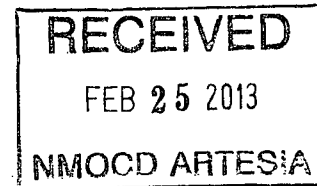




PHOENIX
TECHNOLOGY SERVICES

February 14, 2013

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



Dear District 2 – Artesia

Re: Bopco, LP
PLU Ross Ranch 33-25-30 USA #1H
Eddy Co., NM
API #30-015-40762
Job No. 1310023

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	
Spencer Brown	1H	1,167	13,396	01/29/13	02/10/13	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,

Kelly Jo Walter

Kelly Jo Walter
Operations Administrator

Certified mail receipt number: 7011 1570 0001 4364 9384

**NEVIS ENERGY SERVICES INC.
SURVEY DATA CERTIFICATION**



PHOENIX JOB NUMBER 1310023

OPERATOR BOPCO LP

WELL NAME Ross Ranch 33-25-30 USA 1H

COUNTY & STATE

Eddy County, NM

API WELL NUMBER 30-015-40762

PROPOSED DIRECTION 180.2

TIE-IN DATA						
MEASURED DEPTH	VERTICAL DEPTH	INCLIN	AZIMUTH	N-S COORD	E-W COORD	DATA SOURCE
1,167 ft	1,166.94 ft	1.1	187.1	-3.04	-0.27	MWD

FIRST SURVEY DATE	FIRST SURVEY DEPTH	INCLIN	AZIMUTH
29-Jan-13	1,167 ft	1.1	187.1

SURVEY INSTRUMENT TYPE
Phoenix MWD

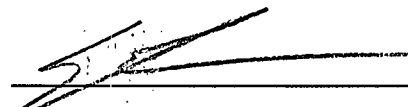
LAST SURVEY DATE	LAST SURVEY DEPTH	INCLIN	AZIMUTH
10-Feb-13	13,396 ft	88.4	182.4

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
10-Feb-13	13,448 ft	88.4	182.4

Spencer Brown

PRINT YOUR NAME ABOVE


SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	7.3
DECLINATION OR GRID	Grid

2/10/2013

TODAY'S DATE

MWD SUPERVISOR 1

Jia Lewis

DIRECTIONAL DRILLER 1

Brady Welch

MWD SUPERVISOR 2

Spencer Brown

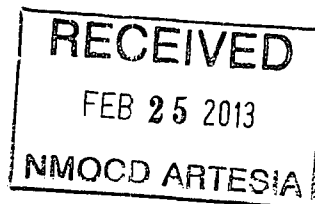
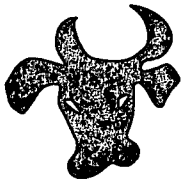
DIRECTIONAL DRILLER 2

Will Solomon

1805 Brittmore Road

Houston, Texas 77043

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



Bopco L P

Eddy County, NM (NAD 27)

PLU Ross Ranch 33-25-30 USA

#1H

Wellbore #1 / Job #1310023

Survey: Phoenix MWD

Standard Survey Report

10 February, 2013





Phoenix Technology Services

Survey Report



Company:	Bopco L.P.	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County, NM (NAD 27)	TVD Reference:	WELL @ 3219.00usft (Latshaw 14)
Site:	PLU Ross Ranch 33-25-30 USA	MD Reference:	WELL @ 3219.00usft (Latshaw 14)
Well:	#1H	North Reference:	Grid
Wellbore:	Wellbore #1 / Job #1310023	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Latshaw 14)	Database:	GCR DB v5000

Project: Eddy County, NM (NAD 27)			
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: PLU Ross Ranch 33-25-30 USA					
Site Position:		Northing:	397,909.00 usft	Latitude:	32° 5' 35.5182 N
From:	Map	Easting:	636,627.00 usft	Longitude:	103° 53' 31.7349 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.23 °

Well:	#1H					
Well Position	+N/-S	0.00 usft	Northing:	397,909.00 usft	Latitude:	32° 5' 35.5182 N
	+E/-W	0.00 usft	Easting:	636,627.00 usft	Longitude:	103° 53' 31.7349 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	22.00 usft	Ground Level:	3,197.00 usft

