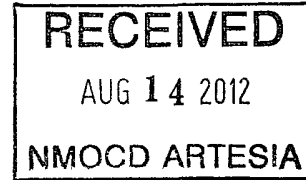


30-015-39834



**PHOENIX**  
TECHNOLOGY SERVICES



## **Bopco L P**

Eddy County NM

Poker Lake Unit #319H

Job # 1210266

Latshaw #7

Design: Latshaw #7

## **Bopco LP, Survey Report**

17 May, 2012





Company: Bopco L P  
Project: Eddy County NM  
Site: Poker Lake Unit #319H  
Well: Job # 1210266  
Wellbore: Latshaw #7  
Design: Latshaw #7

Local Co-ordinate Reference: Well Job # 1210266  
TVD Reference: WELL @ 3451.00usft (Latshaw #7)  
MD Reference: WELL @ 3451.00usft (Latshaw #7)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: Compass5000

|             |                                      |               |                |
|-------------|--------------------------------------|---------------|----------------|
| Project     | Eddy County NM                       |               |                |
| 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 #319H |  |                   |  |                    |  |
| Site Position:        |  |           |  | Northing:    |  | 453,299.81 usft       |  | Latitude:         |  | 32° 14' 43.5429 N  |  |
| From:                 |  | Map       |  | Easting:     |  | 639,840.89 usft       |  | Longitude:        |  | 103° 52' 51.6686 W |  |
| Position Uncertainty: |  | 0.00 usft |  | Slot Radius: |  | 13-3/16 "             |  | Grid Convergence: |  | 0.24 °             |  |

|                      |      |               |                     |                 |               |                    |
|----------------------|------|---------------|---------------------|-----------------|---------------|--------------------|
| Well                 |      | Job # 1210266 |                     |                 |               |                    |
| Well Position        | +N-S | 0 00 usft     | Northing:           | 453,299 81 usft | Latitude:     | 32° 14' 43 5429 N  |
|                      | +E-W | 0 00 usft     | Easting:            | 639,840 89 usft | Longitude:    | 103° 52' 51 6686 W |
| Position Uncertainty |      | 0.00 usft     | Wellhead Elevation: | 26 00 usft      | Ground Level: | 3,425 00 usft      |

|           |             |             |                    |                  |                        |
|-----------|-------------|-------------|--------------------|------------------|------------------------|
| Wellbore  | Latshaw #7  |             |                    |                  |                        |
| Magnetics | Model Name  | Sample Date | Declination<br>(°) | Dip Angle<br>(°) | Field Strength<br>(nT) |
|           | IGRF2010_14 | 04/24/12    | 7 62               | 60 13            | 48,509                 |

|                   |                            |                |                |                  |      |
|-------------------|----------------------------|----------------|----------------|------------------|------|
| Design:           | Latshaw #7                 |                |                |                  |      |
| Audit Notes:      |                            |                |                |                  |      |
| Version:          | 1 0                        | Phase:         | ACTUAL         | Tie On Depth:    | 0 00 |
| Vertical Section: | Depth From (TVD)<br>(usft) | +N-S<br>(usft) | +E-W<br>(usft) | Direction<br>(°) |      |
|                   | 0 00                       | 0 00           | 0 00           | 135 01           |      |



# Bopco LP, Survey Report



Company: Bopco L P  
Project: Eddy County NM  
Site: Poker Lake Unit #319H  
Well: Job # 1210266  
Wellbore: Latshaw #7  
Design: Latshaw #7

Local Co-ordinate Reference:  
TVD Reference:  
MD Reference:  
North Reference:  
Survey Calculation Method:  
Database:

Well Job # 1210266  
WELL @ 3451 00usft (Latshaw #7)  
WELL @ 3451 00usft (Latshaw #7)  
Grid  
Minimum Curvature  
Compass5000

| Survey Program |              | Date                             | 05/17/12  |                |  |
|----------------|--------------|----------------------------------|-----------|----------------|--|
| From<br>(usft) | To<br>(usft) | Survey (Wellbore)                | Tool Name | Description    |  |
| 169.86         | 6,836.00     | Gyro Surveys (Latshaw #7)        | MWD       | MWD - Standard |  |
| 6,836.00       | 15,886.00    | Phoenix MWD Surveys (Latshaw #7) | MWD       | MWD - Standard |  |

| 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) |
|--------|-----------|---------|-------------------|--------------|------------|------------|------------|---------------|------------------|-----------------|----------------|
|        | 0.00      | 0 00    | 0.00              | 3,451 00     | 0 00       | 0.00       | 0 00       | 0.00          | 0 00             | 453,299 81      | 639,840 89     |
|        | 169 86    | 0.16    | 156.66            | 3,281 14     | 169.86     | -0.22      | 0 09       | 0.22          | 0 09             | 453,299 59      | 639,840 98     |
|        | 263 75    | 0 16    | 337 30            | 3,187 25     | 263 75     | -0 22      | 0 10       | 0.22          | 0 34             | 453,299 59      | 639,840 99     |
|        | 357 64    | 0 25    | 263 99            | 3,093.36     | 357 64     | -0 12      | -0.16      | -0.03         | 0 27             | 453,299 69      | 639,840 73     |
|        | 451 53    | 0 41    | 299 68            | 2,999.47     | 451 53     | 0 03       | -0 65      | -0.48         | 0.27             | 453,299 84      | 639,840 24     |
|        | 545 42    | 0.34    | 215 73            | 2,905.58     | 545 42     | -0 03      | -1.11      | -0.76         | 0 54             | 453,299 78      | 639,839 78     |
|        | 639.31    | 0.29    | 218.05            | 2,811.70     | 639.30     | -0 45      | -1 42      | -0.69         | 0 05             | 453,299 37      | 639,839 47     |
|        | 733.20    | 0 36    | 242.55            | 2,717.81     | 733 19     | -0 77      | -1 83      | -0.75         | 0 16             | 453,299 04      | 639,839 06     |
|        | 827 09    | 0 32    | 194.07            | 2,623.92     | 827 08     | -1 16      | -2 15      | -0.70         | 0 30             | 453,298 65      | 639,838 74     |
|        | 920 98    | 0.13    | 234.11            | 2,530 03     | 920 97     | -1 48      | -2 30      | -0 58         | 0 25             | 453,298 34      | 639,838 59     |
|        | 1,014 87  | 0.37    | 227.91            | 2,436 14     | 1,014.86   | -1 74      | -2.61      | -0 62         | 0 26             | 453,298.07      | 639,838 28     |
|        | 1,108.76  | 0 26    | 242.42            | 2,342.25     | 1,108.75   | -2.04      | -3 03      | -0.69         | 0 14             | 453,297.77      | 639,837 86     |
|        | 1,202.65  | 0.30    | 261.17            | 2,248 36     | 1,202 64   | -2 18      | -3 46      | -0.90         | 0 11             | 453,297.63      | 639,837 43     |
|        | 1,296 54  | 0.12    | 8 67              | 2,154.47     | 1,296 53   | -2.12      | -3 69      | -1 11         | 0 38             | 453,297.69      | 639,837 20     |
|        | 1,390 43  | 0 30    | 152.57            | 2,060 58     | 1,390.42   | -2.24      | -3 56      | -0.93         | 0 43             | 453,297 57      | 639,837 33     |
|        | 1,484 32  | 0 16    | 321 00            | 1,966.69     | 1,484 31   | -2.36      | -3.53      | -0 83         | 0 49             | 453,297 45      | 639,837 36     |
|        | 1,578 21  | 0.20    | 318.24            | 1,872 80     | 1,578.20   | -2.13      | -3 72      | -1.12         | 0 04             | 453,297 68      | 639,837 17     |
|        | 1,672.10  | 0 16    | 310.51            | 1,778 91     | 1,672 09   | -1 93      | -3 93      | -1 42         | 0 05             | 453,297 89      | 639,836 96     |
|        | 1,765.99  | 0 22    | 358 41            | 1,685 02     | 1,765.98   | -1 66      | -4 03      | -1 68         | 0 17             | 453,298 15      | 639,836 86     |
|        | 1,859 88  | 0 37    | 358 61            | 1,591 14     | 1,859 86   | -1 18      | -4.05      | -2.03         | 0 16             | 453,298 63      | 639,836 84     |
|        | 1,953 77  | 0 39    | 5 31              | 1,497 25     | 1,953.75   | -0 56      | -4 02      | -2.45         | 0 05             | 453,299 26      | 639,836 87     |



