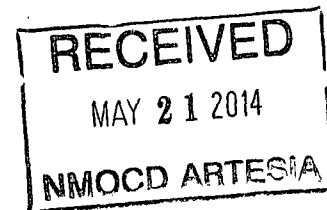




PHOENIX
TECHNOLOGY SERVICES

May 19, 2014

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



Dear District 2 – Artesia

Re: Bopco, LP
PLU CVX JV RR #009H
Eddy County, NM
API #30-015-42054
Job No. 1311624

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	Drain Hole Number	Surveyed Depths		Dates Performed		Type of Survey
		From	To	Start	End	
Mike Layfield	009H	1,144	17,251	04/17/14	05/08/14	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: 7012 1570 0001 4365 1967

PHOENIX TECHNOLOGY SERVICES INC. SURVEY DATA CERTIFICATION



PHOENIX JOB NUMBER 1311624

OPERATOR Bopco LP

WELL NAME PLU CVX JV RR #009H

COUNTY & STATE

Eddy Co. NM

API WELL NUMBER

30-015-42054

PROPOSED DIRECTION

359.98

TIE-IN DATA						
MEASURED	VERTICAL			N-S	E-W	DATA
DEPTH	DEPTH	INCLIN	AZIMUTH	COORD	COORD	SOURCE
1,076 ft	1,075.97 ft	1.1	44.57	1.43	-3.03	MS Survey

FIRST	FIRST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
17-Apr-14	1,144 ft	1.9	52.1

SURVEY INSTRUMENT

TYPE

PHOENIX MWD

LAST	LAST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
8-May-14	17,251 ft	90.5	357.7

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
8-May-14	17,306 ft	90.5	357.7

Michael Layfield

PRINT YOUR NAME ABOVE

M = Layfield

SIGN YOUR NAME ABOVE

5-8-14

TODAY'S DATE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	
	7.15
DECLINATION OR GRID	GRID

MWD SUPERVISOR 1

Mike Layfield

DIRECTIONAL DRILLER 1

Jim Tobola

MWD SUPERVISOR 2

Edward LaGarce

DIRECTIONAL DRILLER 2

Casey Hendrix

1805 Brittmore Road

Houston, Texas 77043

(713)3370609 (Voice), (713)337-0599 (Fax)

DISTRICT I

1625 N. French Dr. NM 88240
Phone:(575)393-8161 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, Aztec, NM 87410
Phone:(505)334-6178 Fax:(505)334-6170

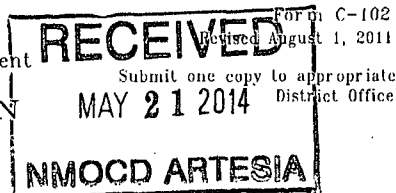
DISTRICT IV

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

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
Property Code	Property Name ROSS RANCH 32 25 30	Well Number 2H
OGRID No.	Operator Name BOPCO, L.P.	Elevation 3172'

Surface Location

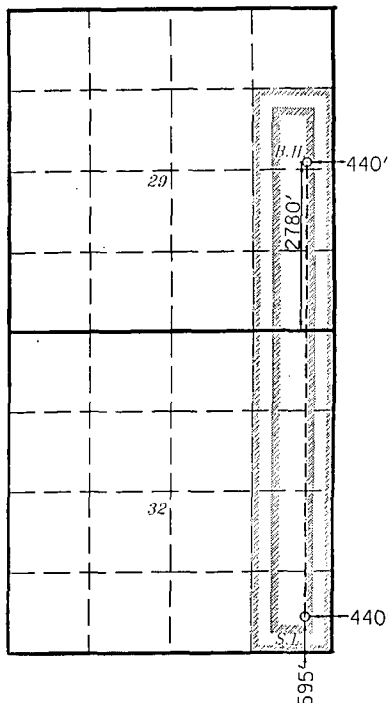
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	32	25 S	30 E		595'	SOUTH	440'	EAST	EDDY

