

A GYRO TECHNOLOGIES INC. COMPANY

PO Box 261021  
Corpus Christi, Texas 78426  
(361) 767-0602 • (800) 606-GYRO • Fax (361) 767-0612

June 3, 2013

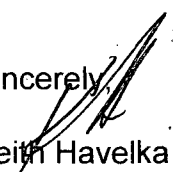
Concho Resources, Inc.  
One Concho Center  
600 W. Illinois Avenue  
Midland, Texas 79701

Attn: Kanicia Castillo

RE: **Stonewall 9 Fee No. 001H**

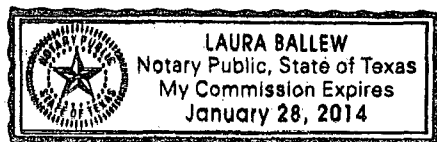
Please find enclosed a copy of the survey from 0.00' to 3180.00' ran on the above referenced well.

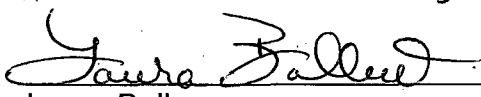
Sincerely,

  
Keith Havelka  
Operations

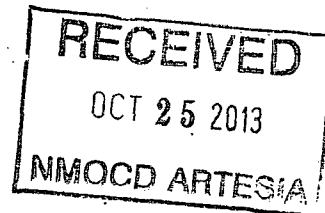
STATE OF TEXAS     §  
                                 §  
COUNTY OF NUECES §

This instrument was acknowledged before me on the 3<sup>rd</sup> day of June, A.D., 2013, by Keith Havelka.



  
Laura Balley  
Notary Public, State of Texas

30-015-40925



30-015-  
40925

Company: COG OPERATING, LLC (CONCHO)

Lease/Well: STONEWALL 9 FEE / NO. 001H



Rig Name: JW4

State/County: NEW MEXICO/EDDY

Latitude: 32.67, Longitude: -104.39

GRID North is 0.03 Degrees West of True North

VS-Azi: 0.00 Degrees



Depth Reference : RKB= 13.1

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: stonewall 9 fee #1h-de\_01.ut

