



PHOENIX
TECHNOLOGY SERVICES

July 16, 2014

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

NM OIL CONSERVATION
ARTESIA DISTRICT

JUL 22 2014

Dear District 2 – Artesia

RECEIVED

Re: Bopco, LP
PLU CVX JV BS #027H
Eddy County, NM
API #30-015-42111
Job No. 1311615

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	027H	9,806	18,192	06/11/14	07/01/14	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 2223

PHOENIX TECHNOLOGY SERVICES INC. SURVEY DATA CERTIFICATION



PHOENIX JOB NUMBER 1311615

OPERATOR Bopco, LP

WELL NAME PLU CVX JV BS #027H

COUNTY & STATE

Eddy Co, NM

API WELL NUMBER	30-015-42111
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PROPOSED DIRECTION	359.63
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TIE-IN DATA						
MEASURED	VERTICAL			N-S	E-W	DATA
DEPTH	DEPTH	INCLIN	AZIMUTH	COORD	COORD	SOURCE
9,688 ft	9,686.48 ft	0.5	77.23	-38.76	12.73	Multi Shot

FIRST	FIRST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
11-Jun-14	9,806 ft	6.6	357.9

SURVEY INSTRUMENT
TYPE
Phoenix P360

LAST	LAST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
1-Jul-14	18,192 ft	91.7	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
1-Jul-14	18,245 ft	91.7	357.7

Michael Layfield

PRINT YOUR NAME ABOVE

Michael Layfield

SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	7.02
DECLINATION OR GRID	Grid

7/1/2014

TODAY'S DATE

MWD SUPERVISOR 1 Mike Layfield

DIRECTIONAL DRILLER 1

Casey Hendrix

MWD SUPERVISOR 2 Peyton Paterson

DIRECTIONAL DRILLER 2

Donaldson / Kelly

1805 Brittmore Road

Houston, Texas 77043

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

NM OIL CONSERVATION

ARTESIA DISTRICT

Form C-102

Revised August 1, 2011

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) 748-0720

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

Phone (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

Phone (505) 476-3480 Fax: (505) 476-3482

State of New Mexico
Energy, Minerals and Natural Resources Department

JUL 22 2014

Submit one copy to appropriate
District Office

OIL CONSERVATION DIVISION

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

RECEIVED

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
Property Code	Property Name PLU BIG SINKS 3 25 31	Well Number 1H
OGRID No.	Operator Name BOPCO, L.P.	Elevation 3453'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
LOT 3	3	25 S	31 E		330	NORTH	1980	WEST	EDDY

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
K	27	24 S	31 E		2640	SOUTH	1980	WEST	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 BOTTOM HOLE LOCATION
 Lat - N 32°11'17.51"
 Long - W 103°46'02.34"
 NMSPCE- N 432646.7
 E 675103.9
 (NAD-27)

SURFACE LOCATION
 Lat - N 32°09'56.77"
 Long - W 103°46'02.23"
 NMSPCE- N 424489.1
 E 675156.4
 (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 unleased 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 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.

OCTOBER 25 2013

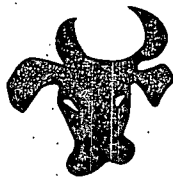
Date Surveyed _____

Signature & Seal of Professional Surveyor _____

Certificate No. 7977
 BASIN SURVEYS

0' 1500' 3000' 4500' 6000'

SCALE: 1" = 2000'
 WO Num.: 29643



NM OIL CONSERVATION
ARTESIA DISTRICT

JUL 22 2014

RECEIVED

BOPCO, L P

Eddy County, NM (NAD27 NME)

Poker Lake Unit CVX JV BS

#027H

WB1/Job #1311615

Survey: Phoenix MWD Survey

Standard Survey Report

02 July, 2014



PHOENIX
TECHNOLOGY SERVICES



Phoenix Technology Services Survey Report



Company:	BOPCO, L P	Local Co-ordinate Reference:	Well #027H
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	KB @ 3475.00usft (Latshaw 14)
Site:	Poker Lake Unit CVX JV BS	MD Reference:	KB @ 3475.00usft (Latshaw 14)
Well:	#027H	North Reference:	Grid
Wellbore:	WB1/Job #1311615	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 BS		
Site Position:		Northing:	424,489.10 usft
From:	Map	Easting:	675,156.40 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 9' 56.77628 N
		Longitude:	103° 46' 2.23055 W
		Grid Convergence:	0.30 °