Bottom Hole 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
H	29	25 S	30 E		2780'	SOUTH	440'	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

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



**PROPOSED
SURFACE LOCATION**
Lat - N 32°04'50.16"
Long - W 103°53'44.93"
NMSPCE- N 393321.2
E 635510.8
(NAD-27)

SCALE 1"=3000'

**PROPOSED BOTTOM
HOLE LOCATION**
Lat - N 32°06'04.44"
Long - W 103°53'44.61"
NMSPCE- N 400827.3
E 635507.8
(NAD-27)

OPERATOR CERTIFICATION

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 uncased mineral interest in the land including the proposed bottom hole 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 _____ Date _____

Printed Name _____

Email 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.

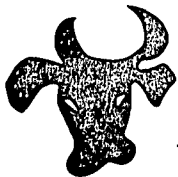
NOVEMBER 22, 2013

Date Surveyed

Signature & seal of
Professional Surveyor

CHAD. A. GULICK
Certificate No. 21052

HALFF ASSOC., INC/COBB FENDLEY 29714-W012



BOPCO, L P

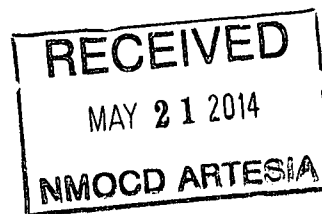
Eddy County, NM (NAD27 NME)
Poker Lake Unit CVX JV RR
#009H

WB1/Job #1311624

Survey: Phoenix MWD Survey

Standard Survey Report

12 May, 2014



PHOENIX
TECHNOLOGY SERVICES



Phoenix Technology Services

Survey Report



Company:	BOPCO LP	Local Co-ordinate Reference:	Well #009H
Project:	Eddy County NM (NAD27 NME)	TVD Reference:	KB @ 3194.00usft (Latshaw 14)
Site:	Poker Lake Unit CVX JV RR	MD Reference:	KB @ 3194.00usft (Latshaw 14)
Well:	#009H	North Reference:	Grid
Wellbore:	WB1/Job #1311624	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Latshaw 14)	Database:	GCR DB

Project	Eddy 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	Poker Lake Unit CVX JV RR		
Site Position:		Northing:	393,321.20 usft
From:	Map	Easting:	635,510.80 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 4' 50.16089 N
		Longitude:	103° 53' 44.92656 W
		Grid Convergence:	0.23 °

Well	#009H		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 4' 50.16089 N
		Longitude:	103° 53' 44.92656 W
		Ground Level:	3,172.00 usft

Wellbore	WB1/Job #1311624		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010_14	04/07/14	(°)
			7.38
			Dip Angle
			(°)
			59.93
			Field Strength
			(nT)
			48,216

Design	Surveys (Latshaw 14)		
Audit Notes:			
Version:	-1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			(°)
			359.98

Survey Program	Date 05/12/14		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
50.00	1,076.00	MS Gyro Survey (WB1/Job #1311624)	CB-GYRO-MS
1,144.00	17,306.00	Phoenix MWD Survey (WB1/Job #131162)	MWD
			Description
			Camera based gyro multishot
			MWD - Standard

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)
	1,076.00	1.10	44.57	1,075.97	1.43	-3.03	1.44	0.00	0.00	0.00
	Tie-on to MS Gyro Survey									
	1,144.00	1.90	52.10	1,143.95	2.59	-1.68	2.59	1.21	1.18	11.07
	First Phoenix MWD Survey									
	1,333.00	0.20	98.10	1,332.91	4.47	1.11	4.47	0.93	-0.90	24.34
	1,523.00	0.60	95.10	1,522.91	4.34	2.43	4.33	0.21	0.21	-1.58
	1,712.00	0.30	54.40	1,711.90	4.54	3.82	4.53	0.22	-0.16	-21.53
	1,902.00	1.00	77.00	1,901.89	5.20	5.84	5.20	0.39	0.37	11.89
	2,092.00	0.80	61.00	2,091.87	6.21	8.62	6.21	0.17	-0.11	-8.42