# Bopco LP, Survey Report



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Project: Eddy County NM  
Site: Poker Lake Unit #319H  
Well: Job # 1210266  
Wellbore: Latshaw #7  
Design: Latshaw #7

Local Co-ordinate Reference:  
TVD Reference:  
MD Reference:  
North Reference:  
Survey Calculation Method:  
Database:  
Well Job # 1210266  
WELL @ 3451 00usft (Latshaw #7)  
WELL @ 3451 00usft (Latshaw #7)  
Grd  
Minimum Curvature  
Compass5000

| Survey       |            |                      |                 |               |               |               |                  |                     |                    |                   |  |  |
|--------------|------------|----------------------|-----------------|---------------|---------------|---------------|------------------|---------------------|--------------------|-------------------|--|--|
| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVDSS<br>(usft) | TVD<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | V. Sec<br>(usft) | DLeg<br>(°/100usft) | Northing<br>(usft) | Easting<br>(usft) |  |  |
| 2,047.66     | 0.31       | 10.52                | 1,403.36        | 2,047.64      | 0.01          | -3.95         | -2.80            | 0.09                | 453,299.82         | 639,836.94        |  |  |
| 2,141.55     | 0.45       | 20.39                | 1,309.47        | 2,141.53      | 0.61          | -3.77         | -3.10            | 0.16                | 453,300.42         | 639,837.12        |  |  |
| 2,235.44     | 0.54       | 28.35                | 1,215.59        | 2,235.41      | 1.34          | -3.43         | -3.38            | 0.12                | 453,301.15         | 639,837.46        |  |  |
| 2,329.33     | 1.01       | 17.10                | 1,121.70        | 2,329.30      | 2.52          | -2.98         | -3.89            | 0.52                | 453,302.33         | 639,837.91        |  |  |
| 2,423.22     | 0.92       | 23.16                | 1,027.83        | 2,423.17      | 4.01          | -2.44         | -4.56            | 0.14                | 453,303.82         | 639,838.45        |  |  |
| 2,517.11     | 0.33       | 49.98                | 933.94          | 2,517.06      | 4.87          | -1.94         | -4.82            | 0.68                | 453,304.69         | 639,838.95        |  |  |
| 2,611.00     | 0.63       | 51.83                | 840.06          | 2,610.94      | 5.37          | -1.32         | -4.73            | 0.32                | 453,305.18         | 639,839.57        |  |  |
| 2,704.89     | 0.42       | 76.61                | 746.17          | 2,704.83      | 5.76          | -0.58         | -4.49            | 0.32                | 453,305.58         | 639,840.31        |  |  |
| 2,798.78     | 0.47       | 91.52                | 652.28          | 2,798.72      | 5.83          | 0.14          | -4.03            | 0.13                | 453,305.65         | 639,841.03        |  |  |
| 2,892.67     | 0.22       | 311.13               | 558.39          | 2,892.61      | 5.94          | 0.39          | -3.93            | 0.70                | 453,305.75         | 639,841.28        |  |  |
| 2,986.56     | 0.22       | 344.75               | 464.51          | 2,986.49      | 6.23          | 0.20          | -4.27            | 0.14                | 453,306.05         | 639,841.09        |  |  |
| 3,080.45     | 0.18       | 330.79               | 370.62          | 3,080.38      | 6.54          | 0.08          | -4.57            | 0.07                | 453,306.35         | 639,840.97        |  |  |
| 3,174.34     | 0.10       | 27.23                | 276.73          | 3,174.27      | 6.74          | 0.05          | -4.73            | 0.16                | 453,306.55         | 639,840.94        |  |  |
| 3,268.23     | 0.35       | 104.73               | 182.84          | 3,268.16      | 6.74          | 0.36          | -4.51            | 0.36                | 453,306.55         | 639,841.25        |  |  |
| 3,362.12     | 0.76       | 108.17               | 88.95           | 3,362.05      | 6.47          | 1.23          | -3.71            | 0.44                | 453,306.28         | 639,842.12        |  |  |
| 3,456.01     | 0.91       | 135.21               | -4.93           | 3,455.93      | 5.75          | 2.35          | -2.41            | 0.44                | 453,305.56         | 639,843.24        |  |  |
| 3,549.90     | 1.10       | 145.01               | -98.80          | 3,549.80      | 4.48          | 3.39          | -0.77            | 0.27                | 453,304.29         | 639,844.28        |  |  |
| 3,643.79     | 1.35       | 145.04               | -192.67         | 3,643.67      | 2.84          | 4.54          | 1.20             | 0.27                | 453,302.65         | 639,845.43        |  |  |
| 3,737.68     | 1.59       | 136.60               | -286.53         | 3,737.53      | 0.98          | 6.07          | 3.60             | 0.34                | 453,300.80         | 639,846.96        |  |  |
| 3,831.57     | 1.36       | 134.67               | -380.39         | 3,831.39      | -0.75         | 7.76          | 6.01             | 0.25                | 453,299.07         | 639,848.65        |  |  |
| 3,925.46     | 1.18       | 135.41               | -474.26         | 3,925.26      | -2.22         | 9.23          | 8.09             | 0.19                | 453,297.59         | 639,850.12        |  |  |
| 4,019.35     | 0.91       | 142.76               | -568.13         | 4,019.13      | -3.50         | 10.36         | 9.80             | 0.32                | 453,296.31         | 639,851.25        |  |  |
| 4,113.24     | 1.12       | 168.06               | -662.01         | 4,113.01      | -4.99         | 11.00         | 11.31            | 0.52                | 453,294.82         | 639,851.89        |  |  |
| 4,207.13     | 1.07       | 133.75               | -755.88         | 4,206.88      | -6.50         | 11.82         | 12.95            | 0.69                | 453,293.32         | 639,852.71        |  |  |
| 4,301.02     | 1.02       | 145.33               | -849.76         | 4,300.76      | -7.79         | 12.93         | 14.65            | 0.23                | 453,292.02         | 639,853.82        |  |  |
| 4,394.91     | 0.77       | 141.36               | -943.63         | 4,394.63      | -8.97         | 13.80         | 16.10            | 0.27                | 453,290.84         | 639,854.69        |  |  |
| 4,488.80     | 0.59       | 125.53               | -1,037.52       | 4,488.52      | -9.74         | 14.59         | 17.20            | 0.28                | 453,290.07         | 639,855.48        |  |  |