Wellbore		Wellbore #1 / Job #1310023			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010_14	01/03/13	7.53	59.97	48,348

Design	Surveys (Latshaw 14)				
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	180.20	

Survey Program		Date	02/10/13		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
111.90	1,134.00	Gyrodata (Wellbore #1 / Job #1310023)	NS-GYRO-MS	North sensing gyrocompassing m/s	
1,167.00	13,448.00	Phoenix MWD (Wellbore #1 / Job #131002)	MWD	MWD - Standard	

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)
1,134.00	1.12	179.54	1,133.95	-2.40	-0.23	2.40	0.00	0.00	0.00
1,167.00	1.10	187.10	1,166.94	-3.03	-0.27	3.04	0.45	-0.06	22.91
First Phoenix MWD Survey									
1,357.00	1.50	182.50	1,356.89	-7.33	-0.60	7.33	0.22	0.21	-2.42
1,548.00	1.50	175.30	1,547.83	-12.32	-0.51	12.32	0.10	0.00	-3.77
1,738.00	1.80	173.60	1,737.75	-17.76	0.03	17.76	0.16	0.16	-0.89
1,928.00	0.10	23.80	1,927.72	-20.58	0.43	20.57	0.99	-0.89	-78.84
2,119.00	0.70	324.50	2,118.72	-19.47	-0.18	19.47	0.34	0.31	-31.05
2,309.00	1.10	328.70	2,308.69	-16.97	-1.80	16.98	0.21	0.21	2.21
2,498.00	1.10	331.70	2,497.66	-13.82	-3.60	13.84	0.03	0.00	1.59



Phoenix Technology Services

Survey Report



Company:	Bopco L.P.	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County, NM (NAD 27)	TVD Reference:	WELL @ 3219.00usft (Latshaw 14)
Site:	PLU, Ross Ranch 33-25-30 USA	MD Reference:	WELL @ 3219.00usft (Latshaw 14)
Well:	#1H	North Reference:	Grid
Wellbore:	Wellbore #1 / Job #1310023	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Latshaw 14)	Database:	GCR DB v5000