Well:	#027H		
Well Position	+N/-S	0.00 usft	Northing: 424,489.10 usft
	+E/-W	0.00 usft	Easting: 675,156.40 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 9' 56.77628 N
		Longitude:	103° 46' 2.23055 W
		Ground Level:	3,453.00 usft

Wellbore:	WB1/Job #1311615		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010_14	05/08/14	7.32
		Dip Angle	60.03
		Field Strength	48,270

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	359.63
		(°)	

Survey Program	Date 07/02/14		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
100.00	9,688.00	MS Gyro Survey (WB1/Job #1311615)	NS-GYRO-MS
9,688.00	18,245.00	Phoenix MWD Survey (WB1/Job #131161)	MWD
			Description
			North sensing gyrocompassing m/s
			MWD - Standard

Survey	Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
	(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)
	9,688.00	0.50	77.23	9,686.48	-38.76	12.73	-38.84	0.00	0.00	0.00
	Tie-on to MS Gyro Survey									
	9,806.00	6.60	357.90	9,804.21	-31.86	12.99	-31.94	5.53	5.17	-67.23
	First Phoenix MWD Survey									
	9,837.00	13.00	357.50	9,834.74	-26.59	12.77	-26.67	20.65	20.65	-1.29
	9,868.00	19.20	359.60	9,864.51	-18.00	12.58	-18.08	20.08	20.00	6.77
	9,900.00	24.40	1.00	9,894.21	-6.12	12.66	-6.21	16.33	16.25	4.38
	9,931.00	26.60	0.30	9,922.19	7.22	12.81	7.14	7.16	7.10	-2.26
	9,963.00	30.10	359.50	9,950.35	22.41	12.78	22.33	11.00	10.94	-2.50



Phoenix Technology Services

Survey Report



Company: BOPCO, L P
Project: Eddy County, NM (NAD27 NME)
Site: Poker Lake Unit CVX JV BS
Well: #027H
Wellbore: WB1/Job #1311615
Design: Surveys (Latshaw 14)