# Bopco LP, Survey Report



Company: Bopco L P  
Project: Eddy County NM  
Site: Poker Lake Unit #319H  
Well: Job # 1210266  
Wellbore: Latshaw #7  
Design: Latshaw #7

Local Co-ordinate Reference: Well Job # 1210266  
TVD Reference: WELL @ 3451 00usft (Latshaw #7)  
MD Reference: WELL @ 3451 00usft (Latshaw #7)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: Compass5000

## Survey

| MD<br>(usft)                   | Inc<br>(°) | Azi (azimuth)<br>(°) | TVDSS<br>(usft) | TVD<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | V. Sec<br>(usft) | DLeg<br>(°/100usft) | Northing<br>(usft) | Easting<br>(usft) |
|--------------------------------|------------|----------------------|-----------------|---------------|---------------|---------------|------------------|---------------------|--------------------|-------------------|
| 4,582.69                       | 0.29       | 164.26               | -1,131.41       | 4,582.41      | -10.25        | 15.05         | 17.89            | 0.43                | 453,289.56         | 639,855.94        |
| 4,676.58                       | 0.32       | 187.56               | -1,225.29       | 4,676.29      | -10.74        | 15.08         | 18.25            | 0.13                | 453,289.07         | 639,855.97        |
| 4,770.47                       | 0.49       | 199.83               | -1,319.18       | 4,770.18      | -11.38        | 14.91         | 18.58            | 0.20                | 453,288.43         | 639,855.80        |
| 4,864.36                       | 0.77       | 191.03               | -1,413.07       | 4,864.07      | -12.38        | 14.65         | 19.11            | 0.31                | 453,287.44         | 639,855.54        |
| 4,958.25                       | 0.66       | 210.72               | -1,506.95       | 4,957.95      | -13.46        | 14.25         | 19.59            | 0.28                | 453,286.35         | 639,855.14        |
| 5,052.14                       | 0.75       | 208.74               | -1,600.83       | 5,051.83      | -14.46        | 13.68         | 19.90            | 0.10                | 453,285.35         | 639,854.57        |
| 5,146.03                       | 0.67       | 205.81               | -1,694.71       | 5,145.71      | -15.50        | 13.15         | 20.25            | 0.09                | 453,284.32         | 639,854.04        |
| 5,239.92                       | 0.59       | 202.37               | -1,788.60       | 5,239.60      | -16.44        | 12.72         | 20.62            | 0.09                | 453,283.37         | 639,853.61        |
| 5,333.81                       | 0.62       | 223.71               | -1,882.48       | 5,333.48      | -17.25        | 12.19         | 20.82            | 0.24                | 453,282.56         | 639,853.08        |
| 5,427.70                       | 0.66       | 213.75               | -1,976.37       | 5,427.37      | -18.07        | 11.54         | 20.93            | 0.13                | 453,281.74         | 639,852.43        |
| 5,521.59                       | 0.71       | 223.91               | -2,070.25       | 5,521.25      | -18.94        | 10.83         | 21.05            | 0.14                | 453,280.87         | 639,851.72        |
| 5,615.48                       | 0.79       | 212.55               | -2,164.13       | 5,615.13      | -19.90        | 10.08         | 21.20            | 0.18                | 453,279.91         | 639,850.97        |
| 5,709.37                       | 1.02       | 222.69               | -2,258.01       | 5,709.01      | -21.06        | 9.17          | 21.37            | 0.30                | 453,278.75         | 639,850.06        |
| 5,803.26                       | 0.95       | 222.64               | -2,351.89       | 5,802.89      | -22.25        | 8.07          | 21.44            | 0.07                | 453,277.56         | 639,848.96        |
| 5,897.15                       | 0.85       | 232.41               | -2,445.77       | 5,896.77      | -23.25        | 6.99          | 21.38            | 0.19                | 453,276.57         | 639,847.88        |
| 5,991.04                       | 0.99       | 231.33               | -2,539.64       | 5,990.64      | -24.18        | 5.81          | 21.20            | 0.15                | 453,275.63         | 639,846.70        |
| 6,084.93                       | 0.97       | 228.86               | -2,633.52       | 6,084.52      | -25.21        | 4.58          | 21.06            | 0.05                | 453,274.60         | 639,845.47        |
| 6,178.82                       | 0.95       | 225.24               | -2,727.40       | 6,178.40      | -26.28        | 3.42          | 21.01            | 0.07                | 453,273.53         | 639,844.31        |
| 6,272.71                       | 1.07       | 222.85               | -2,821.27       | 6,272.27      | -27.47        | 2.28          | 21.04            | 0.14                | 453,272.34         | 639,843.17        |
| 6,366.60                       | 0.94       | 230.43               | -2,915.15       | 6,366.15      | -28.60        | 1.09          | 21.00            | 0.20                | 453,271.21         | 639,841.98        |
| 6,460.49                       | 0.59       | 217.23               | -3,009.03       | 6,460.03      | -29.48        | 0.20          | 20.99            | 0.41                | 453,270.33         | 639,841.09        |
| 6,554.38                       | 0.46       | 284.24               | -3,102.92       | 6,553.92      | -29.77        | -0.46         | 20.73            | 0.63                | 453,270.04         | 639,840.43        |
| 6,648.27                       | 0.32       | 297.13               | -3,196.80       | 6,647.80      | -29.56        | -1.06         | 20.16            | 0.18                | 453,270.25         | 639,839.83        |
| 6,742.16                       | 0.41       | 271.34               | -3,290.69       | 6,741.69      | -29.43        | -1.63         | 19.66            | 0.20                | 453,270.38         | 639,839.26        |
| 6,836.00                       | 0.52       | 202.37               | -3,384.53       | 6,835.53      | -29.82        | -2.12         | 19.58            | 0.57                | 453,270.00         | 639,838.77        |
| Tie In From Surveys @ 6836' MD |            |                      |                 |               |               |               |                  |                     |                    |                   |
| 6,836.05                       | 0.52       | 202.35               | -3,384.58       | 6,835.58      | -29.82        | -2.12         | 19.59            | 0.57                | 453,270.00         | 639,838.77        |