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)	
2,688.00	0.90	310.30	2,687.63	-11.25	-5.61	11.27	0.22	-0.11	-11.26	
2,879.00	0.50	324.80	2,878.61	-9.60	-7.23	9.63	0.23	-0.21	7.59	
3,069.00	0.20	83.20	3,068.61	-8.88	-7.38	8.91	0.33	-0.16	62.32	
3,260.00	0.90	109.20	3,259.60	-9.34	-5.63	9.36	0.38	0.37	13.61	
3,450.00	1.70	137.60	3,449.55	-11.91	-2.32	11.92	0.53	0.42	14.95	
3,620.00	0.90	253.30	3,619.53	-14.16	-1.90	14.16	1.32	-0.47	68.06	
3,832.00	1.10	260.20	3,831.49	-14.98	-5.50	15.00	0.11	0.09	3.25	
4,022.00	1.00	265.50	4,021.46	-15.42	-8.95	15.45	0.07	-0.05	2.79	
4,212.00	0.70	267.90	4,211.44	-15.59	-11.76	15.63	0.16	-0.16	1.26	
4,403.00	0.80	269.30	4,402.43	-15.65	-14.26	15.70	0.05	0.05	0.73	
4,593.00	0.80	268.10	4,592.41	-15.71	-16.92	15.77	0.01	0.00	-0.63	
4,784.00	1.00	264.70	4,783.38	-15.91	-19.91	15.98	0.11	0.10	-1.78	
4,974.00	0.80	265.30	4,973.36	-16.17	-22.88	16.25	0.11	-0.11	0.32	
5,165.00	0.60	278.00	5,164.35	-16.14	-25.20	16.23	0.13	-0.10	6.65	
5,355.00	0.50	259.00	5,354.34	-16.16	-27.00	16.26	0.11	-0.05	-10.00	
5,545.00	0.40	234.00	5,544.33	-16.71	-28.35	16.81	0.11	-0.05	-13.16	
5,735.00	0.40	229.00	5,734.33	-17.54	-29.39	17.64	0.02	0.00	-2.63	
5,926.00	0.60	214.80	5,925.32	-18.79	-30.46	18.90	0.12	0.10	-7.43	
6,115.00	0.60	209.30	6,114.31	-20.47	-31.51	20.58	0.03	0.00	-2.91	
6,304.00	1.00	204.60	6,303.29	-22.83	-32.68	22.95	0.21	0.21	-2.49	
6,494.00	0.70	190.40	6,493.27	-25.48	-33.58	25.60	0.19	-0.16	-7.47	
6,684.00	0.70	164.80	6,683.26	-27.74	-33.48	27.86	0.16	0.00	-13.47	
6,874.00	1.00	155.20	6,873.23	-30.37	-32.49	30.48	0.17	0.16	-5.05	
7,064.00	1.40	166.90	7,063.19	-34.13	-31.26	34.24	0.25	0.21	6.16	
7,254.00	1.10	168.10	7,253.15	-38.18	-30.36	38.28	0.16	-0.16	0.63	
7,444.00	0.90	177.70	7,443.12	-41.45	-29.93	41.56	0.14	-0.11	5.05	
7,634.00	1.10	184.60	7,633.09	-44.76	-30.01	44.87	0.12	0.11	3.63	
7,825.00	1.90	190.20	7,824.02	-49.71	-30.72	49.81	0.43	0.42	2.93	
8,015.00	1.30	181.50	8,013.95	-54.96	-31.33	55.07	0.34	-0.32	-4.58	
8,204.00	1.40	223.50	8,202.90	-58.78	-32.98	58.89	0.51	0.05	22.22	
8,312.00	2.00	232.00	8,310.85	-60.90	-35.37	61.02	0.60	0.56	7.87	
8,344.00	2.00	242.60	8,342.83	-61.50	-36.31	61.62	1.15	0.00	33.13	
8,375.00	2.10	222.50	8,373.81	-62.17	-37.17	62.30	2.33	0.32	-64.84	
8,407.00	3.90	199.60	8,405.77	-63.62	-37.93	63.76	6.65	5.63	-71.56	
8,439.00	8.30	185.70	8,437.58	-66.95	-38.53	67.08	14.41	13.75	-43.44	
8,470.00	13.60	187.10	8,468.01	-72.80	-39.20	72.93	17.12	17.10	4.52	
8,501.00	18.10	187.40	8,497.82	-81.19	-40.27	81.33	14.52	14.52	0.97	
8,533.00	22.90	186.90	8,527.78	-92.31	-41.66	92.45	15.01	15.00	-1.56	
8,564.00	26.50	187.70	8,555.94	-105.16	-43.31	105.31	11.66	11.61	2.58	
8,596.00	30.00	185.50	8,584.13	-120.20	-45.04	120.35	11.41	10.94	-6.88	
8,628.00	33.30	180.40	8,611.37	-136.95	-45.87	137.11	13.27	10.31	-15.94	
8,660.00	37.40	177.10	8,637.47	-155.45	-45.44	155.61	14.13	12.81	-10.31	
8,691.00	41.10	176.80	8,661.47	-175.04	-44.39	175.19	11.95	11.94	-0.97	



Phoenix Technology Services Survey Report



Company:	Bopco L.P.	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County, NM (NAD 27)	TVD Reference:	WELL @ 3219.00usft (Latshaw 14)
Site:	PLU Ross Ranch 33-25-30 USA	MD Reference:	WELL @ 3219.00usft (Latshaw 14)
Well:	#1H	North Reference:	Grid
Wellbore:	Wellbore #1 / Job #1310023	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Latshaw 14)	Database:	GCR:DB v5000