Minimum Curvature Method

Report Date/Time: 6/3/2013 / 09:56

Vaughn Energy Services

Midland, Texas

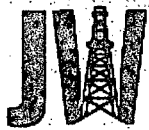
432-563-5444

Surveyor: Danny Spring

Stonewall 9 Fee No. 001H / API 30-015-40925

| Measured<br>Depth<br>FT | Incl<br>Angle<br>Deg | Drift<br>Direction<br>Deg | TVD<br>FT | +N/-S<br>FT | +E/-W<br>FT | Vertical<br>Section<br>FT | Closure<br>Distance<br>FT | Closure<br>Direction<br>Deg | Dogleg<br>Severity<br>Deg/100 |
|-------------------------|----------------------|---------------------------|-----------|-------------|-------------|---------------------------|---------------------------|-----------------------------|-------------------------------|
| 0.00                    | 0.00                 | 0.00                      | 0.00      | 0.00        | 0.00        | 0.00                      | 0.00                      | 0.00                        | ****                          |
| 100.00                  | 0.49                 | 135.22                    | 100.00    | -0.31       | 0.30        | -0.31                     | 0.43                      | 135.22                      | 0.49                          |
| 200.00                  | 0.28                 | 189.24                    | 200.00    | -0.85       | 0.57        | -0.85                     | 1.02                      | 146.24                      | 0.40                          |
| 300.00                  | 1.15                 | 235.79                    | 299.99    | -1.65       | -0.30       | -1.65                     | 1.68                      | 190.29                      | 0.98                          |
| 400.00                  | 1.52                 | 276.06                    | 399.96    | -2.08       | -2.45       | -2.08                     | 3.21                      | 229.70                      | 0.98                          |
| 500.00                  | 1.71                 | 275.81                    | 499.92    | -1.78       | -5.25       | -1.78                     | 5.55                      | 251.23                      | 0.19                          |
| 600.00                  | 1.69                 | 268.53                    | 599.88    | -1.67       | -8.21       | -1.67                     | 8.38                      | 258.49                      | 0.22                          |
| 700.00                  | 1.59                 | 269.88                    | 699.84    | -1.71       | -11.07      | -1.71                     | 11.20                     | 261.21                      | 0.10                          |
| 800.00                  | 1.39                 | 282.91                    | 799.80    | -1.44       | -13.65      | -1.44                     | 13.73                     | 263.96                      | 0.39                          |
| 900.00                  | 1.08                 | 276.04                    | 899.78    | -1.07       | -15.77      | -1.07                     | 15.81                     | 266.11                      | 0.35                          |
| 1000.00                 | 1.22                 | 263.43                    | 999.76    | -1.10       | -17.75      | -1.10                     | 17.79                     | 266.47                      | 0.29                          |
| 1100.00                 | 1.10                 | 260.64                    | 1099.74   | -1.37       | -19.76      | -1.37                     | 19.81                     | 266.02                      | 0.12                          |
| 1200.00                 | 0.87                 | 289.27                    | 1199.73   | -1.28       | -21.43      | -1.28                     | 21.47                     | 266.59                      | 0.54                          |
| 1300.00                 | 0.77                 | 286.61                    | 1299.72   | -0.83       | -22.80      | -0.83                     | 22.81                     | 267.91                      | 0.11                          |
| 1400.00                 | 0.71                 | 280.08                    | 1399.71   | -0.53       | -24.05      | -0.53                     | 24.06                     | 268.73                      | 0.11                          |
| 1500.00                 | 0.73                 | 247.46                    | 1499.70   | -0.67       | -25.24      | -0.67                     | 25.25                     | 268.49                      | 0.40                          |
| 1600.00                 | 1.10                 | 265.52                    | 1599.69   | -0.99       | -26.79      | -0.99                     | 26.81                     | 267.89                      | 0.47                          |
| 1700.00                 | 0.84                 | 263.01                    | 1699.67   | -1.15       | -28.48      | -1.15                     | 28.51                     | 267.69                      | 0.26                          |
| 1800.00                 | 0.94                 | 254.30                    | 1799.66   | -1.46       | -30.01      | -1.46                     | 30.04                     | 267.21                      | 0.17                          |

| Measured<br>Depth<br>FT | Incl<br>Angle<br>Deg | Drift<br>Direction<br>Deg | TVD<br>FT | +N/-S<br>FT | +E/-W<br>FT | Vertical<br>Section<br>FT | Closure<br>Distance<br>FT | Closure<br>Direction<br>Deg | Dogleg<br>Severity<br>Deg/100 |
|-------------------------|----------------------|---------------------------|-----------|-------------|-------------|---------------------------|---------------------------|-----------------------------|-------------------------------|
| 1900.00                 | 0.92                 | 253.18                    | 1899.65   | -1.92       | -31.57      | -1.92                     | 31.63                     | 266.52                      | 0.03                          |
| 2000.00                 | 1.23                 | 232.75                    | 1999.63   | -2.80       | -33.19      | -2.80                     | 33.31                     | 265.18                      | 0.49                          |
| 2100.00                 | 1.11                 | 210.40                    | 2099.61   | -4.29       | -34.54      | -4.29                     | 34.80                     | 262.92                      | 0.47                          |
| 2200.00                 | 1.25                 | 245.01                    | 2199.59   | -5.59       | -36.02      | -5.59                     | 36.45                     | 261.18                      | 0.72                          |
| 2300.00                 | 1.33                 | 237.06                    | 2299.56   | -6.68       | -37.99      | -6.68                     | 38.57                     | 260.02                      | 0.20                          |
| 2400.00                 | 1.76                 | 248.30                    | 2399.53   | -7.88       | -40.39      | -7.88                     | 41.16                     | 258.96                      | 0.52                          |
| 2500.00                 | 1.87                 | 256.85                    | 2499.48   | -8.82       | -43.41      | -8.82                     | 44.29                     | 258.51                      | 0.29                          |
| 2600.00                 | 1.80                 | 237.12                    | 2599.43   | -10.04      | -46.31      | -10.04                    | 47.39                     | 257.76                      | 0.63                          |
| 2700.00                 | 1.84                 | 252.15                    | 2699.38   | -11.39      | -49.16      | -11.39                    | 50.46                     | 256.96                      | 0.48                          |
| 2800.00                 | 1.71                 | 231.60                    | 2799.33   | -12.81      | -51.85      | -12.81                    | 53.41                     | 256.13                      | 0.65                          |
| 2900.00                 | 1.72                 | 241.44                    | 2899.29   | -14.45      | -54.34      | -14.45                    | 56.23                     | 255.11                      | 0.29                          |
| 3000.00                 | 1.53                 | 240.09                    | 2999.25   | -15.83      | -56.82      | -15.83                    | 58.98                     | 254.43                      | 0.20                          |
| 3100.00                 | 1.46                 | 251.89                    | 3099.21   | -16.89      | -59.18      | -16.89                    | 61.54                     | 254.07                      | 0.31                          |
| 3180.00                 | 1.33                 | 249.06                    | 3179.19   | -17.54      | -61.01      | -17.54                    | 63.48                     | 253.96                      | 0.17                          |