# Bopco LP, Survey Report



Company: Bopco L P  
Project: Eddy County NM  
Site: Poker Lake Unit #319H  
Well: Job # 1210266  
Wellbore: Latshaw #7  
Design: Latshaw #7

Local Co-ordinate Reference: Well Job # 1210266  
TVD Reference: WELL @ 3451 00usft (Latshaw #7)  
MD Reference: WELL @ 3451 00usft (Latshaw #7)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: Compass5000

| Survey                               |            |                      |                 |               |               |               |                 |                     |                    |                   |  |
|--------------------------------------|------------|----------------------|-----------------|---------------|---------------|---------------|-----------------|---------------------|--------------------|-------------------|--|
| MD<br>(usft)                         | Inc<br>(°) | Azi (azimuth)<br>(°) | TVDSS<br>(usft) | TVD<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | V.Sec<br>(usft) | DLeg<br>(°/100usft) | Northing<br>(usft) | Easting<br>(usft) |  |
| 6,894 00                             | 2.10       | 150 30               | -3,442.51       | 6,893 51      | -30 98        | -1 70         | 20 71           | 3.15                | 453,268.83         | 639,839 19        |  |
| First Phoneix MWD Surveys @ 6894' MD |            |                      |                 |               |               |               |                 |                     |                    |                   |  |
| 6,988 00                             | 5 40       | 135.30               | -3,536.30       | 6,987 30      | -35.62        | 2 27          | 26 80           | 3 63                | 453,264.19         | 639,843.16        |  |
| 7,082 00                             | 5.20       | 132.90               | -3,629 90       | 7,080.90      | -41 67        | 8.50          | 35 48           | 0.32                | 453,258 15         | 639,849 39        |  |
| 7,177 00                             | 8.40       | 136.30               | -3,724.22       | 7,175.22      | -49.62        | 16 45         | 46 72           | 3 39                | 453,250 20         | 639,857 34        |  |
| 7,208 00                             | 11 70      | 138.00               | -3,754 74       | 7,205 74      | -53.59        | 20.12         | 52.12           | 10 69               | 453,246.22         | 639,861 01        |  |
| 7,240 00                             | 15 10      | 138.10               | -3,785 86       | 7,236.86      | -59 11        | 25 07         | 59 53           | 10 63               | 453,240 71         | 639,865 96        |  |
| 7,271 00                             | 18.80      | 137 20               | -3,815.51       | 7,266.51      | -65 78        | 31 17         | 68 55           | 11.97               | 453,234 03         | 639,872 06        |  |
| 7,302 00                             | 22 80      | 137.10               | -3,844.49       | 7,295 49      | -73 85        | 38.65         | 79 55           | 12.90               | 453,225 97         | 639,879 54        |  |
| 7,334.00                             | 26 30      | 136.40               | -3,873.59       | 7,324.59      | -83.53        | 47 76         | 92 84           | 10 98               | 453,216.29         | 639,888 65        |  |
| 7,366 00                             | 28 50      | 135.60               | -3,902.00       | 7,353 00      | -94.11        | 58.00         | 107.56          | 6 97                | 453,205.70         | 639,898 89        |  |
| 7,397 00                             | 31 50      | 135.20               | -3,928.84       | 7,379.84      | -105 15       | 68.88         | 123 06          | 9.70                | 453,194.66         | 639,909 77        |  |
| 7,428 00                             | 33.70      | 134.70               | -3,954.96       | 7,405.96      | -116.95       | 80.70         | 139 76          | 7.15                | 453,182.87         | 639,921.59        |  |
| 7,460 00                             | 35 60      | 134.70               | -3,981 28       | 7,432.28      | -129.74       | 93.63         | 157 95          | 5 94                | 453,170 07         | 639,934 52        |  |
| 7,491.00                             | 39 60      | 134 70               | -4,005 84       | 7,456.84      | -143 04       | 107.07        | 176.86          | 12 90               | 453,156.77         | 639,947 96        |  |
| 7,523 00                             | 42.50      | 132.50               | -4,029.97       | 7,480 97      | -157.52       | 122 30        | 197 87          | 10 12               | 453,142.29         | 639,963 19        |  |
| 7,555 00                             | 44 00      | 134 90               | -4,053 27       | 7,504.27      | -172 67       | 138 14        | 219 78          | 6 95                | 453,127.14         | 639,979 03        |  |
| 7,586 00                             | 45 10      | 134 50               | -4,075 37       | 7,526 37      | -187.97       | 153 60        | 241 53          | 3 66                | 453,111 84         | 639,994 49        |  |
| 7,618 00                             | 46 30      | 136.10               | -4,097.72       | 7,548 72      | -204 25       | 169.71        | 264 43          | 5.18                | 453,095 56         | 640,010 60        |  |
| 7,649.00                             | 47 50      | 136.70               | -4,118.90       | 7,569.90      | -220.64       | 185 31        | 287 06          | 4 12                | 453,079 17         | 640,026 20        |  |
| 7,680 00                             | 50 40      | 136.50               | -4,139 25       | 7,590 25      | -237 63       | 201.38        | 310 43          | 9.37                | 453,062 19         | 640,042 27        |  |
| 7,711 00                             | 54 90      | 135.00               | -4,158.06       | 7,609 06      | -255 27       | 218.57        | 335 06          | 15 02               | 453,044 55         | 640,059 46        |  |
| 7,743 00                             | 59 50      | 134.10               | -4,175 39       | 7,626.39      | -274.13       | 237 74        | 361 95          | 14 57               | 453,025 69         | 640,078 63        |  |
| 7,773 00                             | 64 30      | 133 40               | -4,189.51       | 7,640 51      | -292 42       | 256.85        | 388 40          | 16 13               | 453,007.39         | 640,097 74        |  |
| 7,805 00                             | 69.50      | 133 20               | -4,202 06       | 7,653 06      | -312.60       | 278 27        | 417 81          | 16 26               | 452,987 21         | 640,119 16        |  |
| 7,836 00                             | 74.20      | 133 50               | -4,211.72       | 7,662.72      | -332 81       | 299 68        | 447 25          | 15 19               | 452,967 00         | 640,140 57        |  |
| 7,868.00                             | 80 40      | 134 00               | -4,218 75       | 7,669 75      | -354 39       | 322 22        | 478 44          | 19 43               | 452,945 42         | 640,163 11        |  |