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)
8,723.00	42.70	176.30	8,685.29	-196.37	-43.10	196.52	5.11	5.00	-1.56
8,755.00	45.80	174.90	8,708.21	-218.63	-41.38	218.77	10.16	9.69	-4.38
8,787.00	48.30	173.30	8,730.01	-241.92	-38.97	242.05	8.63	7.81	-5.00
8,818.00	50.60	172.00	8,750.16	-265.28	-35.95	265.40	8.07	7.42	-4.19
8,850.00	54.20	174.00	8,769.68	-290.44	-32.87	290.55	12.29	11.25	6.25
8,882.00	57.10	175.60	8,787.74	-316.74	-30.48	316.85	9.96	9.06	5.00
8,913.00	60.50	176.80	8,803.80	-343.20	-28.73	343.30	11.46	10.97	3.87
8,945.00	64.20	175.30	8,818.64	-371.47	-26.77	371.56	12.28	11.56	-4.69
8,977.00	67.30	173.60	8,831.79	-400.50	-23.95	400.58	10.83	9.69	-5.31
9,009.00	70.30	173.80	8,843.36	-430.15	-20.67	430.22	9.39	9.38	0.63
9,040.00	74.10	173.40	8,852.83	-459.48	-17.38	459.54	12.32	12.26	-1.29
9,072.00	77.90	172.10	8,860.57	-490.28	-13.46	490.32	12.51	11.88	-4.06
9,103.00	82.00	172.10	8,865.98	-520.50	-9.27	520.53	13.23	13.23	0.00
9,135.00	87.00	171.00	8,869.05	-552.00	-4.59	552.01	16.00	15.63	-3.44
9,166.00	91.80	170.40	8,869.37	-582.58	0.42	582.58	15.60	15.48	-1.94
9,262.00	93.30	173.10	8,865.10	-677.48	14.18	677.43	3.21	1.56	2.81
9,357.00	91.50	176.60	8,861.12	-772.00	22.70	771.91	4.14	-1.89	3.68
9,452.00	91.00	180.60	8,859.05	-866.93	25.02	866.83	4.24	-0.53	4.21
9,547.00	90.90	180.40	8,857.47	-961.91	24.19	961.82	0.24	-0.11	-0.21
9,642.00	91.20	180.70	8,855.73	-1,056.89	23.28	1,056.80	0.45	0.32	0.32
9,737.00	90.50	180.40	8,854.32	-1,151.87	22.36	1,151.79	0.80	-0.74	-0.32
9,832.00	90.90	180.80	8,853.16	-1,246.86	21.37	1,246.78	0.60	0.42	0.42
9,927.00	91.00	181.20	8,851.59	-1,341.83	19.71	1,341.76	0.43	0.11	0.42
10,022.00	91.10	181.40	8,849.85	-1,436.79	17.56	1,436.72	0.24	0.11	0.21
10,117.00	91.60	181.80	8,847.61	-1,531.73	14.91	1,531.67	0.67	0.53	0.42
10,213.00	91.10	181.70	8,845.35	-1,627.66	11.97	1,627.61	0.53	-0.52	-0.10
10,308.00	89.50	181.10	8,844.85	-1,722.62	9.65	1,722.58	1.80	-1.68	-0.63
10,402.00	89.50	180.40	8,845.67	-1,816.61	8.42	1,816.57	0.74	0.00	-0.74
10,498.00	89.80	180.20	8,846.25	-1,912.61	7.92	1,912.57	0.38	0.31	-0.21
10,593.00	88.50	179.70	8,847.66	-2,007.60	8.00	2,007.56	1.47	-1.37	-0.53
10,688.00	89.50	181.00	8,849.32	-2,102.58	7.42	2,102.54	1.73	1.05	1.37
10,783.00	88.40	180.60	8,851.06	-2,197.55	6.10	2,197.52	1.23	-1.16	-0.42
10,878.00	88.90	180.20	8,853.30	-2,292.52	5.43	2,292.49	0.67	0.53	-0.42
10,973.00	89.00	180.40	8,855.04	-2,387.50	4.94	2,387.47	0.24	0.11	0.21
11,069.00	88.30	180.20	8,857.30	-2,483.47	4.43	2,483.44	0.76	-0.73	-0.21
11,164.00	90.20	180.00	8,858.55	-2,578.46	4.27	2,578.43	2.01	2.00	-0.21
11,259.00	89.30	179.00	8,858.96	-2,673.46	5.10	2,673.42	1.42	-0.95	-1.05
11,354.00	90.30	180.20	8,859.29	-2,768.45	5.76	2,768.41	1.64	1.05	1.26
11,450.00	90.20	180.40	8,858.87	-2,864.45	5.26	2,864.41	0.23	-0.10	0.21
11,545.00	91.00	180.40	8,857.88	-2,959.44	4.59	2,959.40	0.84	0.84	0.00
11,640.00	91.60	179.80	8,855.72	-3,054.41	4.43	3,054.38	0.89	0.63	-0.63
11,734.00	92.00	179.90	8,852.77	-3,148.37	4.67	3,148.33	0.44	0.43	0.11
11,829.00	91.40	179.70	8,849.95	-3,243.32	5.01	3,243.29	0.67	-0.63	-0.21