Local Co-ordinate Reference: Well #027H
TVD Reference: KB @ 3475.00usft (Latshaw 14)
MD Reference: KB @ 3475.00usft (Latshaw 14)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
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)
9,994.00	32.70	358.00	9,976.81	38.56	12.42	38.48	8.76	8.39	-4.84
10,026.00	35.30	356.20	10,003.34	56.42	11.50	56.35	8.71	8.13	-5.63
10,057.00	37.70	357.20	10,028.25	74.83	10.44	74.76	7.98	7.74	3.23
10,089.00	39.70	357.40	10,053.23	94.82	9.50	94.75	6.26	6.25	0.63
10,120.00	42.20	355.60	10,076.64	115.09	8.26	115.04	8.92	8.06	-5.81
10,151.00	44.90	354.60	10,099.11	136.37	6.43	136.33	8.99	8.71	-3.23
10,183.00	46.90	355.40	10,121.37	159.26	4.43	159.23	6.50	6.25	2.50
10,214.00	49.50	356.80	10,142.04	182.31	2.86	182.29	9.04	8.39	4.52
10,246.00	52.30	357.60	10,162.22	207.12	1.65	207.10	8.96	8.75	2.50
10,277.00	55.10	358.60	10,180.57	232.08	0.83	232.07	9.40	9.03	3.23
10,309.00	58.40	359.40	10,198.11	258.84	0.36	258.83	10.52	10.31	2.50
10,340.00	61.60	0.10	10,213.61	285.68	0.25	285.67	10.51	10.32	2.26
10,371.00	63.70	0.30	10,227.85	313.21	0.35	313.20	6.80	6.77	0.65
10,403.00	63.10	0.00	10,242.18	341.82	0.42	341.81	2.05	-1.88	-0.94
10,434.00	63.00	359.70	10,256.23	369.46	0.35	369.45	0.92	-0.32	-0.97
10,466.00	62.40	359.50	10,270.90	397.89	0.15	397.88	1.96	-1.88	-0.63
10,497.00	61.70	358.70	10,285.43	425.27	-0.28	425.27	3.21	-2.26	-2.58
10,529.00	63.30	358.10	10,300.21	453.65	-1.07	453.64	5.27	5.00	-1.88
10,561.00	65.70	358.50	10,313.98	482.51	-1.93	482.52	7.58	7.50	1.25
10,593.00	68.60	358.90	10,326.41	511.99	-2.60	512.00	9.14	9.06	1.25
10,624.00	74.60	0.10	10,336.19	541.39	-2.85	541.40	19.70	19.35	3.87
10,656.00	78.30	1.00	10,343.69	572.49	-2.55	572.50	11.88	11.56	2.81
10,687.00	82.20	1.00	10,348.94	603.03	-2.01	603.04	12.58	12.58	0.00
10,784.00	93.00	1.00	10,352.99	699.79	-0.33	699.78	11.13	11.13	0.00
10,874.00	91.50	359.80	10,349.46	789.72	0.30	789.70	2.13	-1.67	-1.33
10,965.00	90.40	359.70	10,347.95	880.70	-0.10	880.68	1.21	-1.21	-0.11
11,055.00	92.70	0.20	10,345.51	970.66	-0.17	970.64	2.62	2.56	0.56
11,146.00	91.90	359.90	10,341.86	1,061.59	-0.10	1,061.57	0.94	-0.88	-0.33
11,236.00	90.30	359.20	10,340.14	1,151.56	-0.80	1,151.55	1.94	-1.78	-0.78
11,327.00	90.70	358.80	10,339.34	1,242.55	-2.39	1,242.54	0.62	0.44	-0.44
11,420.00	89.30	359.10	10,339.34	1,335.53	-4.09	1,335.53	1.54	-1.51	0.32
11,511.00	90.00	358.20	10,339.90	1,426.50	-6.24	1,426.51	1.25	0.77	-0.99
11,602.00	91.30	357.80	10,338.86	1,517.44	-9.41	1,517.47	1.49	1.43	-0.44
11,695.00	91.40	358.70	10,336.67	1,610.37	-12.25	1,610.41	0.97	0.11	0.97
11,787.00	91.40	358.70	10,334.43	1,702.32	-14.34	1,702.37	0.00	0.00	0.00
11,878.00	89.60	359.90	10,333.63	1,793.30	-15.45	1,793.36	2.38	-1.98	1.32
11,970.00	90.60	0.00	10,333.47	1,885.30	-15.53	1,885.36	1.09	1.09	0.11
12,062.00	89.60	0.20	10,333.31	1,977.30	-15.37	1,977.36	1.11	-1.09	0.22
12,155.00	90.10	0.40	10,333.55	2,070.30	-14.88	2,070.35	0.58	0.54	0.22
12,247.00	89.00	0.10	10,334.28	2,162.29	-14.48	2,162.34	1.24	-1.20	-0.33
12,338.00	90.00	0.10	10,335.07	2,253.29	-14.32	2,253.33	1.10	1.10	0.00
12,432.00	89.30	358.90	10,335.64	2,347.28	-15.14	2,347.33	1.48	-0.74	-1.28
12,526.00	88.00	359.90	10,337.86	2,441.24	-16.13	2,441.30	1.74	-1.38	1.06