# DRILLING INC. Oil Well Drilling Contractor

Post Office Box 160 Artesia, New Mexico 88211-0160 Office (575) 748-8704 Fax (575) 748-8719

June 4, 2013

COG Operating, LLC  
One Concho Center, 600 W. Illinois Ave.  
Midland, Texas 79701

Re: Stonewall 9 Fee #1 H  
Sec. 9, T-19-S, R-26-E  
Eddy County, New Mexico

Attn: Jim Evans

The following is a Deviation Survey on the referenced well in Eddy County, New Mexico:

|              |               |               |            |
|--------------|---------------|---------------|------------|
| 255' - 0.25° | 1162' - 1°    | 2271' - 1.25° | 3612' - 1° |
| 488' - 0.75° | 1398' - 1°    | 2645' - 1.75° | 3956' - 1° |
| 809' - 1.75° | 1835' - 0.75° | 3114' - 1.75° |            |

Sincerely

Gary W. Chappell  
Contracts Manager

STATE OF NEW MEXICO )

COUNTY OF EDDY )

The foregoing was acknowledged before me this 4th day of June, 2013 by Gary W. Chappell.



OFFICIAL SEAL  
CHERYL A. BARTLETT  
NOTARY PUBLIC-STATE OF NEW MEXICO

My commission expires: 4-29-14

\_\_\_\_\_  
NOTARY PUBLIC



## COG Operating LLC

Eddy County, New Mexico (NAD 27 NME)

Stonewall 9 Fee

#1H

OH / Job #1310616

30-015-40925

RECEIVED

OCT 25 2013

NMOCD ARTESIA

Survey: Phoenix MWD Survey

## Phoenix Final Survey Report

11 June, 2013



PHOENIX  
TECHNOLOGY SERVICES



# Phoenix Technology Services

## Phoenix Final Survey Report



|           |                                      |                              |                         |
|-----------|--------------------------------------|------------------------------|-------------------------|
| Company:  | COG Operating LLC                    | Local Co-ordinate Reference: | Well #1H                |
| Project:  | Eddy County, New Mexico (NAD 27 NME) | TVD Reference:               | KB @ 3373.00usft (JW 4) |
| Site:     | Stonewall 9 Fee                      | MD Reference:                | KB @ 3373.00usft (JW 4) |
| Well:     | #1H                                  | North Reference:             | Grid                    |
| Wellbore: | OH / Job #1310616                    | Survey Calculation Method:   | Minimum Curvature       |
| Design:   | Surveys (JW 4)                       | Database:                    | GCR DB                  |

|                                               |                                      |               |                |
|-----------------------------------------------|--------------------------------------|---------------|----------------|
| Project: Eddy County, New Mexico (NAD 27 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                  |           | Stonewall 9 Fee |                 |                   |                      |
| Site Position:        |           | Northing:       | 611,835.50 usft | Latitude:         | 32° 40' 55.281603 N  |
| From:                 | Map       | Easting:        | 482,702.00 usft | Longitude:        | 104° 23' 22.395861 W |
| Position Uncertainty: | 0.00 usft | Slot Radius:    | 13-3/16"        | Grid Convergence: | -0.03 °              |