Phoenix Technology Services

Survey Report



Company:	BOPCO, L.P.	Local Co-ordinate Reference:	Well #009H
Project:	Eddy County, NM (NAD27, NME)	TVD Reference:	KB @ 3194.00usft (Latshaw 14)
Site:	Poker Lake Unit CVX JV RR	MD Reference:	KB @ 3194.00usft (Latshaw 14)
Well:	#009H	North Reference:	Grid
Wellbore:	WB1/Job #1311624	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Latshaw 14)	Database:	GCR:DB

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)
2,282.00	0.50	129.10	2,281.86	6.33	10.42	6.33	0.40	-0.16	35.84
2,472.00	0.40	60.80	2,471.85	6.13	11.64	6.13	0.27	-0.05	-35.95
2,662.00	0.80	74.40	2,661.84	6.82	13.50	6.81	0.22	0.21	7.16
2,853.00	1.00	164.40	2,852.82	5.57	15.23	5.56	0.67	0.10	47.12
3,043.00	2.60	124.40	3,042.73	1.54	19.23	1.53	1.02	0.84	-21.05
3,233.00	2.50	128.90	3,232.54	-3.50	26.01	-3.51	0.12	-0.05	2.37
3,423.00	3.40	124.40	3,422.29	-9.29	33.89	-9.30	0.49	0.47	-2.37
3,593.00	2.60	126.40	3,592.05	-14.42	41.15	-14.44	0.47	-0.47	1.18
3,684.00	2.60	123.30	3,682.96	-16.78	44.54	-16.80	0.15	0.00	-3.41
3,811.00	0.70	188.10	3,809.91	-19.13	46.84	-19.15	1.88	-1.50	51.02
4,001.00	0.50	178.50	3,999.90	-21.11	46.69	-21.12	0.12	-0.11	-5.05
4,191.00	0.60	205.50	4,189.89	-22.83	46.29	-22.85	0.14	0.05	14.21
4,381.00	0.30	247.30	4,379.88	-23.92	45.40	-23.94	0.22	-0.16	22.00
4,572.00	0.40	229.70	4,570.88	-24.55	44.43	-24.56	0.08	0.05	-9.21
4,761.00	0.60	239.60	4,759.87	-25.48	43.07	-25.49	0.11	0.11	5.24
4,952.00	0.50	224.90	4,950.86	-26.57	41.62	-26.59	0.09	-0.05	-7.70
5,142.00	0.70	247.70	5,140.85	-27.60	39.96	-27.61	0.16	0.11	12.00
5,331.00	0.90	242.10	5,329.84	-28.73	37.58	-28.75	0.11	0.11	-2.96
5,521.00	1.00	273.00	5,519.81	-29.34	34.61	-29.36	0.27	0.05	16.26
5,711.00	1.10	260.70	5,709.78	-29.55	31.15	-29.56	0.13	0.05	-6.47
5,901.00	1.50	304.60	5,899.73	-28.43	27.31	-28.44	0.55	0.21	23.11
6,091.00	1.50	283.80	6,089.67	-26.43	22.85	-26.44	0.28	0.00	-10.95
6,281.00	1.40	263.60	6,279.61	-26.09	18.12	-26.10	0.27	-0.05	-10.63
6,472.00	0.80	297.80	6,470.58	-25.73	14.63	-25.74	0.45	-0.31	17.91
6,661.00	0.70	274.00	6,659.56	-25.04	12.31	-25.04	0.17	-0.05	-12.59
6,851.00	0.50	293.80	6,849.55	-24.62	10.39	-24.63	0.15	-0.11	10.42
7,042.00	0.30	246.60	7,040.55	-24.48	9.17	-24.49	0.19	-0.10	-24.71
7,232.00	0.80	176.60	7,230.54	-26.01	8.79	-26.01	0.40	0.26	-36.84
7,422.00	0.60	258.80	7,420.53	-27.52	7.89	-27.53	0.49	-0.11	43.26
7,612.00	2.30	177.20	7,610.47	-31.52	7.10	-31.53	1.21	0.89	-42.95
7,802.00	1.50	300.40	7,800.42	-34.07	5.15	-34.08	1.77	-0.42	64.84
7,992.00	1.20	305.40	7,990.36	-31.66	1.38	-31.66	0.17	-0.16	2.63
8,182.00	0.40	281.90	8,180.35	-30.37	-0.89	-30.37	0.45	-0.42	-12.37
8,372.00	0.50	338.10	8,370.34	-29.47	-1.85	-29.47	0.23	0.05	29.58
8,589.00	0.90	355.20	8,587.32	-26.89	-2.35	-26.89	0.21	0.18	7.88
8,779.00	0.80	325.30	8,777.30	-24.31	-3.23	-24.31	0.24	-0.05	-15.74
8,969.00	0.80	302.50	8,967.29	-22.51	-5.10	-22.51	0.17	0.00	-12.00
9,158.00	1.00	249.40	9,156.27	-22.38	-7.76	-22.38	0.44	0.11	-28.10
9,348.00	1.00	216.80	9,346.24	-24.29	-10.30	-24.29	0.30	0.00	-17.16
9,538.00	7.60	358.90	9,535.73	-13.04	-11.54	-13.04	4.43	3.47	74.79
9,569.00	11.90	352.90	9,566.28	-7.82	-11.97	-7.81	14.23	13.87	-19.35
9,601.00	16.00	352.50	9,597.32	-0.17	-12.96	-0.16	12.82	12.81	-1.25
9,633.00	19.90	353.50	9,627.76	9.62	-14.15	9.63	12.23	12.19	3.13