Phoenix Technology Services

Survey Report



Company:	BOPCO, L P	Local Co-ordinate Reference:	Well #027H
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	KB @ 3475.00usft (Latshaw 14)
Site:	Poker Lake Unit CVX JV BS	MD Reference:	KB @ 3475.00usft (Latshaw 14)
Well:	#027H	North Reference:	Grid
Wellbore:	WB1/Job #1311615	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)
12,620.00	88.40	0.30	10,340.81	2,535.20	-15.96	2,535.25	0.60	0.43	0.43
12,715.00	86.50	0.60	10,345.04	2,630.09	-15.22	2,630.14	2.02	-2.00	0.32
12,809.00	87.60	0.70	10,349.88	2,723.96	-14.15	2,724.00	1.18	1.17	0.11
12,904.00	89.00	0.30	10,352.69	2,818.91	-13.33	2,818.94	1.53	1.47	-0.42
12,998.00	89.50	0.20	10,353.92	2,912.91	-12.92	2,912.93	0.54	0.53	-0.11
13,092.00	90.70	0.20	10,353.76	3,006.90	-12.59	3,006.92	1.28	1.28	0.00
13,187.00	89.80	1.00	10,353.35	3,101.90	-11.59	3,101.91	1.27	-0.95	0.84
13,282.00	90.80	0.50	10,352.85	3,196.88	-10.35	3,196.88	1.18	1.05	-0.53
13,376.00	90.50	0.60	10,351.78	3,290.87	-9.45	3,290.87	0.34	-0.32	0.11
13,471.00	89.70	359.00	10,351.62	3,385.87	-9.78	3,385.86	1.88	-0.84	-1.68
13,565.00	90.60	357.70	10,351.37	3,479.83	-12.48	3,479.83	1.68	0.96	-1.38
13,657.00	90.80	355.20	10,350.25	3,571.64	-18.18	3,571.68	2.73	0.22	-2.72
13,752.00	89.60	355.40	10,349.91	3,666.31	-25.96	3,666.41	1.28	-1.26	0.21
13,847.00	90.60	359.00	10,349.75	3,761.18	-30.60	3,761.30	3.93	1.05	3.79
13,941.00	89.70	1.40	10,349.50	3,855.18	-30.28	3,855.29	2.73	-0.96	2.55
14,035.00	90.60	2.40	10,349.26	3,949.12	-27.16	3,949.21	1.43	0.96	1.06
14,129.00	91.30	1.80	10,347.70	4,043.04	-23.72	4,043.11	0.98	0.74	-0.64
14,229.00	89.90	1.00	10,346.65	4,143.01	-21.27	4,143.06	1.61	-1.40	-0.80
14,324.00	90.30	1.20	10,346.49	4,237.99	-19.45	4,238.02	0.47	0.42	0.21
14,418.00	88.10	1.10	10,347.80	4,331.95	-17.56	4,331.98	2.34	-2.34	-0.11
14,512.00	89.10	1.30	10,350.09	4,425.90	-15.59	4,425.91	1.08	1.06	0.21
14,607.00	88.20	0.30	10,352.33	4,520.87	-14.27	4,520.86	1.42	-0.95	-1.05
14,701.00	88.30	0.40	10,355.20	4,614.82	-13.69	4,614.81	0.15	0.11	0.11
14,796.00	88.70	359.80	10,357.69	4,709.79	-13.53	4,709.78	0.76	0.42	-0.63
14,889.00	88.90	0.10	10,359.64	4,802.77	-13.61	4,802.75	0.39	0.22	0.32
14,984.00	89.40	358.90	10,361.05	4,897.75	-14.44	4,897.74	1.37	0.53	-1.26
15,078.00	89.50	358.80	10,361.95	4,991.73	-16.33	4,991.73	0.15	0.11	-0.11
15,172.00	90.20	358.90	10,362.20	5,085.71	-18.21	5,085.72	0.75	0.74	0.11
15,266.00	90.70	359.00	10,361.46	5,179.69	-19.93	5,179.71	0.54	0.53	0.11
15,361.00	90.80	359.10	10,360.21	5,274.67	-21.51	5,274.70	0.15	0.11	0.11
15,456.00	90.80	359.50	10,358.89	5,369.65	-22.67	5,369.68	0.42	0.00	0.42
15,550.00	91.20	359.80	10,357.25	5,463.63	-23.24	5,463.67	0.53	0.43	0.32
15,644.00	90.60	359.90	10,355.77	5,557.62	-23.49	5,557.66	0.65	-0.64	0.11
15,738.00	91.20	359.60	10,354.29	5,651.61	-23.90	5,651.65	0.71	0.64	-0.32
15,833.00	89.60	359.60	10,353.63	5,746.60	-24.56	5,746.64	1.68	-1.68	0.00
15,927.00	90.60	0.60	10,353.47	5,840.60	-24.40	5,840.63	1.50	1.06	1.06
16,021.00	91.40	359.80	10,351.83	5,934.58	-24.07	5,934.61	1.20	0.85	-0.85
16,116.00	91.10	358.20	10,349.75	6,029.54	-25.73	6,029.58	1.71	-0.32	-1.68
16,210.00	89.50	357.70	10,349.26	6,123.48	-29.09	6,123.54	1.78	-1.70	-0.53
16,304.00	88.60	357.40	10,350.82	6,217.38	-33.11	6,217.46	1.01	-0.96	-0.32
16,399.00	88.90	357.70	10,352.89	6,312.27	-37.17	6,312.38	0.45	0.32	0.32
16,493.00	89.80	358.10	10,353.96	6,406.20	-40.61	6,406.33	1.05	0.96	0.43
16,587.00	91.10	358.90	10,353.22	6,500.16	-43.07	6,500.30	1.62	1.38	0.85
16,682.00	89.00	357.90	10,353.14	6,595.12	-45.73	6,595.27	2.45	-2.21	-1.05