# Bopco LP, Survey Report



Company: Bopco L P  
Project: Eddy County NM  
Site: Poker Lake Unit #319H  
Well: Job # 1210266  
Wellbore: Latshaw #7  
Design: Latshaw #7

Local Co-ordinate Reference: Well Job # 1210266  
TVD Reference: WELL @ 3451.00usft (Latshaw #7)  
MD Reference: WELL @ 3451.00usft (Latshaw #7)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: Compass5000

## Survey

| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVDSS<br>(usft) | TVD<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | V. Sec<br>(usft) | DLeg<br>(°/100usft) | Northing<br>(usft) | Easting<br>(usft) |
|--------------|------------|----------------------|-----------------|---------------|---------------|---------------|------------------|---------------------|--------------------|-------------------|
| 7,899.00     | 86.60      | 134.90               | -4,222.26       | 7,673.26      | -375.95       | 344.20        | 509.22           | 20.21               | 452,923.86         | 640,185.09        |
| 7,930.00     | 90.10      | 135.20               | -4,223.15       | 7,674.15      | -397.88       | 366.08        | 540.21           | 11.33               | 452,901.93         | 640,206.97        |
| 8,085.00     | 92.00      | 136.90               | -4,220.31       | 7,671.31      | -509.44       | 473.63        | 695.14           | 1.64                | 452,790.37         | 640,314.52        |
| 8,181.00     | 91.50      | 136.10               | -4,217.38       | 7,668.38      | -579.04       | 539.68        | 791.06           | 0.98                | 452,720.77         | 640,380.57        |
| 8,275.00     | 90.40      | 135.10               | -4,215.82       | 7,666.82      | -646.19       | 605.44        | 885.04           | 1.58                | 452,653.62         | 640,446.33        |
| 8,370.00     | 89.40      | 134.70               | -4,215.98       | 7,666.98      | -713.25       | 672.73        | 980.04           | 1.13                | 452,586.56         | 640,513.62        |
| 8,465.00     | 88.90      | 135.10               | -4,217.39       | 7,668.39      | -780.30       | 740.02        | 1,075.03         | 0.67                | 452,519.51         | 640,580.91        |
| 8,560.00     | 88.70      | 135.30               | -4,219.38       | 7,670.38      | -847.69       | 806.94        | 1,170.01         | 0.30                | 452,452.12         | 640,647.83        |
| 8,656.00     | 87.50      | 134.80               | -4,222.57       | 7,673.57      | -915.60       | 874.73        | 1,265.95         | 1.35                | 452,384.22         | 640,715.62        |
| 8,752.00     | 86.20      | 133.20               | -4,227.84       | 7,678.84      | -982.18       | 943.67        | 1,361.79         | 2.15                | 452,317.63         | 640,784.56        |
| 8,847.00     | 88.10      | 133.70               | -4,232.56       | 7,683.56      | -1,047.43     | 1,012.55      | 1,456.63         | 2.07                | 452,252.38         | 640,853.44        |
| 8,942.00     | 89.80      | 133.40               | -4,234.31       | 7,685.31      | -1,112.87     | 1,081.39      | 1,551.58         | 1.82                | 452,186.94         | 640,922.28        |
| 9,036.00     | 86.80      | 131.70               | -4,237.09       | 7,688.09      | -1,176.40     | 1,150.60      | 1,645.44         | 3.67                | 452,123.41         | 640,991.49        |
| 9,131.00     | 89.40      | 133.20               | -4,240.24       | 7,691.24      | -1,240.48     | 1,220.65      | 1,740.28         | 3.16                | 452,059.33         | 641,061.54        |
| 9,226.00     | 89.10      | 132.20               | -4,241.49       | 7,692.49      | -1,304.90     | 1,290.46      | 1,835.20         | 1.10                | 451,994.92         | 641,131.35        |
| 9,321.00     | 90.30      | 132.60               | -4,241.98       | 7,692.98      | -1,368.95     | 1,360.61      | 1,930.09         | 1.33                | 451,930.86         | 641,201.50        |
| 9,416.00     | 89.90      | 133.20               | -4,241.82       | 7,692.82      | -1,433.62     | 1,430.20      | 2,025.03         | 0.76                | 451,866.19         | 641,271.09        |
| 9,512.00     | 93.20      | 133.40               | -4,239.22       | 7,690.22      | -1,499.43     | 1,500.03      | 2,120.94         | 3.44                | 451,800.39         | 641,340.92        |
| 9,607.00     | 95.00      | 134.00               | -4,232.43       | 7,683.43      | -1,564.89     | 1,568.54      | 2,215.66         | 2.00                | 451,734.92         | 641,409.43        |
| 9,702.00     | 93.30      | 134.50               | -4,225.56       | 7,676.56      | -1,631.00     | 1,636.40      | 2,310.40         | 1.86                | 451,668.81         | 641,477.29        |
| 9,795.00     | 91.40      | 135.40               | -4,221.74       | 7,672.74      | -1,696.65     | 1,702.16      | 2,403.32         | 2.26                | 451,603.16         | 641,543.05        |
| 9,890.00     | 87.90      | 136.60               | -4,222.32       | 7,673.32      | -1,764.97     | 1,768.14      | 2,498.29         | 3.89                | 451,534.84         | 641,609.03        |
| 9,985.00     | 88.50      | 136.90               | -4,225.31       | 7,676.31      | -1,834.13     | 1,833.20      | 2,593.20         | 0.71                | 451,465.68         | 641,674.09        |
| 10,080.00    | 87.10      | 136.10               | -4,228.95       | 7,679.95      | -1,902.99     | 1,898.54      | 2,688.09         | 1.70                | 451,396.82         | 641,739.43        |
| 10,176.00    | 90.60      | 135.40               | -4,230.88       | 7,681.88      | -1,971.73     | 1,965.51      | 2,784.05         | 3.72                | 451,328.08         | 641,806.40        |
| 10,271.00    | 85.90      | 136.10               | -4,233.78       | 7,684.78      | -2,039.73     | 2,031.75      | 2,878.97         | 5.00                | 451,260.09         | 641,872.64        |
| 10,367.00    | 88.00      | 136.40               | -4,238.89       | 7,689.89      | -2,108.97     | 2,098.04      | 2,974.80         | 2.21                | 451,190.84         | 641,938.93        |