Phoenix Technology Services
Survey Report



Company:	Bopco L.P.	Local Co-ordinate/Reference:	Well #1H
Project:	Eddy County NM (NAD 27)	TVD Reference:	WELL @ 3219.00usft (Latshaw 14)
Site:	PLU Ross Ranch 33-25-30 USA	MD Reference:	WELL @ 3219.00usft (Latshaw 14)
Well:	#1H	North Reference:	Grid
Wellbore:	Wellbore #1 / Job #1310023	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Latshaw 14)	Database:	GCR DB v5000

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)	
11,924.00	89.60	178.90	8,849.12	-3,338.31	6.17	3,338.27	2.07	-1.89	-0.84	
12,019.00	91.20	179.20	8,848.46	-3,433.29	7.74	3,433.24	1.71	1.68	0.32	
12,114.00	92.00	179.00	8,845.81	-3,528.24	9.23	3,528.19	0.87	0.84	-0.21	
12,209.00	91.70	180.90	8,842.74	-3,623.19	9.32	3,623.13	2.02	-0.32	2.00	
12,304.00	92.50	182.60	8,839.26	-3,718.07	6.42	3,718.03	1.98	0.84	1.79	
12,399.00	90.90	182.30	8,836.44	-3,812.94	2.36	3,812.91	1.71	-1.68	-0.32	
12,495.00	89.40	181.80	8,836.19	-3,908.88	-1.08	3,908.86	1.65	-1.56	-0.52	
12,590.00	91.10	182.50	8,835.78	-4,003.81	-4.64	4,003.80	1.94	1.79	0.74	
12,685.00	90.70	183.00	8,834.28	-4,098.68	-9.20	4,098.69	0.67	-0.42	0.53	
12,780.00	87.40	180.80	8,835.86	-4,193.60	-12.35	4,193.62	4.17	-3.47	-2.32	
12,876.00	86.90	180.50	8,840.63	-4,289.47	-13.43	4,289.49	0.61	-0.52	-0.31	
12,971.00	86.90	181.20	8,845.77	-4,384.32	-14.84	4,384.35	0.74	0.00	0.74	
13,065.00	86.20	181.00	8,851.43	-4,478.14	-16.64	4,478.17	0.77	-0.74	-0.21	
13,160.00	87.50	181.20	8,856.65	-4,572.97	-18.46	4,573.01	1.38	1.37	0.21	
13,255.00	88.00	182.30	8,860.38	-4,667.85	-21.36	4,667.90	1.27	0.53	1.16	
13,350.00	88.30	182.20	8,863.44	-4,762.73	-25.09	4,762.79	0.33	0.32	-0.11	
13,396.00	88.40	182.40	8,864.77	-4,808.67	-26.94	4,808.74	0.49	0.22	0.43	
Last Phoenix MWD Survey										
13,448.00	88.40	182.40	8,866.22	-4,860.61	-29.11	4,860.68	0.00	0.00	0.00	
Projection To TD										

Survey Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
1,167.00	1,166.94	-3.03	-0.27	First Phoenix MWD Survey	
13,396.00	8,864.77	-4,808.67	-26.94	Last Phoenix MWD Survey	
13,448.00	8,866.22	-4,860.61	-29.11	Projection To TD	

Checked By: _____ Approved By: _____ Date: _____