|                      |       |           |                     |                 |               |                      |
|----------------------|-------|-----------|---------------------|-----------------|---------------|----------------------|
| Well:                | #1H   |           |                     |                 |               |                      |
| Well Position        | +N/-S | 0.00 usft | Northing:           | 606,933.90 usft | Latitude:     | 32° 40' 6.770150 N   |
|                      | +E/-W | 0.00 usft | Easting:            | 481,434.90 usft | Longitude:    | 104° 23' 37.189001 W |
| Position Uncertainty |       | 0.00 usft | Wellhead Elevation: | usft            | Ground Level: | 3,360.00 usft        |

|           |             |                   |             |           |                |
|-----------|-------------|-------------------|-------------|-----------|----------------|
| Wellbore  |             | OH / Job #1310616 |             |           |                |
| Magnetics | Model Name  | Sample Date       | Declination | Dip Angle | Field Strength |
|           |             |                   | (°)         | (°)       | (nT)           |
|           | IGRF2010_14 | 05/30/13          | 7.76        | 60.41     | 48,597         |

|                   |  |                  |               |        |           |
|-------------------|--|------------------|---------------|--------|-----------|
| Design            |  | Surveys (JW 4)   |               |        |           |
| Audit Notes:      |  |                  |               |        |           |
| Version:          |  | 1.0              | Phase:        |        | ACTUAL    |
|                   |  |                  | Tie On Depth: |        | 0.00      |
| Vertical Section: |  | Depth From (TVD) | +N/-S         | +E/-W  | Direction |
|                   |  | (usft)           | (usft)        | (usft) | (°)       |
|                   |  | 0.00             | 0.00          | 0.00   | 359.28    |

| Survey Program |              | Date                                   | 06/11/13          |                         |  |
|----------------|--------------|----------------------------------------|-------------------|-------------------------|--|
| From<br>(usft) | To<br>(usft) | Survey (Wellbore)                      | Tool Name         | Description             |  |
| 100.00         | 2,500.00     | VES Gyro (OH / Job #1310616)           | VES-ISCWSA-GYRO-3 | Biaxial Semi-Cont. Gyro |  |
| 2,556.00       | 7,575.00     | Phoenix MWD Survey (OH / Job #1310616) | MWD               | MWD - Standard          |  |

|                          |          |       |               |          |        |        |        |             |
|--------------------------|----------|-------|---------------|----------|--------|--------|--------|-------------|
| Survey                   | MD       | Inc   | Azi (azimuth) | TVD      | N/S    | E/W    | V. Sec | D Leg       |
|                          | (usft)   | (°)   | (°)           | (usft)   | (usft) | (usft) | (usft) | (°/100usft) |
|                          | 2,500.00 | 1.87  | 256.85        | 2,499.48 | -8.82  | -43.37 | -8.27  | 0.00        |
| Tie-on to VES Gyro       |          |       |               |          |        |        |        |             |
|                          | 2,556.00 | 1.60  | 273.60        | 2,555.45 | -8.98  | -45.04 | -8.41  | 1.02        |
| First Phoenix MWD Survey |          |       |               |          |        |        |        |             |
|                          | 2,587.00 | 3.60  | 339.90        | 2,586.43 | -8.03  | -45.81 | -7.46  | 10.64       |
|                          | 2,619.00 | 7.70  | 349.80        | 2,618.26 | -4.98  | -46.54 | -4.39  | 13.12       |
|                          | 2,650.00 | 12.00 | 350.90        | 2,648.80 | 0.25   | -47.41 | 0.85   | 13.88       |
|                          | 2,681.00 | 15.70 | 351.10        | 2,678.89 | 7.58   | -48.57 | 8.19   | 11.94       |
|                          | 2,712.00 | 19.20 | 352.60        | 2,708.46 | 16.78  | -49.88 | 17.40  | 11.38       |
|                          | 2,743.00 | 22.40 | 355.00        | 2,737.44 | 27.72  | -51.05 | 28.36  | 10.68       |
|                          | 2,775.00 | 25.40 | 356.60        | 2,766.69 | 40.65  | -51.99 | 41.30  | 9.59        |



