 0.00 usft Slot Radius: 13-3/16 " Grid Convergence: 0.38 "

Well P6 7H

Well Position +N/-S 0.00 usft Northing: 377,442.00 usft Latitude: 32° 2' 8.25853 N
+E/-W 0.00 usft Easting: 724,798.00 usft Longitude: 103° 36' 28.41821 W
Position Uncertainty 0.00 usft **Wellhead Elevation:** 0.00 usft **Ground Level:** 3,206.00 usft

Wellbore ST01 / Job 1610092

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	2/11/2016	6.98	59.77	48,051

Design Surveys (Pace X30)

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	171.01

Survey Program Date 2/19/2016

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
183.00	850.00	Wellbenders MWD Surveys (OH / Job 161	MWD	MWD - Standard
1,050.00	8,526.00	Phoenix MWD Surveys (OH / Job 1610092	PHX+MWD+HDGM	PHX+OWSG MWD + HDGM
8,718.00	13,846.00	Phoenix MWD Surveys (ST01 / Job 16100	PHX+MWD+HDGM	PHX+OWSG MWD + HDGM

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)
8,526.00	6.80	86.80	8,493.21	-18.46	631.93	116.98	0.00	0.00	0.00
Tie-in to Phoenix Surveys									
8,718.00	11.20	134.40	8,683.04	-30.89	656.64	133.12	4.32	2.29	24.79
First Phoenix MWD Survey - ST01									
8,763.00	17.70	138.80	8,726.59	-39.10	664.28	142.43	14.64	14.44	9.78
8,807.00	25.20	150.20	8,767.53	-52.29	673.36	156.87	19.43	17.05	25.91
8,852.00	29.00	163.10	8,807.62	-71.06	681.30	176.65	15.51	8.44	28.67
8,896.00	33.90	167.70	8,845.15	-93.27	687.02	199.48	12.39	11.14	10.45



Phoenix Technology Services

Survey Report



Company: Chevron
Project: Lea County, NM (NAD27 NME)
Site: SD EA 19 Fed
Well: P6 7H
Wellbore: ST01 / Job 1610092
Design: Surveys (Pace X30)

Local Co-ordinate Reference: Well P6 7H
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MD Reference: RKB @ 3233.00usft (Pace X30)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Compass 5000 GCR

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)
8,941.00	37.00	170.10	8,881.81	-118.88	692.02	225.56	7.55	6.89	5.33
8,985.00	39.80	171.20	8,916.29	-145.85	696.45	252.89	6.55	6.36	2.50
9,029.00	43.30	171.90	8,949.21	-174.71	700.74	282.06	8.02	7.95	1.59
9,074.00	45.60	172.50	8,981.33	-205.93	705.01	313.57	5.20	5.11	1.33
9,118.00	46.90	173.30	9,011.76	-237.47	708.93	345.33	3.23	2.95	1.82
9,163.00	48.30	174.60	9,042.10	-270.51	712.43	378.52	3.77	3.11	2.89
9,207.00	51.30	175.70	9,070.50	-304.00	715.27	412.03	7.08	6.82	2.50
9,251.00	54.80	176.10	9,096.94	-339.06	717.78	447.06	7.99	7.95	0.91
9,296.00	59.30	176.80	9,121.41	-376.74	720.11	484.64	10.08	10.00	1.56
9,341.00	65.40	177.70	9,142.29	-416.54	722.01	524.25	13.67	13.56	2.00
9,385.00	68.30	177.60	9,159.58	-456.96	723.67	564.43	6.59	6.59	-0.23
9,429.00	69.20	177.30	9,175.53	-497.92	725.50	605.18	2.14	2.05	-0.68
9,474.00	73.10	175.40	9,190.07	-540.41	728.21	647.57	9.54	8.67	-4.22
9,519.00	79.30	174.10	9,200.80	-583.91	732.22	691.15	14.06	13.78	-2.89
9,587.00	86.10	177.30	9,209.43	-651.12	737.26	758.33	11.03	10.00	4.71
9,676.00	86.40	177.30	9,215.26	-739.83	741.44	846.60	0.34	0.34	0.00
9,765.00	88.60	176.80	9,219.14	-828.62	746.02	935.02	2.53	2.47	-0.56
9,853.00	90.40	178.30	9,219.91	-916.53	749.78	1,022.44	2.66	2.05	1.70
9,942.00	92.00	178.70	9,218.04	-1,005.48	752.11	1,110.65	1.85	1.80	0.45
10,030.00	91.40	178.20	9,215.43	-1,093.41	754.49	1,197.87	0.89	-0.68	-0.57
10,120.00	90.20	178.80	9,214.17	-1,183.37	756.84	1,287.10	1.49	-1.33	0.67
10,209.00	91.00	178.90	9,213.24	-1,272.34	758.63	1,375.26	0.91	0.90	0.11
10,298.00	92.70	179.40	9,210.37	-1,361.28	759.95	1,463.31	1.99	1.91	0.56
10,386.00	92.20	180.30	9,206.61	-1,449.20	760.18	1,550.19	1.17	-0.57	1.02
10,475.00	92.20	181.80	9,203.19	-1,538.12	758.55	1,637.76	1.68	0.00	1.69
10,564.00	94.10	183.10	9,198.30	-1,626.90	754.75	1,724.85	2.59	2.13	1.46
10,652.00	91.40	182.30	9,194.08	-1,714.69	750.61	1,810.92	3.20	-3.07	-0.91
10,741.00	90.00	180.80	9,192.99	-1,803.64	748.20	1,898.40	2.31	-1.57	-1.69
10,830.00	90.80	179.40	9,192.37	-1,892.64	748.05	1,986.28	1.81	0.90	-1.57
10,918.00	88.80	178.40	9,192.68	-1,980.62	749.74	2,073.44	2.54	-2.27	-1.14
11,007.00	88.50	177.50	9,194.77	-2,069.53	752.92	2,161.76	1.07	-0.34	-1.01
11,095.00	89.10	177.10	9,196.62	-2,157.42	757.07	2,249.22	0.82	0.68	-0.45
11,184.00	90.90	177.00	9,196.62	-2,246.30	761.65	2,337.72	2.03	2.02	-0.11
11,273.00	89.70	177.90	9,196.15	-2,335.20	765.60	2,426.15	1.69	-1.35	1.01
11,361.00	90.30	177.80	9,196.15	-2,423.14	768.91	2,513.53	0.69	0.68	-0.11
11,450.00	90.00	180.20	9,195.92	-2,512.12	770.46	2,601.65	2.72	-0.34	2.70
11,538.00	88.50	176.60	9,197.07	-2,600.06	772.92	2,688.90	4.43	-1.70	-4.09
11,627.00	88.10	176.80	9,199.71	-2,688.88	778.04	2,777.42	0.50	-0.45	0.22
11,716.00	89.60	178.30	9,201.50	-2,777.77	781.84	2,865.82	2.38	1.69	1.69
11,804.00	92.20	181.10	9,200.11	-2,865.74	782.30	2,952.78	4.34	2.95	3.18
11,893.00	91.40	180.80	9,197.32	-2,954.69	780.83	3,040.40	0.96	-0.90	-0.34
11,982.00	88.70	180.10	9,197.24	-3,043.67	780.13	3,128.19	3.13	-3.03	-0.79
12,071.00	88.60	180.90	9,199.34	-3,132.64	779.35	3,215.95	0.91	-0.11	0.90
12,160.00	90.00	181.90	9,200.43	-3,221.61	777.18	3,303.48	1.93	1.57	1.12