Phoenix Technology Services

Survey Report



Company:	BOPCO, LP	Local Co-ordinate Reference:	Well #009H
Project:	Eddy County, NM (NAD27, NME)	TVD Reference:	KB @ 3194.00usft (Latshaw 14)
Site:	Poker Lake Unit CVX JV, RR	MD Reference:	KB @ 3194.00usft (Latshaw 14)
Well:	#009H	North Reference:	Grid
Wellbore:	WB1/Job #1311624	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Latshaw 14)	Database:	GCR DB

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)
9,664.00	24.30	355.50	9,656.48	21.23	-15.25	21.23	14.40	14.19	6.45
9,696.00	28.10	355.90	9,685.18	35.31	-16.30	35.32	11.89	11.88	1.25
9,728.00	31.60	358.10	9,712.94	51.22	-17.12	51.22	11.46	10.94	6.88
9,759.00	33.90	1.90	9,739.01	67.98	-17.10	67.98	9.95	7.42	12.26
9,791.00	37.60	2.40	9,764.97	86.66	-16.40	86.66	11.60	11.56	1.56
9,823.00	40.90	0.40	9,789.75	106.89	-15.92	106.90	11.04	10.31	-6.25
9,854.00	42.60	357.80	9,812.88	127.53	-16.25	127.53	7.83	5.48	-8.39
9,886.00	44.90	356.30	9,836.00	149.62	-17.39	149.63	7.88	7.19	-4.69
9,918.00	47.50	356.50	9,858.14	172.67	-18.84	172.68	8.14	8.13	0.63
9,949.00	50.10	357.30	9,878.56	195.96	-20.10	195.97	8.61	8.39	2.58
9,981.00	52.30	358.20	9,898.61	220.88	-21.08	220.89	7.22	6.88	2.81
10,013.00	53.80	359.20	9,917.85	246.44	-21.65	246.45	5.31	4.69	3.13
10,044.00	55.50	359.20	9,935.78	271.73	-22.01	271.73	5.48	5.48	0.00
10,076.00	57.90	359.70	9,953.35	298.47	-22.26	298.48	7.61	7.50	1.56
10,108.00	60.00	0.00	9,969.85	325.88	-22.33	325.89	6.61	6.56	0.94
10,139.00	62.40	0.70	9,984.79	353.04	-22.17	353.05	7.99	7.74	2.26
10,171.00	65.90	0.70	9,998.74	381.84	-21.81	381.84	10.94	10.94	0.00
10,203.00	69.80	0.30	10,010.80	411.47	-21.56	411.47	12.24	12.19	-1.25
10,235.00	71.50	359.90	10,021.40	441.66	-21.50	441.67	5.44	5.31	-1.25
10,266.00	74.60	359.70	10,030.44	471.31	-21.61	471.32	10.02	10.00	-0.65
10,298.00	77.40	1.00	10,038.18	502.35	-21.42	502.36	9.60	8.75	4.06
10,330.00	81.70	1.40	10,043.98	533.81	-20.76	533.81	13.49	13.44	1.25