# Phoenix Technology Services

## Phoenix Final Survey Report



|           |                                      |                              |                         |
|-----------|--------------------------------------|------------------------------|-------------------------|
| Company:  | COG Operating LLC                    | Local Co-ordinate Reference: | Well #1H                |
| Project:  | Eddy County, New Mexico (NAD 27 NME) | TVD Reference:               | KB @ 3373.00usft (JW 4) |
| Site:     | Stonewall 9 Fee                      | MD Reference:                | KB @ 3373.00usft (JW 4) |
| Well:     | #1H                                  | North Reference:             | Grid                    |
| Wellbore: | OH / Job #1310616                    | Survey Calculation Method:   | Minimum Curvature       |
| Design:   | Surveys (JW 4)                       | Database:                    | GCR DB                  |

| Survey       |            |                      |               |               |               |                  |                     |
|--------------|------------|----------------------|---------------|---------------|---------------|------------------|---------------------|
| MD<br>(usft) | Inc<br>(%) | Azi (azimuth)<br>(°) | TVD<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | V. Sec<br>(usft) | DLeg<br>(°/100usft) |
| 2,806.00     | 28.20      | 358.60               | 2,794.36      | 54.61         | -52.56        | 55.27            | 9.49                |
| 2,837.00     | 30.90      | 0.70                 | 2,821.33      | 69.90         | -52.64        | 70.55            | 9.33                |
| 2,868.00     | 33.40      | 2.90                 | 2,847.57      | 86.38         | -52.11        | 87.03            | 8.90                |
| 2,899.00     | 36.30      | 4.30                 | 2,873.01      | 104.06        | -50.99        | 104.69           | 9.70                |
| 2,930.00     | 39.30      | 4.90                 | 2,897.50      | 122.99        | -49.47        | 123.60           | 9.75                |
| 2,961.00     | 42.30      | 5.40                 | 2,920.97      | 143.16        | -47.65        | 143.75           | 9.73                |
| 2,993.00     | 45.20      | 6.10                 | 2,944.08      | 165.18        | -45.43        | 165.74           | 9.19                |
| 3,024.00     | 48.00      | 6.70                 | 2,965.38      | 187.56        | -42.91        | 188.08           | 9.14                |
| 3,055.00     | 50.70      | 7.10                 | 2,985.57      | 210.91        | -40.09        | 211.39           | 8.76                |
| 3,086.00     | 53.70      | 7.10                 | 3,004.57      | 235.21        | -37.06        | 235.66           | 9.68                |
| 3,117.00     | 56.70      | 7.20                 | 3,022.26      | 260.47        | -33.89        | 260.87           | 9.68                |
| 3,148.00     | 59.50      | 7.60                 | 3,038.64      | 286.56        | -30.50        | 286.92           | 9.10                |
| 3,179.00     | 62.10      | 7.90                 | 3,053.76      | 313.37        | -26.85        | 313.68           | 8.43                |
| 3,210.00     | 64.80      | 8.10                 | 3,067.61      | 340.83        | -22.99        | 341.09           | 8.73                |
| 3,242.00     | 67.70      | 8.10                 | 3,080.50      | 369.83        | -18.86        | 370.03           | 9.06                |
| 3,273.00     | 70.10      | 8.40                 | 3,091.66      | 398.45        | -14.71        | 398.60           | 7.79                |
| 3,304.00     | 72.70      | 8.40                 | 3,101.55      | 427.51        | -10.42        | 427.61           | 8.39                |