# Bopco LP, Survey Report



Company: Bopco L P  
Project: Eddy County NM  
Site: Poker Lake Unit #319H  
Well: Job # 1210266  
Wellbore: Latshaw #7  
Design: Latshaw #7

Local Co-ordinate Reference:  
TVD Reference:  
MD Reference:  
North Reference:  
Survey Calculation Method:  
Database:

Well Job # 1210266  
WELL @ 3451 00usft (Latshaw #7)  
WELL @ 3451 00usft (Latshaw #7)  
Grid  
Minimum Curvature  
Compass5000

| Survey       |            |                      |                 |               |               |               |                  |                      |                    |                   |  |
|--------------|------------|----------------------|-----------------|---------------|---------------|---------------|------------------|----------------------|--------------------|-------------------|--|
| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVDSS<br>(usft) | TVD<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | V./Sec<br>(usft) | DLeg.<br>(°/100usft) | Northing<br>(usft) | Easting<br>(usft) |  |
| 10,461.00    | 90.10      | 134.50               | -4,240.45       | 7,691.45      | -2,175.94     | 2,163.96      | 3,068.78         | 3.01                 | 451,123.87         | 642,004.85        |  |
| 10,556.00    | 88.40      | 133.10               | -4,241.69       | 7,692.69      | -2,241.69     | 2,232.52      | 3,163.74         | 2.32                 | 451,058.12         | 642,073.41        |  |
| 10,650.00    | 89.80      | 132.40               | -4,243.17       | 7,694.17      | -2,305.48     | 2,301.54      | 3,257.66         | 1.67                 | 450,994.33         | 642,142.43        |  |
| 10,745.00    | 89.80      | 132.30               | -4,243.50       | 7,694.50      | -2,369.48     | 2,371.75      | 3,352.55         | 0.11                 | 450,930.33         | 642,212.64        |  |
| 10,840.00    | 89.20      | 132.80               | -4,244.33       | 7,695.33      | -2,433.72     | 2,441.73      | 3,447.46         | 0.82                 | 450,866.09         | 642,282.62        |  |
| 10,935.00    | 89.80      | 132.80               | -4,245.16       | 7,696.16      | -2,498.27     | 2,511.43      | 3,542.39         | 0.63                 | 450,801.55         | 642,352.32        |  |
| 11,030.00    | 90.60      | 132.50               | -4,244.82       | 7,695.82      | -2,562.63     | 2,581.30      | 3,637.31         | 0.90                 | 450,737.18         | 642,422.19        |  |
| 11,125.00    | 88.40      | 133.70               | -4,245.65       | 7,696.65      | -2,627.53     | 2,650.66      | 3,732.24         | 2.64                 | 450,672.28         | 642,491.55        |  |
| 11,221.00    | 88.90      | 136.50               | -4,247.92       | 7,698.92      | -2,695.51     | 2,718.40      | 3,828.20         | 2.96                 | 450,604.31         | 642,559.29        |  |
| 11,316.00    | 88.70      | 137.50               | -4,249.91       | 7,700.91      | -2,764.97     | 2,783.17      | 3,923.13         | 1.07                 | 450,534.84         | 642,624.06        |  |
| 11,443.00    | 89.60      | 138.30               | -4,251.79       | 7,702.79      | -2,859.19     | 2,868.30      | 4,049.95         | 0.95                 | 450,440.62         | 642,709.19        |  |
| 11,536.00    | 89.80      | 137.60               | -4,252.28       | 7,703.28      | -2,928.24     | 2,930.59      | 4,142.82         | 0.78                 | 450,371.57         | 642,771.48        |  |
| 11,631.00    | 88.00      | 135.40               | -4,254.10       | 7,705.10      | -2,997.14     | 2,995.97      | 4,237.76         | 2.99                 | 450,302.68         | 642,836.86        |  |
| 11,726.00    | 88.10      | 136.10               | -4,257.33       | 7,708.33      | -3,065.14     | 3,062.22      | 4,332.70         | 0.74                 | 450,234.67         | 642,903.11        |  |
| 11,821.00    | 88.90      | 135.60               | -4,259.82       | 7,710.82      | -3,133.28     | 3,128.37      | 4,427.66         | 0.99                 | 450,166.53         | 642,969.26        |  |
| 11,916.00    | 88.40      | 137.60               | -4,262.06       | 7,713.06      | -3,202.29     | 3,193.62      | 4,522.59         | 2.17                 | 450,097.53         | 643,034.51        |  |
| 12,011.00    | 90.30      | 140.50               | -4,263.14       | 7,714.14      | -3,274.02     | 3,255.87      | 4,617.33         | 3.65                 | 450,025.79         | 643,096.76        |  |
| 12,107.00    | 89.50      | 138.60               | -4,263.30       | 7,714.30      | -3,347.07     | 3,318.15      | 4,713.03         | 2.15                 | 449,952.74         | 643,159.04        |  |
| 12,203.00    | 88.10      | 136.80               | -4,265.31       | 7,716.31      | -3,418.06     | 3,382.74      | 4,808.89         | 2.38                 | 449,881.76         | 643,223.63        |  |
| 12,298.00    | 88.60      | 136.50               | -4,268.05       | 7,719.05      | -3,487.11     | 3,447.92      | 4,903.81         | 0.61                 | 449,812.70         | 643,288.81        |  |
| 12,393.00    | 89.00      | 136.20               | -4,270.04       | 7,721.04      | -3,555.83     | 3,513.48      | 4,998.77         | 0.53                 | 449,743.98         | 643,354.37        |  |
| 12,488.00    | 90.10      | 135.70               | -4,270.79       | 7,721.79      | -3,624.11     | 3,579.53      | 5,093.75         | 1.27                 | 449,675.70         | 643,420.42        |  |
| 12,583.00    | 90.70      | 135.20               | -4,270.12       | 7,721.12      | -3,691.81     | 3,646.17      | 5,188.74         | 0.82                 | 449,608.00         | 643,487.06        |  |
| 12,679.00    | 89.90      | 134.70               | -4,269.62       | 7,720.62      | -3,759.63     | 3,714.11      | 5,284.74         | 0.98                 | 449,540.18         | 643,555.00        |  |
| 12,774.00    | 89.70      | 134.80               | -4,269.95       | 7,720.95      | -3,826.51     | 3,781.58      | 5,379.74         | 0.24                 | 449,473.30         | 643,622.47        |  |
| 12,869.00    | 91.10      | 134.60               | -4,269.29       | 7,720.29      | -3,893.33     | 3,849.10      | 5,474.73         | 1.49                 | 449,406.48         | 643,689.99        |  |
| 12,964.00    | 90.00      | 134.90               | -4,268.38       | 7,719.38      | -3,960.21     | 3,916.57      | 5,569.73         | 1.20                 | 449,339.61         | 643,757.46        |  |