Phoenix Technology Services Survey Report



Company: Chevron
Project: Lea County, NM (NAD27 NME)
Site: SD EA 19 Fed
Well: P6 7H
Wellbore: ST01 / Job 1610092
Design: Surveys (Pace X30)

Local Co-ordinate Reference: Well P6 7H
TVD Reference: RKB @ 3233.00usft (Pace X30)
MD Reference: RKB @ 3233.00usft (Pace X30)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Compass 5000 GCR

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)
12,248.00	91.00	182.00	9,199.66	-3,309.55	774.18	3,389.87	1.14	1.14	0.11
12,337.00	90.20	181.90	9,198.73	-3,398.50	771.15	3,477.25	0.91	-0.90	-0.11
12,426.00	89.40	181.40	9,199.04	-3,487.46	768.59	3,564.72	1.06	-0.90	-0.56
12,515.00	90.60	182.40	9,199.04	-3,576.41	765.64	3,652.11	1.76	1.35	1.12
12,604.00	90.40	181.80	9,198.26	-3,665.34	762.38	3,739.45	0.71	-0.22	-0.67
12,693.00	90.40	182.10	9,197.64	-3,754.29	759.35	3,826.83	0.34	0.00	0.34
12,780.00	90.50	181.80	9,196.85	-3,841.24	756.39	3,912.24	0.36	0.11	-0.34
12,869.00	89.90	179.50	9,196.64	-3,930.22	755.38	3,999.98	2.67	-0.67	-2.58
12,957.00	89.70	178.40	9,196.95	-4,018.21	756.99	4,087.13	1.27	-0.23	-1.25
13,046.00	89.90	177.80	9,197.26	-4,107.16	759.94	4,175.45	0.71	0.22	-0.67
13,134.00	89.90	176.20	9,197.42	-4,195.03	764.55	4,262.97	1.82	0.00	-1.82
13,223.00	90.80	176.70	9,196.87	-4,283.86	770.06	4,351.57	1.16	1.01	0.56
13,311.00	92.50	176.90	9,194.34	-4,371.68	774.97	4,439.08	1.95	1.93	0.23
13,400.00	92.20	178.50	9,190.69	-4,460.53	778.54	4,527.39	1.83	-0.34	1.80
13,489.00	91.30	178.10	9,187.97	-4,549.45	781.18	4,615.63	1.11	-1.01	-0.45
13,577.00	89.40	178.30	9,187.43	-4,637.40	783.94	4,702.93	2.17	-2.16	0.23
13,666.00	87.60	178.40	9,189.76	-4,726.33	786.50	4,791.17	2.03	-2.02	0.11
13,755.00	88.00	178.20	9,193.18	-4,815.23	789.14	4,879.39	0.50	0.45	-0.22
13,790.00	87.50	177.40	9,194.55	-4,850.17	790.48	4,914.11	2.69	-1.43	-2.29
13,846.00	87.50	177.40	9,197.00	-4,906.06	793.02	4,969.71	0.00	0.00	0.00

Projection to Bit

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
8,526.00	8,493.21	-18.46	631.93	Tie-in to Phoenix Surveys
8,718.00	8,683.04	-30.89	656.64	First Phoenix MWD Survey - ST01
13,846.00	9,197.00	-4,906.06	793.02	Projection to Bit

Checked By: _____ Approved By: _____ Date: _____