10,392.00	90.00	0.60	10,048.47	595.58	-19.68	595.59	13.45	13.39	-1.29
10,487.00	89.70	0.90	10,048.71	690.57	-18.44	690.58	0.45	-0.32	0.32
10,582.00	88.80	0.40	10,049.96	785.56	-17.36	785.56	1.08	-0.95	-0.53
10,677.00	88.30	0.30	10,052.36	880.52	-16.78	880.53	0.54	-0.53	-0.11
10,772.00	87.10	359.60	10,056.17	975.45	-16.86	975.45	1.46	-1.26	-0.74
10,867.00	88.60	0.30	10,059.74	1,070.38	-16.94	1,070.38	1.74	1.58	0.74
10,962.00	90.60	0.30	10,060.40	1,165.37	-16.45	1,165.37	2.11	2.11	0.00
11,057.00	90.20	359.30	10,059.74	1,260.36	-16.78	1,260.37	1.13	-0.42	-1.05
11,151.00	92.00	359.70	10,057.93	1,354.34	-17.60	1,354.34	1.96	1.91	0.43
11,246.00	92.30	359.20	10,054.37	1,449.27	-18.51	1,449.27	0.61	0.32	-0.53
11,341.00	90.80	1.40	10,051.80	1,544.22	-18.01	1,544.23	2.80	-1.58	2.32
11,366.00	90.80	1.50	10,051.45	1,569.21	-17.38	1,569.22	0.40	0.00	0.40
11,461.00	90.60	1.30	10,050.29	1,664.18	-15.06	1,664.18	0.30	-0.21	-0.21
11,556.00	91.00	1.40	10,048.96	1,759.14	-12.82	1,759.14	0.43	0.42	0.11
11,652.00	89.30	1.20	10,048.71	1,855.11	-10.64	1,855.11	1.78	-1.77	-0.21
11,747.00	89.50	3.40	10,049.71	1,950.02	-6.83	1,950.03	2.33	0.21	2.32
11,842.00	89.50	4.00	10,050.54	2,044.82	-0.70	2,044.82	0.63	0.00	0.63
11,937.00	89.40	4.60	10,051.45	2,139.55	6.42	2,139.55	0.64	-0.11	0.63
12,031.00	89.00	3.50	10,052.76	2,233.30	13.06	2,233.30	1.25	-0.43	-1.17
12,126.00	89.80	2.20	10,053.76	2,328.18	17.78	2,328.17	1.61	0.84	-1.37
12,221.00	90.80	1.00	10,053.26	2,423.14	20.44	2,423.13	1.64	1.05	-1.26
12,316.00	90.00	0.70	10,052.59	2,518.12	21.85	2,518.12	0.90	-0.84	-0.32



Phoenix Technology Services

Survey Report



Company:	BOPCO, L.P.	Local Co-ordinate Reference:	Well #009H
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	KB @ 3194.00usft (Latshaw 14)
Site:	Poker Lake Unit CVX JV, RR	MD Reference:	KB @ 3194.00usft (Latshaw 14)
Well:	#009H	North Reference:	Grid
Wellbore:	WB1/Job #1311624	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Latshaw 14)	Database:	GCR/DB