Phoenix Technology Services Survey Report



Company: BOPCO, L P
Project: Eddy County, NM (NAD27 NME)
Site: Poker Lake Unit CVX JV BS
Well: #027H
Wellbore: WB1/Job #1311615
Design: Surveys (Latshaw 14)

Local Co-ordinate Reference: Well #027H
TVD Reference: KB @ 3475.00usft (Latshaw 14)
MD Reference: KB @ 3475.00usft (Latshaw 14)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
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)
16,776.00	90.00	357.40	10,353.96	6,689.03	-49.58	6,689.21	1.19	1.06	-0.53
16,870.00	89.80	356.40	10,354.12	6,782.89	-54.66	6,783.10	1.08	-0.21	-1.06
16,964.00	90.00	356.90	10,354.29	6,876.73	-60.16	6,876.98	0.57	0.21	0.53
17,058.00	91.30	358.50	10,353.22	6,970.64	-63.93	6,970.91	2.19	1.38	1.70
17,153.00	92.00	358.70	10,350.48	7,065.58	-66.25	7,065.86	0.77	0.74	0.21
17,247.00	91.40	359.80	10,347.70	7,159.52	-67.48	7,159.81	1.33	-0.64	1.17
17,341.00	89.50	359.50	10,346.96	7,253.52	-68.05	7,253.80	2.05	-2.02	-0.32
17,435.00	89.70	359.40	10,347.61	7,347.51	-68.95	7,347.80	0.24	0.21	-0.11
17,530.00	88.30	359.70	10,349.27	7,442.49	-69.70	7,442.78	1.51	-1.47	0.32
17,624.00	88.60	359.30	10,351.81	7,536.45	-70.52	7,536.75	0.53	0.32	-0.43
17,719.00	88.10	357.70	10,354.55	7,631.38	-73.01	7,631.69	1.76	-0.53	-1.68
17,813.00	91.30	358.10	10,355.04	7,725.30	-76.45	7,725.63	3.43	3.40	0.43
17,907.00	89.70	356.60	10,354.22	7,819.19	-80.80	7,819.55	2.33	-1.70	-1.60
18,002.00	90.00	357.40	10,354.47	7,914.06	-85.77	7,914.45	0.90	0.32	0.84
18,097.00	90.90	357.20	10,353.72	8,008.95	-90.24	8,009.36	0.97	0.95	-0.21
18,192.00	91.70	357.70	10,351.57	8,103.83	-94.47	8,104.27	0.99	0.84	0.53
Last Phoenix MWD Survey									
18,245.00	91.70	357.70	10,350.00	8,156.76	-96.59	8,157.22	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)	
9,688.00	9,686.48	-38.76	12.73	Tie-on to MS Gyro Survey
9,806.00	9,804.21	-31.86	12.99	First Phoenix MWD Survey
18,192.00	10,351.57	8,103.83	-94.47	Last Phoenix MWD Survey
18,245.00	10,350.00	8,156.76	-96.59	Projection to Bit

Checked By: _____

Approved By: _____

Date: _____