| 3,335.00     | 75.60      | 8.00                 | 3,110.01      | 457.02        | -6.17         | 457.06           | 9.44                |
| 3,366.00     | 77.60      | 6.70                 | 3,117.20      | 486.93        | -2.31         | 486.92           | 7.63                |
| 3,397.00     | 79.70      | 4.60                 | 3,123.30      | 517.17        | 0.68          | 517.12           | 9.49                |
| 3,428.00     | 82.20      | 2.70                 | 3,128.17      | 547.72        | 2.62          | 547.64           | 10.08               |
| 3,459.00     | 85.00      | 1.70                 | 3,131.63      | 578.50        | 3.80          | 578.41           | 9.58                |
| 3,491.00     | 87.30      | 0.80                 | 3,133.78      | 610.42        | 4.50          | 610.31           | 7.72                |
| 3,522.00     | 87.90      | 0.00                 | 3,135.08      | 641.39        | 4.72          | 641.28           | 3.22                |
| 3,553.00     | 88.10      | 0.10                 | 3,136.16      | 672.37        | 4.74          | 672.26           | 0.72                |
| 3,646.00     | 90.10      | 0.80                 | 3,137.62      | 765.35        | 5.47          | 765.22           | 2.28                |
| 3,740.00     | 90.60      | 0.60                 | 3,137.04      | 859.34        | 6.62          | 859.19           | 0.57                |
| 3,833.00     | 91.80      | 0.60                 | 3,135.10      | 952.31        | 7.60          | 952.14           | 1.29                |
| 3,927.00     | 92.20      | 0.60                 | 3,131.82      | 1,046.25      | 8.58          | 1,046.06         | 0.43                |
| 4,020.00     | 91.10      | 359.90               | 3,129.14      | 1,139.21      | 8.99          | 1,139.01         | 1.40                |
| 4,114.00     | 91.40      | 359.40               | 3,127.09      | 1,233.19      | 8.41          | 1,232.98         | 0.62                |
| 4,207.00     | 91.80      | 359.40               | 3,124.49      | 1,326.14      | 7.44          | 1,325.95         | 0.43                |
| 4,301.00     | 92.40      | 359.50               | 3,121.05      | 1,420.08      | 6.54          | 1,419.88         | 0.65                |
| 4,395.00     | 91.70      | 0.10                 | 3,117.68      | 1,514.01      | 6.21          | 1,513.82         | 0.98                |
| 4,488.00     | 91.60      | 359.70               | 3,115.01      | 1,606.98      | 6.05          | 1,606.77         | 0.44                |
| 4,582.00     | 91.80      | 359.80               | 3,112.22      | 1,700.93      | 5.64          | 1,700.73         | 0.24                |
| 4,675.00     | 90.90      | 359.50               | 3,110.03      | 1,793.90      | 5.07          | 1,793.70         | 1.02                |
| 4,769.00     | 91.10      | 359.80               | 3,108.39      | 1,887.89      | 4.49          | 1,887.68         | 0.38                |
| 4,862.00     | 91.40      | 0.00                 | 3,106.36      | 1,980.87      | 4.33          | 1,980.65         | 0.39                |
| 4,957.00     | 91.50      | 0.00                 | 3,103.95      | 2,075.84      | 4.33          | 2,075.62         | 0.11                |
| 5,050.00     | 90.80      | 359.20               | 3,102.09      | 2,168.81      | 3.68          | 2,168.60         | 1.14                |
| 5,144.00     | 90.80      | 358.60               | 3,100.77      | 2,262.79      | 1.88          | 2,262.58         | 0.64                |
| 5,237.00     | 91.10      | 358.70               | 3,099.23      | 2,355.75      | -0.31         | 2,355.57         | 0.34                |
| 5,331.00     | 91.50      | 358.60               | 3,097.10      | 2,449.70      | -2.53         | 2,449.54         | 0.44                |