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)	
12,411.00	88.80	359.00	10,053.59	2,613.11	21.60	2,613.10	2.19	-1.26	-1.79	
12,506.00	88.80	359.10	10,055.58	2,708.08	20.02	2,708.07	0.11	0.00	0.11	
12,601.00	88.80	359.30	10,057.57	2,803.05	18.70	2,803.04	0.21	0.00	0.21	
12,696.00	88.80	359.30	10,059.56	2,898.02	17.54	2,898.01	0.00	0.00	0.00	
12,791.00	89.10	359.70	10,061.30	2,993.00	16.71	2,992.99	0.53	0.32	0.42	
12,886.00	89.20	359.90	10,062.71	3,087.99	16.37	3,087.98	0.24	0.11	0.21	
12,981.00	89.10	357.80	10,064.12	3,182.95	14.47	3,182.95	2.21	-0.11	-2.21	
13,076.00	90.20	358.00	10,064.70	3,277.89	10.99	3,277.88	1.18	1.16	0.21	
13,171.00	89.50	358.00	10,064.95	3,372.83	7.67	3,372.83	0.74	-0.74	0.00	
13,267.00	89.20	357.90	10,066.04	3,468.76	4.24	3,468.76	0.33	-0.31	-0.10	
13,361.00	92.00	357.60	10,065.05	3,562.67	0.55	3,562.67	3.00	2.98	-0.32	
13,456.00	92.50	357.10	10,061.32	3,657.50	-3.84	3,657.50	0.74	0.53	-0.53	
13,551.00	93.40	359.70	10,056.43	3,752.33	-6.49	3,752.33	2.89	0.95	2.74	
13,646.00	91.70	0.60	10,052.21	3,847.23	-6.24	3,847.23	2.02	-1.79	0.95	
13,741.00	91.70	1.00	10,049.39	3,942.18	-4.92	3,942.18	0.42	0.00	0.42	
13,836.00	90.10	1.20	10,047.90	4,037.14	-3.09	4,037.14	1.70	-1.68	0.21	
13,931.00	90.10	1.40	10,047.73	4,132.12	-0.94	4,132.12	0.21	0.00	0.21	
14,026.00	88.50	0.50	10,048.89	4,227.10	0.64	4,227.09	1.93	-1.68	-0.95	
14,121.00	88.00	0.50	10,051.79	4,322.05	1.47	4,322.05	0.53	-0.53	0.00	
14,216.00	89.10	1.10	10,054.20	4,417.01	2.79	4,417.00	1.32	1.16	0.63	
14,311.00	88.80	1.30	10,055.94	4,511.97	4.78	4,511.97	0.38	-0.32	0.21	
14,406.00	89.50	1.90	10,057.35	4,606.92	7.43	4,606.92	0.97	0.74	0.63	
14,501.00	90.40	0.10	10,057.43	4,701.90	9.09	4,701.90	2.12	0.95	-1.89	
14,596.00	90.30	359.70	10,056.85	4,796.90	8.93	4,796.89	0.43	-0.11	-0.42	
14,690.00	89.80	358.80	10,056.77	4,890.89	7.70	4,890.89	1.10	-0.53	-0.96	
14,785.00	89.80	358.50	10,057.10	4,985.86	5.46	4,985.86	0.32	0.00	-0.32	
14,880.00	90.00	359.10	10,057.26	5,080.84	3.47	5,080.84	0.67	0.21	0.63	
14,975.00	90.00	0.90	10,057.26	5,175.84	3.47	5,175.84	1.89	0.00	1.89	
15,070.00	89.00	1.90	10,058.09	5,270.80	5.79	5,270.80	1.49	-1.05	1.05	
15,165.00	89.50	2.80	10,059.34	5,365.71	9.68	5,365.71	1.08	0.53	0.95	
15,260.00	88.40	1.40	10,061.08	5,460.63	13.17	5,460.62	1.87	-1.16	-1.47	
15,354.00	88.00	1.00	10,064.03	5,554.56	15.13	5,554.56	0.60	-0.43	-0.43	
15,449.00	88.30	0.40	10,067.10	5,649.50	16.29	5,649.50	0.71	0.32	-0.63	
15,544.00	88.20	359.50	10,070.00	5,744.46	16.21	5,744.45	0.95	-0.11	-0.95	
15,639.00	88.50	359.50	10,072.73	5,839.42	15.38	5,839.41	0.32	0.32	0.00	
15,734.00	88.10	359.10	10,075.55	5,934.37	14.22	5,934.36	0.60	-0.42	-0.42	
15,829.00	90.20	358.40	10,076.96	6,029.33	12.15	6,029.32	2.33	2.21	-0.74	
15,924.00	89.90	357.80	10,076.88	6,124.28	9.00	6,124.27	0.71	-0.32	-0.63	
16,019.00	90.00	357.90	10,076.96	6,219.21	5.44	6,219.21	0.15	0.11	0.11	
16,114.00	90.10	357.70	10,076.88	6,314.14	1.79	6,314.14	0.24	0.11	-0.21	
16,208.00	89.80	357.40	10,076.96	6,408.05	-2.23	6,408.05	0.45	-0.32	-0.32	
16,304.00	90.40	357.30	10,076.79	6,503.95	-6.67	6,503.95	0.63	0.63	-0.10	
16,399.00	90.10	356.60	10,076.38	6,598.81	-11.72	6,598.82	0.80	-0.32	-0.74	