# Bopco LP, Survey Report



Company: Bopco L P  
Project: Eddy County NM  
Site: Poker Lake Unit #319H  
Well: Job # 1210266  
Wellbore: Latshaw #7  
Design: Latshaw #7

Local Co-ordinate Reference: Well Job # 1210266  
TVD Reference: WELL @ 3451.00usft (Latshaw #7)  
MD Reference: WELL @ 3451.00usft (Latshaw #7)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: Compass5000

| Survey       |            |                      |                 |               |               |               |                  |                     |                    |                   |  |
|--------------|------------|----------------------|-----------------|---------------|---------------|---------------|------------------|---------------------|--------------------|-------------------|--|
| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVDSS<br>(usft) | TVD<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | V. Sec<br>(usft) | DLeg<br>(°/100usft) | Northing<br>(usft) | Easting<br>(usft) |  |
| 13,059 00    | 90 50      | 137.00               | -4,267.96       | 7,718.96      | -4,028.48     | 3,982.62      | 5,664 71         | 2 27                | 449,271 33         | 643,823 51        |  |
| 13,155 00    | 88.50      | 134 70               | -4,268 80       | 7,719 80      | -4,097 35     | 4,049.47      | 5,760 68         | 3 17                | 449,202 46         | 643,890 36        |  |
| 13,250 00    | 85.50      | 133 10               | -4,273.77       | 7,724 77      | -4,163 13     | 4,117 82      | 5,855 52         | 3 58                | 449,136 68         | 643,958 71        |  |
| 13,345 00    | 86 60      | 133 90               | -4,280 32       | 7,731 32      | -4,228 36     | 4,186 56      | 5,950 26         | 1 43                | 449,071 45         | 644,027 45        |  |
| 13,441 00    | 87 20      | 134 00               | -4,285 51       | 7,736.51      | -4,294 89     | 4,255 58      | 6,046 10         | 0 63                | 449,004 92         | 644,096 47        |  |
| 13,537.00    | 88 90      | 133 10               | -4,288 77       | 7,739.77      | -4,360 99     | 4,325.11      | 6,142 01         | 2 00                | 448,938 82         | 644,166 00        |  |
| 13,632 00    | 89 20      | 132.50               | -4,290.35       | 7,741 35      | -4,425 53     | 4,394.81      | 6,236 93         | 0 71                | 448,874 28         | 644,235 70        |  |
| 13,727 00    | 89 00      | 131.20               | -4,291.84       | 7,742.84      | -4,488 91     | 4,465.56      | 6,331 77         | 1.38                | 448,810 91         | 644,306 45        |  |
| 13,822.00    | 89 30      | 131 60               | -4,293.25       | 7,744.25      | -4,551.72     | 4,536.81      | 6,426 57         | 0 53                | 448,748 09         | 644,377 70        |  |
| 13,917.00    | 89 90      | 131.80               | -4,293 91       | 7,744.91      | -4,614 92     | 4,607 74      | 6,521.41         | 0 67                | 448,684 89         | 644,448 63        |  |
| 14,013 00    | 89 00      | 134 60               | -4,294 83       | 7,745 83      | -4,680 62     | 4,677.71      | 6,617 34         | 3 06                | 448,619 19         | 644,518 60        |  |
| 14,108 00    | 88 40      | 133.90               | -4,296 99       | 7,747 99      | -4,746 90     | 4,745 74      | 6,712 31         | 0 97                | 448,552 92         | 644,586 63        |  |
| 14,203 00    | 90.60      | 135 10               | -4,297 82       | 7,748 82      | -4,813 48     | 4,813 49      | 6,807.30         | 2 64                | 448,486 34         | 644,654 38        |  |
| 14,298 00    | 89 60      | 133.60               | -4,297.65       | 7,748.65      | -4,879 88     | 4,881 42      | 6,902 28         | 1 90                | 448,419 93         | 644,722.31        |  |
| 14,393.00    | 88 10      | 133.40               | -4,299 56       | 7,750 56      | -4,945.26     | 4,950 32      | 6,997 23         | 1 59                | 448,354 55         | 644,791 21        |  |
| 14,489 00    | 90 00      | 134 40               | -4,301 15       | 7,752.15      | -5,011 81     | 5,019.48      | 7,093 19         | 2 24                | 448,288 00         | 644,860 37        |  |
| 14,584 00    | 90 40      | 133.50               | -4,300.82       | 7,751 82      | -5,077.75     | 5,087 87      | 7,188.18         | 1 04                | 448,222 07         | 644,928 76        |  |
| 14,679.00    | 90.20      | 134.70               | -4,300.32       | 7,751.32      | -5,143 85     | 5,156.09      | 7,283 16         | 1 28                | 448,155 96         | 644,996 98        |  |
| 14,774 00    | 89 80      | 134.10               | -4,300 32       | 7,751.32      | -5,210 32     | 5,223 97      | 7,378 15         | 0 76                | 448,089 49         | 645,064 86        |  |
| 14,869 00    | 89 80      | 134.00               | -4,300 65       | 7,751.65      | -5,276 37     | 5,292 25      | 7,473 14         | 0.11                | 448,023 44         | 645,133 14        |  |
| 14,965.00    | 88 10      | 129.80               | -4,302 41       | 7,753.41      | -5,340 46     | 5,363 67      | 7,568 96         | 4 72                | 447,959.35         | 645,204.56        |  |
| 15,060 00    | 89.10      | 131.10               | -4,304 74       | 7,755 74      | -5,402 07     | 5,435 94      | 7,663 63         | 1.73                | 447,897 74         | 645,276 83        |  |
| 15,155.00    | 88 40      | 130 90               | -4,306 81       | 7,757.81      | -5,464 38     | 5,507.62      | 7,758.37         | 0 77                | 447,835 43         | 645,348 51        |  |
| 15,250.00    | 89 00      | 132 00               | -4,308 96       | 7,759.96      | -5,527 25     | 5,578.80      | 7,853 16         | 1 32                | 447,772.56         | 645,419.69        |  |
| 15,346.00    | 89 80      | 134 10               | -4,309 97       | 7,760.97      | -5,592 78     | 5,648.95      | 7,949 09         | 2 34                | 447,707 03         | 645,489 84        |  |
| 15,440.00    | 88.80      | 131.60               | -4,311 12       | 7,762.12      | -5,656 70     | 5,717.85      | 8,043 01         | 2 86                | 447,643 12         | 645,558 74        |  |
| 15,536 00    | 90 00      | 132.80               | -4,312.12       | 7,763.12      | -5,721 18     | 5,788.96      | 8,138.89         | 1 77                | 447,578 64         | 645,629 85        |  |