# Phoenix Technology Services

## Phoenix Final Survey Report



|           |                                      |                              |                         |
|-----------|--------------------------------------|------------------------------|-------------------------|
| Company:  | COG Operating LLC                    | Local Co-ordinate Reference: | Well #1H                |
| Project:  | Eddy County, New Mexico (NAD 27 NME) | TVD Reference:               | KB @ 3373.00usft (JW 4) |
| Site:     | Stonewall 9 Fee                      | MD Reference:                | KB @ 3373.00usft (JW 4) |
| Well:     | #1H                                  | North Reference:             | Grid                    |
| Wellbore: | OH / Job #1310616                    | Survey Calculation Method:   | Minimum Curvature       |
| Design:   | Surveys (JW 4)                       | Database:                    | GCR DB                  |

| Survey             |            |                      |               |               |               |                   |                     |
|--------------------|------------|----------------------|---------------|---------------|---------------|-------------------|---------------------|
| MD<br>(usft)       | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | V. Sec.<br>(usft) | DLeg<br>(%/100usft) |
| 5,425.00           | 91.90      | 358.60               | 3,094.31      | 2,543.63      | -4.82         | 2,543.49          | 0.43                |
| 5,518.00           | 90.50      | 358.50               | 3,092.36      | 2,636.57      | -7.17         | 2,636.46          | 1.51                |
| 5,612.00           | 90.80      | 358.40               | 3,091.30      | 2,730.53      | -9.72         | 2,730.44          | 0.34                |
| 5,705.00           | 91.10      | 358.50               | 3,089.76      | 2,823.49      | -12.23        | 2,823.42          | 0.34                |
| 5,799.00           | 91.30      | 358.50               | 3,087.79      | 2,917.43      | -14.69        | 2,917.39          | 0.21                |
| 5,892.00           | 91.60      | 358.60               | 3,085.43      | 3,010.37      | -17.04        | 3,010.35          | 0.34                |
| 5,986.00           | 92.00      | 358.60               | 3,082.48      | 3,104.30      | -19.34        | 3,104.30          | 0.43                |
| 6,080.00           | 90.80      | 359.00               | 3,080.18      | 3,198.25      | -21.31        | 3,198.26          | 1.35                |
| 6,173.00           | 91.10      | 358.80               | 3,078.64      | 3,291.22      | -23.09        | 3,291.25          | 0.39                |
| 6,267.00           | 91.40      | 358.60               | 3,076.59      | 3,385.17      | -25.23        | 3,385.22          | 0.38                |
| 6,360.00           | 89.80      | 359.00               | 3,075.62      | 3,478.14      | -27.17        | 3,478.21          | 1.77                |
| 6,454.00           | 90.20      | 358.70               | 3,075.62      | 3,572.12      | -29.06        | 3,572.21          | 0.53                |
| 6,547.00           | 89.40      | 358.20               | 3,075.94      | 3,665.09      | -31.57        | 3,665.20          | 1.01                |
| 6,640.00           | 91.30      | 358.50               | 3,075.37      | 3,758.04      | -34.25        | 3,758.18          | 2.07                |
| 6,734.00           | 90.70      | 358.20               | 3,073.73      | 3,851.99      | -36.96        | 3,852.15          | 0.71                |
| 6,827.00           | 90.20      | 357.90               | 3,073.00      | 3,944.93      | -40.12        | 3,945.13          | 0.63                |
| 6,920.00           | 91.60      | 358.10               | 3,071.54      | 4,037.86      | -43.37        | 4,038.09          | 1.52                |
| 7,014.00           | 91.60      | 357.30               | 3,068.92      | 4,131.75      | -47.14        | 4,132.02          | 0.85                |
| 7,107.00           | 91.50      | 358.40               | 3,066.40      | 4,224.65      | -50.63        | 4,224.95          | 1.19                |
| 7,201.00           | 91.50      | 357.90               | 3,063.94      | 4,318.57      | -53.66        | 4,318.90          | 0.53                |
| 7,295.00           | 91.00      | 359.30               | 3,061.89      | 4,412.51      | -55.96        | 4,412.87          | 1.58                |
| 7,388.00           | 91.10      | 358.80               | 3,060.19      | 4,505.49      | -57.50        | 4,505.85          | 0.55                |
| 7,482.00           | 90.60      | 358.60               | 3,058.79      | 4,599.45      | -59.63        | 4,599.84          | 0.57                |
| Current MWD Survey |            |                      |               |               |               |                   |                     |
| 7,575.00           | 91.10      | 358.80               | 3,057.41      | 4,692.42      | -61.74        | 4,692.82          | 0.58                |
| Projection to TD   |            |                      |               |               |               |                   |                     |

| Survey Annotations          |                             |                   |               |                          |
|-----------------------------|-----------------------------|-------------------|---------------|--------------------------|
| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates |               | Comment                  |
|                             |                             | N/S<br>(usft)     | E/W<br>(usft) |                          |
| 2,500.00                    | 2,499.48                    | -8.82             | -43.37        | Tie-on to VES Gyro       |
| 2,556.00                    | 2,555.45                    | -8.98             | -45.04        | First Phoenix MWD Survey |
| 7,482.00                    | 3,058.79                    | 4,599.45          | -59.63        | Current MWD Survey       |
| 7,575.00                    | 3,057.41                    | 4,692.42          | -61.74        | Projection to TD         |

|                   |                    |             |
|-------------------|--------------------|-------------|
| Checked By: _____ | Approved By: _____ | Date: _____ |
|-------------------|--------------------|-------------|