Phoenix Technology Services

Survey Report



Company:	BOPCO, LP	Local Co-ordinate Reference:	Well #009H
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	KB @ 3194.00usft (Latshaw 14)
Site:	Poker Lake Unit CVX JV RR	MD Reference:	KB @ 3194.00usft (Latshaw 14)
Well:	#009H	North Reference:	Grid
Wellbore:	WB1/Job #1311624	Survey/Calculation Method:	Minimum Curvature
Design:	Surveys (Latshaw 14)	Database:	GCR DB

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)
16,493.00	89.30	356.80	10,076.87	6,692.65	-17.13	6,692.66	0.88	-0.85	0.21
16,589.00	90.20	357.80	10,077.29	6,788.54	-21.66	6,788.55	1.40	0.94	1.04
16,683.00	90.40	356.70	10,076.80	6,882.43	-26.17	6,882.44	1.19	0.21	-1.17
16,778.00	90.90	357.80	10,075.72	6,977.32	-30.72	6,977.33	1.27	0.53	1.16
16,873.00	91.30	357.80	10,073.89	7,072.23	-34.37	7,072.24	0.42	0.42	0.00
16,969.00	90.90	357.80	10,072.05	7,168.14	-38.05	7,168.15	0.42	-0.42	0.00
17,064.00	90.40	357.70	10,070.97	7,263.06	-41.78	7,263.07	0.54	-0.53	-0.11
17,159.00	90.60	358.10	10,070.15	7,357.99	-45.26	7,358.01	0.47	0.21	0.42
17,251.00	90.50	357.50	10,069.26	7,449.92	-48.80	7,449.94	0.66	-0.11	-0.65
Last Phoenix MWD Survey									
17,306.00	90.50	357.50	10,068.78	7,504.87	-51.19	7,504.88	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)	
1,076.00	1,075.97	1.43	-3.03	Tie-on to MS Gyro Survey
1,144.00	1,143.95	2.59	-1.68	First Phoenix MWD Survey
17,251.00	10,069.26	7,449.92	-48.80	Last Phoenix MWD Survey
17,306.00	10,068.78	7,504.87	-51.19	Projection to Bit

Checked By: _____	Approved By: _____	Date: _____
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