# Bopco LP, Survey Report



Company: Bopco L P  
Project: Eddy County NM  
Site: Poker Lake Unit #319H  
Well: Job # 1210266  
Wellbore: Latshaw #7  
Design: Latshaw #7

Local Co-ordinate Reference: Well Job # 1210266  
TVD Reference: WELL @ 3451.00usft (Latshaw #7)  
MD Reference: WELL @ 3451 00usft (Latshaw #7)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: Compass5000

## Survey

| MD<br>(usft)                         | Inc<br>(°) | Azi (azimuth)<br>(°) | TVDSS<br>(usft) | TVD<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | V. Sec<br>(usft) | DLeg<br>(°/100usft) | Northing<br>(usft) | Easting<br>(usft) |
|--------------------------------------|------------|----------------------|-----------------|---------------|---------------|---------------|------------------|---------------------|--------------------|-------------------|
| 15,631.00                            | 90 50      | 133.20               | -4,311.71       | 7,762 71      | -5,785.96     | 5,858 44      | 8,233 83         | 0 67                | 447,513 85         | 645,699 33        |
| 15,726 00                            | 89 50      | 130 70               | -4,311.71       | 7,762 71      | -5,849 46     | 5,929.09      | 8,328.68         | 2 83                | 447,450.35         | 645,769 98        |
| 15,821 00                            | 90 20      | 131.80               | -4,311 96       | 7,762 96      | -5,912 10     | 6,000 51      | 8,423 48         | 1 37                | 447,387 71         | 645,841 40        |
| Last Phoenix MWD Surveys @ 15821' MD |            |                      |                 |               |               |               |                  |                     |                    |                   |
| 15,886 00                            | 90.20      | 131 80               | -4,311 73       | 7,762 73      | -5,955 42     | 6,048.96      | 8,488 37         | 0 00                | 447,344.39         | 645,889 85        |
| Projection to TD @ 15886' MD         |            |                      |                 |               |               |               |                  |                     |                    |                   |

## Design Annotations

| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates |                 | Comment                              |
|-----------------------------|-----------------------------|-------------------|-----------------|--------------------------------------|
|                             |                             | +N/-S<br>(usft)   | +E/-W<br>(usft) |                                      |
| 6,836 00                    | 6,835.53                    | -29 82            | -2 12           | Tie In From Surveys @ 6836' MD       |
| 6,894.00                    | 6,893 51                    | -30 98            | -1.70           | First Phoenix MWD Surveys @ 6894' MD |
| 15,821 00                   | 7,762.96                    | -5,912 10         | 6,000 51        | Last Phoenix MWD Surveys @ 15821' MD |
| 15,886 00                   | 7,762 73                    | -5,955.42         | 6,048 96        | Projection to TD @ 15886' MD         |

Checked By \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_



# Bopco L P



Project: Eddy County NM  
 Site: Poker Lake Unit #319H  
 Well: Job # 1210266  
 Wellbore: Latshaw #7  
 Plan: Plan 5 5-8-2012 (Job # 1210266/Latshaw #7)

## FORMATION TOP DETAILS

| TVDPath | MDPath   | Formation          |
|---------|----------|--------------------|
| 7417.00 | 7441.34  | Lower Brusy Canyon |
| 7572.00 | 7652.12  | LBC "Y" Sand       |
| 7709.00 | 11400.95 | Bone Spring        |

## WELL DETAILS: Job # 1210266

| Northing  | Easting   | Ground Level: | Latitude          | Longitude          |
|-----------|-----------|---------------|-------------------|--------------------|
| 453299.81 | 639840.89 | 3425.00       | 32° 14' 43.5429 N | 103° 52' 51.6686 W |

## SECTION DETAILS

| MD       | Inc   | Azi    | TVD     | +N/-S    | +E/-W   | Dleg | TFace  | Vsect   | Target                         |
|----------|-------|--------|---------|----------|---------|------|--------|---------|--------------------------------|
| 10228.00 | 88.03 | 135.78 | 7682.50 | -2008.88 | 2001.89 | 0.00 | 0.00   | 2836.04 |                                |
| 10268.31 | 88.72 | 135.37 | 7683.65 | -2037.65 | 2030.10 | 2.00 | -31.13 | 2876.33 |                                |
| 11892.39 | 88.72 | 135.37 | 7720.00 | -3193.07 | 3170.85 | 0.00 | 0.00   | 4499.98 | PLU 319 H Target 2 @ 7720' TVD |
| 11941.05 | 89.50 | 134.79 | 7720.76 | -3227.52 | 3205.21 | 2.00 | -36.28 | 4548.63 |                                |
| 15880.63 | 89.50 | 134.79 | 7755.00 | -6002.89 | 6001.00 | 0.00 | 0.00   | 8488.03 | PLU 319 H PBHL @ 15881.16' MD  |

